



State of California – Natural Resources Agency  
DEPARTMENT OF FISH AND WILDLIFE  
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**GAVIN NEWSOM, Governor**  
**CHARLTON H. BONHAM, Director**



December 11, 2024

Rebecca Guo  
General Manager  
El Dorado County Water Agency  
1107 Investment Blvd, Suite 240  
El Dorado Hills, CA 95762  
[rebecca.guo@edcgov.us](mailto:rebecca.guo@edcgov.us)

Subject: EL DORADO WATER RELIABILITY PROJECT  
DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR)  
SCH No. 2014032038

Dear Rebecca Guo:

The California Department of Fish and Wildlife (CDFW) received and reviewed the Notice of Availability of a DEIR from El Dorado County Water Agency (EDCWA) for the El Dorado Water Reliability Project (Project) pursuant to the California Environmental Quality Act (CEQA) statute and guidelines.<sup>1</sup>

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish, wildlife, native plants, and their habitat. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may need to exercise 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. (Fish & G. Code, § 1802.) Similarly for purposes of CEQA, CDFW provides, 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.

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

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CDFW may also act 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 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.

### **PROJECT DESCRIPTION SUMMARY**

The Project consists of EDCWA securing the partial assignment of surface water rights (State Filed Applications 5644 and 5645) of up to 40,000 acre-feet per year from the upper American River and its tributaries. The surface water would be stored and diverted at the existing Sacramento Municipal Utility District (SMUD) Upper American River Project (UARP, Federal Energy Regulatory Commission [FERC] Project No. 2101) facilities, consistent with the 2005 El Dorado-SMUD Cooperation Agreement, and delivered at two locations: 1) SMUD's White Rock Powerhouse Penstock in the El Dorado County area of Folsom Reservoir, and 2) where the South Fork American River meets the upper reach of the Folsom Reservoir. This surface water would be put to reasonable and beneficial use to help meet projected water demands. No new diversion, storage, treatment, or distribution facilities would be built or operated as part of this phase of the Project.

In 2010, EDCWA released a DEIR for the proposed Project; CDFW provided comments on this previous DEIR. Those comments are attached for historical context (Attachment A), and some are reiterated below where they remain pertinent to the current DEIR.

### **COMMENTS AND RECOMMENDATIONS**

CDFW offers the comments and recommendations below to assist EDCWA in adequately identifying and, where appropriate, mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Based on the potential for the Project to have a significant impact on biological resources, CDFW concludes that an Environmental Impact Report is appropriate for the Project.

#### **COMMENT 1: Incomplete Water Availability Analysis**

**Issue:** In 2009, EDCWA filed petitions for state-filed water right applications 5645 and 5644. CDFW filed a timely protest of these applications. One of the concerns identified by CDFW in the protest is the lack of a robust water availability analysis (WAA). Though required specifically for the water rights process, a thorough WAA enables CDFW to assess the risk and significance of potential Project impacts to aquatic ecosystems by providing a realistic water demand setting.

**Recommendation:** CDFW recommends EDCWA include a WAA in its EIR to fully document water demands within the system and assess aquatic and riparian species

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water needs. The WAA should evaluate water availability across different water year types and under potential climate futures to provide a foundation for all Project potential impacts analyses.

**COMMENT 2: Cumulative Conditions Modeling Scenario Details**

**Issue:** CDFW appreciates the extensive and sound modeling efforts undertaken by EDCWA, and the modeling tools used which can be leveraged in the future to understand and optimize operations in the system. CDFW reviewed modeling tools and outputs and would like clarification on the inputs to the Cumulative Conditions model scenario. Specifically, there are many modeling scenarios with various demand and climate assumptions. CDFW would like to see a comprehensive Cumulative Conditions scenario that reflects the cumulative pressures of all reasonably foreseeable water extractions *and* climate constraints to help isolate the Project's marginal additional pressures on the system and the resulting potential impacts.

**Recommendation:** CDFW recommends EDCWA provide additional detail on inputs for the Cumulative Conditions scenario, including documentation of water use associated with each of the relevant and reasonably foreseeable projects within the study area. For example, CDFW would like clarification as to whether and how Water Forum Agreement demands in various year types have been incorporated into the Cumulative Conditions scenario. This Cumulative Conditions scenario, when inclusive of future water demands and availability, may also inform the WAA.

**COMMENT 3: Project Impacts to Folsom Reservoir Coldwater Pool and Lower American River**

**Issue:** New consumptive diversions associated with the Project have potential to alter thermal stratification behavior impacting the coldwater pool in Folsom Reservoir, which influences cold water availability and dissolved oxygen downstream in the lower American River. The lower American River is currently listed as a 303(d) impaired waterbody for temperature (CalEPA 2022). CDFW appreciates temperature modeling results presented in Tables 4.2-14 and 4.2-17. However, temperatures in these tables were aggregated at the monthly timestep and do not capture changes within daily temperatures. Staff review of daily timestep temperature modeling results, provided by EDCWA upon request, suggest that daily impacts to temperature in the lower American River may be significant.

Relatively minor changes in water temperature in the Upper American system throughout the year may significantly impact cold water availability and dissolved oxygen downstream. Reduced inflows to Folsom Reservoir and direct diversions from the Reservoir throughout the year may result in decreased coldwater pool storage, thereby increasing water temperatures and lower dissolved oxygen in the lower American River, which negatively impacts fall-run Chinook salmon (*Oncorhynchus tshawytscha*) spawning and egg incubation, steelhead trout (*Oncorhynchus mykiss*) rearing, as well as Nimbus Fish Hatchery and American River Trout Hatchery operations which rely on appropriate water temperatures and dissolved oxygen for salmonid spawning, incubation and juvenile fish

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rearing. Without infrastructure to support temperature control of hatchery inflow, the hatcheries are reliant on Folsom Lake coldwater pool to support the culture of coldwater species.

