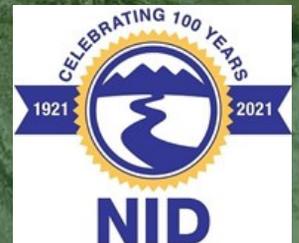


Hemphill Diversion Structure Project

Final Environmental Impact Report
SCH # 2020090032

CEQA Lead Agency:



Nevada Irrigation District

July 2021



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

EXECUTIVE SUMMARY

ES.1 Introduction

This Final Environmental Impact Report (FEIR) provides an analysis of the potential environmental effects of the proposed Hemphill Diversion Structure Project (Project), pursuant to the California Environmental Quality Act (CEQA). The Nevada Irrigation District (NID) is the CEQA Lead Agency for the environmental review. The analysis presented herein focuses on the potentially significant environmental impacts associated with the construction and operation of three potential Project Alternatives. Each alternative is provided an equal level of analysis in this EIR. The Draft EIR for the Project was circulated for public review in April 2021 and is included in its entirety as Appendix A to this Final EIR.

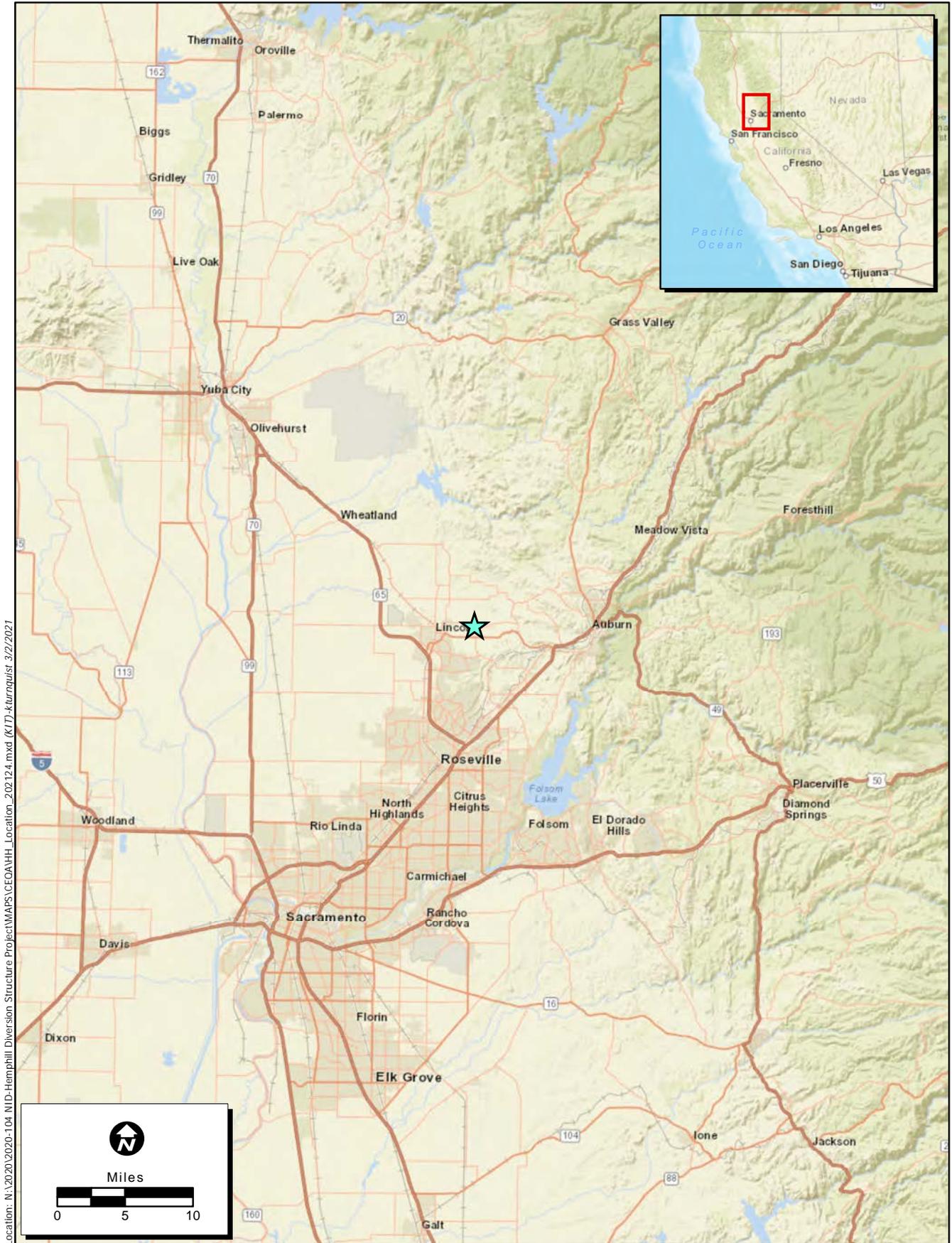
ES.2 Overview of the Project Alternatives and Environmental Setting

Located in Placer County, just east of the City of Lincoln, the Hemphill Diversion Structure traverses Auburn Ravine (see Figure 1-1. *Regional Location*). The structure diverts water from Auburn Ravine into the Hemphill Canal, located south of the ravine, for delivery to NID raw-water customers. The structure is located at latitude 38.896731° and longitude -121.251885°.

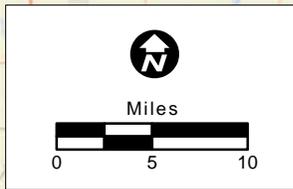
Hemphill Diversion has historically presented an impediment to the passage of migrating anadromous fish species that spawn in Auburn Ravine upstream of the diversion. NID is considering three alternatives to eliminate this impediment while still maintaining water deliveries to customers currently served by Hemphill Canal. These three alternatives, briefly described below, include:

- *Alternative 1 - Riverbank Infiltration Gallery Alternative:* Includes the removal of the diversion structure, site stabilization, and construction of a subterranean riverbank infiltration structure and pipeline connection to Hemphill Canal.
- *Alternative 2 - Fish Passage Alternative:* Includes the removal of the diversion structure, site stabilization, construction of a nature-like roughen rock ramp instream fish passage, installation of a fish screen and improvements to a portion of the Hemphill Canal.
- *Alternative 3 - Pipeline Alternative:* Includes the removal of the diversion structure, site stabilization, and installation of a pipeline within roadway right-of-way (ROW) from the NID Placer Yard facility to the Hemphill Canal near the existing diversion structure.

A detailed description of each alternative is provided in Section 2.4 of the Draft EIR (see Appendix A). The Draft EIR evaluates the environmental impact of each project alternative at an equal level of analysis. Alternative 2 (Fish Passage Alternative) was found to be the “environmentally superior alternative” relative to the Alternatives 1 and 3 (refer to Section 4.6 of the Draft EIR). Given the anticipated improvement to fish passage in Auburn Ravine afforded by Alternative 2, Alternative 2 was also found to be environmentally superior to the No Project Alternative.



Location: N:\2020\2020-104 NID-Hemphill Diversion Structure\MAPS\CE0AVHH_Location_202124.mxd (KIT)-kturaguis 3/2/2021



Map Date: 3/2/2021
 Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

Figure 1-1. Regional Location

2020-104 NID Hemphill Diversion Structure Project

The area in which the three alternatives are located is relatively flat, with elevations ranging from 196 to 450 feet above mean sea level (AMSL). Auburn Ravine at this location is a perennial stream with a cobbly/rocky/sandy bottom in an incised channel that averages approximately 100 feet in width. When the Hemphill Diversion flashboards are in place during spring and summer, the stream is impounded to form a slack pond behind the diversion structure. The stream supports a band of riparian vegetation dominated by narrow-leaved willow (*Salix exigua* var. *exigua*) and red alder (*Alnus rubra*) below the ordinary high-water mark (OHWM). Incising of the channel has resulted in the stream being mostly isolated from its historic floodplain.

ES.3 Evaluation of Project Alternatives

CEQA requires an evaluation of the comparative effects of a reasonable range of alternatives to the Proposed Project that would feasibly attain most of the project's basic objectives and that would avoid or substantially lessen any of the significant impacts of the Project. The Draft EIR provides an equal-level analysis of three alternatives considered to be feasible potential projects for implementing the main objective of the Project. That objective is providing the ability for fish passage beyond the Hemphill Diversion Structure while still providing water to customers served by Hemphill Canal. In addition to the three alternatives, the Draft EIR evaluates a No Project Alternative in accordance with the requirements of CEQA Guidelines Section 15126.6(e). The three Project Alternatives evaluated in this EIR are deemed feasible and reasonable to achieve the key Project objectives. A number of other potential alternatives were considered for review in the EIR but were found not to warrant further review for a variety of reasons. These reasons are presented in Section 4.2 of the Draft EIR.

ES.4 Effects Found to be Less Than Significant

CEQA Guidelines Section 15128 requires an EIR to briefly describe any possible significant effects that were determined not to be significant and were therefore not discussed in detail in the Draft EIR. For purposes of this Final EIR, the following topics were eliminated from further evaluation of the environmental analysis through the Initial Study review process: aesthetics; agriculture and forest resources; hazards and hazardous materials; land use and planning; mineral resources; population and housing; public resources; recreation; transportation; utilities; and wildfires.

As a result of Initial Study analysis and input received during scoping, NID determined that there was a potential for significant impacts for certain environmental resources and that an EIR was required for specific impact areas. Those environmental resources include air quality, biological resources, cultural resources, geology and soils resources including paleontological resources, greenhouse gas emissions and climate change, hydrology and water quality, noise, and tribal cultural resources.

All mitigation measures identified in these sections are listed in **Table ES-1** and are included in the Project Mitigation Monitoring and Reporting Plan (MMRP) included with this Final EIR as Appendix B.

ES.5 Areas of Controversy

NID prepared a Notice of Preparation (NOP) of an EIR for the Project that was distributed to responsible agencies and the public for a 30-day comment period, beginning on September 3, 2020 and concluding on October 5, 2020. Along with the NOP, the Hemphill Diversion Structure Project Initial Study (State Clearinghouse [SCH] # 2020090032) was circulated by NID for the 30-day scoping period. On September 21, 2020, NID held an online scoping meeting from 4:00 pm to 6:00 pm in order to allow early public/agency input and comments about the Project. Two areas of concern with the Proposed Project were identified during the EIR scoping period. These concerns involved to the loss of ground water recharge from Auburn Ravine north of Hemphill Diversions Structure and potential for increased water temperatures affecting fish because of lower water levels with the implementation of the Alternative 3 pipeline. A full water availability analysis for Alternative 3 was provided in Section 3.8 *Hydrology and Water Quality* of the Draft EIR. No comments were received by NID about these two areas of concern during the 45-day public review period for the Draft EIR.

ES.6 Summary of Impacts and Mitigation Measures

Table ES-1 presents a summary of environmental impacts analyzed and identified in the Draft EIR, the mitigation measures proposed for those impacts (if required), and the level of significance after mitigation. Table ES-1 includes revisions to mitigation measures made subsequent to publication of the Draft EIR that were made in response to comments on the Draft EIR or at the discretion of the Lead Agency. These revisions are denoted with new text underlined and deleted text struck out.

**Hemphill Diversion Structure Project
Final Environmental Impact Report**

Table ES-1. Summary of Impacts and Mitigation Measures

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
NI = No Impact, S=Significant, LTS = Less than Significant, LTSM = Less than Significant with Mitigation, SU = Significant and Unavoidable, LCC = Less Than Considerable Contribution to Cumulative Impacts, CC = Cumulatively Considerable			
Air Quality			
Impact 3.2.1: The Proposed Project could conflict with or obstruct implementation of an applicable air quality plan.	NI	None required	NI
Impact 3.2.2: Implementation of the Proposed Project could result in a cumulatively considerable net increase of a criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).	LTS	None required	LTS
Impact 3.2.3: Implementation of the Proposed Project could expose sensitive receptors to substantial pollutant concentrations (i.e., carbon monoxide hot spots or TACs).	LTS	None required	LTS
Impact 3.2.4: Implementation of the Proposed Project could result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	NI	None required	NI
Impact 3.2.5: Cumulative Air Quality Impacts	LCC	None required	LCC
Biological Resources			
Impact 3.3-1: Project construction activities could adversely affect, either directly or through habitat modifications, species identified as a candidate, sensitive, or special-status wildlife species in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	S	<p>BIO-1 <i>Protect Water Quality and Minimize Sedimentation Runoff in Wetlands and Non-Wetland Waters (applies to all alternatives)</i></p> <p>The Project will comply with all construction site BMPs specified in the Storm Water Pollution Prevention Plan (if required), and any other permit conditions to minimize the introduction of construction-related contaminants and mobilization of sediment in wetlands and non-wetland waters in and adjacent to the Project Study Area. These BMPs will address soil stabilization, sediment control, wind erosion control, vehicle tracking control, non-stormwater management, and waste management practices. The BMPs will be based on the best conventional and best available technology.</p>	<p>LTSM SU for Alternative 3 for impacts to special status fish</p>

**Hemphill Diversion Structure Project
Final Environmental Impact Report**

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		<p>The Project may require a Section 404 Permit from the U.S. Army Corps of Engineers, a Section 401 Water Quality Certification from the Central Valley RWQCB and/or a Lake or Streambed Alteration Agreement from the California Department of Fish and Wildlife, which will contain BMPs and water quality measures to ensure the protection of water quality. These permit conditions and BMPs shall also be implemented as part of the project.</p> <p><i>Timing/Implementation: Prior to and during construction</i></p> <p><i>Monitoring/Enforcement: NID/Consultant</i></p> <p>BIO-2 Install Fencing and/or Flagging to Protect Sensitive Biological Resources (applies to all alternatives)</p> <p>Prior to construction, the Project contractor will install high-visibility orange construction fencing and/or flagging, as appropriate, along the perimeter of the work area where adjacent to Environmentally Sensitive Areas (ESAs) (e.g., adjacent riparian areas and any special-status species habitat and/or active bird nests that may be identified during per-construction surveys). The NID will ensure that the final construction plans show the locations where fencing will be installed. The plans also will define the fencing installation procedure. The NID or contractor (at the discretion of the NID) will ensure that fencing is maintained throughout the duration of the construction period. If the fencing is removed, damaged, or otherwise compromised during the construction period, construction activities will cease until the fencing is repaired or replaced. The project's special provisions package will provide clear language regarding acceptable fencing material and prohibited construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbing activities within ESAs. All temporary fencing will be removed upon completion of construction.</p> <p><i>Timing/Implementation: Prior to and during construction</i></p> <p><i>Monitoring/Enforcement: NID/Consultant</i></p> <p>BIO-3 Conduct Environmental Awareness Training for Construction Personnel (applies to all alternatives)</p> <p>Before any work occurs within the project limits, including equipment staging, grading, and tree and/or vegetation removal (clear and grub), the Project will retain a qualified biologist (familiar with the resources in the area) to conduct a mandatory contractor/worker environmental awareness training for construction personnel. The awareness training will be provided to all construction personnel (contractors and subcontractors) prior to beginning construction to brief them on the need to avoid</p>	

**Hemphill Diversion Structure Project
Final Environmental Impact Report**

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		<p>effects on sensitive biological resources adjacent to construction areas and the penalties for not complying with applicable state and federal laws and permit requirements. The biologist will inform all construction personnel about the life history and habitat requirements of special-status species with potential for occurrence onsite, the importance of maintaining habitat, and the terms and conditions of any permit, Biological Opinion or other authorizing document (e.g. letter of concurrence) that may be prepared for the project. The environmental training will also cover general restrictions and guidelines that must be followed by all construction personnel to reduce or avoid effects on sensitive biological resources during project construction.</p> <p><i>Timing/Implementation: Prior to construction</i></p> <p><i>Monitoring/Enforcement: NID/Consultant</i></p> <p>BIO-4 Conduct Preconstruction Surveys for Western Spadefoot (applies to all alternatives)</p> <p>A qualified biologist shall conduct surveys for western spadefoot in areas of potential habitat that would be impacted by the Project. The surveys shall be conducted at the appropriate time of year to detect western spadefoot, generally the breeding season, according to methods approved by CDFW. If western spadefoot is found in habitat that will be eliminated or made unsuitable for western spadefoot, then a plan will be prepared, in consultation with CDFW, to collect and relocate adult and larval western spadefoot and egg masses to suitable habitat that will be preserved in perpetuity.</p> <p><i>Timing/Implementation: Prior to construction</i></p> <p><i>Monitoring/Enforcement: NID/Consultant</i></p> <p>BIO-5 Conduct Section 7 Consultation with USFWS for Elderberry Long Horn Beetle and Implement Required Mitigation (applies to all alternatives)</p> <p>The following shall be implemented, either through the standard Corps Section 404 permitting process or through the PCCP, to minimize potential impacts to VELB:</p> <ul style="list-style-type: none"> • If elderberry shrubs would be removed or if construction ground disturbance would occur within 100 feet of an elderberry shrub, an evaluation using the 2017 USFWS guidance entitled USFWS 2017 Framework for Assessing Impacts to the VELB shall be conducted to determine the appropriate mitigation needs to minimize impacts to VELB and its host shrub. 	

