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August 1, 2025

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Subject: Modification of Water Right Permit 21112
DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR)
SCH No. 2022090373

Dear Brian Deason:

The California Department of Fish and Wildlife (CDFW) received and reviewed the Notice of Availability of a DEIR from El Dorado Irrigation District (EID) for the Modification of Water Right Permit 21112 (Project) pursuant the California Environmental Quality Act (CEQA) statute and guidelines.¹ CDFW previously submitted comments in response to the Notice of Preparation of the DEIR on October 17, 2022.

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, CDFW appreciates 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.

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

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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 site encompasses areas within and near the South Fork American River (SFAR) from Kyburz, California, to Folsom Reservoir, including Jenkinson Lake. The Project consists of modifying EID's existing water right permit, Permit 21112 (Permit), to add an additional point of diversion at the El Dorado Diversion Dam, which is significantly upstream of the Permit's existing point of diversion at Folsom Reservoir (approximately 38 miles as the crow flies), and an additional place of storage and point of re-diversion to storage at Jenkinson Lake. A maximum of 15,000 acre-feet per year of water will be re-diverted at the El Dorado Diversion Dam and stored in Jenkinson Lake. The Project would maintain the other limitations of the water right, such as season of diversion, total diversion to storage, and total direct diversion. As authorized, the Permit allows for direct diversion from the SFAR at Folsom Reservoir; diversion of water for storage in Caples, Silver, and Aloha lakes (subject to EID's Federal Regulatory Energy Commission [FERC] Project No. 184 License); and re-diversion of the water released from these reservoirs once it reaches Folsom Reservoir for consumptive uses. EID contends that the single point of diversion at Folsom Reservoir precludes EID from effectively and efficiently utilizing available water supply throughout the entirety of the Permit's authorized place of use, and that additional storage of Permit 21112 water may be used to address low water availability in dry months.

EID also identifies in the DEIR future construction projects related to this Project, including expansion of conveyance capacity to accommodate increased diversions at El Dorado Diversion Dam, and acknowledges that these projects will be further analyzed in subsequent CEQA processes. These future projects include improvements to the El Dorado Canal and the channel that conveys water from the outfall of the Hazel Creek Tunnel to Jenkinson Lake, to be able to convey the Permit's maximum rate of diversion (i.e., 156 cubic feet per second (cfs)), rather than the current maximum diversion due to infrastructure constraints (i.e., 145 cfs), from the proposed point of diversion at El Dorado Diversion Dam. These future, related construction activities include:

- Vegetation and tree removal within and around the channel that conveys water from the outfall of the Hazel Creek Tunnel to Jenkinson Lake to facilitate construction equipment access, culvert replacement, bridge installation, and channel stabilization activities. Vegetation and trees would be removed in the vicinity of flume replacement or canal restoration projects to facilitate construction and protect

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facilities from fire and/or tree fall. Vegetation and tree removal would be implemented with heavy equipment or by hand with hand or power tools depending on access and on the sensitivity of the area.

- Replacement of wooden flumes, conversion of wooden flumes to concrete u-shaped canal, and/or restoration of canal segments within El Dorado Canal. Potential construction activities include demolition of existing structures, rock scaling and/or slope stabilization, localized excavation and backfill, construction of retaining walls, placement of concrete, construction of conveyance structures, and site restoration.
- Installation of a moveable bulkhead or other gate structure in the existing Inlet of the Hazel Creek Tunnel. Potential construction activities to retrofit the existing canal structure to accommodate a gate structure and modify the existing gates that regulate flow into the Hazel Creek Tunnel would involve localized excavation of the canal liner, placement of concrete, installation of gate(s) and gate support structures, and installation of a control building.
- Excavation and backfill for culvert replacement and/or bridge construction, excavation and/or grading within the channel from the outfall of the Hazel Creek Tunnel to Jenkinson Lake to increase conveyance capacity, and placement of rip-rap or other material to stabilize the channel and allow conveyance of up to 156 cfs.
- Access and staging of equipment and materials at various locations along the El Dorado Canal and near the channel that conveys water from the outfall of the Hazel Creek Tunnel to Jenkinson Lake. Primary access is anticipated to occur along existing roads and along the El Dorado Canal bench; however, some road improvements and/or temporary access roads may be necessary to access portions of the channel. Equipment and material staging would generally be located in previously disturbed areas.