In the lower American River, Chinook salmon eggs incubated in water temperatures above 62° F result in 100% mortality; eggs incubated at in water at 60-62° F have experienced 50% mortality to the eyed stage, and eggs incubated in 55-59° F have experienced 20% mortality (Hinze 1959). Furthermore, even when eggs were taken at water temperatures of 60-62° F and incubated at cooler temperatures of 55-56° F, there has been a 30% loss to the eyed stage. Mortalities of 80% or more have been experienced by fry when incubated in water temperatures of 60-61° F (Healey 1979). Egg and fry mortalities were insignificant when water temperatures were between 57.5° F and 43.5° F (Healey 1979). When applied to the lower American River, this information suggests salmonids in this reach have already experienced many years of temperature stress and mortality, resulting in delayed spawn and emigration timing. In 11 of the last 23 years, temperatures were still above 60 degrees Fahrenheit by November 4th, while fall-run Chinook salmon spawning typically begins mid-October (CDEC 2024). Between 2001 and 2023, use of Folsom coldwater pool for summer temperature management has been in the range of 131 to 521 thousand acre feet from May through September, often leaving less than the required coldwater pool to decrease temperatures to a suitable egg incubation temperature for fall-run Chinook salmon during October and into mid to late November when ambient air temperatures start to affect river temperatures. Resultantly, even minor increases in temperature attributable to Project operations will likely have fisheries impacts in the lower American River, especially to adult fall-run Chinook migration, pre-spawn mortality, and maturation.

**Recommendation:** CDFW recommends that the EIR present a finer resolution analysis of Project temperature impacts to the Folsom coldwater pool and lower American River temperatures and dissolved oxygen, at the daily timestep, particularly in the late summer and fall. This analysis should include a robust discussion of likely impacts to fall-run Chinook salmon, including spawning, egg incubation, adult migration, pre-spawn mortality, and maturation, particularly in dry and critically dry years, and in back-to-back dry years, when temperature impacts are likely to be more pronounced. The analysis should include a discussion of how operations may be optimized and/or how physical solutions may be implemented to mitigate impacts to fall-run Chinook salmon, particularly in critical years where daily modeling results of Project versus Without Project modeling scenarios indicate that the Project will impact temperatures on the Lower American River.

**COMMENT 4: Impacts to Salmonids below Chili Bar Powerhouse**

**Issue:** The South Fork American River downstream of the Chili Bar Powerhouse is a heavily regulated reach that is managed for recreational boating flows during specific seasons. Although this reach is highly impacted, marginal changes in flows as a result of the proposed Project have the potential to affect the reach's resident salmonid fishery which has a documented high presence of the steelhead broodstock unique to the American River (NMFS 2016). Accordingly, the population in this reach preserves native, historical American River-specific salmonid genetic diversity for which there is likely no

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remaining comparable population, and which could be used to meet the needs of future steelhead restoration actions.

**Recommendation:** While Project operational details and flow schedules have yet to be specified, CDFW recommends EDCWA consider the ecological impacts of further modifying flows in the reach below Chili Bar Powerhouse and the consequences for resident fisheries. This analysis should consider resident fish species' flow and temperature requirements.

**COMMENT 5: Impacts to Foothill Yellow-legged Frog and Sierra Nevada Yellow-legged Frog**

**Issue:** The proposed Project may alter the volume, timing, and temperature of water in the American River watershed. The watershed supports both foothill yellow-legged frog (*Rana boylei*, FYLF), an endangered species clade listed under CESA, and the Sierra Nevada yellow-legged frog (*Rana sierrae*, SNYLF), a threatened species under CESA. The proposed Project, even constrained by a FERC license, has the potential to significantly impact FYLF and SNYLF during vulnerable life stages.

FYLF were historically abundant throughout many western rivers, but populations have declined dramatically since the onset of flow regulation. Similarly, SNYLF have been extirpated from over 90% of their historic range (USFS 2011). In 2020, the East/Southern Sierra Distinct Population Segment (DPS) clade of FYLF was listed as endangered under the CESA. In 2023, the United States Fish and Wildlife Service designated an endangered status for the Southern Sierra DPS clade of FYLF under the federal Endangered Species Act. In 2013, SNYLF were listed as threatened under the CESA. In 2014, the United States Fish and Wildlife Service designated an endangered status to SNYLF under the federal Endangered Species Act. It is the policy of the State to conserve, protect, restore, and enhance the FYLF and SNYLF species and their habitat (Fish and G. Code § 2051).

Although FYLF and SNYLF are subject to impacts from climate change, pollution, predation, disease, and other factors, one of the most widespread threats to both species is associated with dams and their flow regimes (Hayes et al., 2016; USFWS 2024). Regulated rivers impact the FYLF and SNYLF life cycle by altering the timing, temperature, duration, frequency, and magnitude of water discharge. Artificial, dam-controlled flow patterns diverge from the natural Mediterranean climate runoff patterns to which both species are adapted to (Kupferberg et al. 2009; USFWS 2024).

**Recommendation:** CDFW recommends EDCWA provide a more detailed analysis of probable Project impacts on FYLF and SNYLF populations, including expected alterations to current UARP operations. CDFW also recommends EDCWA consider how, within the constraints of SMUD's 2014 FERC license, to optimize operational changes to SMUD's UARP for the purposes of Project water deliveries. This analysis should include an evaluation of minimum instream flow and ramping rate requirements in order to mitigate impacts to, or improve existing conditions for, special-status frog species.