**Hemphill Diversion Structure Project
Final Environmental Impact Report**

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		<ul style="list-style-type: none"> • Section 7 consultation would take place with USFWS to establish mitigation, avoidance, and/or minimization measures as part of the Section 404 permitting process. • A preconstruction survey shall be conducted by a qualified biologist in all riverine/riparian habitat within 165 feet of Project disturbance areas before any construction activity. The surveys shall be conducted according to the protocol outlined in USFWS Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (USFWS 2017c) (Framework). <p>If elderberry shrubs are not present, no further mitigation is necessary.</p> <p>If elderberry shrubs are located 165 feet or more from project activities, direct or indirect impacts are not expected. Shrubs shall be protected during construction by establishing and maintaining a high visibility fence at least 165 feet from the drip line of each elderberry shrub.</p> <p>If elderberry shrubs can be retained within the project footprint, project activities may occur up to 20 feet from the dripline of elderberry shrubs if precautions are implemented to minimize the potential for indirect impacts. An avoidance area shall be established at least 20 feet from the drip line of an elderberry shrub for any activities that may damage the elderberry shrub (e.g., construction staging, trenching, access road construction, canal modifications and instream and near stream improvements). The project proponent will implement avoidance and minimization measures specified in the USFWS Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (USFWS 2017c).</p> <p>As much as feasible, all activities that could occur within 165 feet of an elderberry shrub shall be conducted outside of the flight season of the valley elderberry longhorn beetle (March - July).</p> <p>Herbicides shall not be used within the drip line of the shrub. Insecticides shall not be used within 100 feet of an elderberry shrub. All chemicals shall be applied using a backpack sprayer or similar direct application method.</p> <p>Mechanical weed removal within the drip-line of the shrub shall be limited to the season when adults are not active (August - February) and shall avoid damaging the elderberry.</p> <p>Final design shall include realignment of the southern access road to avoid direct impact to elderberry shrubs. If any elderberry shrubs cannot be avoided according to the USFWS 2017 Framework, the Project proponent shall compensate for the loss of</p>	

**Hemphill Diversion Structure Project
Final Environmental Impact Report**

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		<p>valley elderberry longhorn beetle habitat by purchasing appropriate credits at an agency approved mitigation bank, or through participation in the PCCP, if it has been adopted and is available for Project participation.</p> <p>If trimming elderberry shrubs is proposed, trimming shall be conducted between November and February and shall not result in the removal of elderberry branches that are \geq one inch in diameter. If trimming results in removing branches that are \geq one inch in diameter, the project proponent shall mitigate for the loss of the valley elderberry beetle habitat via the standard permit process consistent with the USFWS 2017 Framework, or via the PCCP (should NID opt for and the PCA grant PCCP coverage to the Project).</p> <p>The project proponent shall comply with ESA and consult with USFWS and will compensate for the unavoidable loss of elderberry shrubs according to USFWS 2017 Framework. The Framework uses presence or absence of exit holes, and whether the affected elderberry shrubs are in riparian habitat to determine the number of elderberry seedlings or cuttings and associated riparian vegetation that would need to be planted as compensatory mitigation for affected valley elderberry longhorn beetle habitat. Compensatory mitigation may include purchasing credits at a USFWS-approved conservation bank, providing onsite mitigation, or establishing and protecting habitat for valley elderberry longhorn beetle as follows:</p> <ol style="list-style-type: none"> 1. For elderberry shrubs in riparian habitat: <ul style="list-style-type: none"> • For each shrub that is trimmed, the Project proponent shall purchase two credits at a USFWS-approved bank. • For each shrub that is removed, the entire shrub may be transplanted to a USFWS- approved location in addition to the purchase of two credits. 2. For elderberry shrubs in non-riparian habitat: <ul style="list-style-type: none"> • The project proponent shall purchase one credit at a USFWS-approved bank for each shrub that will be trimmed if exit holes have been found in any shrub on or within 165 feet of the project area. • If no exit holes are present and the shrub is not in riparian habitat, no further action is required. <p>If the shrub will be completely removed by the activity, the entire shrub shall be transplanted to a USFWS-approved location in addition to a purchase of one credit.</p>	

**Hemphill Diversion Structure Project
Final Environmental Impact Report**

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		<p>Because VELB is a PCCP covered species, mitigation for this species could also be accomplished via the PCCP.</p> <p><i>Timing/Implementation: Prior to construction</i> <i>Monitoring/Enforcement: NID/Consultant</i></p> <p>BIO-6 Conduct Preconstruction Survey for Sensitive Reptiles – Blainville’s horned lizard (applies to all alternatives)</p> <p>A qualified biologist shall conduct surveys for Blainville’s horned lizard in areas of potential habitat that would be eliminated by the Project or subject to ground disturbance due to construction access and staging. The surveys shall be conducted at the appropriate time of day to detect Blainville’s horned lizard. If Blainville’s horned lizard is found in habitat that will be eliminated or made unsuitable for Blainville’s horned lizard, then a plan will be prepared, in consultation with CDFW, to potentially collect and relocate individual(s) to suitable habitat that will be preserved in perpetuity.</p> <p><i>Timing/Implementation: Prior to construction</i> <i>Monitoring/Enforcement: NID/Consultant</i></p> <p>BIO-7 Conduct Preconstruction Northwestern Pond Turtle Surveys (applies to all alternatives)</p> <p>Conduct a pre-construction northwestern pond turtle survey within 24 hours prior to the initiation of construction activities and retain a qualified biologist to survey immediately prior to ground-disturbing activities in suitable habitat. If northwestern pond turtle is found, consultation with CDFW shall be required, as well as the development of a relocation plan for northwestern pond turtle encountered during construction.</p> <p>If no special status reptiles are detected during surveys, no further measures are needed.</p> <p>Because the western pond turtle is a PCCP covered species, mitigation for this species could be accomplished via the standard permit process, or via the PCCP as further discussed below.</p> <p><i>Timing/Implementation: Prior to construction</i> <i>Monitoring/Enforcement: NID/Consultant</i></p> <p>BIO-8 Survey for Swainson’s Hawk and Other Protected Raptor Nests and Protect Nesting Activity (applies to all alternatives)</p>	

**Hemphill Diversion Structure Project
Final Environmental Impact Report**

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		<p>For ground-disturbing activities with potential to affect Swainson's hawk and other raptor nests, or remove Swainson's hawk foraging habitat, the Project proponent shall consult with CDFW with respect to the following measures proposed to mitigate for habitat removal and potential nest disturbance. As part of the consultation, the Project proponent may seek take authorization under Section 2081 of the Fish and Game Code. The following measures will be implemented and are intended to avoid, minimize, and fully mitigate impacts to Swainson's hawk, as well as other raptors:</p> <ul style="list-style-type: none"> • For construction activities that would occur within 0.25 mile of a known or likely Swainson's hawk nest site, the Applicant shall attempt to initiate construction activities before nest initiation phase (i.e., before March 1). Depending on the timing, regularity, and intensity of construction activity, construction in the area before nest initiation may discourage a Swainson's hawk pair from using that site and eliminate the need to implement further nest-protection measures, such as buffers and limited construction operating periods around active nests. Other measures that could be used to deter establishment of nests (e.g., reflective striping or decoys) may be used before the breeding season in areas planned for active construction. However, deployment of nest deterrents does not guarantee success. If breeding raptors establish an active nest site, as evidenced by nest building, egg laying, incubation, or other nesting behavior, near the construction area, they shall not be harassed or deterred from continuing with their normal breeding activities. • For Project activities, including tree removal, that begin between March 1 and September 15, qualified biologists shall conduct preconstruction surveys for Swainson's hawk and other nesting raptors and to identify active nests on and within 0.5 mile of the Project site. The surveys shall be conducted before the beginning of any construction activities between March 1 and September 15, following the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee 2000). • Impacts to nesting Swainson's hawks and other raptors shall be avoided by establishing appropriate buffers around active nest sites identified during preconstruction raptor surveys. Project activity shall not commence within the buffer areas until a qualified biologist has determined, in coordination with CDFW, that the young have fledged, the nest is no longer active, or reducing the buffer would not likely result in nest abandonment. CDFW guidelines 	

**Hemphill Diversion Structure Project
Final Environmental Impact Report**

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		<p>recommend implementation of 0.25-mile-wide buffer for Swainson’s hawk and 500 feet for other raptors, but the size of the buffer may be adjusted if a qualified biologist and the Applicant, in consultation with CDFW, determine that such an adjustment would not be likely to adversely affect the nest. Monitoring of the nest by a qualified biologist during and after construction activities shall be required if the activity has potential to adversely affect the nest.</p> <ul style="list-style-type: none"> Trees shall not be removed during the breeding season for nesting raptors unless a survey by a qualified biologist verifies that there is not an active nest in the tree. <p>Because Swainson’s hawk is a PCCP covered species, mitigation for this species could also be accomplished via the PCCP as further discussed below.</p> <p><i>Timing/Implementation: Prior to and during construction</i></p> <p><i>Monitoring/Enforcement: NID/Consultant</i></p> <p>BIO-9 Survey for Western Burrowing Owl and Protect Nesting Activity (applies to all alternatives)</p> <p>Before ground-disturbing activities, the following measures shall be implemented.</p> <ul style="list-style-type: none"> The Applicant shall retain a qualified biologist to conduct focused breeding and nonbreeding season surveys for burrowing owls in areas of suitable habitat on and within 1,500 feet of areas subject to disturbance (only with landowner permission where this would include private property). Surveys shall be conducted before the start of construction activities and in accordance with Appendix D of CDFW’s Staff Report on Burrowing Owl Mitigation (CDFG 2012) or the most recent CDFW protocols. If no occupied burrows are found, a letter report documenting the survey methods and results shall be submitted to CDFW and no further mitigation will be required. If an active burrow is found during the nonbreeding season (September 1 through January 31), the Applicant shall consult with CDFW regarding protection buffers to be established around the occupied burrow and maintained throughout construction. If occupied burrows are present that cannot be avoided or adequately protected with a no-disturbance buffer, a burrowing owl exclusion plan shall be developed, as described in Appendix E of CDFW’s 2012 Staff Report. Burrowing owls shall not be excluded from 	

**Hemphill Diversion Structure Project
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		<p>occupied burrows until the Project's burrowing owl exclusion plan is approved by CDFW. The exclusion plan shall include a plan for creation, maintenance, and monitoring of artificial burrows in suitable habitat proximate to the burrows to be destroyed, that provide substitute burrows for displaced owls.</p> <ul style="list-style-type: none"> If an active burrow is found during the breeding season (February 1 through August 31), occupied burrows shall not be disturbed and will be provided with a 150- to 1,500-foot protective buffer unless a qualified biologist verifies through noninvasive means that either: (1) the birds have not begun egg laying, or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. The size of the buffer shall depend on the time of year and level disturbance as outlined in the CDFW Staff Report (CDFG 2012) or the most recent CDFW protocols. The size of the buffer may be reduced if a broad-scale, long-term, monitoring program acceptable to CDFW is implemented to ensure burrowing owls are not detrimentally affected. Once the fledglings are capable of independent survival, the owls can be evicted, and the burrow can be destroyed per the terms of a CDFW-approved burrowing owl exclusion plan developed in accordance with Appendix E of CDFW's 2012 Staff Report or the most recent CDFW protocols. <p>Because Western burrowing owl is a PCCP covered species, mitigation for this species could also be accomplished via the PCCP as further discussed below.</p> <p><i>Timing/Implementation: Prior to and during construction</i></p> <p>Monitoring/Enforcement: NID/Consultant</p> <p>BIO-10 Survey for Tricolored Blackbird and Protect Nesting Activity (applies to all alternatives)</p> <p>The following measures shall be implemented to avoid or minimize loss of active tricolored blackbird nests:</p> <p>To minimize the potential for loss of tricolored blackbird nesting colonies and other nesting birds, vegetation removal activities shall commence during the nonbreeding season (September 1-January 31) to the extent feasible. If all suitable nesting habitat is removed during the nonbreeding season, no further mitigation would be required.</p> <p>Before removal of any vegetation within potential nesting habitat between February 1 and August 31, a qualified biologist shall conduct preconstruction surveys for nesting tricolored blackbirds (colonies). The surveys shall be conducted no more than 14 days before construction commences <u>and include all suitable nesting habitat located within</u></p>	

**Hemphill Diversion Structure Project
Final Environmental Impact Report**

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		<p>1,300 feet of Project work areas, equipment access routes, and staging areas (with landowner permission or including those areas visible from the Project footprint and/or public roads) to ensure that all active nesting colonies adjacent to the Project footprint are identified and avoided during Project implementation. If no active nests or tricolored blackbird colonies are found during focused surveys, no further action under this measure will be required. If active nests are located during the preconstruction surveys, the biologist shall notify CDFW. If necessary, modifications to the Project design to avoid removal of occupied habitat while still achieving Project objectives shall be evaluated and implemented to the extent feasible. If avoidance is not feasible or conflicts with Project objectives, construction shall be prohibited within a minimum of 100 feet of the nest to avoid disturbance until the nest colony is no longer active. These recommended buffer areas may be reduced or expanded through consultation with CDFW. Monitoring of all occupied nests shall be conducted by a qualified biologist during construction activities to adjust the 100-foot buffer if agitated behavior by the nesting bird is observed.</p> <p>Because Tricolored blackbird is a PCCP covered species, mitigation for this species could also be accomplished via the PCCP as further discussed below.</p> <p><i>Timing/Implementation: Prior to and during construction</i></p> <p><i>Monitoring/Enforcement: NID/Consultant</i></p> <p>BIO-11 Survey for White-tailed Kite, Cooper's Hawk and Other Protected Raptors and Protect Nesting Activity (applies to all alternatives)</p> <p>For construction and other ground-disturbing activities with potential to affect white-tailed kite, Cooper's hawk, or other raptor nests (e.g., activities proposed to occur in or within 500 feet of suitable habitat), the following measures shall be implemented to prevent potential impacts to active raptor nests.</p> <ul style="list-style-type: none"> For Project activities, including tree and other vegetation removal, that begin between February 1 and September 15, qualified biologists shall conduct preconstruction surveys for white-tailed kite and Cooper's hawk and to identify active nests on and within 500 feet of the Project site. The surveys shall be conducted before the beginning of any construction activities between February 1 and September 15. Impacts to nesting raptors shall be avoided by establishing appropriate buffers around active nest sites identified during preconstruction raptor surveys. Project activity shall not commence within the buffer areas until a qualified biologist has 	

**Hemphill Diversion Structure Project
Final Environmental Impact Report**

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		<p>determined, in coordination with CDFW, that the young have fledged, the nest is no longer active, or reducing the buffer would not likely result in nest abandonment. CDFW guidelines recommend implementation of a 500-foot-wide buffer for these raptor species, but the size of the buffer may be adjusted if a qualified biologist and the Project proponent, in consultation with CDFW, determine that such an adjustment would not be likely to adversely affect the nest. Monitoring of the nest by a qualified biologist during and after construction activities shall be required if the activity has potential to adversely affect the nest.</p> <ul style="list-style-type: none"> • Trees shall not be removed during the breeding season for nesting raptors unless a survey by a qualified biologist verifies that there is not an active nest in the tree. <p><i>Timing/Implementation: Prior to and during construction</i> <i>Monitoring/Enforcement: NID/Consultant</i></p> <p>BIO-12 Survey for Nuttall's Woodpecker, Loggerhead Shrike, Yellow-Billed Magpie, Oak Titmouse, Wrenit, Song Sparrow and other MBTA-Protected Birds and Protect Nesting Activity (applies to all alternatives)</p> <p>Before any ground-disturbing Project activities begin, a qualified biologist will identify potential habitat for nesting Nuttall's woodpecker, loggerhead shrike, yellow-billed magpie, oak titmouse, wrenit, and song sparrow, and other bird species protected under the MBTA in areas that could be affected by construction during the breeding season (February 1—August 31). To the extent feasible, construction-related vegetation removal shall occur outside the nesting season. If vegetation removal or other disturbance related to construction is required during the nesting season, focused surveys for active nests of special-status birds will be conducted before and within 14 days of initiating construction. A qualified biologist will conduct preconstruction surveys to identify active nests that could be affected. The appropriate area to be surveyed and timing of the survey may vary depending on the activity and species that could be affected. If no active nests are found during focused surveys, no further action under this measure will be required. If an active loggerhead shrike, song sparrow, grasshopper sparrow, or other special-status bird nest is located during the preconstruction surveys, the biologist will notify CDFW. If necessary, modifications to the Project design to avoid removal of occupied habitat while still achieving Project objectives will be evaluated and implemented to the extent feasible. If avoidance is not</p>	

**Hemphill Diversion Structure Project
Final Environmental Impact Report**

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		<p>feasible, construction will be prohibited within a minimum of 100 feet of the nest to avoid disturbance until the nest is no longer active. These recommended buffer areas may be reduced or expanded through consultation with CDFW. Monitoring of all occupied nests shall be conducted by a qualified biologist during construction activities to adjust the 100-foot buffer if agitated behavior by the nesting bird is observed.</p> <p><i>Timing/Implementation: Prior to and during construction</i></p> <p><i>Monitoring/Enforcement: NID/Consultant</i></p> <p>BIO-13 Survey for Townsend's big-eared bat and western red bat and Protect Nesting Activity (applies to all alternatives)</p> <p>The following measures shall be implemented to avoid or minimize impacts to roosting bats:</p> <p><u>Habitat Assessment: A qualified biologist will conduct a bat habitat assessment for suitable bat roosting habitat for bat species including Townsend's big-eared bat and western red bat prior to any construction activities. The habitat assessment should be conducted at least one year prior to the initiation of construction activities. If no suitable roosting habitat is identified, no further measures are necessary. If suitable roosting habitat and/or signs of bat use is identified during the assessment, the roosting habitat should be avoided to the extent possible.</u></p> <p><u>Bat Management Plan: If the habitat assessment surveys reveal potential bat roosting habitat within the project, a Bat Management Plan that will include avoidance and minimization measures to reduce impacts to roosting bats shall be prepared and consultation with CDFW initiated prior to the commencement of construction activities. The Project-specific Bat Management Plan may include any of the following as necessary and appropriate based on the findings of the habitat assessment: emergence and/or pre-construction surveys for roosting bats including acoustic monitoring, roost removal timing and methodology, no-disturbance buffers, passive exclusion of bats, and/or species-specific replacement structures.</u></p> <p><u>Bat roost surveys shall be conducted by a qualified wildlife biologist within 14 days before any tree removal or clearing during each construction season. Locations of vegetation and tree removal or excavation will be examined for potential bat roosts. Specific survey methodologies will be determined in coordination with CDFW, and may include visual surveys of bats (e.g., observation of bats during foraging period), inspection for suitable habitat, bat sign (e.g., guano), or use of ultrasonic detectors</u></p>	

**Hemphill Diversion Structure Project
Final Environmental Impact Report**

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		<p>(e.g., SonoBat, Anabat). Removal of any significant roost sites located will be avoided to the extent feasible. If it is determined that an active roost site cannot be avoided and will be affected, bats will be excluded from the roost site before the site is removed. The biologist shall first notify and consult with CDFW on appropriate bat exclusion methods and roost removal procedures. Exclusion methods may include use of one-way doors at roost entrances (bats may leave, but not reenter), or sealing roost entrances when the site can be confirmed to contain no bats. Once it is confirmed that all bats have left the roost, crews will be allowed to continue work in the area.</p> <p><i>Timing/Implementation: Prior to construction</i> Monitoring/Enforcement: NID/Consultant</p> <p>BIO-14 Conduct Fish Rescue and Relocation (applies to all alternatives) Prior to initiation of construction, a fish exclusion, rescue, and relocation plan shall be prepared and approved by NMFS and CDFW and implemented during construction. The plan shall identify the methods, equipment, fish protection measures, and release location(s) for all fish collected during dewatering of the site. The fish rescue and relocation effort shall be conducted by qualified fisheries biologists during the dewatering process to minimize the potential injury or death of juvenile steelhead, lamprey, or other fish and aquatic species potentially stranded in isolated pools during dewatering of the Project site.</p> <p>Because Central Valley Steelhead and Central Valley Fall-/Late Fall-run chinook are PCCP covered species, mitigation for these species could also be accomplished via the PCCP as further discussed below.</p> <p><i>Timing/Implementation: Prior to and during construction</i> Monitoring/Enforcement: NID/Consultant</p> <p>BIO-15 Conduct Section 7 and Magnuson-Stevens Act Consultation with NMFS for CCV DPS Steelhead and EFH for Pacific Salmon and Implement Required Mitigation (applies to all alternatives) Prior to initiation of construction, the Project will be required to undergo ESA and MSA consultation with NMFS, either through the Corps Section 404 permitting process or through the PCCP and shall comply with all terms and conditions of the consultation. Conservation measures to reduce the likelihood of take of CCV DPS steelhead,</p>	

