

<u>State of California – Natural Resources Agency</u> DEPARTMENT OF FISH AND WILDLIFE Bay Delta Region 2825 Cordelia Road, Suite 100 Fairfield, CA 94534 (707) 428-2002 www.wildlife.ca.gov

October 17, 2024

Edwin Pattison, General Manager Byron Bethany Irrigation District 7995 Bruns Road Byron, CA 94514 <u>E.Pattison@bbid.org</u>

Subject: Cort Annexation to Byron Bethany Irrigation District, Initial Study/Mitigated Negative Declaration, SCH No. 2024090803, Contra Costa County

Dear Mr. Pattison:

The California Department of Fish and Wildlife (CDFW) received a Notice of Intent to Adopt and Initial Study/Mitigated Negative Declaration (IS/MND) from Byron Bethany Irrigation District for the Cort Annexation to Byron Bethany Irrigation District (Project) pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.¹

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect 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, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802.) Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

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. As proposed, for example, the Project may be subject to CDFW's Lake and Streambed Alteration (LSA) regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the Project proponent may seek related take authorization as provided by the Fish and Game Code.

REGULATORY AUTHORITY

California Endangered Species Act and Incidental Take Permits

Please be advised that an Incidental Take Permit (ITP) must be obtained if a project has the potential to result in take of species of plants or animals listed under the California Endangered Species Act (CESA) or the Native Plant Protection Act (NPPA), either during construction or over the life of the Project. Issuance of an ITP is subject to CEQA documentation. If the Project will impact CESA-listed species, species that are candidates for listing under CESA, or native plants designated by the California Fish

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

and Game Commission as endangered or rare, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA Permit.

CESA-listed species identified that may occur within the Project area include, but are not limited to, California tiger salamander – Central California DPS (*Ambystome californiense pop. 1,* distinct population segment), Swainson's hawk (*Buteo swainsoni*), tricolored blackbird (*Agelaius tricolor*), longfin smelt (*Sprinichus thaleichthys*), San Joaquin kit fox (*Vulpes macrostis mutica*), and Alameda whipsnake (*Masticophus lateralis euryxanthus*). In addition, western burrowing owl (*Athene cunicularia hypugaea*) is a current candidate species for listing under CESA.

Plants designated as rare or endangered by the California Fish and Game Commission identified that may occur within the Project area include but are not limited to Mason's lilaeopsis (*Lilaeopsis masonii*).

CEQA requires a Mandatory Finding of Significance if a project is likely to substantially impact threatened, rare, or endangered species (CEQA § § 21001, subd. (c), 21083, and CEQA Guidelines § § 15380, 15064, & 15065). Impacts must be avoided or mitigated to less-than-significant levels unless the CEQA Lead Agency makes and supports Findings of Overriding Consideration (FOC). The CEQA Lead Agency's FOC does not eliminate the Project proponent's obligation to comply with Fish and Game Code section 2080.

Fully Protected Species

Fully protected species, such as golden eagle (*Aquila chrysaetos*), may not be taken or possessed at any time and no licenses or permits may be issued for their take except as follows:

- Take is for necessary scientific research;
- Efforts to recover a fully protected, endangered, or threatened species;
- Live capture and relocation of a bird species for the protection of livestock; or
- They are a covered species whose conservation and management is provided for in a Natural Community Conservation Plan (Fish & G. Code, §§ 3511, 4700, 5050, & 5515).

Specified types of infrastructure projects may be eligible for an ITP for unavoidable impacts to fully protected species if certain conditions are met (Fish & G. Code § 2081.15). Project proponents should consult with CDFW early in the project planning process.