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### **Comment 6: Incomplete Evaluation of Indirect and Direct Impacts**

**Issue:** The DEIR released by EDCWA in 2010 for the proposed Project states that due to the 1927 priority date associated with the presumed partial assignment of the water right, all burdens and limitations (i.e., direct and indirect impacts necessitating mitigation) should be placed on water right holders with later priority dates. The 2010 DEIR also states that there will be significant impacts in several categories within the document. In the 2024 DEIR, EDCWA states that there will be no significant direct impacts as a result of the proposed Project. Because details of the proposed Project appear to be unchanged between the 2010 and 2024 DEIRs, it is unclear how a Project that previously had direct significant impacts now has none.

Chapter 5 of the DEIR evaluates the potential effects associated with the proposed Project to support planned growth within EDCWA's service area, including impacts related to the construction of water infrastructure. The DEIR states that indirect impacts associated with the Project will be unavoidable and significant, and that these impacts will be evaluated in future environmental analyses. There is currently not enough detail in the DEIR to evaluate the extent of indirect impacts because project details are unknown or unavailable at this time.

**Recommendation:** CDFW recommends EDCWA provide details on how the Project has changed since the release of the 2010 DEIR and includes a justification for how any changes in the Project's details have resulted in the current iteration of the Project having no significant direct impacts.

CDFW recommends that future environmental analyses of the Project's indirect impacts be thorough and establish measures to mitigate for significant impacts. Mitigation measures should establish performance standards to evaluate the success of the proposed mitigation, provide a range of options to achieve the performance standards, and must commit the lead agency to successful completion of the mitigation. Mitigation measures should also describe when the mitigation measure will be implemented and explain why the measure is feasible. CDFW also recommends that the environmental document includes measures that are enforceable and do not defer the details of the mitigation to the future.

### **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 California Natural Diversity Database (CNDDDB). The CNDDDB field survey form can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The completed form can be submitted online or mailed electronically to CNDDDB at the following email address: [CNDDDB@wildlife.ca.gov](mailto:CNDDDB@wildlife.ca.gov).

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## FILING FEES

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

## CONCLUSION

Pursuant to Public Resources Code § 21092 and § 21092.2, CDFW requests written notification of proposed actions and pending decisions regarding the proposed project. Written notifications shall be directed to: California Department of Fish and Wildlife North Central Region, 1701 Nimbus Road, Rancho Cordova, CA 95670 or emailed to [R2CEQA@wildlife.ca.gov](mailto:R2CEQA@wildlife.ca.gov).

CDFW appreciates the opportunity to comment on the DEIR for the El Dorado Water Reliability Project to assist EDCWA in identifying and mitigating Project impacts on biological resources. CDFW personnel are available for consultation regarding biological resources and strategies to minimize and/or mitigate impacts. Questions regarding this letter or further coordination should be directed to Alyssa Obester, Senior Environmental Scientist (Specialist) at [alyssa.obester@wildlife.ca.gov](mailto:alyssa.obester@wildlife.ca.gov).

Sincerely,

DocuSigned by:  
  
C3A86764C0AD4F6...

Morgan Kilgour  
Regional Manager

cc: Briana Seapy, Senior Environmental Scientist (Supervisory)  
Will Kanz, Environmental Scientist  
Jason Julienne, Senior Environmental Scientist (Supervisory)  
Duane Linander, Senior Environmental Scientist (Specialist)  
Nick Bauer, Senior Environmental Scientist (Supervisory)  
*Department of Fish and Wildlife*

Office of Planning and Research, State Clearinghouse, Sacramento

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**ATTACHMENT A: CDFW Comments on 2010 DEIR**

State of California-The Natural Resources Agency  
**DEPARTMENT OF FISH AND GAME**  
 North Central Region  
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<http://www.dfg.ca.gov>

*ARNOLD SCHWARZENEGGER, Governor*  
*John McCamman, Director*



September 15, 2010

Mr. David Witter  
 El Dorado Water and Power Authority  
 3932 Ponderosa Road, Suite 200  
 Shingle Springs, CA 95682

Dear Mr. Witter:

The Department of Fish and Game (DFG) has reviewed the Draft Environmental Impact Report (DEIR) for the Acquisition of 40,000 acre-feet annually (afa) of New Consumptive Water Supplemental Water Rights Project (proposed project). Under the proposed project, El Dorado Water and Power Authority (EDWPA) would acquire permitted water rights from the State Water Resources Control Board (SWRCB) to allow diversion of up to 40,000 afa of water from the American River Basin to meet future water demands in the El Dorado Irrigation District (EID) and Georgetown Divide Public Utility District (GDPUD) service areas and other favorable areas located within El Dorado County (e.g. "Place of Use"). EDWPA has filed with the SWRCB's, Division of Water Rights (Division), petitions for partial assignment of portions of State Filed Applications (SFA) 5644 and 5645. The requests are made pursuant to Water Code Sections 10500 et seq., reserving priority water rights to protect the areas in which water originates to promote efficient planning. EDWPA is an entity formed by and composed of El Dorado County (County), El Dorado County Water Agency (EDCWA), and EID pursuant to the Joint Exercise of Power Act (Government Code Section 6500, et seq.). EDWPA's applications are in furtherance of contractual rights under the September 2005 El Dorado-Sacramento Municipal Utility District (SMUD) Cooperation Agreement, recognizing rights and obligations under the 1957 and 1961 Agreements of each party to utilize the facilities of the Upper American River Project (UARP) in meeting water supply demands in the Place of Use. The projected water supply demands are based on the El Dorado County 2004 General Plan and the 2007 El Dorado County Water Agency Water Resources Development and Management Plan.