PROJECT-SPECIFIC COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist EID in adequately identifying and, where appropriate, mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources.

COMMENT 1: Federal Energy Regulatory Commission P-184 License Requirements Variances

Issue: FERC issued a new major license (License) for EID's El Dorado Hydroelectric Project No. 184 in 2006. Within the License, FERC requires EID to maintain minimum instream flows within the SFAR, including immediately downstream of the El Dorado Diversion Dam. EID, CDFW, and multiple other state and federal agencies worked

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collaboratively to provide FERC the El Dorado Relicensing Settlement Agreement on April 30, 2003, in which all agencies involved agreed to topics such as minimum stream flows and ramping rates.

The Project proposes a water right change to add an additional authorized upstream point of diversion to Permit 21112. The additional upstream point of diversion is located at EID's existing El Dorado Diversion Dam near Kyburz, CA, which is also a managed point of diversion under EID's FERC License. EID acknowledges additional diversions under Permit 21112 at El Dorado Diversion Dam would remain subject to all other regulatory conditions, including those in the License. CDFW has concerns that by allowing for additional diversions from El Dorado Diversion Dam under Permit 21112, EID may not be able to meet License-required flows for the SFAR below the El Dorado Diversion Dam during sequential dry and critically dry water years.

Evidence: From February through March in 2015, CDFW received a series of flow variance requests from EID to deviate from its License-required flows, culminating in a request to reduce minimum instream flows below El Dorado Diversion Dam in May (60 to 45 cfs), June (60 to 18 cfs), July (40 to 15 cfs), and August (18 to 15 cfs). These significant reductions to minimum instream flow requirements negatively impact instream flow conditions for aquatic species below El Dorado Diversion Dam in drier water year types when water temperatures and cold water refugia is already diminished. The Project proposes additional diversions within the season of permitted use at the El Dorado Diversion Dam which may compound existing stressors on the SFAR system that already demonstrate an inability to meet minimum streamflows in sequential dry and critically dry years.

CDFW acknowledges that water year 2015 was the culmination of several consecutive years of drought that required water managers to adapt supply strategies throughout the state. Given California's shifting climate, CDFW anticipates that rising temperatures, decreasing snowpack, and increased wildfire activity will exacerbate competing demands on a reduced water supply, especially in sequential dry and critically dry years. Although climate change impacts are unlikely to be uniform across the state, California is already experiencing higher air temperatures, more frequent heat waves, reduced snowpack, altered streamflow, severe droughts, and destructive wildfire. This trajectory suggests that circumstances that have historically required variances to License conditions on the SFAR are likely to repeat themselves, and additional diversions under Permit 21112, expected to preferentially operate in winter months before the full picture of any given water year is evident, may exacerbate deviations from minimum streamflow License conditions.

Future License deviations catalyzed or compounded by Project operations that negatively impact downstream aquatic species may be a violation of Fish and Game Code section 5937 which states that, "the owner of any dam shall allow sufficient water at all times to pass through a fishway, or in the absence of a fishway, allow sufficient water to pass over, around or through the dam, to keep in good condition any fish that may be planted or exist below the dam." Fish, according to Fish and Game Code, means a wild fish, mollusk,

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crustacean, invertebrate, amphibian, or part, spawn, or ovum of any of those animals (Fish and Game Code section 45).

Recommendation: CDFW recommends the DEIR demonstrate how operations will be managed to ensure regulatory compliance with License conditions and avoid additional streamflow impacts in order to keep 'fish' – inclusive of Foothill Yellow-legged Frog (*Rana Boylei*), Rainbow Trout (*Oncorhynchus mykiss*), and Hardhead (*Mylopharodon conocephalus*) – in good condition below the El Dorado Diversion Dam, particularly in sequential dry and critically dry years. This may be accomplished by designing a suite of operational avoidance and mitigation measures that are triggered by dry conditions.

COMMENT 2: Impacts to Folsom Coldwater Pool and Anadromous Fish

Issue: The DEIR states that the proposed Project will not result in a significant impact in reservoir water temperatures in the Folsom Lake coldwater pool, or within the Lower American River below Folsom Dam, and would not significantly impact coldwater species. CDFW has documented significant temperature-driven impacts to fisheries in the Lower American River and expects that any marginal exacerbation of temperature conditions in dry and critically dry years in the Lower American River could constitute a significant impact.