**Hemphill Diversion Structure Project
Final Environmental Impact Report**

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		<p>designated critical habitat for CCV DPS steelhead, and EFH for Chinook salmon may include, but are not limited to:</p> <ul style="list-style-type: none"> • Conduct all in-channel work during the June 15 – October 15 in-water work window. • Conduct worker environmental awareness training. • Conduct fish exclusion, rescue, and relocation efforts during dewatering activities. <p>All dewatering pumps and the intake to the canal diversion pipe will be fitted with fish screens meeting NMFS fish screen criteria.</p> <p>Because Central Valley Steelhead and Central Valley Fall-/Late Fall-run chinook Salmon are PCCP covered species, mitigation for these species could also be accomplished via the PCCP as further discussed below.</p> <p><i>Timing/Implementation: Prior to and during construction</i></p> <p><i>Monitoring/Enforcement: NID/Consultant</i></p> <p>BIO-16 Conduct Preconstruction Survey for Spawning Fish (applies to all alternatives)</p> <p>Prior to construction, a qualified fisheries biologist shall conduct a visual survey of the Project Area to determine the suitability for and presence of special-status fish spawning activity within the Project footprint. If spawning activity by special-status fish is observed during this survey, a plan will be prepared, in consultation with CDFW and NMFS (for anadromous salmonids only) to minimize, avoid, or mitigate for disturbance to spawning fish and/or incubating eggs.</p> <p>If no spawning activity by special-status fish is observed during the survey, no further measures are needed.</p> <p>Because Central Valley Steelhead and Central Valley Fall-/Late Fall-run chinook Salmon are PCCP covered species, mitigation for these species could also be accomplished via the PCCP as further discussed below.</p> <p><i>Timing/Implementation: Prior to and during construction</i></p> <p><i>Monitoring/Enforcement: NID/Consultant</i></p> <p>BIO-17 Conduct Preconstruction Survey for Sensitive Plant Species (applies to all alternatives)</p>	

**Hemphill Diversion Structure Project
Final Environmental Impact Report**

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		<p><i>Focused special-status plant surveys shall be performed prior to construction ground disturbance. The survey guidelinesw, at a minimum, shall require the following:</i></p> <ul style="list-style-type: none"> • <i>All plant species encountered on the Project site shall be identified to the taxonomic level necessary to determine species status.</i> • <i>The surveys shall be conducted no more than five years prior and no later than the blooming period immediately preceding the approval of a grading or improvement plan or any ground-disturbing activities, including grubbing or clearing. If special-status plants are identified on the Project site, the NID shall implement the following measures to mitigate the potential loss of special-status plant species:</i> <ol style="list-style-type: none"> 1. <i>Avoid special-status plant occurrences through Project design to the extent technically feasible and appropriate. Avoidance shall be deemed technically feasible and appropriate if the habitat occupied by special-status plants may be preserved onsite while still obtaining the Project purpose and objectives and if the preserved habitat features could reasonably be expected to continue to function as suitable habitat for special-status plants following Project implementation.</i> 2. <i>If, after examining all feasible means to avoid impacts to potential special-status plant species habitat through Project site planning and design, adverse effects cannot be avoided, then impacts shall be mitigated in accordance with guidance from the appropriate State or federal agency charged with the protection of the subject species.</i> 3. <i>Notify CDFW, as required by the California NPPA, if any special-status plants are found on the Project site. Notify the USFWS if any plant species listed under the federal ESA are found.</i> 4. <i>Develop a mitigation and monitoring plan to compensate for the loss of special-status plant species found during preconstruction surveys, if any. The mitigation and monitoring plan shall be submitted to CDFW or USFWS, as appropriate depending on species status, for review and comment. Placer County as the CEQA lead agency shall consult with these entities, as appropriate depending on species status, before approval of the plan to determine the appropriate mitigation measures for impacts on any special-status plant population. Mitigation measures may include preserving and enhancing existing onsite populations, creation of offsite populations on</i> 	

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Final Environmental Impact Report**

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		<p><i>Project mitigation sites through seed collection or transplantation, and/or preserving occupied habitat offsite in sufficient quantities to offset loss of occupied habitat or individuals.</i></p> <p>5. <i>If transplantation is part of the mitigation plan, the plan shall include a description and map of mitigation sites, details on the methods to be used, including collection, storage, propagation, receptor site preparation, installation, long-term protection and management, monitoring and reporting requirements, remedial action responsibilities should the initial effort fail to meet long-term monitoring requirements, and sources of funding to purchase, manage, and preserve the sites. The following performance standards shall be applied:</i></p> <p><i>i. The extent of occupied area and the flower density in compensatory reestablished populations shall be equal to or greater than the affected occupied habitat and shall be self-producing. Re-established populations shall be considered self-producing when:</i></p> <ol style="list-style-type: none"> <i>1. plants re-establish annually for a minimum of five years with no human intervention, such as supplemental seeding; and</i> <i>2. re-established habitats contain an occupied area and flower density comparable to existing occupied habitat areas in similar habitat types.</i> <p>6. <i>If offsite mitigation includes dedication of conservation easements, purchase of mitigation credits, or other offsite conservation measures, the details of these measures shall be included in the mitigation plan, including information on responsible parties for long-term management, conservation easement holders, long-term management requirements, and other details, as appropriate to target the preservation of long-term viable populations.*</i></p> <p><i>Timing/Implementation: Prior to construction</i></p> <p><i>Monitoring/Enforcement: NID/Consultant</i></p> <p>Alternative Mitigation for PCCP Covered Species</p> <p><i>Should the Project participate in the PCCP and programmatic permits are available for use as a mitigation strategy, the following PCCP Species Conditions could be implemented as an alternative mechanism for avoiding, minimizing, and mitigating potential Project impacts to PCCP covered special-status species and their habitats</i></p>	

**Hemphill Diversion Structure Project
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		<p><i>(for the full text of PCCP minimization measures see DEIR Appendix 3.3-A, Attachment F: PCCP Measures and Conditions):</i></p> <p><u>Species Condition 1. Swainson's Hawk</u> <i>The Project applicant shall comply with PCCP Avoidance and Minimization Measure (AMM) Species Condition 1 for Swainson's Hawk (PCCP Section 6.3.5.6; Attachment F). Swainson's hawk surveys will be conducted according to PCCP Section 6.3.5.6.1 and if an occupied nest is identified, minimization measures according to PCCP Section 6.3.5.6.2 must be adopted, and PCCP Section 6.3.5.6.3 if construction monitoring is required.</i></p> <p><u>Species Condition 3. Western Burrowing Owl</u> <i>The Project applicant shall comply with PCCP AMM Species Condition 3 for Western Burrowing Owl (PCCP Section 6.3.5.8). Burrowing owl surveys will be conducted according to PCCP Section 6.3.5.8.1. If a burrowing owl or evidence of presence at or near a burrow entrance is found to occur within 250 feet of the Project, applicable measures in PCCP Section 6.3.5.8.2 shall be implemented, and PCCP Section 6.3.5.8.3 if construction monitoring is required.</i></p> <p><u>Species Condition 4. Tricolored Blackbird</u> <i>The Project applicant shall comply with PCCP AMM Species Condition 4 for Tricolored Blackbird (PCCP Section 6.3.5.9; Tricolored blackbird surveys will be conducted according to PCCP Section 6.3.5.9.1 and applicable measures in PCCP Section 6.3.5.9.2 will be implemented if a tricolored blackbird nesting colony is found and PCCP Section 6.3.5.9.3 implemented if construction monitoring is required.</i></p> <p><u>Species Condition 6. California Western Pond Turtle</u> <i>The Project applicant shall comply with PCCP AMM Species Condition 6 for western pond turtle (PCCP Section 6.3.5.11).</i></p> <p><u>Species Condition 7. Central Valley Steelhead and Central Valley Fall-/Late Fall-run chinook Salmon</u> <i>The Project applicants shall comply with PCCP AMM Species Condition 7 for Central Valley steelhead and Central Valley fall-/late fall-run chinook salmon (PCCP Section 6.3.5.12).</i></p> <p><u>Species Condition 8. Valley Elderberry Longhorn Beetle</u></p>	

**Hemphill Diversion Structure Project
Final Environmental Impact Report**

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		<p><i>The Project applicants shall comply with PCCP AMM Species Condition 8 for VELB (PCCP Section 6.3.5.13).</i></p>	
<p>Impact 3.3-2: The Project could affect riparian habitat or sensitive natural communities.</p>	<p align="center">S</p>	<p>BIO-18 <i>Compensate for the Loss of Riparian Habitat and Restore Temporary Disturbed Areas (applies to all alternatives)</i></p> <p>To compensate for the total permanent loss of riparian habitat communities, prior to construction NID shall purchase habitat credits at an agency approved mitigation bank to ensure no net loss of riparian functions and values. To account for temporal loss, the Project will purchase riparian credits at a 3:1 ratio. The final mitigation ratio and acreage will be confirmed during review of final engineering drawings and may be modified during the CDFW Section 1602 permitting process (if actual increase or decrease) which will dictate the ultimate compensation.</p> <p>NID shall provide written evidence to the resource agencies that compensation has been established through the purchase of mitigation credits.</p> <p>All areas subject to temporary construction disturbance shall be restored in accordance with a post construction Erosion Control and Habitat Restoration Plan (ECHRP). The ECHRP shall address all temporarily disturbed areas, be prepared by a qualified biologist and developed as part of the CDFG Streambed Alteration Agreement process and shall be reviewed and approved by CDFG prior to implementation.</p> <p>Because fish passage improvements for the Project site are identified in the PCCP/CARP, should NID request and the PCA grant Special Entity Status to NID, Project permitting, and the above mitigation, could also be fulfilled via the PCCP In-Lieu Fee program.</p> <p><i>Timing/Implementation: Prior to and following construction</i></p> <p><i>Monitoring/Enforcement: NID/Consultant</i></p>	<p align="center">LTSM</p>
<p>Impact 3.3-3: The Project would require construction and fill within waters of the U.S. and waters of the State.</p>	<p align="center">S</p>	<p>BIO-19 <i>Compensate for the Permanent Loss of Waters of the United States/Waters of the State and Restore Temporary Disturbed Areas (applies to all alternatives)</i></p> <p>Authorization to fill waters of the U.S. under the Section 404 and 401 of the federal CWA (Section 404 Permit and Section 401 Water Quality Certification) shall be obtained from USACE and RWQCB prior to discharging any dredged or fill materials into any waters of the U.S. Since the waters of the U.S. are likely also waters of the State, the 401 Water Quality Certification will authorize fill to waters of the State.</p>	<p align="center">LTSM</p>

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Final Environmental Impact Report**

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		<p>Specific impact avoidance, minimization, and/or compensation measures shall be developed and implemented as part of the Section 404 Permit to ensure no-net-loss of wetland function and values. To facilitate such authorization, an application for a Section 404 Permit and an application for a 401 Water Quality Certification for the Project shall be prepared and submitted to USACE and RWQCB and will include direct, avoided, and preserved acreages to Waters of the U.S. Mitigation for impacts to Waters of the U.S. would consist of a minimum of a 1:1 replacement ratio for direct impacts; however final mitigation requirements shall be developed in consultation with USACE. These measures may include:</p> <p>Purchase of mitigation credits at an USACE-approved mitigation bank; and/or Permittee-responsible mitigation (e.g., preservation and creation) at an off-site mitigation property or</p> <p>Participation in the PCCP In Lieu fee program.</p> <p><i>Timing/Implementation: Prior to and following construction</i></p> <p><i>Monitoring/Enforcement: NID/Consultant</i></p> <p>BIO-20 Survey and Protect Pipeline Alignment Staging Area Environmentally Sensitive Resources (applies to Alternative 3 only)</p> <p><i>All road segment pipeline alignment staging areas shall be surveyed by a qualified biologist for sensitive biological resources prior to use. Should any sensitive biological resources be identified within proposed staging areas, they shall be protected consistent with Mitigation Measures BIO-1 and BIO-2. Should the Project require temporary impacts to staging area wetlands, these areas shall be restored following construction consistent with Mitigation Measure BIO-19.</i></p> <p><i>Timing/Implementation: Prior to, during and following construction</i></p> <p><i>Monitoring/Enforcement: NID/Consultant</i></p>	
<p>Impact 3.3-4: The Project could affect wildlife movement and/or migration.</p>	<p>LTS and S</p>	<p>None required for Alternatives 1 and 2.</p> <p>No feasible mitigation for Alternative 3 impacts on aquatic wildlife movement and/or migration.</p>	<p>LTS SU for Alternative 3 for impacts on aquatic wildlife movement</p>

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Final Environmental Impact Report**

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			and/or migration
Impact 3.3-5: The Project would not conflict with local policies and ordinances associated with protection of biological resources.	S	BIO-21 Obtain a Placer County Tree Permit (applies to all alternatives) Tree removal shall be avoided to the maximum extent feasible. Should the Project require removal of trees protected by County Article, NID shall submit a tree permit application to Placer County and implement all conditions outlined in the final tree permit issued to the Project or implement equivalent mitigation consistent with PCCP requirements. <i>Timing/Implementation: Prior to and during construction</i> <i>Monitoring/Enforcement: NID/Consultant</i>	LTSM
Impact 3.3-6: The Project could conflict with HCPs, NCCPs, or other conservation plans.	LTS	None required.	LTS
Cultural Resources			
Impact 3.4.1: Potential for Impacts to Historical Resources	S	CUL-1 Protect Historical Resources as Environmentally Sensitive Areas (applies to all alternatives) All known Historical Resources shall be avoided by the Project through a combination of project design and establishment of Environmentally Sensitive Areas under the direction of a qualified professional archaeologist, as follows. Resources TCE-1/2, HD-009, HD-012, P-31-1693, P-31-1694, and P-31-1696 shall be designated Environmentally Sensitive Areas prior to construction activities. High-visibility temporary exclusionary fencing shall be installed surrounding the known boundaries of these sites, plus a 5-meter (approximately 16 foot) buffer, as shown on the <i>confidential</i> Environmentally Sensitive Area Fencing map on file with NID. No ground-disturbing activities shall be allowed within the exclusionary fencing. Additionally, resources P-31-1691, HD-006, HD-008, HD-010, HD-005, HD-007, P-31-5897, HD-011, and HD-013 will be avoided by all project activity. These measures will	LTSM

**Hemphill Diversion Structure Project
Final Environmental Impact Report**

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		<p>be documented by the archaeological monitor (mitigation measure CUL-3) and tribal monitor (mitigation measure TCR-2), and forwarded to NID as proof of compliance. This environmentally sensitive area fence installation and documentation is to be carried out in coordination with mitigation measure TCR-2. If the preferred alternative does not overlap or occur adjacent to the location of resources cited herein, the environmentally sensitive area and avoidance measures for those resources can be omitted.</p> <p><i>Timing/Implementation:</i> <i>Prior to and during construction</i></p> <p><i>Monitoring/Enforcement:</i> <i>NID</i></p> <p>CUL-2 Cultural Resources Awareness Training (applies to all alternatives)</p> <p>A consultant and construction worker cultural resources awareness brochure and an in-field training program for all personnel involved in ground-disturbing activities will be developed and disseminated by a cultural resources professional to all operators of ground-disturbing equipment prior to construction commencing. The program will include relevant information regarding sensitive cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The worker cultural resources awareness program will also describe appropriate avoidance and minimization measures for resources located in, or have the potential to be located in the project area and will outline the communication protocols in the event of the discovery of any potential cultural resources or artifacts during ground-disturbing activities (as outlined in CUL-1, CUL-3, and CUL-4). The program will outline the requirement for confidentiality and culturally appropriate treatment of cultural resources. All ground-disturbing equipment operators shall be required to receive the training and sign a form that acknowledges receipt of the training. A copy of the form shall be provided to NID as proof of compliance. This training is to be carried out in coordination with mitigation measure TCR-1.</p> <p><i>Timing/Implementation:</i> <i>Prior to construction</i></p> <p><i>Monitoring/Enforcement:</i> <i>NID/Consultant</i></p> <p>CUL-3 Monitor Ground Disturbance and Stop Work if Cultural Resources or Remains are Detected (applies to all alternatives)</p> <p>Ground-disturbing activities in the Project Area shall be monitored by an archaeological monitor under the supervision of a qualified professional archaeologist who meets the</p>	

**Hemphill Diversion Structure Project
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		<p>Secretary of the Interior's (SOI) Professional Qualification Standards for prehistoric and historic archaeology.</p> <p>The archaeological monitor will be present to observe and assist in the installation of environmentally sensitive area fencing around resources TCE-1/2, HD-009, HD-012, P-31-1693, P-31-1694, and P-31-1696 and provide documentation of the implementation.</p> <p>The archaeological monitor will be present for ground disturbing activity within 100 feet of resource HD-010, and within 200 feet of the environmentally sensitive area zones for TCE-1/2, HD-009, HD-012, P-31-1693, P-31-1694, and P-31-1696. The monitor shall also be present for all ground disturbing activity in the Hemphill Canal Study Area and Near and Instream Improvements Study Area.</p> <p>All other ground-disturbing activity in other areas of the project will be spot-checked daily by the archaeological monitor at the outset of the project, after which the frequency of monitoring checks in these areas may be re-assessed based on the observations and professional judgement of the SOI-qualified archaeologist.</p> <p>If subsurface deposits believed to be cultural or human in origin are discovered during construction by the monitor, all work must halt within 100 feet of the discovery. The monitoring archaeologist will evaluate the significance of the find and shall have the authority to modify the no-work radius as appropriate, in communication and coordination with the tribal monitor, using professional judgment. The following notifications shall apply, depending on the nature of the find:</p> <ul style="list-style-type: none"> • If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required. Should tribal monitors desire to take possession of any such materials, they may do so as long as the possession is documented by the archaeologist and tribal monitor, and as long as removal has been approved in writing by the property owner and authorized by NID. • If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify NID and the on-site tribal monitor. NID, the archaeologist, and UAIC shall consult on a finding of eligibility. If the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines, appropriate treatment measures will be implemented. Work may not resume within the no-work radius until NID, 	

**Hemphill Diversion Structure Project
Final Environmental Impact Report**

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		<p>through consultation as appropriate, determines that the site either: 1) is not a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines; or 2) that the treatment measures have been completed to its satisfaction. This mitigation measure will be carried out in concert with TCR-2.</p> <p>If preferred alternative does not overlap or occur adjacent to the location of resource cited herein, avoidance measures and monitoring for those resources can be omitted.</p> <p><i>Timing/Implementation:</i> <i>During construction</i></p> <p><i>Monitoring/Enforcement:</i> <i>NID/Consultant</i></p>	
Impact 3.4.2: Potential for Impacts to Archaeological Resources.	S	Implement mitigation measures CUL-1, CUL-2 and CUL-3	LTSM
Impact 3.4.3: Potential for Impacts to Human Remains.	S	<p>CUL-4 <i>Stop Work if Human Remains Detected (applies to all alternatives)</i></p> <p>If construction activity encounters human remains, or remains that are potentially human, the contractor shall ensure reasonable protection measures are taken to protect the discovery from disturbance (Assembly Bill [AB] 2641). The archaeologist shall notify the Placer County Coroner (as per § 7050.5 of the Health and Safety Code). The provisions of Section 7050.5 of the California Health and Safety Code, § 5097.98 of the California PRC, and AB 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the project (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, then the NAHC can mediate (§ 5097.94 of the PRC). If no agreement is reached, and after the mediation process with NAHC is carried out, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work cannot resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.</p> <p><i>Timing/Implementation:</i> <i>Prior to and during construction</i></p>	LTSM