As trustee for the State's fish and wildlife resources, the DFG has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of such species. In that capacity, the DFG administers the California Endangered Species Act (CESA), the Native Plant Protection Act (NPPA), and other provisions of the California Fish and Game Code that affords protection to the State's fish and wildlife trust resources. The DFG also considers issues as related to the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. 703-712) (MBTA). As such, the DFG offers the following comments:

#### **Rare Plants**

The DEIR states that "loss of special-status plant populations and individuals is a significant and unavoidable indirect impact of the proposed project" and describes three

actions to reduce this identified potential impact within Mitigation Measure 7.9-2A, including: 1) contributing to the development of the Pine Hill Preserve (Preserve) by participation according to the Preserve's Cooperative Management Agreement (CMA), 2) contributions to the development of the Preserve by providing funding, and 3) relying on the County's General Plan Policies 7.4.1.1–7.4.1.7 to offset California Environmental Quality Act (CEQA) impacts to individual discretionary actions approved by the County. We do not believe that relying on these aspects of Mitigation Measure 7.9-2A in aggregate, or by themselves, meets the CEQA standard of lessening impacts to below a level of significance.

*Contributing to the Pine Hill Preserve through CMA*

Although continued participation by all parties as described in the Preserve's CMA is important to the on-going success of the Preserve, the DFG does not believe that the County, EDCWA, and EID's participation as a signatory to the CMA achieves the goal of meeting the CEQA standard for lessening impacts to Gabbro plants to below a level of significance. The CMA was not designed or meant to accomplish CEQA mitigation standards, and has also not been analyzed under CEQA to ensure that it meets these standards.

*Contributing to the Pine Hill Preserve through Funding*

The DFG believes that contributing toward funding for acquisition and management of mitigation lands identified specifically to offset the proposed project and other projects subject to discretionary approval by the County would, in part, help to satisfy CEQA mitigation standards. However, the DFG does not agree with the DEIR's characterization of the funding amounts provided by the County and EID, nor that these funds identified in the DEIR should count to offset impacts mitigated under CEQA. The DFG believes that the total amount of land acquired by the County and EID, which should be considered to count toward the County and EID's ongoing rare plant mitigation program, totals 103.25 acres and 79.71 acres, respectively. As depicted in Attachment 1, all other funding sources used to acquire lands within the preserve have come from State and federal sources (including the Land and Water Conservation Fund, the National Fish and Wildlife Foundation, Central Valley Project Improvement Act Habitat Restoration Fund, U.S. Fish and Wildlife Service Endangered Species Program Section 6 grants, and the National Fish and Wildlife Foundation), and should not be used to offset mitigation required of the County under CEQA.

*Relying on General Plan Policies 7.4.1.1–7.4.1.7 to offset CEQA impacts*

The DFG believes that relying on the County's General Plan Policies 7.4.1.1–7.4.1.7 does not meet the CEQA standard for lessening impacts to Gabbro plants to below a level of significance. The DFG agrees with the opinion of the Third Appellate District Court of Appeal of the State of California in the case of the California Native Plant Society et al., vs. the County of El Dorado and Cameron Park Ventures when this court asserted that the rare plant fee as described and established in the above County General Plan Policies does not provide adequate mitigation as required by CEQA. In this case, the Court stated "the Rare Plant Fee does not equate to full mitigation. The critical portion of the ordinance states: payment of a fee in lieu of Ecological Preserve Mitigation is encouraged in Mitigation Areas 1 and 2. Developments in mitigation areas 1 and 2 shall mitigate impacts by exercising one of the following two options: A) Pay the appropriate

fee in lieu of Ecological Preserve Mitigation for the direct or indirect impacts caused by development on rare plants and rare plant habitat; or B) Participate in the Rare Plant Off-Site Mitigation Program (El Dorado County Code, § 17.71.220). Ecological Preserve Mitigation is defined as 'on and offsite mitigation standards that address direct and indirect impacts on rare plants or rare plant habitat and includes the Rare Plant Off-Site Mitigation Program'. Rare Plant Off-Site Mitigation Program means 'acquiring and restoring rare plant habitat through the purchase of fee interests or conservation easements of land within a designated Ecological Preserve' which must equal '1.5 times the number of acres developed' and be done under FWS and DFG guidelines this ordinance does not, without more, exempt subsequent projects from environmental review. The County has no power to craft blanket exemptions to the CEQA statutes and interpretive regulations, nor to pass an ordinance to satisfy future CEQA requirements, absent some CEQA review as to the ordinance."

Absent a meaningful CEQA review of General Plan Policies 7.4.1.1–7.4.1.7, the DFG recommends that the DEIR should not rely on these policies to meet the CEQA standard for lessening impacts to Gabbro plants to below a level of significance until the County can administer an adequate fee program. The DEIR should be revised to include meaningful mitigation measures to lessen these impacts to below a level of significance. The DFG believes that an adequate fee program used to offset impacts imposed by individual projects under CEQA should include four main components, including a mechanism to:

1. Collect, administer, and appropriate a sufficient amount of funding to ensure that each project under the mitigation program has offset its impacts to less than significant
2. Identify appropriate lands to ensure that each project under the mitigation program has offset its impacts to less than significant
3. Secure mitigation lands to ensure that each project under the mitigation program has offset its impacts to less than significant, and
4. Manage and maintain these lands in perpetuity, to ensure that each project under the mitigation program has offset its impacts to less than significant