Raptors and Other Nesting Birds

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

Lake or Streambed Alteration

CDFW requires an LSA Notification, pursuant to Fish and Game Code section 1600 et seq., for Project activities affecting lakes or streams and associated riparian habitat. Notification is required for any activity that may substantially divert or obstruct the

natural flow; change or use material from the bed, channel, or bank including associated riparian or wetland resources; or deposit or dispose of material where it may pass into a river, lake or stream. Work within ephemeral streams, washes, watercourses with a subsurface flow, and floodplains are subject to notification requirements. In those cases, CDFW will consider the CEQA document for the Project and may issue an LSA Agreement. CDFW may not execute the final LSA Agreement until it has complied with CEQA as a Responsible Agency.

PROJECT DESCRIPTION SUMMARY

Proponent: Robert Cort

Objective: The objective of the Project is to annex one 200-acre parcel of record to the Byron Bethany Irrigation District in order to obtain irrigation water for crop production. Primary Project activities include obtaining water supply from two turnouts along Byron Bethany Irrigation District's Forty-Five Canal, developing an approximately 182-acre portion of the property as an agricultural area for olives and potentially grapes, pomegranates, or hops.

Location: The Project site is located between the community of Byron and the Byron Airport within the county of Contra Costa. The Project site and is located between Byron Highway and North Vasco Road. The approximate coordinates of the Project site is Latitude 37.846212°, Longitude -121.623527°.

Timeframe: No estimate on the Project's commencement or completion has been provided.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist Byron Bethany Irrigation District in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the document. Based on the potential for the Project to have a significant impact on biological resources, CDFW is unable to conclude whether a Mitigated Negative Declaration or an Environmental Impact Report is appropriate for the Project.

I. Project Description and Related Impact Shortcoming

The IS/MND does not provide a complete and accurate description of the Project. CEQA Guidelines require that an initial study includes "all phases of project planning, implementation, and operation" (Cal. Code Regs., tit. 14, § 15063, subd. (a)(1)). In addition, an MND must include a brief description of the Project and Project location (Cal. Code Regs., tit. 14, § 15071, subds. (a) and (b).). "Project" means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment (Cal. Code Regs., tit. 14, § 15378). Without the clarity of a complete and accurate Project description, the Project could have undescribed or unforeseen potentially significant impacts to the environment.

The Project description states that approximately 182 acres of the property which is not currently in agricultural production may be developed as an agricultural area but does not describe the reasonably foreseeable activities which may be necessary to develop the land, provide irrigation to crops, or produce and harvest crops. The Project description does not identify the location of the 182-acre area planned for agricultural development within the 200-acre parcel. The Project description and location must be clear and should include all reasonably foreseeable activities associated with the Project.

CDFW recommends that the Project description clarify the portion of the property which may be developed for agricultural production, and which portion will remain undeveloped. Additionally, to reduce impacts to less-than-significant, CDFW recommends the Project description identify all activities which will be necessary to develop the area for agricultural use, as well as any reasonably foreseeable activities necessary to maintain, produce, and harvest crops. The description should identify any associated activities with the potential to cause both direct and indirect physical changes to the environment, including, but not limited to: changes to diversion operations that will result in a greater degree of impacts to fish and wildlife resources; whether the diversion that will serve the Project is screened to current standards for protection of fish (see the California Salmonid Stream Habitat Restoration Manual, Appendix S available online at:

https://wildlife.ca.gov/Grants/FRGP/Guidance#580984201-guidance-documents); whether vegetation removal; tree removal; soil disruption and excavation; operation of heavy equipment; application of environmental pollutants such as pesticides, herbicides, fertilizers, and soil amendments; and irrigation of crops.

II. Environmental Setting and Related Impact Shortcoming

The IS/MND describes the subject property as being located in an area rich in agricultural production within Southeastern Contra Costa County. The IS/MND describes agricultural uses near the subject property but does not provide a description of the existing environment on the subject property. Without a clear understanding of the environmental setting and biological baseline conditions, it is not possible to determine potentially significant impacts the Project could have on the environment.