**Hemphill Diversion Structure Project
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		<i>Monitoring/Enforcement: NID/Consultant</i>	
Impact 3.4.4: Cumulative Impacts to Cultural Resources	LCC	None required.	LCC
Energy Consumption			
Impact 3.5.1: Implementation of the Proposed Project would result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.	LTS	None required	LTS
Impact 3.5.2: Implementation of the Proposed Project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.	NI	None required.	NI
Impact 3.5.3: Cumulative Energy Impacts	LCC	None required.	LCC
Geology, Soils, and Paleontological Resources			
Impact 3.6.1: The proposed project could result in soil erosion or the loss of top soil	LTS	None required.	LTS
Impact 3.6.2: The project could directly impact a unique paleontological resource during excavation activities.	S	PALEO-1 <i>Discovery of Unknown Paleontological Resources (applies to all alternatives)</i> If paleontological or other geologically sensitive resources are identified during any phase of project development, the construction manager shall cease operation at the site of the discovery and immediately notify the NID. The NID shall retain a qualified paleontologist to evaluate the find and to prescribe mitigation measures to reduce impacts to a less than significant level. In considering any suggested mitigation proposed by the consulting paleontologist, NID shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, land use assumptions, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while mitigation for paleontological resources is carried out.	LTSM

**Hemphill Diversion Structure Project
Final Environmental Impact Report**

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		<i>Timing/Implementation: Prior to and during construction</i> <i>Monitoring/Enforcement: NID/Consultant</i>	
Impact 3.6.3: Cumulative Geology, Soils and Paleontological Resources Impacts	LCC	None required.	LCC
Greenhouse Gas Emissions			
Impact 3.7.1: Implementation of the Proposed Project would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.	LTS	None required.	LTS
Impact 3.7.2: Implementation of the Proposed Project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs	NI	None required.	NI
Impact 3.7-3: Cumulative Greenhouse Gas Emissions Impacts	LCC	None required.	LCC
Hydrology and Water Quality			
Impact 3.8-1: The proposed Project could adversely affect water quality during construction by increasing the concentration of pollutants in surface runoff from the Project site.	LTS	None required.	LTS
Impact 3.8-2: The Project would alter flow conditions in Auburn Ravine by removing Hemphill Diversion and constructing new diversion facilities to service Hemphill Canal which could result in increased erosion and or siltation within the ravine.	S	HYD/WQ-1 Bank Stabilization Measures (applies to all alternatives) Following selection of the preferred project alternative and initiation of final project design, the project design engineer will develop bank stabilization measures as appropriate to minimize the anticipated effects of increased channel incision and channel widening. Specific measures to address the geomorphic impacts will be identified and detailed during final project design. The specific measures will be developed using hydraulic models of the post-project condition as grading limits and features of the selected Project alternative are refined. Measures needed within the upstream 200 feet of the existing dam will likely be incorporated during the dam removal construction with the coffer dam in place. Features further upstream may be installed at the time of dam removal, or as part of an adaptive management program.	LTSM

**Hemphill Diversion Structure Project
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		<p>The adaptive management approach would address locations where some initial erosion may be tolerable but would intervene if erosion progresses beyond established thresholds. The criteria for adaptive management would be coordinated with landowners, fisheries agencies, and other interested parties on approaches that minimize risk to landowner, resource impacts, and cost.</p> <p>Measures may include upstream flow deflection structures such as log groynes or engineered log jams, key in rock bank protection, or regrading/planting the bank lines and channel to be employed at the time of dam removal if either Alternative 1 or 3 is selected as the proposed project. Measures likely to be required for Alternative 2 would include the placement of flow deflections structures on the right bank upstream of the fish passage structure, and at the toe of the existing rock riprap on the right bank upstream of the existing diversion to be stabilize the channel adjacent to the fish passage structure to prevent undercutting.</p> <p><i>Timing/Implementation: Prior to and during construction</i></p> <p><i>Monitoring/Enforcement: NID/Consultant</i></p>	
Impact 3.8-3: Implementation of Alternative 3 would divert existing and future stream flow in Auburn Ravine at the Gold Hill diversion for delivery at Hemphill Canal and could reduce groundwater recharge along the reach of Auburn Ravine between Gold Hill and the Hemphill Canal diversion sites.	LTS	None required.	LTS
Impact 3.8-4: Stream channel downcutting due to the Project could affect groundwater well production upstream of the Hemphill Diversion site.	LTS	None required.	LTS
Impact 3.8-5: Cumulative Hydrology and Water Resources	LCC	None required.	LCC
Noise			
Impact 3.9.1: The proposed project could result in short-term construction generated noise in excess of City or County standards.	S	NOI-1 Equipment Use (applies to all alternatives) The use of all heavy-duty construction equipment shall be prohibited during all Project construction occurring between 7:00 a.m. and 8:00 a.m. on Saturdays. <i>Timing/Implementation: During construction</i>	LTSM

**Hemphill Diversion Structure Project
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		Monitoring/Enforcement: NID NOI-2 Imports and Exports (applies to all alternatives) All Project material deliveries and material export hauling during all Project construction shall be restricted during 7:00 a.m. and 8:00 a.m. on Saturdays, to the extent feasible. Timing/Implementation: During construction Monitoring/Enforcement: NID	
Impact 3.9.2: Implementation of the Proposed Project could generate excessive groundborne vibration or groundborne noise levels.	LTS	None required	LTS
Impact 3.9.3: Cumulative Noise Impacts	LCC	None required	LCC
Tribal Resources			
Impact 3.10.1: Impacts to Tribal Cultural Resources.	S	TCR-1 Worker Awareness Training (applies to all alternatives) A consultant and construction worker tribal cultural resources awareness brochure and in-field training program for all personnel involved in ground-disturbing activities will be developed and disseminated by a UAIC tribal representative to all operators of ground-disturbing equipment prior to construction commencing. The program will include relevant information regarding sensitive tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The worker tribal cultural resources awareness program will also describe appropriate avoidance and minimization measures for resources that have the potential to be located in the project area and will outline the communication protocols in the event of the discovery of any potential tribal cultural resources or artifacts are encountered during ground-disturbing activity. The program will underscore the requirement for confidentiality and culturally appropriate treatment <u>and respect</u> of any find of significance to Native Americans, and behaviors consistent with Native American tribal values. All ground-disturbing equipment operators shall be required to receive the training and sign a form that acknowledges receipt of the training. A copy of the form shall be provided to NID as proof of compliance. This mitigation measures shall be carried out in coordination with mitigation measure CUL-2 .	LTSM

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		<p><i>Timing/Implementation:</i> Prior to construction <i>Monitoring/Enforcement:</i> NID/UAIC</p> <p>TCR-2 Monitor Ground Disturbance, Installation of Environmentally Sensitive Area Fencing, and Stop Work if Cultural Resources or Remains are Detected (applies to all alternatives)</p> <p>Resources TCE-1/2, HD-009, HD-012, P-31-1696 (Alternative 1), P-31-1693, P-31-1694, (Alternative 2), and HD-012 (Alternative 3) and P-31-1696 shall be designated Environmentally Sensitive Areas prior to construction activities with high-visibility temporary exclusionary fencing installed surrounding the known boundaries of these sites, plus a 5 meter (approximately 16 foot) buffer, as shown on the <i>confidential</i> Environmentally Sensitive Area Fencing map on file with NID. No ground-disturbing activities shall be allowed within the exclusionary fencing. A tribal representative from UAIC shall be present to observe the installation of environmentally sensitive area fencing around these resources.</p> <p><u>The tribal monitor will be present for ground disturbing activity within 200 feet of the ESA zones for TCE-1/2, HD-009, HD-012, P-31-1693, P-31-1694, and P-31-1696. The tribal monitor shall also be present for all ground disturbing activity in the Hemphill Canal Study Area and Near and Instream Improvements Study Area.</u> The tribal monitor shall also be present for all ground disturbing activity within the Project Area at the outset of the project, after which the frequency of monitoring in areas deemed less sensitive for TCRs may be re-assessed based on the observations and judgment of the UAIC tribal monitor. <u>Ground disturbing activity includes all areas of soil newly disturbed, excavated, or dredged during the current Project. Placement of imported fill soils, movement of previously monitored soils, or placement and movement of non-soil material such as concrete need not be monitored.</u></p> <p>If subsurface deposits believed to be cultural or human in origin are discovered during construction by the monitor, all work must halt within 100 feet of the discovery. The UAIC tribal monitor will work with the onsite archaeologist to evaluate the significance of the find and shall have the authority to modify the no-work radius as appropriate, in communication and coordination with the archaeologist, using professional judgment. The following notifications shall apply, depending on the nature of the find:</p> <ul style="list-style-type: none"> • If the tribal representative determines that the find does not represent a TCR, work may resume following the procedures outlined in mitigation measure CUL-3. 	

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		<ul style="list-style-type: none"> • If the tribal monitor determines the find represents a TCR, <u>as defined in Section 21074</u>, he or she shall immediately notify NID and the on-site archaeologist, and the parties shall consult on appropriate treatment measures. Work may not resume within the no-work radius until NID, through consultation as appropriate, determines that the find either: 1) is not a TCR under CEQA, as defined in Section 21074(a) of the Public Resources Code; or 2) that the treatment measures have been completed to its satisfaction. • <u>In the event of an unanticipated discovery of a TCR, culturally appropriate treatment by the tribal monitor may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, returning objects to a location within the project area where they will not be subject to future impacts.</u> • <u>An onsite location to securely store the discovered items shall be provided by NID that may include a lock box, locking drawer, or cabinet. The tribal monitor shall have access to the secure storage.</u> • Should tribal monitors desire to take possession of any materials the archaeologist does not deem a cultural resource, they may do so as long as the possession is documented by the archaeologist and tribal monitor, and as long as removal has been approved in writing by the property owner and authorized by NID. • This mitigation measure will be carried out in concert with mitigation measure CUL-3. <p><i>Timing/Implementation: Prior to and during construction</i> <i>Monitoring/Enforcement: NID/UAIC</i></p>	
Impact 3.8.2: Cumulative Impacts to Tribal Cultural Resources	LCC	None required.	LCC

*An early season rare plant survey was completed subsequent to publication of the Draft EIR. The results of that survey are included in Appendix C of this FEIR.

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TABLE OF CONTENTS

EXECUTIVE SUMMARY ES-1

 ES.1 Introduction..... ES-1

 ES.2 Overview of the Project Alternatives and Environmental Setting..... ES-1

 ES.3 Evaluation of Project Alternatives..... ES-3

 ES.4 Effects Found to be Less Than Significant..... ES-3

 ES.5 Areas of Controversy ES-4

 ES.6 Summary of Impacts and Mitigation Measures..... ES-4

1.0 INTRODUCTION 1-1

 1.1 Background and Purpose of the EIR..... 1-1

 1.1.1 Overview of CEQA Requirements for Preparation of an EIR..... 1-1

 1.1.2 Background of Environmental Review Process of the Project..... 1-1

 1.1.3 Notice of Preparation and Initial Study 1-2

 1.2 Project Alternatives Overview 1-3

 1.3 Intended Use of the EIR..... 1-4

 1.4 Organization and Scope of the Final EIR 1-5

2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR..... 2-1

 2.1 Introduction..... 2-1

 2.2 List of Commenters 2-1

 2.3 Requirements for Responding to Comments on the Draft EIR 2-1

 2.4 Responses to Comments 2-2

 2.4.1 Agency Comments and Responses..... 2-3

 2.4.2 Organizations and Individual Comments and Responses..... 2-45

3.0 REVISIONS TO THE DRAFT EIR 3-1

 3.1 Purpose of this Chapter..... 3-1

 3.2 Revisions to the DEIR..... 3-1

LIST OF APPENDICES

Appendix A – Hemphill Diversion Structure Project Draft Environmental Impact Report,
(ECORP Consulting, Inc. 2021)

Appendix B – Mitigation Monitoring and Reporting Program (ECORP Consulting, Inc. 2021)

Appendix C – Early Season Special-Status Plant Survey Results

Appendix D – Hemphill Diversion Structure Project DEIR Appendices

LIST OF FIGURES

Figure 1-1. Regional Location] ES-2

LIST OF TABLES

Table ES-1. Summary of Impacts and Mitigation Measures ES-5
Table 2-1. List of Comment Letters 2-1

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1.0 INTRODUCTION

This Final Environmental Impact Report (Final EIR) was prepared in accordance with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines (Section 15132). The Nevada Irrigation District (NID) is the lead agency for the environmental review of the proposed Hemphill Diversion Structure Project (Proposed Project, Project). The Nevada Irrigation District has the principal responsibility for approving the Project. This Final EIR incorporates the April 2021 Project Draft EIR (NID 2021) by reference, and the complete Draft EIR is included herein as Appendix A. This Final EIR assesses the expected environmental impacts resulting from approval and implementation of three proposed project alternatives, one of which would ultimately be adopted as the Proposed Project by NID. This Final EIR presents written responses to all substantive comments received on the Draft EIR during public comment review period for the Draft EIR.

1.1 Background and Purpose of the EIR

1.1.1 Overview of CEQA Requirements for Preparation of an EIR

NID, serving as the lead agency, has prepared this EIR to provide the public and responsible and trustee agencies with information about the potential environmental effects of the Project. As set forth in the provisions of CEQA and implementing regulations, public agencies are charged with the duty to consider the environmental impacts of proposed development and to minimize these impacts where feasible while carrying out an obligation to balance a variety of public objectives, including economic, environmental, and social factors.

State CEQA Guidelines Section 15121(a) states that an EIR is an informational document for decision-makers and the general public that analyzes the significant environmental effects of a project, identifies possible ways to minimize significant effects, and describes reasonable alternatives to the project that could reduce or avoid its adverse environmental impacts. Public agencies with discretionary authority are required to consider the information in the EIR, along with any other relevant information, in making decisions on the project.

CEQA requires the preparation of an environmental impact report prior to approving any project that may have a significant effect on the environment. Under CEQA, the term *project* refers to the whole of an action which has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]). With respect to the Proposed Project, NID has determined that the proposed Hemphill Diversion Structure Project is a project within the definition of CEQA.

1.1.2 Background of Environmental Review Process of the Project

The following is an overview of the environmental review process for the proposed Hemphill Diversion Structure Project that has led to the preparation of this Final EIR.

1.1.3 Notice of Preparation and Initial Study

In accordance with CEQA Guidelines Section 15082, NID prepared a Notice of Preparation (NOP) of an EIR and Initial Study (IS) for the Project that was distributed to responsible agencies and the public for a 30-day comment period, beginning on September 3, 2020 and concluding on October 5, 2020. Along with the NOP, the Hemphill Diversion Structure Project Initial Study (State Clearinghouse [SCH] # 2020090032) was circulated by NID for the 30-day scoping period.

Based on the findings of the IS, NID determined that an EIR level of analysis was required for specific impact areas. Those areas include air quality, biological resources, cultural and paleontological resources, energy, geology, soils and planetological resources, greenhouse gas and climate change, hydrology and water quality, noise, tribal resources, and utilities (water supply). All other impact analysis areas defined in Appendix G of the CEQA Guidelines are not included in this EIR. All mitigation measures identified in the Executive Summary will be included as mitigation in this EIR and in the Mitigation Monitoring and Reporting Program (MMRP) included as Appendix B of the Final EIR.

Scoping Meeting

On September 21, 2020, NID held an online scoping meeting from 4:00 pm to 6:00 pm in order to allow early public/agency input and comments about the Project, Initial Study and future environmental review. The scoping meeting was attended by 28 members of the public and agencies as well as NID staff and their environmental consultant, ECORP Consulting, Inc. A list of scoping meeting verbal comments and responses was included in the Draft EIR.

Draft EIR

The Draft EIR was released for public and agency review on April 1, 2021, and the review period ended on May 17, 2021. The Draft EIR contains a description of the three project alternatives that were evaluated at an equal level. Descriptions of the environmental setting for each of the alternatives, identification of project impacts, and mitigation measures for impacts found to be significant. Postcard notices were sent to over 100 individuals and agencies. The Draft EIR was provided to interested public agencies and the public and was made available for review on the NID website.

Final EIR

Five comment letters were received by NID from interest groups, government agencies, and the public in response to public circulation of the Draft EIR. Section 2 of this Final EIR (Comments and Responses to Comments on the Draft EIR), responds to all substantive written comments received as required by CEQA. Section 3.0 of this Final EIR (Revisions to the Draft EIR), contains revisions that were made either in response to public comments or at the discretion of the Lead Agency. The changes presented in Section 3.0 clarify and amplify the information and analysis presented in the DEIR and do not alter the EIR in a way that deprives the public of a meaningful opportunity to comment on a substantial adverse environmental effect or a feasible way to mitigate or avoid such an effect. No new significant environmental effects and no increase in the severity of an environmental impact are identified in this Final EIR.

Certification of the Final EIR and Project Approval

The NID Board of Directors (Board) will review and consider the Final EIR. If the Board finds that the EIR is “adequate and complete,” the Board may certify the Final EIR. The rule of adequacy generally holds that the EIR can be certified if (1) it shows a good faith effort at full disclosure of environmental information, and (2) it provides sufficient analysis to allow decisions to be made regarding the project in contemplation of its environmental consequences.

Upon review and consideration of the Final EIR, the Board may take action to adopt, revise, or reject the Proposed Project. A decision to approve the Proposed Project would be accompanied by written findings in accordance with State CEQA Guidelines Section 15091 and Section 15093. Public Resources Code Section 21081.6 also requires lead agencies to adopt a Mitigation Monitoring and Reporting Program (MMRP) to describe measures that have been adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment. The MMRP for the Proposed Project is included as Appendix B to this Final EIR.

1.2 Project Alternatives Overview

Located in Placer County, just east of the City of Lincoln, the Hemphill Diversion structure is located within Auburn Ravine. The structure diverts water from Auburn Ravine into the Hemphill Canal located south of the ravine for delivery to Nevada Irrigation District (NID) raw-water customers. The Hemphill Diversion Structure is located in Section 13, Township 12 North, and Range 6 West (Mount Diablo Base and Meridian) of the “Lincoln” 7.5-minute quadrangle (Figure 1-1. *Regional Location* and Figure 1-2. *Site Location*). The structure is located at latitude 38.896731° and longitude -121.251885°.

Hemphill Diversion has historically presented an impediment to the passage of migrating anadromous fish species that spawn in Auburn Ravine upstream of the diversion. NID is considering three alternatives to eliminate this impediment while still maintaining water deliveries to customers currently served by Hemphill Canal. These three alternatives, briefly described below, include:

- *Alternative 1 - Riverbank Infiltration Gallery Alternative:* Includes the removal of the diversion structure, site stabilization, and construction of a subterranean riverbank infiltration structure and pipeline connection to Hemphill Canal.
- *Alternative 2 - Fish Passage Alternative:* Includes the removal of the diversion structure, site stabilization, construction of a nature-like roughen rock ramp instream fish passage, installation of a fish screen and improvements to a portion of the Hemphill Canal.
- *Alternative 3 - Pipeline Alternative:* Includes the removal of the diversion structure, site stabilization, and installation of a pipeline within roadway right-of-way (ROW) from the NID Placer Yard facility to the Hemphill Canal near the existing diversion structure.

A detailed description of each alternative is provided in Section 2.4 of the Draft EIR (see Appendix A). The Draft EIR evaluates the environmental impact of each project alternative at an equal level of analysis. Alternative 2 (Fish Passage Alternative) was found to be the “environmentally superior alternative” relative to Alternatives 1 and 3 (refer to Section 4.6 of the Draft EIR). Given the anticipated improvement to fish

passage in Auburn Ravine afforded by Alternative 2, Alternative 2 was also found to be environmentally superior to the No Project Alternative.