The DFG believes that each of the above 4 components are currently set in place, in part through assistance from the American River Conservancy (ARC) for items 2 and 3 above, and assistance from the Bureau of Land Management (BLM) with item 4 above, but does not believe that the County is adequately collecting, administering, or appropriating sufficient amounts of funding to ensure that each project under the mitigation program has offset its impacts to less than significant. The reasons for this assertion is that the fee collected by the County has not been updated, which is necessary to accurately determine that there are sufficient funds available to acquire appropriate amounts of land, and the County has not been acquiring adequate amounts of land to offset its CEQA obligation. The above General Plan policies provide an option to acquire and restore rare plant habitat at a rate of 1.5 times the number of acres developed as a means to mitigate impacts to rare plants. The DFG agrees that this is an appropriate amount, and using this metric, believes that the current amount of 182.96

acres of habitat preserved by the County and EID combined does not mitigate the impacts imposed on rare plants since the County's mitigation program's inception. In order for the County, EDWPA, and EID to rely on the above County's General Plan policies, the DFG recommends that the County determine the amount of rare plant habitat impacted by all project's approved by the County since the mitigation program's inception, and acquire and manage a total of 1.5 times the number of acres impacted to offset these impacts to less than significant. The DFG further recommends that the County regularly update their rare plant current fee program to adequately reflect the costs of acquiring, restoring, and preserving rare plant habitat.

The DFG is in support of ARC's on-going efforts to acquire lands for the conservation of Gabbro soil plants, and have provided a table (see Attachment 2) which includes properties found by the DFG to be the top acquisition priorities for the Preserve. The DFG believes funds currently held by the County in association with the County's rare plant mitigation program total approximately \$3.7 million, and recommends that the County work with ARC to fund the acquisition of properties contained in Attachment 2 to work toward reducing the County Mitigation Program's deficit of CEQA required mitigation lands.

#### **Diversion Related Fisheries and Aquatic Resources**

EDWPA filed with the Division applications for partial assignment of SFA's 5644 and 5645 (Water Code Section 10500) in order to gain an additional 40,000 afa of water diversion and storage rights within the American River Basin. Water would be stored and

released from Loon Lake Reservoir, Union Valley and Ice House Reservoirs, as well as direct diversions from the upper Rubicon River and Silver Creek. Storage facilities are features of the UARP, owned and operated by SMUD for hydroelectric power generation under Federal Energy Regulatory Commission (FERC) Project License No. 2101. The proposed project would store and divert water under a cooperation agreement between EDWPA and SMUD. Operation of the proposed project relies on continued operation of the UARP.

EDWPA proposes four operational scenarios to the project, with three potential Points of Diversion (POD) described as follows:

- 1) *Project A* – 30,000 afa diverted at Folsom Reservoir and 10,000 afa diverted at the American River Pump Station,
- 2) *Project B* – 40,000 afa diverted at White Rock Powerhouse Penstock Turnout,
- 3) *Project C* – 30,000 afa diverted at White Rock Powerhouse Penstock Turnout and 10,000 afa diverted at the American River Pump Station, or
- 4) *Project D* – 40,000 afa diverted at Folsom Reservoir.

The DFG filed formal protest of EDWPA's SFA's 5645x12 and 5644x02 based on grounds that the proposed new diversion of 40,000 afa of consumptive water would have

adverse environmental and public trust impacts including, but not limited to: lack of Water Availability Analysis (WAA); potential conflict with SMUD's UARP and Pacific Gas & Electric's Chili Bar Hydroelectric Project Settlement Agreement; adverse impacts associated with Place of Use; potential initiation of a new right due to changes in POD's from the original SFA; potential conflict with the South Fork American River's (SFAR) Fully Appropriated Stream designation; and potential impacts to the cold water pool within Folsom Reservoir and the Lower American River. Because the DEIR discloses no information regarding outstanding protests to the pending EDWPA water right applications, we include a copy of the DFG's protest as an enclosure to this letter.

The DFG's protest concerns are not adequately addressed in the DEIR. EDWPA defines the proposed project as the assignment and permitting of the SFA's to make consumptive use of water within the American River watershed. The DEIR is described as a project-level analysis of a new water right acquisition. Throughout the DEIR EDWPA asserts that due to the 1927 priority date associated with the presumed partial assignment of the SFA's, all burdens and limitations should be placed on water right holders with later priority dates. EDWPA's position that seniority will be granted cannot be assumed. EDWPA has not yet been granted priority and this should be reflected in the DEIR. As CEQA lead agency and in the interest of the Public Trust Doctrine, EDWPA should propose strategies within their authority, ability, and resources to implement, which will minimize significance effects pursuant to CEQA Guidelines Section 15126.4(a).

#### Water Availability

The DFG's request for a comprehensive WAA has not been satisfied. Without a comprehensive WAA, it is difficult to evaluate the full impacts of the proposed water rights applications. An appropriate WAA would include all downstream water rights with priority dates preceding 1927, pre-1914 rights, and riparian rights. Moreover, the State Water Board's Decision 893 evaluated water availability based on hydrological conditions prior to and subsequent to 1927 for the SFAR. The decision found that unappropriated water is not available by direct diversion for consumptive use purposes, and by storage for any purpose from August to October. Therefore, the season of diversion for any permits issued for petitions for partial assignment should be limited to November through July.

#### Potential Upper American River Project/Chili Bar Conflict

The DFG as signatory to the January 2007 Relicensing Settlement Agreement for the UARP and Chili Bar Hydroelectric Project (Settlement Agreement) fully supports the protection, mitigation, and enhancement articles of the Settlement Agreement. Due to its reliance of UARP facilities, the proposed project has the potential to affect the terms of the Settlement Agreement. The DFG's protest raises concern that water is not available to support diversions of additional consumptive water from the upper watershed, and still satisfy the minimum flows necessary for instream health as well as reservoir levels determined appropriate for operation of the UARP hydroelectric project (FERC Project No. 2101). Pursuant to Fish and Game Code Sections 782 and 5937, water must be released below dams in amounts sufficient to keep fish and aquatic life in good condition. Stream flow requirements established in the Settlement Agreement provide the minimum instream flows necessary to maintain aquatic health while meeting recreational use needs, and must be considered paramount when analyzing the availability of water for new consumptive diversions within the SFAR watershed. Given the level of

participation by State and federal resource agencies, non-governmental organizations, and members of the public in the development of the Settlement Agreement, the DFG believes that the terms and conditions of the Settlement Agreement best serve the public interest and cautions that water development activities by EDWPA must not interfere.