CDFW recommends that, at minimum, the environmental setting be revised in a recirculated IS/MND to include a description of the subject property's on-site conditions with existing habitat types mapped within the Project Footprint. This should include, but is not limited to, discussion of special-status species which may be present, a description of the project site's proximity to any sensitive natural communities, a description of the vegetation, and a description of the Project site's proximity to aquatic habitats, such as wetlands, vernal pools, breeding ponds, and/or waters of the U.S. or State.

III. Environmental Factors - Biological Resources Analysis

COMMENT 1: Biological Resources Assessment

CEQA Guidelines require determination of whether a project may have a significant effect on the environment be based to the extent possible on scientific and factual data (CEQA Guidelines § 15064, subd. (b).) and requires the Lead Agency to consider direct and reasonably foreseeable indirect physical changes caused by the Project in its evaluation (CEQA Guidelines § 15064, subd. (d).).

In Section 4 – Mandatory Findings of Significance (page 24), the IS/MND indicates that the Project will have no impacts upon environment factors stating that "the proposed project may have a small but incremental impact; however, these environmentally sensitive issues are not anticipated to cause any significant environmental concerns." However, the IS/MND does not identify Biological Resources as an environmental factor potentially affected by the project (Section 2 – Environmental Determination, page 2), and does not identify or evaluate potential impacts of the Project upon these resources. The IS/MND does not identify any endangered, rare or threatened species with the potential to occur within the Project area or waterways affected by increased diversion operations, though there are California Natural Diversity Database (CNDDB) records of occurrences for 43 unique CNDDB-tracked species within a five-mile radius of the Project site (Table 1).

Table 1: All special-status species with California Natural Diversity Database (CN	DDB)
records species within five miles of Project site.	

Common Name	Scientific Name	Listing Status
Amphibians		
California red-legged frog	Rana draytonii	FT, SSC
California tiger salamander – central California DPS	Ambystoma californiense pop. 1	FT, ST, WL
Birds		
Burrowing owl	Athene cunicularia	SC
California horned lark	Eremophila alpestris actica	WL
Golden eagle	Aquila chrysaetos	FP
Ferruginous hawk	Buteo regalis	WL
Prairie falcon	Falco mexicanus	WL
Song sparrow - Modesto population	Melospiza melodia pop. 1	SSC
Swainson's hawk	Buteo swainsoni	ST
Tricolored blackbird	Agelaius tricolor	ST, SSC
Fish		
Green sturgeon – Southern DPS	Acipenser medirostris pop. 1	FT, SSC
Eulachon	Thaleichthys pacificus	FT, SSC
Longfin smelt	Spirinchus thaleichthys	FE, ST
Steelhead – Central Valley DPS	Oncorhynchus mykiss irideus pop. 11	FT, SSC
Mammals		
American badger	Taxidea taxus	SSC
San Joaquin kit fox	Vulpes macrotis mutica	FE, ST
Reptiles		
Alameda whipsnake	Masticophus lateralis euryxanthus	FT, ST
Coast horned lizard	Phrynosoma blainvillii	SSC
Northwestern pond turtle	Actinemys marmorata	FC, SSC
Invertebrates		
Longhorn fairy shrimp	Branchinecta longiantenna	FE

Vernal pool fairy shrimp	Branchinecta lynchi	FT
Plants		
Alkali milk vetch	Astragalus tener var. tener	1B.2
Big tarplant	Blepharizonia plumosa	1B.1
Brewer's western flax	Hesperolinon breweri	1B.2
Brittlescale	Atriplex depressa	1B.2
California alkali grass	Puccinellia simplex	1B.2
Caper-fruited tropicocarpum	Tropicocarpum capparideum	1B.1
Chaparral ragwort	Senecio aphanactis	2B.2
Delta button-celery	Eryngium racemosum	1B.1
Delta mudwort	Limosella australis	2B.1
Diamond-petaled California poppy	Eschscholzia rhombipetala	1B.1
Heartscale	Atriplex cordulata var. cordulata	1B.2
Long-styled sand-spurrey	Spergularia macrotheca var. longistyla	1B.2
Mason's lilaeopsis	Lilaeopsis masonii	SR, 1B.1
Recurved larkspur	Delphinium recurvatun	1B.2
San Joaquin spearscale	Extriplex joaquinana	1B.2
Spiny-sepaled button-celery	Eryngium spinosepalum	1B.2
Wooly rose-mallow	Hibiscus lasiocarpus var. occidentalis	1B.2
Habitat		
Alkali meadow		
Alkali seep		
Cismontane alkali marsh		
Northern claypan vernal pool		
Valley needlegrass grassland		
Valley sink scrub		