Evidence: The coldwater pool in Folsom Reservoir, operated by the U.S. Bureau of Reclamation, provides for temperature management in the Lower American River for a variety of coldwater species including rainbow trout (*Oncorhynchus mykiss*), fall-run Chinook salmon (*Oncorhynchus tshawytscha*), and the federally threatened Central Valley steelhead (*Oncorhynchus mykiss*). CDFW prioritizes temperature management for both wild and hatchery fall-run Chinook salmon in the Lower American River. The Lower American River is considered temperature impaired (U.S. EPA 2003), and water temperatures frequently exceed optimal conditions for fall-run Chinook salmon spawning.

Chinook salmon may be stimulated to enter rivers to spawn by higher streamflow and changes in water turbidity, temperature, and oxygen content (Allen and Hassler 1986). Specifically for fall-run Chinook salmon, juveniles will emerge from the gravel in the winter and spring, and within the next few months will move downstream to rear in mainstem rivers or estuaries such as the Sacramento River or Delta before heading to the ocean. Spawning season in the Lower American River occurs from October through December, typically peaking in November. Chinook salmon that experience warmer water temperatures during the fall in the Lower American River face migratory delays, increased pre-spawn mortality, delayed spawn timing which compounds into delayed alevin emergence timing, low egg survival, and higher rates of disease, among other detrimental impacts. Studies show that Chinook salmon egg survival starts to decrease rapidly at temperatures above 60°F or 15.6°C with complete mortality occurring in eggs incubated at water temperatures between 62.5°F and 64°F or 16.9°C and 17.8°C, respectively (Bratovich et al 2020). In addition, water temperature has a direct effect on dissolved oxygen (DO) levels (Anderson 2018), and adequate DO is critical for larval development and later stages of egg development (Carter 2005).

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Prolonged drought, severe wildfires and associated impacts to spawning and rearing habitat, has resulted in some of the lowest numbers of returning Chinook salmon in California (CDFW 2023). As a result of Chinook salmon abundance at a historic low, the California Fish and Game Commission acted unanimously to enact a full closure of California's inland recreational salmon fishing season in the Klamath River Basin and Central Valley rivers, which includes the Lower American River (CDFW 2023). Factors such as escapement, spawning success of previous brood years, juvenile survival during emigration, ocean conditions, predation and harvest of adults, and river conditions (e.g., flow and water temperature) influence annual Lower American River escapement estimates. (CDFW N.d.).

The American River's fall-run Chinook salmon population has experienced significant declines (Yoshiyama et al. 1998), with water temperature impacts being a major contributing factor. These impacts affect various life stages of salmon, from adult migration and spawning to egg incubation and juvenile development. For adult migration and holding, Chinook salmon need colder water for migration, ideally between 38°F to 56°F or 3.33°C to 13.33°C (Bell 1991). When water temperatures go above 65°F or 18.33°C, this causes stress for adult salmon. When temperatures reach 70°F or 21.11°C, this can completely stop Chinook salmon from their migration (Lindley et al. 2004). These conditions not only hinder or prevent the ability of Chinook salmon to complete their life cycle, it causes high rates of pre-spawn mortality in adults and near complete mortality of fertilized eggs (NOAA Fisheries 2023, Bratovich et al. 2020).

Spawning for Chinook salmon in the Lower American River occurs from October through January. Optimal egg incubation water temperatures for this species are 56°F or 13.33°C and lower. Elevated water temperatures during the spawning period lead to high egg mortality. In 2021, high water temperatures in the Sacramento River watershed resulted in the death of 75% to 98% of Chinook salmon eggs (NOAA Fisheries 2023). Studies have also shown that juvenile Chinook salmon reared at higher temperatures (69.8°F to 75.2°F or 21°C to 24°C) have significantly decreased growth rates, impaired smoltification, and increased vulnerability to predation (Marine & Cech 2004).