1.3 Intended Use of the EIR

This Final EIR evaluates the environmental impacts of three proposed project alternatives at an equal level of analysis. The EIR in its final form will be used by NID in considering the selection and approval of one of the alternatives as the Proposed Project. In accordance with CEQA Guidelines Section 15126, the EIR will be used as the primary environmental document in consideration of all subsequent planning and permitting actions associated with the Project, to the extent such actions require CEQA compliance and as otherwise permitted under applicable law.

Nevada Irrigation District

The EIR is intended to be used by NID as a tool in evaluating the Proposed Project's environmental impacts and can be further used to modify, approve, or deny approval of the Proposed Project based on the analysis provided in the EIR. A description of any requested entitlements and subsequent approvals associated with approval and implementation of the Proposed Project are described in Section 2.0, Project Description, of the Draft EIR.

Known Trustee and Responsible Agencies

In accordance with CEQA, the term *trustee agency* means a state agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California. In CEQA, the term *responsible agency* includes all public agencies other than the lead agency that may have approval authority in some regard associated with the Proposed Project. Interested agencies may have a general interest in the proposal with respect to issues germane to their organization. The following agencies have been identified as potential responsible, trustee, or interested agencies with direct or indirect interest in the Project:

- U.S. Army Corps of Engineers
- National Oceanic and Atmospheric Administration - National Marine Fisheries Service (NOAA-NMFS)
- Federal Emergency Management Agency
- California Department of Fish and Wildlife (CDFW), Region 2
- Regional Water Quality Control Board, Region 5
- City of Lincoln
- Placer County Air Pollution Control District
- Placer County Community Development Department
- Placer County Floodplain Management

- Placer Conservation Authority
- Placer County Water Agency
- South Sutter Water District

This EIR may also be used by other public agencies to issue approvals and permits related to the Proposed Project.

1.4 Organization and Scope of the Final EIR

This document is organized as follows:

ES- Executive Summary

The Executive Summary reprints the summary presented in the Draft EIR and includes revisions to that summary made in response to comments on the Draft EIR and at the discretion of the Lead Agency. Section 2.0 provides a brief description of the three Project alternatives evaluated in this EIR and lists the key project objectives. As required by CEQA, the summary also identifies areas of controversy addressed in the EIR and issues yet to be resolved by the Lead Agency. Lastly, Section 2.0 includes the Draft EIR summary table listing all environmental impacts and mitigation measures as presented in the Draft including any modifications to those impacts/mitigation measures made in response to comments.

Section 1.0 – Introduction

Section 1.0 provides an overview of the EIR process to date and what the Final EIR is required to contain.

Section 2.0 – Comments on the Draft EIR and Responses

Section 2.0 provides a list of commenters, copies of written comments (coded for reference), and written responses to each substantive comment made on the Draft EIR.

Section 3.0 – Revisions to the Draft EIR

Section 3.0 identifies revisions to the Draft EIR made in response to comments and at the discretion of the Lead Agency. The revisions clarify and amplify the information and analysis presented in the Draft EIR and do not alter the EIR in a way that deprives the public of a meaningful opportunity to comment on a substantial adverse environmental effect or a feasible way to mitigate or avoid such an effect. No new significant environmental effects and no increase in the severity of an environmental impact are identified in this Final EIR.

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2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

2.1 Introduction

This Final Environmental Impact Report (FEIR) was prepared in accordance with the California Environmental Quality Act (CEQA) (California Public Resources Code Section 21000, et seq.) and State CEQA Guidelines (California Code of Regulations Section 15000, et seq.). The Nevada Irrigation District (NID) is the lead agency for the environmental review of the Proposed Project and has the principal responsibility for approving the Project. This Final EIR assesses the expected environmental impacts resulting from the approval and implementation of each of the three proposed Project Alternatives and responds to comments received on the Draft EIR.

2.2 List of Commenters

The following individuals and representatives of organizations and agencies submitted written comments on the Draft EIR. To assist in referencing comments and responses, the following coding system is used:

- Agency and service provider comment letters are coded by letters and each issue raised in the comment letter is assigned a number (e.g., Comment Letter A, comment 1 is referred to as A-1).
- Individual and interest group comment letters are coded by numbers and each issue raised in the comment letter is assigned a number (e.g., Comment Letter 1, comment 1 is referred to as 1-1).

Table 2-1. List of Comment Letters

Letter	Agencies	Date
A	National Marine Fisheries Service, Cathy Marcinkevage	5/17/2021
B	County of Placer, Leigh Chavez	5/17/2021
C	California Department of Fish and Wildlife, Kevin Thomas	5/17/2021
Organizations or Individuals		
1	Save Auburn Ravine Salmon and Steelhead, Robert Hane	4/24/2021
2	Friends of Auburn Ravine, James Hauller	5/15/2021
3	Water Audit California, William McKinnon	5/17/2021

2.3 Requirements for Responding to Comments on the Draft EIR

State CEQA Guidelines Section 15088 requires that lead agencies evaluate all comments on environmental issues received on the Draft EIR and prepare a written response. The written response must address the significant environmental issue raised and must be detailed, especially when specific comments or suggestions (e.g., additional mitigation measures) are not accepted. In addition, there must be a good faith and reasoned analysis in the written response. However, lead agencies need only respond to significant environmental issues associated with the project and do not need to provide all the

information requested by commenters, as long as a good faith effort at full disclosure is made in the EIR (State CEQA Guidelines 15204).

State CEQA Guidelines Section 15204 recommends that commenters provide detailed comments that focus on the sufficiency of the Draft EIR in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated. State CEQA Guidelines Section 15204 also notes that commenters should provide an explanation and evidence supporting their comments. Pursuant to State CEQA Guidelines Section 15064, an effect shall not be considered significant in the absence of substantial evidence supporting such a conclusion.

State CEQA Guidelines Section 15088 also recommends that where a response to comments results in revisions to the Draft EIR, those revisions be incorporated as a revision to the Draft EIR or as a separate section of the Final EIR. Revisions to the Draft EIR made in response to public comments are contained in Section 3.0 of this Final EIR.

2.4 Responses to Comments

Each comment letter received for the Project and the individual responses to each comment are included in this document. The comments included in these letters are individually addressed below.

2.4.1 Agency Comments and Responses

Letter A



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
650 Capitol Mall, Suite 5-100
Sacramento, California 95814-4700

May 17, 2021

Kris Stepanian
Nevada Irrigation District
1036 West Main St.
Grass Valley, CA 95945

RE: Comments on the Draft Environmental Impact Report (EIR) for the Nevada Irrigation District's (NID) Hemphill Diversion Structure

The National Marine Fisheries Service (NMFS) has reviewed the Draft Environmental Impact Report (EIR) for the Nevada Irrigation District's (NID) Hemphill Diversion Structure. Staff also attended the online presentation portion of the Public Scoping Meeting held on September 21, 2020, and Technical Advisory Committee (TAC) meetings from 2016-2019.

A-1

The proposed EIR includes an analysis of four alternatives, including: no project, riverbank infiltration gallery, fish passage alternative, and a pipeline. We are encouraged by NID's reaffirmation of its longer-term commitment to improve fish passage at Hemphill Dam and the district's willingness to explore efforts to advance that goal and to accept NMFS' comments provided through this public process.

NMFS is responsible for the administration and enforcement of the Endangered Species Act of 1973 (ESA), as amended [16 U.S.C. 1531 *et seq.*] with regard to ESA-listed anadromous fish species and their critical habitat. The proposed activity will directly affect federally threatened California Central Valley (CCV) steelhead (*Oncorhynchus mykiss*) and their designated critical habitat:

California Central Valley (CCV) steelhead distinct population segment (DPS)
Threatened (71 FR 834; January 5, 2006)
Designated critical habitat (70 FR 52488; September 2, 2005)

A-2

NMFS' Recovery Plan for Central Valley Chinook Salmon and Steelhead has identified Auburn Ravine as a core 2 population. Core 2 populations are assumed to have the potential to meet the moderate risk of extinction criteria and are dependent populations of secondary importance for recovery efforts. Auburn Ravine is designated CCV steelhead critical habitat. Auburn Ravine provides migration, spawning, and rearing habitat (NMFS 2014). Additionally, Auburn Ravine may also support the following NMFS species of special concern not currently listed under the ESA a portion of the year:

Central Valley (CV) fall-run and late fall-run Chinook salmon evolutionarily significant unit (ESU) (*O. tshawytscha*)

Page - 1



Letter A Continued

Auburn Ravine also contains essential fish habitat (EFH) for Pacific Coast Salmon.

A-2
cont.

CCV steelhead are known to use the habitat in the vicinity of Hemphill Dam as rearing habitat and a migration corridor habitat, and likely use nearby habitat in Auburn Ravine for spawning, particularly in the upper reaches (Bailey 2003). Based on the fish community surveys conducted by the California Department of Fish and Wildlife (CDFW) in 2004 and 2005, juvenile CCV steelhead have the potential to rear in this area throughout the year (Navicky 2008). Adult CCV steelhead generally migrate from the ocean to natal spawning grounds from October to May with peak spawning from January through March (Moyle 2002). However, on small streams, such as Auburn Ravine, adult upstream migration is triggered by winter rainfall and increased instream flow. Therefore, NMFS generally expects adult CCV steelhead to be present in Auburn Ravine from December through May. Juvenile CCV steelhead emigrate as smolts between November and May, and peak in March and April (Jones and Stokes 2005).

A-3

Water temperatures in Auburn Ravine likely support rearing juvenile *O. mykiss* year-round, including at least part of the irrigation season (Bailey 2003). However, low stream flows in September and October substantially reduce the area of aquatic habitat available. Upstream migrating adult CCV steelhead passage is blocked at Hemphill Dam in most years, except during winter storm (December through March) events (Bailey 2003). Lack of access to upper reaches of Auburn Ravine has substantially reduced the quantity of migration and rearing habitat for CCV steelhead.

The “Salmon Spawning and Water Quality Surveys in Auburn Ravine” report (Helix 2019) suggests, “good water quality conditions suitable for salmonid passage and egg incubation in Auburn Ravine during the 2017 migratory period,” and “...water quality conditions in Auburn Ravine during the 2018 migratory period were suitable for salmonid passage and egg incubation.” The impacts to water quality should be analyzed for each alternative considered in the EIR. Anticipated impacts to temperature and dissolved oxygen should be quantified relative to applicable water quality objectives (from the Central Valley Regional and State Water Quality Control Board) and relevant benchmarks (U.S. Environmental Protection Agency 2003). Alternatives that affect the hydrologic regime of Auburn Ravine should be evaluated to determine their effects on flow conditions for salmonids.

A-4

The Auburn Ravine reach we are primarily focused on is characterized by winter storms with spring-recession flows in mid-April, dry season in early June, a fall pulse in later October, and wet season centered in November (Lane *et al.* 2020, Yarnell *et al.* 2015). These functional flows overlap with the mid-April through mid-October irrigation season when the flashboards are installed on top of the dam. Selection of the preferred alternative should consider the functional flows necessary to support salmonid populations. Specifically, early fall storm events are key to attracting Chinook salmon into Auburn Ravine to spawn, stabilized spring flows support development of salmonid eggs and juveniles, and dry season minimum flows support important life history traits, especially for over-summering juveniles.

NMFS recommends that all proposed alternatives meet the 2011 NMFS Anadromous Salmonid Passage Facility Design guidelines (or the most current criteria available) for safe, timely and effective fish passage.

Letter A Continued

General Comments:

Northwest Hydraulic Consultants, Inc. (NHC) 2021 report titled “Hemphill Diversion Structure and Fish Passage Assessment - Final Report” (NHC-Final Report) states on page 26, regardless of the final fish screen design, we [NHC] recommend conducting a hydraulic analysis of the preferred alternative to understand the hydraulics and sediment transport in and around the screen.

Comment: NMFS is in agreement with NHC’s recommendation to conduct a hydraulic analysis of the preferred alternative.

Disturbance to streambed gravel downstream of the dam can result in long-term effects to aquatic invertebrate prey availability (*e.g.*, species type, abundance, distribution, production) for juvenile salmonids, as a result of being buried/crushed, or displaced downstream. Adverse effects to juvenile fish include reduced growth and survival. Adverse effects can occur to the physical and biological features of CCV steelhead rearing and migration critical habitat, resulting in harm to the species if the areas are filled in with sediment. A long-term effect includes modification of the critical habitat physical and biological features of spawning habitat for CCV steelhead, as well as for Chinook salmon that use the habitat. This effect would occur by allowing the wedge of sediment that will be mobilized by removing the dam, to disperse downstream. This likely resulted in burying and cementing spawning gravel with fine sediments, thereby reducing the quantity and quality of salmonid spawning habitat in the reach downstream of the dam.

A-5

Recommendation: For all alternatives being considered, calculate the amount of sediment that would be mobilized by removing/lowering the dam and have it removed and hauled upland or off site (as permits indicate) to minimize adverse effects on the downstream system.

Temporary Diversion During Construction

Temporary diversions are required to meet the same fish passage requirements in NMFS’ Anadromous Salmonid Passage Facility Design document. Where this is not possible, project owners must seek NMFS’ approval of alternate interim fish passage design criteria, and a final interim passage plan.

A-6

No Project Alternative:

The No Project Alternative does not meet the main objective of the project, but was included as a requirement of the CEQA Guidelines as indicated on Page ES-3. Further, Page 4-6 and the Northwest Hydraulic Consultants, Inc. (NHC 2021) report states, based on field observations and continuing attempts to plug the dam with concrete, it is likely that another large flood event may further compromise the dam or cause it to fail entirely, given that its foundation is already compromised.

A-7

Recommendations: As the existing Hemphill Dam is an obstruction to fish passage and has been evaluated and determined that it could fail entirely in the future, NMFS recommends the No Project Alternative not be selected as the final preferred solution.

Letter A Continued

Alternative #1:

The Riverbank Infiltration Gallery, in concept, may provide suitable fish passage conditions at a diversion site. However, if improperly sited, failure may occur that results in severe adverse habitat impacts and loss of habitat access in addition to the loss of the diversion. NMFS appreciates the recognition on Page 2-17 in the EIR report regarding prior Agency comments and NID's willingness to address the concerns that have been raised in the past regarding infiltration galleries as an experimental technology.

Page 2-14 states the existing canal inlet will be blocked. Please clarify how the inlet will be blocked and what kind of bank treatment will be applied.

A-8

Page 2-14 states the portion of the canal upstream of the new inlet structure would be filled in.

Recommendations: NMFS recommends fish rescue activities be included in the canal to salvage any fish that may be in the system since the inlet to the canal is not screened.

Infiltration galleries are sensitive to a specific set of stream/river conditions, and due to their location, there is a mixing of shallow groundwater and surface water. One mode of infiltration gallery failure is plugging of the overlying porous material, which subsequently reduces the overall effectiveness of the systems by reducing flow capacity, motivating the owner/operator to excavate and replace the buried sections to achieve full diversion rates, thereby impacting habitat.

Given the geologic conditions along Auburn Ravine, and the observed sediment accumulation, plugging of the infiltration gallery is considered likely.

NHC addresses the known heavy sediment load in their report titled Hemphill Diversion Structure and Fish Passage Assessment - Final Report. The report acknowledges fine sediments in the system have the potential of clogging the basin and could require costly maintenance relative to fish screens. This is in line with NV5's Geotechnical Engineering and Hydraulics Report for the Hemphill Diversion Structure dated October 2018 and prepared for NID, as it states on Page 1 that the low gradient of Auburn Ravine lacks the sufficient hydraulic characteristics to transport deposited material over time (NV5 2018). This validates the concern of plugging.

A-9

It was stated at an October 23rd meeting with NID and the TAC that the intent was to construct the infiltration gallery and operate it for one year before decommissioning the dam. This raised additional concerns of plugging for the infiltration gallery, as the sediment impounded behind the dam will be transported downstream once the dam is removed. On page 2-17 of the EIR, it states the dam will be removed prior to the construction of the infiltration gallery. NMFS sees this as a positive solution to minimize concerns of initial plugging from the existing volume of sediment built-up behind the dam, but with continued projected bank erosion there is still a concern for long term maintenance regarding the plugging of the facility.

Spawning has also been documented within the area proposed for the infiltration gallery. Operations of an infiltration gallery are generally ceased when redds are in the area, which may result in large periods of non-operation of the facility. The facility may cause take of juvenile

Page - 4

Letter A Continued

fish if they are present during pumping operations. Take may become more likely if large volumes of sediment blockage cause the gallery to not operate as intended.

A-9
cont.

Placement of the gallery should be far enough away from the backwater hydraulic effects of existing impoundments so that the maximum available head to drive water into the infiltration gallery is the normal depth of the stream at any given flow without the benefit of check structures. Per NMFS 2011, Section 12.5.1.2, use of temporary or permanent impoundments, such as push-up berms, stacked rock and plastic and other dams to raise the water level, is not allowed.

NMFS places several limitations on the siting and operation of infiltration galleries, as follows but not limited to:

- Major repairs to the infiltration gallery that would disrupt the streambed may not be approved during critical life stages. Performing preventative maintenance, such as backwashing the system on a regular basis, can minimize the need for major repairs. Backwashing or cleaning of the gravel can be achieved by using air or water or both (NMFS 2011).
- Should spawning occur on an infiltration gallery or within the zone of gallery influence to hyporheic flow to the redd, then all diversion and backwashing activities should cease for 90 days or until the eggs hatch, so that the first life stage's biological processes associated with spawning are not interrupted.
- When juvenile salmonids are present at or downstream from the gallery, backwashing should not be conducted.
- All diversions must be conducted in accordance with all laws and authorities on water withdrawals and protections for aquatic species.
- Failed infiltration galleries will not be approved by NMFS to be replaced in kind unless the failure mechanism has been identified and a subsequent design is provided that adequately addresses the failure.
- Scour Depth Limitation is when the porous streambed material has been scoured to the calculated scour depth, or ½ of the original overlying material has been removed., Diversion rate should be reduced or maintenance of the facility is required to bring the level of protection back to original design specifications in consultation with your engineer and NMFS.
- Infiltration galleries should not be operated when the bed has scoured such that streambed material has been scoured to less than 25% of its design thickness, until facility maintenance has replaced the original thickness of overlying material.

A-10

Recommendations: NMFS recommends Alternative #1 is not selected due to NHC report findings of known heavy sediment load and fine sediments in the system which are known to have the potential of clogging an infiltration basin. NV5's report supports the concerns documenting the low gradient of Auburn Ravine lacking the sufficient hydraulic characteristics to transport deposited material over time (NV5 2018).

Alternative #2:

In general, NMFS appreciates the inclusion of the Fish Passage Alternative, which includes: the removal of the diversion structure, construction of a nature-like roughened rock ramp instream

A-11

Page - 5

Letter A Continued

fish passage structure, and installation of the preferred flat plate fish screen alternative. Positive barrier screens, like the flat plate screen option, have been shown to have high success rates (typically greater than 98%) at moving juvenile salmonids past intakes with a minimum of delay, loss, or injury (NMFS 2011). NMFS thinks this alternative can provide a beneficial need for fish passage and meet the needs of the District to supply water to its constituents.