Notes: FC = federal candidate species under ESA; FE = federally endangered under ESA; FT = federally threatened under ESA; SE = state endangered under CESA; SC = state candidate for listing under CESA; SFP = state fully protected; SSC = state species of special concern; ST = state threatened under CESA; SR: state listed as rare under the Native Plant Protection Act; WL = listed on the CDFW Watch List. California

Native Plant Society (CNPS) ranking system: 1B = plants rare, threatened, or endangered in California and elsewhere; 2B = plants rare, threatened or endangered in California, but common elsewhere. Threat ranks: 0.1 = seriously threatened in California; 0.2 = moderately threatened in California.

The IS/MND does not describe the environmental conditions of the Project site or whether potential habitat exists on or adjacent to the Project site which may support these species. Historical imagery suggests that the Project site has remained undeveloped and relatively undisturbed over the past four decades, and as such, the Project site appears to provide suitable habitat for these species. The U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory records a freshwater emergent wetland habitat which appears to occur within the property site (USFWS 2024). Wetlands such as this provide crucial habitat for many species, including the California tiger salamander (Bolster 2010).

Based on this information, the absence of these species from the Project site cannot be presumed. The IS/MND does not provide an analysis or rationale as to why these species would not be expected to occur within or near the Project site. These species and their habitats are therefore biological resources which may be affected by Project activities. Without a complete and accurate evaluation of all environmental factors which may be impacted by Project activities, the Project could have undescribed or unforeseen potentially significant impacts to the environment.

CDFW recommends that a qualified biologist conduct a biological resource assessment of the Project site and adjacent habitats the project could impact and incorporate it into a revised and recirculated IS/MND for additional public review. At minimum, the qualified biologist shall hold a science-related bachelor's degree from an accredited university and have demonstrable experience with the species and habitats in Contra Costa County. The biological resource assessment should identify all special-status plants and wildlife with the potential to occur on or adjacent to the Project site.

COMMENT 2: Potential Impacts Assessment

CEQA Guidelines require the Lead Agency to consider direct and reasonably foreseeable indirect physical changes caused by the Project in its evaluation (CEQA Guidelines § 15064, subd. (d).). Additionally, CEQA Guidelines require the Lead Agency to consider all phases of project planning, implementation, and operation (14 CCR § 15063, subd. (a).). If any phase of the project may result in physical changes in the environment, then the Project could have a substantial adverse effect, either directly or indirectly through habitat modifications, on candidate, sensitive, or special-status species including, but not limited to, those listed in Table 1. Activities commonly associated with agricultural development, or the implementation of the Project, as well as activities common in agricultural practices and crop production, or the operation of the Project, including increased water demand and diversion from the Delta, each have the potential to cause direct and reasonably foreseeable indirect physical changes to the Project site and must be evaluated. Examples of common activities and practices and their associated impacts are described below.

Vegetation Clearing: Development of an agricultural area can often include clearing of existing vegetation, which may result in the loss of special-status plant species and the loss of habitat that supports numerous wildlife species. CNDDB records indicate occurrences of special-status plants which are presumed extant on or within one mile of the Project site, including brittlescale (*Atriplex depressa*), chaparral ragwort (*Senecio* aphanactis), long-styled sand-spurrey (*Spergularia macrotheca var. longistyla*), recurved larkspur (*Delphinium recurvatun*), and San Joaquin spearscale (*Extriplex joaquinana*).