Warmer air temperatures and reduced snowpack due to climate change directly lead to increased river and stream temperatures, especially during summer months (OEHHA, N.d.; Asarian & D. W. 2019). This is exacerbated by human-caused impacts like dams and water diversions, which alter natural flow regimes and thermal conditions (River Partners 2024). Dams, in particular, block salmon from accessing historically cold, high-elevation spawning grounds, forcing them to spawn in warmer, lower reaches of the river, which are more susceptible to temperature fluctuations (Quiñones & Moyle 2009).

Through extensive modeling, EID concludes reductions in Folsom inflow attributable to the Project would not comprise significant temperature impacts. However, some of the modeled Lower American River temperature increases attributable to increased El Dorado Diversion Dam diversions reducing the Folsom cold-water pool, coincide with critical fall-run Chinook salmon pre-spawn and spawn timeframes in dry and critical water year types:

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- According to Table 4.10-47 within the DEIR, during critically dry years, using the baseline vs Project scenario with the existing infrastructure, it is expected that the mean monthly water temperature within the Lower American River at Watt Avenue during the month of September would increase by a total of 0.9°F or 0.5°C.
- According to Table 4.10-51 within the DEIR, during critically dry years, using the future baseline vs future Project scenario with the existing infrastructure, it is expected that the mean monthly water temperature within the Lower American River at Watt Avenue during the month of October would increase by a total of 1.4°F or 0.8°C.
- According to Table 4.10-54 within the DEIR, during critically dry years, using the baseline vs Project scenario with post-construction infrastructure, it is expected that the mean monthly water temperature within the Lower American River at Watt Avenue during the month of September would increase by a total of 1.4°F or 0.8°C.

CDFW expects that even moderate increases to temperature during these vulnerable windows can have outsized impacts on fall-run Chinook population outcomes based on the above thresholds for decreases in Chinook survival and reproductive success. The timing and duration nuances of potential temperature increases on a daily timescale, as opposed to monthly, are important to more accurately characterize the risk of Project impacts to Chinook salmon populations in the Lower American River.

Further, the temperatures within the tables mentioned above are projections made without using climate change models. Anticipated climate change-driven increases to temperatures within the Lower American River will further impact river habitat vital for the existence of cold-water fishes experiencing population decline due to warmer water temperatures and decreases in flow. Accordingly, modeled temperature results should be analyzed for significance within the context of reasonably expected climate change patterns. Given the existing water temperatures and DO stressors on cold water fishes including fall-run Chinook salmon in the Lower American River, CDFW perceives the modeled increases in temperatures in critically dry and dry years to be a *potentially significant* impact on the Lower American River salmonids. CDFW has concerns that these additional stressors will cause delayed migration, pre-spawn mortality, and diseases.

Recommendation: CDFW recommends EID include in the EIR a daily analysis of modeled temperature increases and duration attributable to Project operations, in addition to the monthly averages provided, and propose commensurate avoidance and minimization measures to allow CDFW to understand the complete impacts to fish and wildlife species. While the daily variability may be difficult to capture, provided EID does not directly operate the cold-water pool, best estimates based on historical operations would suffice. EID should evaluate options for mitigating any potential marginal temperature increase impacts to the Lower American River, particularly during fall-run Chinook salmon spawning periods, including operational measures such as forbearing diversions at the El Dorado Diversion Dam during sequential dry or critically dry water years and instead preferentially diverting from the Folsom Reservoir. Alternatively, EID

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could consider physical mitigation options for significant temperature impacts, such as supporting the U.S. Bureau of Reclamation to implement a temperature control device solution at Folsom Dam.

COMMENT 3: Foothill Yellow-Legged Frog

Issue: Foothill yellow-legged frog (*Rana boylei*, FYLF) have seen a significant population decrease since 2006 along the SFAR in FERC project influenced reaches (Kleinfelder 2022). The Project proposes to expand diversions from a point of diversion located directly upstream of a known FYLF population. Increases in diversion volume and changes to diversion timing may have a significant impact on the survival of the SFAR FYLF population.