#### Folsom Reservoir and Lower American River

Reduction of inflow to Folsom Reservoir due to new consumptive diversions of 40,000 cfs from either the White Rock, Folsom, or American River POD's have potential to alter the thermal stratification behavior impacting the coldwater pool in the reservoir thereby influencing the quantity of cold water available for release to the Lower American River. EDWPA's assertion in Section 3.4.6.2 that the Folsom Lake Intake and Pump Station with temperature control function capable of withdrawing water from three separate elevations within the warm upper reaches of the reservoir will minimize impact and preserve the cold water pool is unsupported. Section 6.2 and 6.4 lacks adequate discussion regarding the impacts to the thermal stratification behavior within Folsom Reservoir due to reduced inflow and storage. There is no limnological or temperature studies for Folsom Reservoir. Changes in Folsom Reservoir storage and cold water availability for the Lower American River should be analyzed.

#### Proposed Mitigation

The DEIR for the SFA's is described as a project-level analysis of a new water right acquisition with detailed hydrological effects on those waterbodies and water courses potentially affected by the proposed diversion withdrawals. The DEIR states that implementation of the proposed project would generate significant environmental impacts in several categories without the execution of mitigation measures, but would be reduced to less than significant levels if the mitigation measures in this DEIR are carried out (pg ES-15). However, EDWPA concludes that, although successful implementation of the mitigation would render impacts less than significant, the impact is treated as potentially significant and unavoidable in recognition of EDWPA's inability to ensure implementation of the proposed mitigation adopting CEQA Guidelines Section 15091 (a)(2).

The DFG recognizes EDWPA is seeking partial assignment of the SFA's and that other parties, including the United States Bureau of Reclamation (USBR) and SMUD, may have responsibility and jurisdiction over the operations and/or facilities that factor into EDWPA's ability to mitigate. However, adverse effects on the environment that may result with additional diversion in flows by EDWPA must, nevertheless, be mitigated to a level below the threshold of significance. The DEIR should include feasible mitigation measures that describe the contributions EDWPA will make to achieve a lessening of impacts to levels below the threshold of significance.

#### Modeling Concerns

The DFG staff developed an HEC-ResSim model of the UARP and the Chili Bar Project (UARP Model) used by the DFG and other resource agencies to help evaluate the effects of various streamflow and reservoir elevation target alternatives contemplated for the relicensing of the two hydropower projects. In its January 2007 filing with FERC, the DFG included the UARP Model and an associated model report (CDFG 2007) that demonstrates the streamflow and the reservoir elevations measures could be met by the licensees. The model report, including graphics demonstrating conformance with the

settlement agreement environmental and recreation streamflows and reservoir elevation targets, is available upon request. Please note that EDWPA references the UARP model report as Hughes 2007.

EDWPA obtained a copy of the UARP Model from the DFG staff and migrated it from HEC-ResSim Version 2 to Version 3.0.1. During personal communications with HEC-ResSim contract management staff at the US Army Corps of Engineers Hydrologic Engineering Center, the DFG staff was cautioned that migrating from Version 2 to Version 3 must be done carefully. Given the complicated nature of the UARP Model in general, this process must be performed with extreme caution. While EDWPA described some of their changes to the UARP Model in the DEIR and Appendix J, there is no mention of the migration process.

In Section 5.2.1.4 of the DEIR, and in Section 2.4 of Appendix J, EDWPA describes several computational limitations of their modeling effort. Among these, EDWPA suggests that the DFG's UARP Model included "numerical instabilities." During the development of the UARP Model, the DFG staff recognized that HEC-ResSim Version 2 had challenges with large inflows per timestep at small reservoirs with short residence times. To address this issue, the DFG staff reduced the model timestep to 30 minutes (except during 1997, when the timestep was reduced to 15 minutes). The reduced timestep allowed the UARP Model to simulate continuously from October 1974 through September 2001 without numerical instabilities. In addition to resolving the numerical instabilities, the shorter timestep allowed more effective simulation of recreation streamflows in various parts of the project, including the reaches of the SFAR below Slab Creek Reservoir and Chili Bar Reservoir.

As noted in Section 5.2.1.3 of the DEIR and Section 2.1.5 of Appendix J, EDWPA selected a daily timestep for their modeling effort. Rather than reducing the timestep, EDWPA chose to apply a Look Back time-series to account for numerical instabilities. As noted by EDWPA in Section 2.4 of Appendix J, "The disadvantage of this is that the starting condition of simulation periods would not match the ending condition of the previous simulation..." and "...some unrealistic results are seen at the beginning of each simulation period..."

The DFG is concerned about the reliability of the EDWPA HEC-ResSim model, which is being used to evaluate the generation, streamflow, and reservoir elevation impacts of the water diversion proposals, given the challenges associated with migration to ResSim Version 3 and EDWPA's method for addressing model numerical instabilities. This is particularly troubling since EDWPA is asserting that their HEC-ResSim modeling shows that certain terms of the Settlement Agreement can not be met under the Base Condition (i.e. absent their proposed project). Specifically, EDWPA asserts that during certain water year types, the reservoir elevation targets at Loon Lake Reservoir, Union Valley Reservoir, and Ice House Reservoir, and the recreation streamflows in South Fork Silver Creek below Ice House Reservoir and in the SFAR below Chili Bar Reservoir could not be met under base conditions.