Clearing may also cause fragmentation and loss of sensitive habitats (Bauer et al. 2015), and may create edge effects that permeate far beyond the Project site (Harris 1988, Murcia 1995). Habitat loss and fragmentation is one of the most important threats to

California tiger salamander, particularly through habitat conversion due to agriculture (Loredo et al. 1996). California tiger salamander is a CESA-listed species with CNDDB records within one mile of the Project site. The USFWS Wetlands Inventory (USFWS 2024) indicates an emergent wetland may exist within the project site, and thus the project site is likely to support California tiger salamander. California tiger salamander relies upon seasonal wetlands, as may be found in the Project area, for successful reproduction and adjacent or accessible terrestrial habitat for migration and aestivation, making the quality of both aquatic and terrestrial habitat essential for California tiger salamander survival (Bolster 2010). Based on the foregoing, Project impacts may potentially substantially reduce the number or restrict the range of California tiger salamander.

Activities associated with clearing may also disturb associated soil seed banks that sustain local plant populations. Removal of vegetation has also been shown to make communities vulnerable to colonization by invasive plant species and to spread pathogens (Mallery 2010).

Ground Disturbance: Preparation of the agricultural area may require ground disturbance to prepare the soil. The project site has the potential to support burrowing wildlife species including California tiger salamander, a CESA-listed species, and burrowing owls, a CDFW species of special concern. California tiger salamander spend the majority of their lifecycle underground (Trenham et al. 2000), while burrowing owls roost in underground tunnels (Casey 2014). Ground-disturbing activities may result in direct injury or mortality to these species by crushing individuals, collapsing underground burrows and trapping individuals within, and reducing or fragmenting breeding or non-breeding habitat for California tiger salamander.

Pesticide Use: Pesticides are commonly used in agricultural production to control weeds, insects, pests, and disease (Tudi et al 2021). Wildlife, including beneficial arthropods, birds, mammals, amphibians, reptiles, and fish, can be poisoned by pesticides after exposure to a toxic dose through ingestion, inhalation, or dermal contact (Fleischli et al. 2004, Pimentel 2005, Berny 2007). They can also experience secondary poisoning through feeding on animals that have been directly exposed to the pesticides. Raptors (e.g., hawks and owls) and mammalian carnivores are some of the common victims of secondary poisonings by anticoagulant rodenticides (Mendelssohn and Paz 1977, Gabriel et al. 2015, 2018). Even non-lethal doses of pesticides can negatively affect wildlife; pesticides can comprise immune systems, cause hormone imbalances, affect reproduction, and alter growth rates of many wildlife species (Pimentel 2005, Li and Kawada 2006, Relyea and Diecks 2008, Baldwin et al. 2009).

Fertilizer: Fertilizers are commonly used in agriculture to provide crops with necessary nutrients (EPA 2024). Excess nutrients from fertilizers that run-off into watersheds can cause nutrient imbalances in the watershed that kill fish and other wildlife (National Drug Intelligence Center [NDIC] 2007) and decrease the activity of aquatic species (Xu and Oldham 1997). Fertilizer run-off can also cause algae outbreaks, which, when they begin to decay, deplete the water of oxygen, suffocating fish and other aquatic life (Mallery 2010).

Operation of Heavy Equipment: Any heavy equipment, such as construction equipment for site preparation or farm equipment, operated within the Project site may result in direct mortality or injury to wildlife.

CDFW recommends that the IS/MND include an analysis of Biological Resources in the Environmental Factors Potentially Affected and consider all project activities with the potential to adversely affect special-status species, directly or indirectly.