Page 2-13 discusses channel incision to be minimal for Alternative 2, but does not provide any qualitative information to be considered.

A-11
cont.

Recommendations: Please provide information on the determination of minimal channel incision.

Page 2-13 recommends engineered log jams, barbs, or groins placed along channel margins to slow flow along the edge of banks to reduce scour and establish natural vegetation. It is not clear what the material would be for the barbs or groins or the extent of the anchoring of the toes with large rock. Riprap impedes the natural functions of a riverbank or shoreline, as it interrupts the establishment of the riparian zone, or the point of interface between land and flowing water (FEMA 2009). Armoring techniques that allow for interstitial voids in the rocks provide potential predator habitat.

Recommendations: NMFS recommends, in consultation with the resource agencies, to look at practicable alternatives of designing with nature, such as the design guidance found in FEMA's Alternative Techniques to Riprap Bank Stabilization (FEMA 2009) that are becoming widely accepted and used in stream restoration and fish passage projects. Clusters of logs that act like spurs at low flows and weirs at high flows could be one alternative to consider for bank stabilization and regeneration (Photo example below courtesy of OBEC Consulting Inc.).

A-12



Letter A Continued

Page 2-19 proposes to outfall juveniles from the screen bypass system just upstream of the nature like fishway (NLF). Given that the stream experiences low flow during the dry months of the year, it is best to keep the juvenile bypass outfall as close to the point of diversion (POD) as possible to keep the bypass return water in the stream over the NLF.

Recommendations: Consider contouring the upper end of the NLF or one of the areas between the boulder weirs to have a receiving pool with adequate depth and be located in an area where ambient river velocities are greater than 4.0 ft/s during the smolt out-migration. Meandering the low flow fish channel through the NLF can also be an option to create an outfall location and pathway for juvenile downstream migration.

A-13

Page 2-21 states the shape of the channel will be determined in a subsequent design phase.

Recommendations: Please include a channelized low-flow fish passage channel within the roughened ramp fishway.

A-14

Page 2-21 states to prevent water from entering the canal during non-irrigation season, a gate assembly will be installed near the intake.

Comment: NMFS (2011) calls for gates to be operated either in a fully open or fully closed position (no throttling of the flows) and any gate stems or other adjustment mechanisms must not be placed in any potential path of fish migration. All control gates exposed to fish must have a shroud or be recessed to minimize or eliminate fish contact.

A-15

Page 2-21 calls the fish bypass system a fish bypass valve. Closure valves of any type should not be used within the bypass pipe.

Comment: Please clarify if the *bypass valve* term used is just the open juvenile bypass pipe that does not include any valves.

A-16

Page 2-21 states that a positive barrier flat plate screen will be installed at the head of the diversion using CDFW or NMFS Criteria.

Recommendation: Please list out criteria that will be used from each reference for fish passage components, so we can ensure it meets guidelines for NMFS' ESA-listed species.

A-17

Alternative #3:

The proposed Pipeline Alternative consists of removing the existing Hemphill Dam and taking the diversion water from the existing Auburn Ravine 1 (AR1) diversion at Gold Hill Dam. This would reduce flows within the 6.25 mile section from Gold Hill Dam to Hemphill Dam during the irrigation season from April 15 to October 15, potentially causing an elevating effect on water temperatures. As previously mentioned, the current water temperatures in Auburn Ravine likely support rearing juvenile *O. mykiss* year-round, including at least part of the irrigation season (Bailey 2003). Reductions in flow may result in severe adverse habitat impacts and loss of habitat access due to poor flows, increased temperatures, and degraded water quality.

A-18

The NMFS Recovery Plan (Plan) establishes Auburn Ravine as a core 2 watershed where listed species meet, or have the potential to meet, the biological recovery standard for moderate risk of

Page - 7

Letter A Continued

extinction (NMFS 2014). The Plan identifies installing a fish ladder and screen on the diversion canal at Gold Hill Dam. Fish entrainment into agricultural and municipal water diversions may experience 100% mortality, particularly if no egress route back to the river is provided (NMFS 2011).

A-18
cont.

Recommendations: NMFS recommends that functional flows, at a minimum of what is currently provided, be continued if this alternative is selected to support salmonid populations. Specifically, spring flows support the development of salmonid eggs and juveniles and dry season minimum flows support over-summering juveniles.

If selected, NMFS recommends that this alternative include a fish screen and ladder on the AR1 diversion at Gold Hill Dam. The screen will minimize the entrainment of juvenile fish into the canal and the fishway would allow upstream migration for adults.

A-19

Page 2-25 states that water diverted to the Hemphill Canal via the pipeline would range from an average historic rate of eight cfs to a maximum diversion of 18 cfs.

Comment: Given flows in Auburn Ravine, the removal of 8-18 cfs could be a significant portion of available flow, especially in drought years. Removal of this water from Gold Hill Dam to Hemphill Dam could lead to less available habitat for CCV steelhead, elevated water temperatures, increased turbidity, and greater impacts from pollutants or contaminants.

A-20

Page 2-28 states the Hemphill Canal inlet will be removed and the canal filled in.

Question: What will be the bank treatment at the diversion inlet location and what fill material will be used in the canal?

A-21

Under Section 3.3.5, Environmental Impacts and Mitigation Measures, Thresholds of Significance, it states that implementation of the proposed Project would have a significant adverse impact on biological resources if it would result in a substantial interference with the movement of native resident or migratory fish or wildlife species. Page 4-17 states a substantial reduction in flows in this reach, especially during drought conditions under Alternative 3, could restrict or limit movements of fish occurring in this reach during the critical summer months, thereby increasing their susceptibility to predation and elevated summertime temperatures and decreasing their foraging success.

A-22

Comment: NMFS agrees with this conclusion that Alternative 3 would have potential adverse, unavoidable impacts to fish. When analyzing alternatives, NMFS recommends considering the alternative that provides for safe, timely, and efficient fish passage for both adult upstream and juvenile downstream migration. In the EIR, Alternative #3 was identified as restricting or limiting movements of fish, thereby potentially creating delays in fish migration.

General Conservation Recommendations (for Alternatives 1 through 3)

Temporary bypass pipe outfalls should be designed and constructed to ensure flow energy is dissipated at the outfall end of the pipe to minimize stream channel erosion and provide safe downstream reentry of fish, preferably into pool habitat with cover.

A-23

Letter A Continued

Seepage water from the site should be pumped to a temporary storage and treatment site or into upland areas to allow water to percolate through soil or to filter through vegetation before reentering the stream channel.

When construction is complete, re-water the construction site slowly to prevent loss of surface flow downstream and to prevent a sudden increase in stream turbidity.

A-24

Whenever a pump is used to dewater the isolation area where ESA-listed fish may be present, a fish screen must be used that meets NMFS' Southwest Region Water Drafting Specifications (NMFS 2001).

Provide a longitudinal profile of the stream channel thatweg for 20 channel widths upstream and downstream of the structure to be used in determining potential channel degradation.

We recommend working with the Placer Conservation Authority to determine if this project can be covered by the Placer County Conservation Program habitat conservation plan.

A-25

Thank you for allowing us to provide input during this public comment period to ensure the final alternative selected meets safe, timely, and effective fish passage. If you have questions regarding this matter, please contact Jean Castillo at (916) 203-9390 or Jean.Castillo@noaa.gov.

Sincerely,



Cathy Marcinkevage
Assistant Regional Administrator
California Central Valley Office

Letter A Continued

References

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Response to Comment Letter A – Cathy Marcinkevage, National Marine Fisheries Service

- Response A-1: In Comment A-1, NMFS reiterates elements of the environmental review process and expresses encouragement at NID’s efforts to pursue the Project. The comment is noted and hereby forwarded to the NID Board for their consideration.
- Response A-2: Comment A-2 states NMFS’s responsibilities related to the administration and enforcement of the Endangered Species Act of 1973 (ESA) and their review of the Draft EIR. The comment also notes that Auburn Ravine is designated as California Central Valley (CCV) steelhead critical habitat. The comment in its entirety is noted and, in response, the Project objectives have been revised to specifically note CCV steelhead as a species requiring fish passage at the facility.
- Response A-3: The comment notes, in part, that selection of the preferred alternative should consider the functional flows necessary to support salmonid populations. Specifically, early fall storm events that are key to attracting Chinook salmon into Auburn Ravine to spawn, spring flows to support development of salmonid eggs and juveniles, dry season minimum flows to support over-summering juveniles, and increased temperatures resulting from reduced stream flows. The comment is hereby noted and forwarded for consideration during selection of the preferred project alternative. If Alternative 2 is selected as the preferred alternative, final design of the structure will provide for year-round upstream and downstream passage for both adult and juvenile Central Valley Steelhead and fall-run Chinook Salmon. As discussed in Response to Comment A-14 below, should Alternative 2 be selected as the Project, the final shape of the channel will include a low-flow fish passage channel. Juvenile passage will be provided throughout the year except in dry years when sufficient flow to the channel is unavailable to support passage.
- Response A-4: Comment A-4 suggests that a more robust evaluation of the potential project impacts on water quality be carried out, particularly potential impacts on temperature and dissolved oxygen. The comment states that Alternatives that affect the hydrological regime of Auburn Ravine should be evaluated to determine their effects of flow conditions for salmonids. In response to the comment, we note that water quality analysis presented in the Draft EIR is qualitative and comparative in nature. Only one of the proposed alternatives, Alternative 3 (Pipeline Alternative) would substantially affect existing flow conditions and the hydrological regime of Auburn Ravine. The impact of Alternative 3 on special-status fish species and fish movement within the ravine due to reduced stream flow and water quality was found to be “significant and unavoidable.” If Alternative 3 is selected as the proposed project, further evaluation and quantification of the potential effect of the Project on Auburn

Ravine water quality would be warranted as part of the final Project design development and permitting process.

In the event that Alternative 2, Fish Passage, is selected as the proposed project, we concur with the comment's recommendation that the design meet the 2011 NMFS Anadromous Salmonid Passage Facility Design guidelines (or most current NMFS criteria available during the design process) and we reiterate that Alternative 2 will not alter the hydrology of the downstream reach.

Response A-5: We concur with the comment's recommendation. For Alternatives 1 and 3, the diversion structure at Hemphill Canal would be completely removed. Alternative 2 would have an elevation lower than the existing structure. Each alternative is likely to increase sediment conveyance through the channel upstream of the dam. The increase in sediment conveyance will provide a sediment load to the downstream closer to the expected natural delivery of sediment that would occur if the existing structure were not in place. Some channel adjustment may occur over the first few years after project implementation as the channel adjusts to the increased sediment loads through the impounded reach. Final Project design will provide an analysis of expected geomorphic changes upstream of the dam and include measures to limit the sediment impacts of these adjustments on the downstream reach.

Response A-6: Comment A-6 addresses temporary diversion during construction. In response to the comment, we anticipate providing upstream passage would be included as part of the Project's final design. The temporary bypass will likely only be required during summer construction outside of the adult fall-run Chinook salmon and adult Central Valley steelhead migratory seasons, however upstream juvenile passage would likely be impacted by the temporary diversion. The final design will include an analysis of downstream rearing habitat for juveniles, and alternatives to provide upstream passage during construction. NID will work with NMFS to evaluate trade-offs between providing temporary passage and evaluate if downstream water quality conditions could support rearing during construction. If temporary passage is not provided, NID will ensure downstream water quality conditions are sufficient for juvenile rearing while passage is blocked.

Response A-7: Comment A-7 recommends NID not select the No Project Alternative. The comment is noted.

Response A-8: Comment A-8 discusses the risk of failure of the Infiltration Gallery structure under Alternative 1 if improperly sited and the resulting impacts in the event of failure. The comment is noted. Further, the comment requests additional information about the proposed blockage of the Hemphill Canal inlet under the alternative and bank treatment. While specific details of the canal blockage

under Alternative 1 would be developed during final project design, should Alternative 1 be selected as the proposed project, for purposes of this EIR, we assume that the blockage would include fill elements as illustrated in Figure 2-8a of the DEIR. This fill would extend from the existing diversion to the point where a pipe from the gallery would discharge to the canal. Specifically, the inlet and canal segment from the inlet to the point of discharge from the gallery would be filled with compacted general suitable fill. The constructed bank of the stream channel would be armored with heavy riprap to protect against future erosion.

Comment A-8 further recommends fish rescue activities be included in the canal to salvage any fish that may be in the canal once the inlet is blocked. In response, we agree with this recommendation. Fish rescue will occur in the canal prior to blockage of the canal as part of Alternative 1 construction or any in-water work occurring in the canal.

Response A-9: Comment A-9 identifies the elevated potential for clogging of the Alternative 1 infiltration gallery, based on the sediment load, erosion potential, and limited ability of Auburn Ravine's hydraulic characteristics to transport sediment downstream. We agree that, in combination, these factors increase the potential for the infiltration gallery to become plugged with sediment, thereby requiring routine long-term maintenance to ensure proper operation and to reduce the risk of take of ESA-listed fish. The comment also notes that operation of infiltration galleries is typically ceased when spawning redds are observed in close proximity. This recommendation and the comment in its entirety are noted and forwarded for consideration by the NID Board.

Response A-10: Comment A-10 lists several limitations on the siting and operation of infiltration galleries in general. The comment recommends that NID not select Alternative 1 based on the stated limitations and the findings presented in the report *Hemphill Diversion Structure and Fish Passage Assessment Final Report* by Northwest Hydraulic Consultants, Inc. (March 2021). This recommendation and the comment in its entirety are noted and forwarded for consideration by the Project decision makers.

Response A-11: The comment requests additional information on the determination of minimal channel incision. In response to the comment, Balance Hydrologics (2021) completed a sediment transport modeling analysis of conceptual dam removal alternatives, included as Appendix 3.8-B in the DEIR. Results of this analysis were used to estimate potential upstream incision. One concept that was evaluated by Balance included lowering the dam two feet. Further analyses of the final design will be used to quantify potential effects of final design and verify minimum expected incision.

- Response A-12: The comment recommends that bank stabilization elements of final project design are designed with nature and provides references and an example. We concur with the recommendation and note that Mitigation Measure HYD/WQ-1 includes measures to control erosion and undercutting that are similar to those proposed in the comment. Specifically, the measure includes the use of engineered log jams and log groynes. The measure also requires the regrading and planting of the bank and channel to improve instream and riparian habitat conditions.
- Response A-13: The comment recommends contouring the upper end of the nature-like fishway proposed under Alternative 2 or other suitable areas to have a receiving pool. It also suggests consideration of a meandering low flow fish channel for inclusion in the final project design if Alternative 2 is selected. We agree with this recommendation and hereby forward it for consideration. We also note that the reference to the location of the juvenile bypass outfall on Page 2-19 of the Draft EIR was in error, and the intent is to locate the juvenile bypass outfall at a location meeting NMFS 2011 criteria either within the new structure or immediately downstream if more head was required. This correction has been made as shown in Section 3 of this Final EIR.
- Response A-14: The comment recommends that Alternative 2 include a channelized low-flow fish passage channel within the roughened ramp fishway. We agree with the recommendation and, should Alternative 2 be selected as the Proposed Project, the final shape of the channel will include a low-flow fish passage channel.
- Response A-15: Comment A-15 refers to the discussion on page 2-21 of the Draft EIR concerning the proposed gate assembly near the Hemphill Canal intake associated with Alternative 2. To clarify, the statement on page 2-21 is referring to a headgate on the diversion canal and not a gate on a fishway. The headgate will be used to moderate flows into the diversion canal and ensure the fish screen bay does not become overtopped. NMFS (2011) requires gates in fishways to remain fully open or fully closed, however criteria for headgate operation is not included. The headgate will not be located at a location where fish impingement or fallback is likely to occur.
- Response A-16: Comment A-16 suggests that closure valves of any type should not be used within the bypass pipe. To clarify, no valves will be located within the bypass pipe itself. The statement on page 2-21 referred to in the comment refers to flow control on the upstream of the bypass entrance as required in NMFS (2011).
- Response A-17: The comment requests a listing of criteria to be used for fish passage components to ensure compliance with guidelines for NMFS ESA-listed species. In response, the proposed on-canal screen will follow the requirements of NMFS (2011). The concept design assumed 0.4 ft/s for an in-canal screen to develop an

initial sizing requirement. Further levels of design will identify the specific criteria from NMFS (2011) applicable to the design and demonstrate that the designs meet these criteria.

- Response A-18: Comment A-18 addresses Alternative 3: Pipeline Alternative and suggests reductions in Auburn Ravine flow associated with the alternative could result in severe adverse habitat impacts and loss of habitat access due to poor flows, increased temperatures, and degraded water quality. We concur with this assessment, and it is consistent with the finding of significant and unavoidable impact on special status fish species and fish movement made for Alternative 3 and presented in Section 3.3 of the Draft EIR.
- Further, Comment A-18 recommends that functional flows, at a minimum of what is currently provided, be continued if this alternative is selected. Specifically, spring flows for the development of salmonid eggs and juveniles and dry season minimum flow for the support of over-summering juveniles. In response, the feasibility of expanding releases to Auburn Ravine at Gold Hill Dam necessary to implement this recommendation has not been demonstrated at this time and is not part of the Alternative 3 operational criteria addressed in this EIR. As such, the potential impact of the alternative on special status fish and fish movement was found to be significant and unavoidable. If Alternative 3 is selected as the Proposed Project, NID is required to develop and approve findings of overriding consideration before adopting the Project.
- Response A-19: The comment recommends that Alternative 3, if selected, include a fish screen and ladder on the AR1 diversion at Gold Hill Dam. The comment is noted and hereby forwarded to the NID Board for consideration.
- Response A-20: Comment A-20 describes the potential impact of Alternative 3 on available habitat for CCV steelhead, elevated water temperatures, increased turbidity, and higher concentrations of pollutants or contaminants in Auburn Ravine south of Gold Hill Dam. We concur with this assessment and note that it is consistent with the impact assessments presented in Sections 3.3 of the Draft EIR.
- Response A-21: Comment A-21 asks, "What will be the bank treatment at the diversion inlet location and what fill material will be used in the canal?" In response, under Alternative 3 the canal upstream of the outlet of the pipeline would be filled with suitable fill material and brought to grade. Sediment impounded behind the existing dam likely to be mobilized after the dam removal, could be removed from the active channel and used as fill in the canal. The bank at the current entrance would be regraded and planted with native riparian species, and temporary biodegradable erosion control installed during the vegetation establishment period.

Hemphill Diversion Structure Project
Final Environmental Impact Report

- Response A-22: Comment A-23 concurs with the conclusion presented in the Draft EIR that Alternative 3 would have potential adverse, unavoidable impact on fish and recommends against selecting Alternative 3 as the Proposed Project. The comment is noted.
- Response A-23: Comment A-23 suggests that temporary bypass pipe outfalls associated with the Proposed Project should be designed and constructed to ensure flow energy is dissipated at the outfall end of the pipe to minimize stream channel erosion and provide safe downstream reentry of fish, preferably into pool habitat with cover. We concur and hereby forward the recommendation for consideration.
- Response A-24: The comment provides general conservation recommendations for implementing Alternatives 1, 2, and 3. The comment is noted and forwarded for consideration.
- Response A-25: The comment recommends working with the Placer Conservation Authority to determine if the Project can be covered by the Placer County Conservation Program (PCCP) habitat conservation plan. In response, we note that NID has initiated discussions with the Authority to determine if the PCCP can be applied to the Project.