For example, EDWPA suggests on page 6.7-79 of the DEIR that "At Loon Lake Reservoir, the water surface elevations modeled under the Base Condition are lower than the identified threshold in all water-year types except in Wet years" and that "Water

surface elevations at Union Valley Reservoir under the Base Condition are lower than the identified thresholds in Critically-Dry water year types for the months of July and August. For Dry years, the water surface elevations under the Base Condition are lower than the identified thresholds, and also for the month of July in Below Normal water-year types.”

On page 6.7-80 of the DEIR, EDWPA states “The Base Condition water surface elevations at Ice House Reservoir are, in fact, already lower than the identified thresholds for recreation in Critically Dry water-years.”

On page 6.7-83 of the DEIR, EDWPA states with regard to recreation flows below Ice House Dam “It should be noted that in Below Normal water-year types, modeling information indicated that the Base Condition failed to meet the flow requirement threshold.”

With regard to recreation streamflows in the Chili Bar Reach of the SFAR, EDWPA states on page 6.7-85 that “The modeling data presented above indicate the potential for the proposed project to result in flows inconsistent with those established in existing threshold criteria for recreational flows in the SFAR. The percent frequency with which the proposed project would be unable to meet the criteria, however, is less than those under current, or Base Conditions.”

As mentioned previously, the DFG’s UARP Model demonstrated that the streamflow and reservoir elevation components of the Settlement Agreement could, in fact, be met by the licensees. Please refer to pages 128 – 148 of the DFG’s model report (CDFG 2007) which demonstrate that the Settlement Agreement reservoir elevation targets at Loon Lake Reservoir, Union Valley Reservoir, and Ice House Reservoir can be achieved. Also, please refer to pages 120 – 126 of CDFG 2007 which demonstrate that the recreation streamflow requirements of the Settlement Agreement for South Fork Silver Creek below Ice House Dam can be met. Finally, please refer to pages 85 – 91 of CDFG 2007 which demonstrate that the recreation streamflow requirements of the Settlement Agreement for the SFAR below Chili Bar Reservoir can be achieved.

It is important to note that, during the relicensing of the UARP, SMUD developed its own reservoir simulation model using proprietary modeling software. Prior to signing the Settlement Agreement, it seems likely that SMUD evaluated its ability to comply with the terms of the Agreement. As such, EDWPA’s suggestion that certain terms of the Settlement Agreement cannot be met is unsupported and calls into question the veracity of their HEC-ResSim modeling effort.

### **General**

This project may have an impact to fish and/or wildlife habitat. Assessment of fees under Public Resources Code Section 21089 and as defined by Fish and Game Code Section 711.4 may be necessary. Fees are payable by the project applicant upon filing of the Notice of Determination by the lead agency.

Pursuant to Public Resources Code Sections 21092 and 21092.2, the DFG requests written notification of proposed actions and pending decisions regarding this project. Written notifications should be directed to this office.

Mr. Witter

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September 15, 2010

Thank you for the opportunity to review this project. If the DFG can be of further assistance, please contact Mr. Todd Gardner, Staff Environmental Scientist, at (209) 745-1968 or Ms. Lauren Dailey at (916) 358-2909.

Attachment  
Enclosure

Sincerely,



Jeff Drongesen  
Acting Environmental Program Manager

cc: Ms. Cay Goude  
Mr. Jeremiah Karuzas  
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2800 Cottage Way, Room W2605  
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Mr. Jack Sweeney  
Mr. Ron Briggs  
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Mr. Peter Maurer  
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Development Services Department – Planning Services  
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Placerville, CA 95667

Mr. Dan Corcoran  
Environmental Review Division Manager  
El Dorado Irrigation District  
2890 Mosquito Road  
Placerville, CA 95667

ec: Mr. Todd Gardner  
Ms. MaryLisa Lynch  
Ms. Lauren Dailey  
Mr. Stafford Lehr  
Mr. Kevin Thomas  
Ms. Sharon Stohrer  
Mr. Bob Hughes  
Department of Fish and Game  
North Central Region

**Attachment 1. Acquisitions Contributing to the Pine Hill Preserve in Addition to BLM's Original Preserve Establishment**