COMMENT 3: Lack of Mitigation for Loss of Habitat

As discussed in prior comments, potential exists for numerous special-status species to occur within the vicinity of the Project site. This may include, but is not limited to, CESA-

listed species such as California tiger salamander – Central California DPS (*Ambystoma californiense pop. 1*), Swainson's hawk (*Buteo swainsoni*), tricolored blackbird (*Agelaius tricolor*), San Joaquin kit fox (*Vulpes macrotis mutica*), and Alameda whipsnake (*Masticophus lateralis euryxanthus*). Further potential exists for CDFW species of special concern to occur within the project site, including, but not limited to, California red-legged frog (*Rana draytonii*), burrowing owl (*Athene cunicularia*), Song sparrow - Modesto population (*Melospiza melodia pop. 1*), American badger (*Taxidea taxus*), and northwestern pond turtle (*Actinemys marmorata*).

Because the IS/MND omits Biological Resources from the analysis of environmental factors and does not identify elsewhere in the document special-status species with the potential to occur within the Project site or Project activities which may impact special-status species, the IS/MND subsequently neglects to propose mitigation measures for project activities which may adversely impact special-status species.

Therefore, if special-status species occur on or adjacent to Project sites, impacts to special-status species would be potentially significant, and unmitigated impacts to species considered threatened, endangered, or rare may require a mandatory finding of significance (CEQA Guidelines, §§ 15065, 15380).

If impacts to special-status species may occur, to reduce potential impacts to less-thansignificant, CDFW recommends preparing and recirculating a revised IS/MND which evaluates such impacts and includes specific mitigation measures for foreseeable potentially significant impacts to ensure that impacts are reduced to a level of less-thansignificant. CDFW can then perform a full evaluation of the CEQA environmental document for the Project once habitat and species impacts analyses are provided.

IV. Editorial Comments and/or Suggestions

Please clarify whether a water right change petition needs to be filed with the State Water Resources Control Board's Division of Water Rights for the expansion of use and place of use as a result of the Project.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to the CNDDB. The CNDDB field survey form can be filled out and submitted online at the following link:

<u>https://wildlife.ca.gov/Data/CNDDB/Submitting-Data</u>. The types of information reported to CNDDB can be found at the following link:

https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

ENVIRONMENTAL DOCUMENT FILING FEES

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

CONCLUSION

CDFW appreciates the opportunity to comment on the IS/MND to assist Byron Bethany Irrigation District in identifying and mitigating Project impacts on biological resources.

Due to the issues presented in this letter, CDFW concludes that the IS/MND does not adequately identify, analyze, or mitigate the Project's significant, or potentially significant, impacts on biological resources. Deficiencies in the Lead Agency CEQA document can affect later project approvals by CDFW in its role as a Responsible Agency. In addition, because of these issues, CDFW has concerns that Lead Agency may not have the basis to approve the project or make "findings" as required by CEQA unless the environmental document is modified to eliminate and/or mitigate significant impacts, as reasonably feasible (CEQA Guidelines, §§ 15074, 15091 & 15092). Based on the foregoing, CDFW recommends that the IS/MND be revised and recirculated to include the identification of biological resources potentially impacted by Project activities, the identification of all potential project impacts, and an evaluation as to whether the Project may cause a significant effect on the environment in light of this analysis.

Questions regarding this letter or further coordination should be directed to Torrey Soland, Environmental Scientist, at (707) 266-2878 or <u>Torrey.Soland@wildlife.ca.gov</u>; or Sara Kern, Senior Environmental Scientist (Supervisory), at (916) 531-4465 or <u>Sara.Kern@wildlife.ca.gov</u>.

Sincerely,

DocuSigned by: Erin Chappell

Erin Chappell Regional Manager Bay Delta Region

ec: Office of Planning and Research, State Clearinghouse (SCH No. 2024090803)