Evidence: The Project area is home to North/Northeastern Sierra clade of FYLF which is listed as threatened under CESA. The FYLF breeding season for this clade can vary anywhere between April and July (Hayes et. al 2016). Breeding activities are triggered by warming water temperatures, increase in day-length, and decrease in streamflow (Catenazzi and Kupferberg 2013) with egg emergence usually between 5 to 30 days after deposition (Zweifel 1955). Typically, breeding sites are located along low-gradient, sunlit stream reaches (Hattem and Mantor 2018). The DEIR states that “the season of diversion for the proposed Project would be within the season of diversion currently specified in Permit 21112 (i.e., November 1 to July 31). The El Dorado Canal is typically offline for maintenance and does not convey water from October through mid-December. This maintenance outage is assumed to continue and therefore the operation season of diversion at the El Dorado Diversion Dam with the proposed Project is anticipated to be from mid-December to July 31.” Accordingly, CDFW anticipates Project diversions have the potential to overlap with and influence SFAR flows during FYLF breeding season.

Under the El Dorado Relicensing Settlement Agreement, EID was tasked to conduct protocol level surveys for FYLF using *A Standardized Approach for Habitat Assessments and Visual Encounter Surveys for the Foothill Yellow-Legged Frog* (Seltenriich and Pool 2002). Results from the survey conducted in 2005 found 5 egg masses, an estimated 1,015 tadpoles within 42 groups, 108 young-of-the-year, 11 juveniles, and 9 adults. All FYLF were located within the SFAR between the El Dorado Diversion Dam and the El Dorado Powerhouse. The FERC License requires EID to conduct a FYLF study every four years. A survey using the same protocols was conducted in 2021. A total of 2 egg masses were found with 0 tadpoles, 0 young-of-the-year, 0 juveniles, and 0 adults being located. Surveys were also conducted in 2011 and 2016, all showing a steep decline in FYLF populations since the 2005 survey was conducted and after the 2006 License went into effect. Because the existing FYLF population appears to be in decline and Project operations could significantly alter flow volume and timing of the SFAR below El Dorado Diversion Dam during FYLF breeding and rearing seasons, all potential Project impacts to FYLF life history success should be fully mitigated to meet CESA requirements.

The spring flow recession, a natural breeding cue for FYLF, is the transition between high and low flows with the initial magnitude of recession flows typically associated with an

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elevated winter baseflow caused by spring snowmelt peak flows (Yarnell et al. 2015). The timing and rate of flow change of the spring flow recession provides distinct annual cues for native species (Yarnell et al. 2010). Changes to seasonal timing or to the rate of flow change can alter community composition and limit reproductive success (Marchetti and Moyle 2001). Natural, gradual recession rates are slow enough that suitable spring spawning habitat for native species (e.g., FYLF) persists long enough to accommodate reproductive processes (Yarnell et al. 2015). Historically the 50th percentile rate of change of flow during the spring recession for the river reach below the El Dorado Diversion Dam was 6% per day (CEFWG 2021). This rate of change helps cue reproduction and avoid flow variability that would risk desiccating egg masses or scouring egg masses, tadpoles, or early metamorphs. In the reaches of the SFAR just below the El Dorado Diversion Dam, based on modeled unimpaired data, the spring recession usually begins in May to June across all water year types (i.e., wet, moderate, and dry), which aligns with the FYLF breeding season. Should operations of the increased diversion at El Dorado Diversion Dam alter the timing or rate of the spring flow recession and/or contribute to abrupt flow increases or decreases during the recession (e.g., by ceasing or initiating the diversions with limited ramping), those operations may negatively impact downstream breeding FYLF populations, making any additional negative impact to an already declining FYLF population potentially significant.

Recommendations: CDFW recommends EID develop discrete avoidance and minimization measures for operations of the additional and/or altered diversions to avoid further impacts to FYLF populations below the El Dorado Diversion Dam. Operations information in the EIR should specify anticipated changes from current operations (i.e., how will the timing and volume of diversions from the El Dorado Diversion Dam and outage periods at present change from documented diversion patterns at U.S. Geological Survey gage identification number 11439000) to anticipated Project operations to isolate potential changes to spring and summer hydrographs attributable to the Project that may impact FYLF. CDFW recommends focusing on avoiding impacts, or potentially leveraging Project operations for flow pattern improvements, during the most vulnerable life stages for FYLF, inclusive of breeding and larval development. CDFW recommends including ramping strategies to minimize abrupt flow fluctuations that risk desiccation or scour of egg masses and early life stages of FYLF. CDFW is available to work with EID on the development of operations strategies.