Letter B



May 17, 2021

Nevada Irrigation District
ATTN: Kris Stepanian
1036 Main Street
Grass Valley, CA 95945

via email: stepaniank@nidwater.com

Subject: Hemphill Diversion Structure Project, Draft EIR

Dear Ms. Stepanian:

Placer County appreciates the opportunity to engage at this stage in the process. After reviewing the submitted information, the County offers the following comments for your consideration regarding the proposed project:

Engineering & Surveying Division and Department of Public Works and Facilities

The Draft EIR does not appear to include an impact discussion for the impacts to the floodplain. The Draft EIR should address any impacts to the existing 100 year floodplain resulting from the proposed development improvements within the 100 year floodplain. The Draft EIR should address that Placer County General Plan policy prohibits developing within a flood zone and policy states that the County shall attempt to maintain natural conditions within the 100-year floodplain of all rivers and streams. Discussion regarding compliance with the Placer County Flood Control and Water Conservation District Stormwater Management Manual and the County Land Development Manual should also be included in the Draft EIR.

B-1

B-2

Flood Control and Water Conservation District

1. Please update section 2.5.1 Regulatory Requirements, Permits, and Approvals to include FEMA as an agency that may require approval of the proposed project. Please also change the Placer County Flood Control and Water Conservation District to Placer County Floodplain Management as the appropriate agency to coordinate floodplain changes.
2. The District has conferred with the Placer County floodplain administrator and determined that a FEMA Flood Insurance Study (FIS) and revised floodplain mapping dated 11/2/18 for Auburn Ravine, which flows within this site, should be considered the most current best available information as this development moves forward. Please provide a hydraulic analysis using the FEMA Auburn Ravine floodplain model to summarize project impacts to the Base Flood Elevations (BFEs) using the Auburn Ravine 1% annual chance discharge rate from the FIS. The hydraulic model for Auburn Ravine is available upon request from FEMA. The District noted that the proposed improvements are located within the FEMA regulatory floodway. Therefore, a no-rise certification is required to be submitted and approved by the Placer County Floodplain Administrator if the project will not result in increases in BFEs. The Floodplain Administrator has indicated that a Conditional Letter of Map Revision (CLOMR) will be required to be submitted to and approved by FEMA if the BFEs are increased and one of the two conditions are met:
 - a. Fill/structures are placed within the regulatory floodway that result in an increase in BFE above 0.00 feet.

B-3

B-4

Letter B Continued



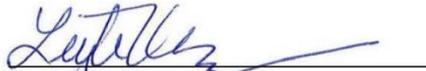
- b. Fill/structures are placed within the floodplain that result in an increase in BFE above 1.0 feet.

B-4
cont.

Thank you again for the opportunity to comment on the Draft EIR for the Hemphill Diversion Structure Project project.

Should you have any questions, please contact Leigh Chavez, Environmental Coordinator at lchavez@placer.ca.gov or 530-745-3077.

Sincerely,


LEIGH CHAVEZ, PRINCIPAL PLANNER
ENVIRONMENTAL COORDINATOR

Response to Comment Letter B – Leigh Chavez, County of Placer

Response B-1: In Comment B-1, the County states the Draft EIR does not appear to include an impact discussion for impacts to the floodplain. The comment also suggests the Draft EIR should address any impacts to the existing 100-year floodplain resulting from the Project. In response, we refer the reader to Section 4.10.2 (Hydrology and Water Quality) of the Initial Study included as Appendix 1.0-A of the Draft EIR under Items c(ii) and c(iv). Checklist Item c(ii) addresses the potential for the Project to substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. Item c(iv) concerns whether the Project could impede or redirect flood flows. In both cases, the potential Project impact was found to be less than significant. The justification for these findings is as follows.

Under each of the proposed project alternatives considered in the Draft EIR, excepting the No Project Alternative, the existing Hemphill Diversion Structure would be removed. Under Alternatives 1 and 3, no “grade control” would be reestablished at the Hemphill Diversion site, thus the impedance to flood flows presented by the existing diversion structure would be removed. Flood flows under Alternatives 1 or 3 would not be redirected. Under Alternative 2, grade control at the Hemphill Diversion site would be reestablished through the construction of a nature-like roughened rock ramp. Grade control established under Alternative 2, however, would be approximately two feet lower than that of the existing diversion structure without the structure’s flashboards in place. As such, the impedance to flood flows in Auburn Ravine Creek posed by the existing Hemphill Diversion would be reduced under Alternative 2.

Implementation of any one of the proposed project alternatives would not substantially affect flow rates in Auburn Ravine below the Hemphill Diversion site, as changes to deliveries to Hemphill Canal are not proposed under any of the considered alternatives.

The potential effects on the 100-year floodplain of implementing any of the proposed project alternatives would be limited to the immediate vicinity and upstream of the existing diversion structure. Removal of the structure will reduce flood flow impedance at the site and reduce the aerial extent of the floodplain in the immediate vicinity and upstream of the diversion site. However, it is important to note that, as stated in the Draft EIR, the project design is still conceptual and hydraulic impacts have not yet been fully evaluated. The hydraulic impacts to the floodplain will be quantified when and if a proposed project alternative is selected for development by NID as discussed in the response to Comment B-4 below.

- Response B-2: Comment B-2 states the Draft EIR should address that Placer County General Plan policy prohibits developing within a flood zone and policy states that the County shall attempt to maintain natural conditions within the 100-year floodplain. In response to the comment, the Flood Control and Water Conservation District Stormwater Management Manual and County Land Development Manual will be identified as design criteria for the project. Further, we note that the proposed modification to the existing structure will provide more natural conditions to the channel than the existing concrete dam. We assume the County policy is largely intended to avoid the development of potential impedances to flood flows within the floodplain and to protect public safety by restricting the development of occupied structures within the floodplain. Neither of these situations applies to the proposed project alternatives addressed in this EIR. In regard to attempting to "maintain natural conditions" within the floodplain, the primary objective of each of the project alternatives addressed herein is to remove a critical constructed impediment to the movement anadromous fishes in Auburn Ravine, which have historically been a part of the natural environment of the ravine.
- Response B-3: In response to Comment B-3, Section 2.5.1 of the Draft EIR has been revised to include FEMA as an agency that may require approval of the proposed project. Please refer to Section 3 of this Final EIR (Revisions to the Draft EIR). Additionally, the reference to "Placer County Flood Control and Water Conservation District" in the Draft EIR has been changed to Placer County Floodplain Management.
- Response B-4: Comment B-4 recommends that the FEMA Flood Insurance Study and revised floodplain mapping dated 11/12/18 for Auburn Ravine should be used as development of the Project moves forward. The comment also suggests a hydraulic analysis be conducted using the FEMA Auburn Ravine floodplain model to summarize Project effects on the Base Flood Elevations. As each of the proposed project alternatives are located within the FEMA regulatory floodway, a no-rise certification would be required from the Placer County Floodplain Administrator prior to initiating Project construction. The Floodplain Administrator has indicated that a Conditional Letter of Map Revision (CLOMR) will be required to be submitted to and approved by FEMA if the Base Flood Elevations increases beyond conditions identified in the comment.
- In response to the comment, we concur with the discussion and recommendation presented in the Comment B-4. The selection of any of the proposed project alternatives considered in the Draft EIR will place fill within the regulatory floodway. As the design is progressed, hydraulic analyses will be conducted using the FEMA effective model and 100-year flow to quantify any hydraulic impacts. The project will target a no-rise condition, however if a rise below 0.00 feet is determined, a CLOMR will be developed for project conditions.

Hemphill Diversion Structure Project
Final Environmental Impact Report

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LETTER C



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
North Central Region
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670-4599
916-358-2900
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



May 17, 2021

Kris Stepanian
Nevada Irrigation District
1036 Main Street
Grass Valley, CA 95945
stepaniank@nidwater.com

Subject: HEMPHILL DIVERSION STRUCTURE PROJECT - DRAFT
ENVIRONMENTAL IMPACT REPORT
SCH# 2020090032

Dear Ms. Stepanian:

The California Department of Fish and Wildlife (CDFW) received and reviewed the Draft Environmental Impact Report (DEIR) from Nevada Irrigation District (NID) for the Hemphill Diversion Structure Project (Project) in Placer County 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 1, 2020.

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish, wildlife, plants and their habitats. 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 (Fish & G. Code).

CDFW ROLE

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (*Id.*, § 1802.). Similarly, for purposes of CEQA, CDFW 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.

C-1

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.

LETTER C CONTINUED

Hemphill Diversion Structure Project
May 17, 2021
Page 2 of 12

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 NID may seek related take authorization as provided by the Fish and Game Code.

C-1
(Cont'd)

PROJECT DESCRIPTION SUMMARY

The Project site is located in Placer County, just east of the City of Lincoln, within Auburn Ravine. The Project site is located at latitude 38.896731 and longitude - 121.251885 (WGS84 datum, decimal degrees).

NID is considering three Project alternatives to remove the Hemphill Diversion Structure, which impedes the passage of anadromous fish species in Auburn Ravine, while still maintaining water deliveries to customers served by the Hemphill Canal. The three Project alternatives include:

- *Alternative 1 – Riverbank Infiltration Gallery Alternative:* Includes the removal of the diversion structure, site stabilization, and construction of a subterranean riverbank infiltration structure and pipeline connection to Hemphill Canal.
- *Alternative 2 – Fish Passage Alternative:* Includes the removal of the diversion structure, site stabilization, construction of a nature-like roughen rock ramp instream fish passage, installation of a fish screen and improvements to a portion of the Hemphill Canal.
- *Alternative 3 – Pipeline Alternative:* Includes the removal of the diversion structure, site stabilization, and installation of a new 4.5 mile 24-inch pipeline within existing roadway right-of-way (ROW). The pipeline would divert water from the Auburn Ravine 1 Canal located at the NID Placer Yard facility to the Hemphill Canal near the existing diversion structure.

C-2

Each alternative is designed to allow anadromous fish to migrate past the Hemphill Diversion Structure site and would require removal of the existing diversion structure. NID has not yet identified a preferred alternative.

COMMENTS AND RECOMMENDATIONS

During 2017 NID was awarded a Proposition 1 Watershed Restoration Grant for Phase 2 of the Hemphill Diversion Assessment. CDFW staff participated in a technical advisory committee (TAC) alternative development process associated with this grant and submitted comments to NID for consideration. Some of the comments below reflect those interactions with NID staff during the TAC meetings. CDFW offers the comments

C-3

LETTER C CONTINUED

Hemphill Diversion Structure Project
May 17, 2021
Page 3 of 12

and recommendations presented below to assist NID in adequately identifying and/or mitigating the Project's significant, or potentially significant, impacts on fish and wildlife resources. Editorial comments or other suggestions may also be included to improve the document.

C-3
(Cont'd)

Placer County Conservation Program

The Project is located within the Foothills portion of Plan Area A of the Placer County Conservation Program (PCCP). The PCCP comprises three planning documents published by Placer County: the Western Placer County Habitat Conservation Plan and Natural Community Conservation Plan (HCP/NCCP), the Western Placer County Aquatic Resources Program, and the Western Placer County In-Lieu Fee Program.

The PCCP has been approved and adopted by the Permittees (Placer County, City of Lincoln, South Placer Regional Transportation Authority, Placer County Water Agency, and the Placer Conservation Authority) and as of April 22, 2021, has received all corresponding HCP/NCCP permits and incidental take coverage for the Covered Species from the Wildlife Agencies (CDFW, U.S. Fish and Wildlife Service, and National Marine Fisheries Service, National Oceanic and Atmospheric Administration). In addition, the Central Valley Regional Water Quality Control Board, U.S. Army Corps of Engineers, and U.S. Environmental Protection Agency are the permitting or overseeing agencies for elements of the PCCP subject to the state Porter-Cologne Water Quality Act and the federal Clean Water Act.

C-4

The HCP/NCCP Conservation Strategy identifies the need to form private partnerships to remove high-priority fish passage barriers identified within the HCP/NCCP Plan Area, including Hemphill Dam (HCP/NCCP Section 5.3.2.3.3, CM2 RAR-2, *Removal and/or Modification of Barriers to Fish Passage*). CDFW encourages NID to pursue a partnership with the Placer Conservation Authority (PCA) to cover the Project under the PCCP as a Participating Special Entity (HCP/NCCP Section 2.4.6, *Participating Special Entities*). A successful partnership to complete the Project and remove a high-priority fish passage barrier will further the goals and objectives of the PCCP. Additionally, it will provide NID take coverage for applicable Covered Species as well as streamlined/programmatic permitting for impacts to state and federally protected aquatic resources.

The PCCP planning documents, application materials, and other related documents can be found here: <https://www.placer.ca.gov/3362/Placer-County-Conservation-Program>.

PROJECT ALTERNATIVES AND RELATED IMPACTS

As stated in CDFW's previously submitted comments in response to the Notice of Preparation of the DEIR on October 1, 2020, CEQA Guidelines section 15125(d) states that EIRs shall discuss any inconsistencies between projects and applicable plans (including habitat conservation plans/natural community conservation plans). To comply with the CEQA guidelines, CDFW recommends that the DEIR include a discussion of each Project alternative's consistency with the Western Placer County HCP/NCCP and

C-5

LETTER C CONTINUED

Hemphill Diversion Structure Project
May 17, 2021
Page 4 of 12

how NID will ensure that implementation of the Project alternatives do not impede the HCP/NCCPs ability to meet its biological goals and objectives. The primary goal identified in the HCP/NCCP Conservation Strategy for fall-/late fall-run Chinook salmon (*Oncorhynchus tshawytscha*) and steelhead (*Oncorhynchus mykiss*), both Covered Species under the HCP/NCCP, is "increased spawning, rearing, and migratory success of covered salmonids in the Auburn Ravine, Raccoon Creek, and Dry Creek watersheds" (HCP/NCCP Section 5.2.7.9, *Fish*).

C-5
(Cont'd)

Alternative 1 – Riverbank Infiltration Gallery Alternative

The CDFW's fish screen criteria are included in Appendix S of Volume One of the California Salmonid Stream Habitat Restoration Manual, which can be found at: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=22610&inline>.

C-6

The CDFW fish screen numeric criteria address conventional screen technology but does not cover infiltration galleries or experimental technology. For this reason, CDFW relies upon the current National Oceanic and Atmospheric Administration Fisheries' (NOAA Fisheries) Salmonid Passage Facility Design document (NOAA Fisheries' document). This document can be found online at: <https://www.fisheries.noaa.gov/resource/document/anadromous-salmonid-passage-facility-design>.

Section 12.1 of NOAA Fisheries' document explains that infiltration galleries are considered "experimental technology" and should be designed to meet the same level of protection as conventional fish screens, but that the risk of improperly siting these facilities is that "failure may occur that results in severe adverse habitat impacts and loss of habitat access in addition to the loss of the diversion." The NOAA Fisheries' document specifically addresses fish protection criteria in the design of infiltration galleries in Section 12.5.

C-7

The bed and banks of Auburn Ravine are highly dynamic, and CDFW anticipates that both erosion and/or deposition could be problematic at the proposed riverbank infiltration gallery site. The DEIR states on page 3.3-48 that "under Alternative 1 and 3, the upstream channel incision may be up to 5 to 8 feet in the 500 to 1,000 feet reach upstream of the dam, and less than three feet further upstream...In the 1,000 feet upstream of the dam, the channel incision may induce bank instability and erosion over a multi-year period as the channel adjusts". Erosional processes could adversely affect this current design because scour around the facility would likely reduce the diversion and fish protection effectiveness. Alternately, depositional processes have a high potential to clog the gravel, non-woven protective fabric, and diversion pipes of the proposed infiltration gallery.

C-8

Permeable infiltration galleries are prone to become ineffective due to plugging by sediments (NOAA Fisheries Document, Section 12.3). Because the site is in a stream with highly mobile bed and banks, and the post-dam-removal topography is unknown at this stage, the amount of erosion around the facility, sedimentation volume, and cleaning system effectiveness are all very difficult to forecast at this time. NOAA

C-9

Hemphill Diversion Structure Project
Final Environmental Impact Report

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LETTER C CONTINUED

Hemphill Diversion Structure Project
May 17, 2021
Page 5 of 12

Fisheries' infiltration gallery criteria (NOAA Fisheries Document, Section 12.5.1.7) states that an infiltration gallery should be backwashed using air or water when head loss measurements indicated that the average vertical interstitial velocity through the gravel is equal to or greater than 0.10 feet/second. The DEIR should require that a robust operation and maintenance plan is prepared if Alternative 1 is selected. This plan should include provisions to conduct regular hydraulic conductivity testing or use multiple on-site piezometers to determine head loss across the substrate to calculate the effective porosity of the gravel substrate.

C-9
(Cont'd)

In the DEIR, NID does not identify a preferred Project alternative; if this alternative is selected, CDFW recommends that the DEIR includes:

- A. The amount of long-term sedimentation or scour that could be expected to affect the infiltration gallery site, including:
 - Whether the amount of sedimentation could be effectively and consistently cleared using the design components included from the infiltration gallery and placed engineered fill; and
 - Whether materials used to construct the infiltration gallery have a likelihood of scour during high flow events and could cause additional erosion or downcutting of the stream at this location.
- B. Whether fish screening criteria could be met for this design, including but not limited to:
 - Infiltration galleries should not be installed at sites where natural sedimentation occurs that would plug a gallery (Section 12.4).
 - The infiltration gallery must be designed to withdraw water primarily from the portion of the stream located directly above the infiltration gallery (Section 12.5.1.1).
 - Infiltration galleries should not be operated when the water depth above the riverbed over any part of the infiltration gallery is less than 0.5 feet (Section 12.5.1.2).
 - The maximum vertical interstitial velocity through the substrate (V_s), must not exceed 0.05 feet/second when the substrate is new and/or after backwashing (Section 12.5.1.6).
 - What specific evaluation and monitoring would be used to document that the infiltration gallery does not result in increased impacts to fish and wildlife resources.

C-10

If Alternative 1 is selected, CDFW recommends that NID work closely with CDFW and NOAA Fisheries staff throughout the design process to ensure that all applicable screen

LETTER C CONTINUED

Hemphill Diversion Structure Project
May 17, 2021
Page 6 of 12

criteria are met for the respective agencies' requirements and to obtain applicable Project approvals and permits.

C-10
(Cont'd)

Alternative 2 - Fish Passage Alternative

The DEIR states that the erosion on the downstream side of Hemphill Dam described in DEIR Appendix 3.8E (*Hemphill Diversion Structure and Fish Passage Assessment – Final Report*) has the potential to undercut and cause the dam to fail. Sudden failure of the dam would cause severe riverbank downcutting, downstream movement of impounded sediments, and failure of the diversion structure. Project Alternative 2 involves removal of the Hemphill Dam structure and reconstruction of a grade-controlled nature-like fishway. The redesign and rebuild of the existing dam proposed in this alternative in the DEIR would help maintain the hydraulic head needed to maintain diversions at this location while upgrading the failing facility.

The preliminary concepts provided in the DEIR Appendix 3.8E present a project that could allow for safe and timely passage of fall-/late fall-run Chinook salmon, steelhead, and Pacific lamprey (*Lampetra tridentata*) in addition to other game and non-game fish species.