REFERENCES

- Baldwin, D. H., J. A. Spromberg, T. K. Collier, and N. L. Scholz. 2009. A fish of many scales: Extrapolating sublethal pesticide exposures to the productivity of wild salmon populations. Ecological Applications 19:2004–2015.
- Bauer, S., J. Olson, A. Cockrill, M. Van Hattem, L. Miller, M. Tauzer, and G. Leppig. 2015. Impacts of surface water diversions for marijuana cultivation on aquatic habitat in four northwestern California watersheds. PLoS ONE 10:e0120016.
- Berny, P. 2007. Pesticides and the intoxication of wild animals. Journal of Veterinary Pharmacology and Therapeutics 30:93–100.
- Bolster, B. C. 2010. A status review of the California tiger salamander (*Ambystoma californiense*). A Report to the Fish and Game Commission, Nongame Wildlife Program Report 2010-4, California Department of Fish and Game, Sacramento, CA, USA
- Casey, C. (2014). The Owl Underground. Landscape Architecture, 104(5), 38-42.
- Environmental Protection Agency. 2024. Sources and Solutions: Agriculture. United States Environmental Protection Agency website.
- Fleischli, M. A., J. C. Franson, N. J. Thomas, D. L. Finley, and W. Riley, Jr. 2004. Avian mortality events in the United States caused by anticholinesterase pesticides: A retrospective summary of national wildlife health center records from 1980 to 2000. Archives of Environmental Contamination and Toxicology 46:542–550.
- Gabriel, M. W., L. V. Diller, J. P. Dumbacher, G. M. Wengert, J. M. Higley, R. H. Poppenga, and S. Mendia. 2018. Exposure to rodenticides in Northern Spotted and Barred Owls on remote forest lands in northwestern California: evidence of food web contamination. Avian Conservation and Ecology 13:art2.
- Gabriel, M. W., L. W. Woods, G. M. Wengert, N. Stephenson, J. M. Higley, C. Thompson, S. M. Matthews, R. A. Sweitzer, K. Purcell, R. H. Barrett, S. M. Keller, P. Gaffney, M. Jones, R. Poppenga, J. E. Foley, R. N. Brown, D. L. Clifford, and B. N. Sacks. 2015. Patterns of natural and human-caused mortality factors of a rare forest carnivore, the fisher (*Pekania pennanti*) in California. PLoS ONE 10:e0140640.
- Harris, L. D. 1988. Edge effects and conservation of biotic diversity. Conservation Biology 2:330–332.
- Li, Q., and T. Kawada. 2006. The mechanism of organophosphorus pesticide-induced inhibition of cytolytic activity of killer cells. Cellular & Molecular Immunology 3:171–178.
- Loredo, I., Van Vuren, D., & Morrison, M. L. (1996). Habitat Use and Migration Behavior of the California Tiger Salamander. *Journal of Herpetology*, *30*(2), 282–285.
- Mallery, M. 2010. Marijuana National Forest: Encroachment on California public lands for cannabis cultivation. Berkeley Undergraduate Journal 23:1–17.
- Mendelssohn, H., and U. Paz. 1977. Mass mortality of birds of prey caused by Azodrin, an organophosphate insecticide. Biological Conservation 11:163–170.
- Murcia, C. 1995. Edge effects in fragmented forests: Implications for conservation. Trends in Ecology and Evolution 10:58–62.

National Drug Intelligence Center [NDIC]. 2007. Domestic cannabis cultivation

assessment 2007. United States Department of Justice, Washington, D.C., USA.

- Pimentel, D. 2005. Environmental and economic costs of the application of pesticides primarily in the United States. Environment, Development and Sustainability 7:229–252.
- Relyea, R. A., and N. Diecks. 2008. An unforeseen chain of events: lethal effects of pesticides on frogs at sublethal concentrations. Ecological Applications 18:1728–1742.
- Tudi, M., Daniel Ruan, H., Wang, L., Lyu, J., Sadler, R., Connell, D., Chu, C., & Phung, D. T. (2021). Agriculture Development, Pesticide Application and Its Impact on the Environment. *International journal of environmental research and public health*, *18*(3), 1112.
- U. S. Fish and Wildlife Service. 2024. National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C.
- Xu, Q., and R. Oldham. 1997. Lethal and sublethal effects of nitrogen fertilizer ammonium nitrate on common toad (*Bufo bufo*) tadpoles. Archives of Environmental Contamination and Toxicology 32:298–303.