SUBSEQUENT CEQA PROJECT ANALYSIS

CDFW understands that EID plans to issue subsequent environmental review for future improvements to the El Dorado Canal and the channel that conveys water from the outfall of the Hazel Creek Tunnel to Jenkinson Lake. CDFW is providing early comments related to these proposed aspects of the Project for EID's consideration in subsequent environmental review and planning of these related infrastructure projects.

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COMMENT 4: Northwestern Pond Turtle

Issue: The Project's anticipated increases in average annual storage to Jenkinson Lake and proposed work within the creek that conveys water from the outfall of the Hazel Creek Tunnel to Jenkinson Lake may impact Northwestern pond turtles (*Actinemys marmorata*; WPT), a California Species of Special Concern and a candidate species under the federal Endangered Species Act.

Evidence: WPT are typically found in elevations below 4,690 feet and particularly in permanent ponds, lakes, side channels, backwaters, and instream pools. It is uncommon to find WPT in high-gradient streams. The WPT population in California has declined due to loss of habitat, introduced species, and historical over-collection (Jennings and Hayes 1994). During breeding season, the female WPT will move up to 1,200 feet from aquatic habitats (Jennings and Hayes 1994). Hatchlings typically do not emerge from the covered nests until the following spring. Terrestrial activities include basking, overwintering, nesting, and moving between ephemeral sources of water (Holland 1994). Basking sites are an important habitat element (Jennings and Hayes 1994), and basking occurs on substrates including rocks, logs, banks, emergent vegetation, root masses, and tree limbs.

The DEIR states that WPT exist within the Project area. WPT may exist along the El Dorado Canal and along the channel that conveys water from the outfall of the Hazel Creek Tunnel to Jenkinson Lake. Construction activities that coincide with potential WPT habitat should avoid direct impacts to WPT individuals and mitigate for any habitat loss.

Recommendation: CDFW recommends, in addition to surveys proposed in the DEIR, that EID perform a detailed habitat analysis at Jenkinson Lake and the channel that conveys water from the outfall of the Hazel Creek Tunnel to Jenkinson Lake in order to incorporate commensurate avoidance and mitigation measures, including habitat mitigation, into subsequent project-level environmental review once sufficient design details are known.

COMMENT 5: Critical Habitat for Mule Deer

Issue: Project designs may impact designated critical habitat for mule deer (*Odocoileus hemionus*) due to an increase in flows within the outfall of Hazel Creek Tunnel to Jenkinson Lake and channel construction.

Evidence: The channel that conveys water from the outfall of the Hazel Creek Tunnel to Jenkinson Lake is within designated critical winter habitat for the Mule Deer Range, the Grizzly Flat Herd. Additionally, much of the area along the South Fork American River, from Kyburz to Folsom, is designated as critical winter habitat for the Mule Deer Range, Pacific Herd. The Project area from the El Dorado Diversion Dam to Folsom Reservoir is within this designated critical winter habitat. The Project states that improvements to the channel that conveys water from the outfall of the Hazel Creek Tunnel to Jenkinson Lake would include installation of stabilization measures at various locations along the channel between the outlet of the Hazel Creek Tunnel and Jenkinson Lake.

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Human-made structures within streams, such as rock slope protection, can cause difficulty for animals such as mule deer to cross. The Project proposes to add riprap in an area designated as critical habitat for mule deer, as stated above. Additionally, the increase of flows within the channel that feeds into Jenkinson Lake may cause an increase in direct mortality, especially with additional rip rap.

Recommendations:

1. **Project Design:** CDFW is concerned the proposed Project design to add riprap within the outfall channel may impact mule deer populations. Early coordination with CDFW's Habitat Conservation program and the CDFW Conservation Engineering Branch is recommended to provide review and analysis of any proposed structures or Project elements with the potential to impact fish and wildlife resources. CDFW Conservation Engineering Branch should be provided engineered drawings and design specification planning sheets during the initial design process, prior to design selection, and re-initiating design consultation at 30% design at minimum, and continuing consultation throughout the permitting process for review and comment. Specifically, CDFW recommends exploring alternative design solutions to riprap installation that allow for better ease of mule deer crossing such as bioengineering techniques.
2. **Bridge and Stream Crossing References:** For the purposes of proposed new culverts and bridges, CDFW recommends utilizing the design principles outlined in the California Salmonid Stream Habitat Restoration Manual, Part XII (CDFW 2009) and NOAA Fisheries Service Guidelines for Salmonid Passage at Stream Crossings (NMFS 2001) into stream crossing designs. CDFW strongly recommends the above manuals are included and referenced when designing the structure and creek-work aspect of the Project. Such designs allow natural stream flow and sedimentation processes to continue for long term dynamic channel stability.