Acquisition	Year	APN	Owner	Acres	Unit	Seller	Funding Source	Sales price	Funded amount	% Contribution	Tot. acres cont.
1	1990	10439001	STATE	18.86	SF	Duncan	State	\$360,000	\$360,000	100.00	18.86
		10439002		20.69						100.00	20.69
2	1991	10406009	STATE	40	SF	Baldwin #1	State Other	\$300,000	\$250,000 \$50,000	100.00	40.00
3	1995	10421013	STATE	13.3	SF	Baldwin #2	State	\$95,000	\$95,000	100.00	13.30
4	1995	10421011	STATE	74.51	SF	Gross-Tobias #1	State	\$316,000	\$316,000	100.00	74.51
5	1995	10421014	STATE	4.14	SF	Carlson	State	\$75,000	\$75,000	100.00	4.14
6	1996	10406010	STATE	40	SF	Gross-Tobias #2	State	\$160,000	\$160,000	100.00	40.00
7	1996	10421010	STATE	6.64	SF	Jensen-Harris	State	\$85,000	\$85,000	100.00	6.64
8	1996	10421012	STATE	86.33	SF	Sanders	State	\$300,000	\$300,000	100.00	86.33
9	1997	8301001	US	117.36	CP	Smith and Gabbert #1	US (FWS Foundation)	\$3,542,685	\$1,000,000	28.23	33.13
							US (NFWF)		\$100,000	2.82	3.31
							County		\$843,000	23.80	27.93
							EID		\$843,000	23.80	27.93
							Other		\$756,685	21.36	25.07
10	1998	8301002	COUNTY	62.8	CP	Smith and Gabbert #2	US (BOR)	\$1,915,400	\$500,000	26.10	16.39
							County		\$500,000	26.10	16.39
							EID		\$500,000	26.10	16.39
							Other		\$415,400	21.69	13.62
11	2000	7028055	US	41.82	CP	Ponderosa 50	US (BOR)	\$1,802,000	\$750,000	41.62	17.41
		7028056	US	48.83	CP		US (NFWF)		\$152,000	8.44	4.12
12	2001	8302028	US	49.08	CP	Lloyd Gabbert	State (WCB)	\$896,000	\$900,000	49.94	24.39
							US (LWCF)		\$646,000	72.10	35.39
13	2002	10439003	US	10	SF	Anderson	US (BOR)	\$132,000	\$250,000	27.90	13.69
							US (LWCF)		\$132,000	100.00	10.00
14	2002	10201003	US	34.46	SF	Kanaka Phase 1	US (LWCF)	\$3,581,000	\$3,581,000	100.00	595.40
		10201036		53.92							
		10201037		113.93							
		10409024		393.09							
15	2002	8302011	US	28	CP	Smith and Gabbert	US (LWCF)	\$3,362,000	\$3,264,000	97.09	130.39
		8302018		17.3			Other		\$98,000	2.91	3.91
		8302030		89							
16	2002	10206018	US	10	PH	Jaberyzadeh	US (LWCF)	\$120,000	\$120,000	100.00	10.00
17	2002	10206042	US	10	PH	Motto	US (LWCF)	\$125,000	\$125,000	100.00	10.00
18	2002	10201001	US	157	SF	Kanaka phase 2	US (BOR)	\$1,044,000	\$400,000	38.31	60.15
		10201002					State (WCB)		\$644,000	61.69	96.85
19	2002	10424005	US	16	SF	Heritage	County	\$160,000	\$160,000	100.00	16.00
20	2002	10424026	US	11	SF	McQuillan	County	\$225,000	\$225,000	100.00	11.00
		10424028									
21	2003	10406008	US	229	SF	Zee Enterprises	US (BOR)	\$1,375,000	\$450,000	32.73	74.95
							State (WCB)		\$687,500	50.00	114.50
							EID		\$212,500	15.45	35.39
							Other		\$25,000	1.82	4.16
22	2003	10424014	COUNTY	9.26	SF	Nash	County	\$200,000	\$200,000	100.00	19.61
		10424015		10.35							
23	2003	10406014	US	12.32	SF	Pearson	County	\$170,000	\$170,000	100.00	12.32
24	2004	6928064	COUNTY	11.52	PH	Thomas	US (FWS Section 6)	\$390,000	\$390,000	100.00	22.95
		6928065		11.43							
25	2006	10409021	STATE	20	SF	Phillips	US (NFWF)	\$250,000	\$43,750	17.50	20.00
		10409022		20			State (WCB)		\$206,250	82.50	20.00

Total Acres acquired by El Dorado County = 103.25  
 Total Acres acquired by EID = 79.71  
 Total Acres acquired by State Funds = 520.20  
 Total Acres acquired by Federal Funds = 1057.27 (includes Land and Water Conservation Fund, NFWF, CVPIA Habitat Restoration Fund, FWS Section 6, & FWS Foundation)  
 Total Acres acquired by other Funds = 46.77

State of California – Natural Resources Agency  
 DEPARTMENT OF FISH AND WILDLIFE  
 North Central Region  
 1701 Nimbus Road, Suite A  
 Rancho Cordova, CA 95670-4599

GAVIN NEWSOM, Governor  
 CHARLTON H. BONHAM, Director

Attachment 2

APN	Acres	Ownership	Surveys	Rare Plants Present						
				<i>C. stebbinsii</i>	<i>C. roderickii</i>	<i>F. californicum</i> ssp. <i>decumbens</i>	<i>G. californicum</i> ssp. <i>sierrae</i>	<i>P. layneae</i>	<i>C. grandiflorum</i>	<i>H. suffretescens</i>
<b>Cameron Park Unit</b>										
<b>Tier One</b>										
070-261-77, -79, -80, -81	20	Carriage Hill/ Temecula Bank	Dr. Mike Baad (June 21, 2001)	X	X		X	X	X	X
070-011-18	167	Cameron Meadows/ Street et al.	BLM Staff (April & Sept 2008) Jones & Stokes (1997)		X		X	X	X	X
083-350-43	35	Pacific Oak Development	Sycamore Env, Consultants, Inc. (April, 2005)	X	X				X	X
083-020-2	11	D'Ambrasio	Informal BLM Survey	X	X			X		X
109-230-12	51	Scarlot	Informal BLM Survey	X	X				X	X
<b>Pine Hill Unit</b>										
102-060-25	120	Piatensi/ Mahon	Informal BLM Survey		X		X	X	X	X
069-280-10	80	Wunschel	Informal BLM Survey		X	X		X		
<b>Salmon Falls Unit</b>										
102-010-26, -46, -47, -48, -49, -50, -58, 104-090-64	695	Kanaka Valley	Informal BLM Survey		X		X	X		X
<b>Tier Two</b>										
104-500-07	60	Witt	Informal BLM Survey (Graciela Hinshaw)	X					X	X
104-09-23	48	Smeding	Informal BLM Survey	X					X	X
102-010-35, -40	80	Loris	Informal BLM Survey (Graciela Hinshaw)						X	X