ADDITIONAL CONTEXT

Fish Ladder

Critical to the on-going use and potential expansion of diversions at El Dorado Diversion Dam is a functional fish screen and fish ladder. CDFW is aware that EID completed an improvement project to the El Dorado Diversion Dam's fish screen compressed blow-off system that is used to keep the screens free of debris and functioning properly. To CDFW's knowledge, the fish ladder improvement project on the El Dorado Diversion Dam has been delayed, and the design is currently being re-evaluated to ensure it will function as intended. CDFW acknowledges fish ladder improvements are not included in the scope of this Project and invites EID to consult with CDFW on the final fish ladder design to ensure fish are able to safely pass beyond the El Dorado Diversion Dam without risk of entrainment into the El Dorado Diversion Canal.

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Modeling Outputs

Per correspondence with EID, CDFW expects to receive EID's most recent ResSim modeling files and DSS outputs for review when made available by the modeling consulting team, before EID finalizes the EIR.

GENERAL COMMENTS

Lake and Streambed Alteration Agreement

The Final EIR should identify all perennial, intermittent, and ephemeral rivers, streams, lakes, other hydrologically connected aquatic features, and any associated biological resources/habitats present within the entire Project footprint (including utilities, access and staging areas). The environmental document should analyze all potential temporary, permanent, direct, indirect and/or cumulative impacts to the above-mentioned features and associated biological resources/habitats that may occur because of the Project. If it is determined the Project will result in significant impacts to these resources, the EIR shall propose appropriate avoidance, minimization and/or mitigation measures to reduce impacts to a less-than-significant level.

Section 1602 of the Fish and Game Code requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following:

1. Substantially divert or obstruct the natural flow of any river, stream or lake;
2. Substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or
3. Deposit debris, waste or other materials where it may pass into any river, stream or lake.

Please note that "any river, stream or lake" includes those that are episodic (i.e., those that are dry for periods of time) as well as those that are perennial (i.e., those that flow year-round). This includes ephemeral streams and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water.

Based on review of Project materials, aerial photography and observation of the site from public roadways, the Project site supports the South Fork American River, Jenkinson Reservoir and the channel that feeds into Jenkinson Reservoir and their associated riparian habitat. CDFW recommends the EIR fully identify the Project's potential impacts to the stream and/or its associated vegetation and wetlands.

California Endangered Species Act

CDFW is responsible for ensuring appropriate conservation of fish and wildlife resources including threatened, endangered, and/or candidate plant and animal species, pursuant to CESA. CDFW recommends that a CESA Incidental Take Permit (ITP) be obtained if the Project has the potential to result in "take" (Fish & G. Code § 86 defines "take" as "hunt,

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pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill”) of State-listed CESA species, either through construction or over the life of the Project.

The EIR should disclose the potential of the Project to take State-listed species and how the impacts will be avoided, minimized, and mitigated. Please note that mitigation measures that are adequate to reduce impacts to a less-than significant level to meet CEQA requirements may not be enough for the issuance of an ITP. To facilitate the issuance of an ITP, if applicable, CDFW recommends the EIR include measures to minimize and fully mitigate the impacts to any State-listed species the Project has potential to take. CDFW encourages early consultation with staff to determine appropriate measures to facilitate future permitting processes and to engage with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service to coordinate specific measures if both State and federally listed species may be present within the Project vicinity.

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.

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.

CDFW appreciates the opportunity to comment on the DEIR for the Modification of Water Right Permit 21112 to assist EID 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

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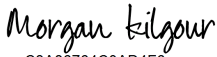
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further coordination should be directed to Will Kanz, Environmental Scientist, at (916) 880-8981 or Will.Kanz@wildlife.ca.gov.

Sincerely,

DocuSigned by:


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Morgan Kilgour
Regional Manager

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Office of Planning and Research, State Clearinghouse, Sacramento

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