C-11

Fish passage criteria for nature-like fishways are defined in NOAA Fisheries' document (Section 4.10.2.2, *Roughened Channels*) and specify that, in general, roughened channels should only be used when:

- Channel slope using stream simulation is less than 6%; and
- Total length of passage is less than 150 feet.

The DEIR should include sufficient information to demonstrate in the design analysis that any scouring of fines from the constructed channel will be refilled by subsequent bedload transport and aggradations.

C-12

CDFW requests that NID staff and consultants work with CDFW staff through the design process to prepare finalized passage plans that meet fish passage and screening criteria and will be constructed using materials that will be stable through the expected range of flows that are observed at this site location.

C-13

Alternative 3 – Pipeline Alternative

The DEIR states on page 3.3-68 that:

"...the Pipeline installation alternative would cause a substantial reduction in flows during drought conditions. This would cause an associated reduction in rearing juvenile Chinook salmon, steelhead, and Pacific lamprey habitat quantity and quality relative to existing conditions. Because no feasible mitigation is available, this is a significant unavoidable impact on rearing juvenile Chinook salmon, steelhead, and Pacific lamprey habitat within this reach."

C-14

LETTER C CONTINUED

Hemphill Diversion Structure Project
May 17, 2021
Page 7 of 12

Additionally, the DEIR states on page 3.3-86 that:

“...the substantial reduction in flows and associated reduction in habitat quantity and quality that would occur, implementation of Alternative 3 Pipeline improvements would have a significant and unavoidable impact on aquatic wildlife movement and/or migration, particularly rearing juvenile steelhead in this reach. There is no feasible mitigation available to reduce this impact to less than significant.”

CDFW staff agree with the DEIR conclusions that reductions in flows in Auburn Ravine downstream of Gold Hill Dam associated with the Project Alternative 3 would result in significant and unavoidable impacts on rearing Chinook salmon, steelhead, and Pacific lamprey habitat within the affected reach of Auburn Ravine, in addition to significant unavoidable impacts on migration and instream movement of fish.

C-14
(Cont'd)

As discussed on DEIR page 4-16, implementation of Project Alternative 3 and the associated flow reductions in Auburn Ravine could result in a range of effects including “increased potential for low-flow barriers (e.g., shallow riffles or dry reaches), reduced food availability, dewatering of fish redds and associated egg desiccation, conversion to habitats that favor non-native fish, and increased susceptibility to predation”.

Based on these potential effects, CDFW recommends that the DEIR be updated to evaluate the potential impacts to HCP/NCCP Covered Species and natural communities associated with Project Alternative 3, and further evaluate whether or not Project Alternative 3 is likely to impede the HCP/NCCPs ability to fulfill the biological goals and objectives (CEQA Guidelines § 15125, subd.(d)).

ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

Foothill Yellow-Legged Frog

DEIR page 3.3-19 states that “...foothill yellow-legged frog [was] determined to be absent from the Project Study Area due to the lack of suitable habitat or because the Project Study Area is outside of the current known range of the species”. Please note that recently the Initial Study/Mitigated Negative Declaration prepared by NID for the Valley View Access Road Construction Project (SCH# 2020100266), located approximately 4.28 miles due north from the Project site, stated that a reconnaissance-level wildlife survey conducted in the spring of 2018 observed an individual foothill yellow-legged frog (*Rana boylei*; FYLF) and egg masses within the irrigation ditch located on the Project site. The FYLF and egg mass observation at the Valley View Access Road Construction Project site occurred at a similar elevation as the Project Study Area within the Doty Ravine/Raccoon Creek watershed. Additionally, the reach of Auburn Ravine immediately upstream of the Project Study Area as well as tributaries to Auburn Ravine in the Project vicinity have been modeled as year-round FYLF habitat (HCP/NCCP, Appendix D, *Species Accounts*).

C-15

Given the limited historic survey data available in the immediate Project vicinity, and the lack of information regarding the distribution and extent of the current FYLF population

LETTER C CONTINUED

Hemphill Diversion Structure Project
May 17, 2021
Page 8 of 12

in Placer County within the HCP/NCCP Plan Area, CDFW recommends that NID conduct FYLF surveys and habitat assessments throughout the Project Study Area and include the results in the DEIR. CDFW recommends that surveys be conducted in accordance with CDFW's Considerations for Conserving the Foothill Yellow-Legged Frog (2018), available here: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=157562&inline>. Surveys should include at least one Visual Encounter Survey (VES) during the breeding and/or oviposition period (generally April – June), a tadpole survey four to eight weeks after the breeding survey(s), a subadult survey in late summer/early fall (generally late August to early October), and a final VES within 3 to 5 days prior to starting work.

The Northeast/Northern Sierra clade of FYLF is listed as threatened under CESA. Based on the information in the DEIR, construction of the Project alternatives, including the reduction of instream flows in Auburn Ravine below the Gold Hill Dam associated with Alternative 3, may cause take of FYLF adults, larvae, and/or egg masses, if present at the time of Project activities (Fish & G. Code section 86 defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill"). FYLF is a Covered Species under the Western Placer County HCP/NCCP. If the Project requests and receives approval from the PCA and Wildlife Agency concurrence to cover the Project under the HCP/NCCP as a Special Participating Entity (see HCP/NCCP Section 8.9.4.1 - *Application Process for Participating Special Entities*), the Project would acquire take authorization for FYLF under the HCP/NCCP. If the Project does not participate in the HCP/NCCP, the Project must comply with CESA by implementing measures to avoid take of FLYF. If the Project cannot avoid take, CDFW recommends that NID obtain a CESA Incidental Take Permit. To ensure that any impacts to FYLF can be mitigated to a less-than-significant level, the DEIR should include additional avoidance, minimizations, and or mitigation measures in the event this species is detected during Project surveys.

C-15
(Cont'd)

Tricolored Blackbird

DEIR Mitigation Measure BIO-10 states in part:

"If active nests are located during the preconstruction surveys, the biologist shall notify CDFW. If necessary, modifications to the Project design to avoid removal of occupied habitat while still achieving Project objectives shall be evaluated and implemented to the extent feasible. If avoidance is not feasible or conflicts with Project objectives, construction shall be prohibited within a minimum of 100-feet of the nest to avoid disturbance until the nest colony is no longer active. These recommended buffer areas may be reduced or expanded through consultation with CDFW. Monitoring of all occupied nests shall be conducted by a qualified biologist during construction activities to adjust the 100-foot buffer if agitated behavior by the nesting bird is observed."

C-16

CDFW is concerned that a 100-foot buffer may not be sufficient to avoid significant impacts during Project activities or to ensure that take of tricolored blackbird (*Agelaius tricolor*) does not occur due to nest abandonment/failure resulting from disturbances

LETTER C CONTINUED

Hemphill Diversion Structure Project
May 17, 2021
Page 9 of 12

associated with Project activities. CDFW recommends that Project specific avoidance buffers should be developed when nests are identified during surveys and should take into consideration the nature of construction impacts, nest location in relation to Project activities, presence of visual barriers such as vegetation or structures, etc. Additionally, Mitigation Measure BIO-10 does not specify the designated survey area for conducting nesting tricolored blackbird preconstruction surveys, only referring to surveys occurring before vegetation removal activities within potential nesting habitat. CDFW recommends that preconstruction surveys for nesting tricolored blackbirds include all suitable nesting habitat located within 1,300 feet of Project work areas, equipment access routes, and staging areas (with landowner permission or including those areas visible from the Project footprint and/or public roads) to ensure that all active nesting colonies adjacent to the Project footprint are identified and avoided during Project implementation.

C-16
(Cont'd)

Roosting Bats

CDFW recommends that Mitigation Measure BIO-13 be revised to ensure that Project activities do not result in significant adverse impacts to hibernating or maternity colonies. Due to the potential for significant adverse effects to hibernating or maternity colonies during Project vegetation removal activities, CDFW recommends the following to reduce impacts to a less than significant level:

- **Habitat Surveys:** A qualified biologist with education and experience in bat biology and identification, should conduct pre-Project surveys or monitoring, usually over the course of spring, summer, fall, and winter (and possibly for two or more years), at the Project site for potentially suitable bat roosting habitat and, if bats are present, to determine which bat species are using the site. The bat habitat assessment should identify: 1) the location of any roosting sites; 2) the number of bats present at the time of assessment (count or estimate); 3) species of bats present; 4) the type of roost: night roost (rest at night while out feeding) versus a day roost (resting during the day); and 5) species specific measures to compensate for the loss of suitable bat habitat. If the Project contains suitable bat roosting habitat, multiple survey visits are necessary because different species may use a particular roost only during certain seasons (maternity, hibernation, dispersal, migration). Further, multiple visits within a season may be necessary to ensure intermittent use is observed. Due to year-to-year variation in use, multiple years of surveys may also be necessary.
- **No Disturbance Buffer.** If an active bat roost is found, a qualified bat biologist should establish a no-disturbance buffer around the roost. The width of the buffer should be determined by the qualified bat biologist based on the bat species, specific site conditions, and level of disturbance. The buffer should be maintained until a qualified bat biologist determines that the roost is no longer active.
- **Roost Removal Timing.** If the habitat assessment reveals suitable bat habitat then tree trimming, tree removal, structure removal and/or structural work should

C-17

LETTER C CONTINUED

Hemphill Diversion Structure Project
May 17, 2021
Page 10 of 12

only be conducted during seasonal periods of bat activity (September 1 through October 15, when young would be self-sufficiently volant and prior to hibernation; and March 1 to April 15 to avoid hibernating bats and prior to formation of maternity colonies) under supervision of a qualified biologist. Trees should be trimmed and/or removed in a two-phased removal system conducted over two consecutive days. The first day (in the afternoon), limbs and branches should be removed using chainsaws only. Limbs with cavities, crevices or deep bark fissures should be avoided, and only branches or limbs without those features should be removed. On the second day, the entire tree should be removed.

- **Bat Exclusion.** If an active bat roost is found in a tree or structure that must be removed, a qualified bat biologist should prepare a plan for the passive exclusion of the bats from the roost for CDFW review and approval. Exclusion should be scheduled either (1) between approximately March 1 (or when evening temperatures are above 45°F and rainfall less than ½ inch in 24 hours occurs) and April 15, prior to parturition of pups; or (2) between September 1 and October 15 prior to hibernation (or prior to evening temperatures dropping below 45°F and onset of rainfall greater than ½ inch in 24 hours). A qualified bat biologist should monitor the roost prior to exclusion to confirm that it does not support a maternity colony or hibernaculum. If a maternity colony or hibernaculum is or may be present, the roost should be avoided until it is no longer active, or until the qualified bat biologist can confirm that no maternity colony or hibernaculum is present. CDFW does not support eviction of bats during the maternity or hibernation periods.
- **Replacement Structures.** If the bat roost cannot be avoided, replacement roost structures (bat houses or other structures) should be designed to accommodate the bat species they are intended for. Replacement roost structures should be in place for a minimum of one full year prior to implementing the Project. The replacement structures should be monitored to document bat use. Ideally, the Project would not be implemented unless and until replacement roost structures on site are documented to be acceptable and used by the bat species of interest.

C-17
(Cont'd)

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.

C-18

Hemphill Diversion Structure Project
Final Environmental Impact Report

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LETTER C CONTINUED

Hemphill Diversion Structure Project
May 17, 2021
Page 11 of 12

FILING FEES

The Project, as proposed, would have an effect on fish and 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.)

C-19

CONCLUSION

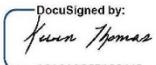
Pursuant to Public Resources Code sections 21092 and 21092.2, CDFW requests written notification of proposed actions and pending decisions regarding the Project. Written notifications shall be directed to: California Department of Fish and Wildlife North Central Region, 1701 Nimbus Road, Rancho Cordova, CA 95670.

CDFW appreciates the opportunity to comment on the DEIR for the Hemphill Diversion Structure Project to assist NID in identifying and mitigating Project impacts to fish and wildlife resources. CDFW personnel are available for consultation regarding biological resources, permitting processes, and strategies to minimize impacts.

C-20

If you have any questions regarding the comments provided in this letter or wish to schedule a meeting and/or site visit, please contact Patrick Moeszinger, Senior Environmental Scientist (Specialist) at (916) 767-3935 or patrick.moeszinger@wildlife.ca.gov.

Sincerely,

DocuSigned by:

A2A0A9C574C3445...
Kevin Thomas
Regional Manager

ec: Juan Torres, Senior Environmental Scientist (Supervisory)
juan.torres@wildlife.ca.gov

Patrick Moeszinger, Senior Environmental Scientist (Specialist)
patrick.moeszinger@wildlife.ca.gov

Beth Lawson, Senior Hydraulic Engineer
beth.lawson@wildlife.ca.gov

Chris McKibben, District Fisheries Biologist
chris.mckibben@wildlife.ca.gov

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LETTER C CONTINUED

Hemphill Diversion Structure Project
May 17, 2021
Page 12 of 12

Duane Linander, Habitat Restoration Coordinator
duane.linander@wildlife.ca.gov
Department of Fish and Wildlife

Office of Planning and Research, State Clearinghouse, Sacramento

Response to Comment Letter C – California Department of Fish and Wildlife

- Response C-1: Comment C-1 states that the California Department of Fish and Wildlife (CDFW) has reviewed the Hemphill Diversion Structure DEIR and describes CDFW's role and responsibility as a Trustee Agency for fish and wildlife in that review. The comment is hereby noted.
- Response C-2: Comment C-2 summarizes the descriptions of the three proposed project alternatives presented in the DEIR and states the overall objective of each of the three alternatives is to allow anadromous fish migration past Hemphill Diversion Structure site. The comment is noted, and no further response is warranted.
- Response C-3: Comment C-3 describes CDFW's participation in a technical advisory process for the development of project alternatives as part of Proposition 1 Watershed Restoration Grant process. The comment notes that some of CDFW's subsequent comments are related to discussions during that process. Further, CDFW offers its comments and recommendations to assist NID in adequately identifying and/or mitigating Project impacts on fish and wildlife. The comment is noted.
- Response C-4: Comment C-4 describes the Placer County Conservation Program (PCCP). The comment states that a successful partnership to complete the proposed project and remove a high-priority fish passage barrier will further the goals and objectives of the PCCP. The comment further states that participation by NID in the PCCP in carrying out the proposed project will provide NID take coverage for applicable Covered Species as well as streamlined/programmatic permitting for impacts to state and federally protected aquatic resources. In response to the comment, we concur with the information presented in Comment C-4. NID has initiated discussions with the PCCP program administrator and is exploring execution of a partnership to complete the proposed project. Such a partnership will be subject to approval by the NID Board.
- Response C-5: Comment C-5 states that, in its submitted comments on the DEIR's Notice of Preparation, CDFW cited the requirement under CEQA Guidelines section 15125(d) that EIRs discuss any inconsistencies between projects and applicable plans (including habitat conservation plans (including natural community conservation plans). The comment recommends that the DEIR include a discussion of each Project alternative's consistency with the Western Placer County HCP/NCCP and how NID will ensure that implementation of the Project alternatives do not impede the HCP/NCCPS ability to meet its biological goals and objectives. As noted in the comment, the primary goal identified in the HCP/NCCP Conservation Strategy for fall-/late fall-run Chinook salmon (*Oncorhynchus tshawytscha*) and steelhead (*Oncorhynchus mykiss*), both Covered Species under the HCP/NCCP, is "increased spawning, rearing, and migratory

success of covered salmonids in the Auburn Ravine, Raccoon Creek, and Dry Creek watersheds."

In response to the comment, we refer the reader to Response to Comment C-4 above. As noted in that response, a successful partnership to complete the proposed project and remove a high-priority fish passage barrier will further the goals and objectives of the PCCP. In preparing this EIR, it is the intent of NID to explore three alternatives to accomplish removal of the existing diversion and thus achieve the primary goal identified in the HCP/NCCP Conservation Strategy for fall-/late fall-run Chinook salmon and steelhead, both Covered Species under the HCP/NCCP. By removing the Hemphill Diversion Structure, each of the proposed project alternatives would, to varying degrees, increase spawning, rearing, and migratory success of salmonids in the Auburn Ravine watershed.

As discussed in detail in Section 3 of the DEIR, each alternative would result in specific and unique impacts on resource areas such water quality, stream hydrology, riparian habitat, and fish movement, spawning and rearing. In some instances, mitigation required to reduce the potential impact of a particular alternative to a less-than-significant level would be more robust than would be needed for the other alternatives. Further, it is important to note that even with mitigation incorporated, the DEIR determined that one alternative, Alternative 3, would result in a significant and unavoidable impact on the rearing of juvenile Chinook salmon, steelhead, and Pacific lamprey habitat quantity and quality relative to existing conditions due to substantial reductions in stream flow in the reach immediately upstream of the diversion site during drought conditions. Nevertheless, each of the proposed project alternatives are consistent with the HCP/NCCP Conservation Strategy in that they would achieve the primary goal of removal of the impediment to anadromous fish migration posed by the Hemphill Diversion Structure.

- Response C-6: Comment C-6 addresses Alternative 1 of the DEIR and provides a link to resources pertaining to CDFW's criteria for fish screen design. The comment is noted.
- Response C-7: Comment C-7 recognizes that the use of infiltration galleries as an option to conventional fish screens is considered "experimental technology" and cites the risk associated with improperly siting such facilities. The comment is noted and hereby forwarded to the NID Board for their consideration.
- Response C-8: Comment C-8 reiterates information presented in the DEIR concerning the potential for upstream channel incision that would be anticipated to occur under Alternatives 1 and 3. This incision may be up to 5 to 8 feet in the 500 to 1,000 feet reach upstream of the dam, and less than three feet further upstream. The channel incision may induce bank instability and erosion over a multi-year period

as the channel adjusts. The comment notes that erosional processes could adversely affect the current project design for Alternative 1 because scour around the facility would likely reduce the diversion and fish protection effectiveness. The comment also notes that depositional processes have a high potential to clog the gravel, non-woven protective fabric, and diversion pipes of the proposed infiltration gallery.

We concur with the above assessment, and the comment is hereby forwarded to the NID Board for their consideration. .

Response C-9: Comment C-9 lists CDFW concerns about the long-term functionality of infiltration galleries and cites NOAA recommendations for operation and maintenance for such facilities. We concur with this assessment and note that it is consistent with the findings presented in the report Hemphill Diversion Structure and Fish Passage Assessment Final Report by Northwest Hydraulic Consultants, Inc. (March 2021) included in the DEIR.

The comment further states that, in the event Alternative 1 is selected as the proposed project, a robust operation and maintenance plan should be prepared including provisions to conduct "regular hydraulic conductivity testing or use multiple on-site piezometers to determine head loss across the substrate to calculate the effective porosity of the gravel substrate." We concur and recommend the NID Board include this as a requirement for the project final design process in the event that Alternative 1 is selected as the proposed project.

Response C-10: Comment C-10 provides a list of considerations that CDFW suggests should be incorporated into the final facilities design process should NID select Alternative 1 as its proposed project. The comment states that if Alternative 1 is selected, CDFW recommends that NID work closely with CDFW and NOAA Fisheries staff throughout the design process to ensure that all applicable screen criteria are met for the respective agencies' requirements and to obtain applicable Project approvals and permits. We concur with the recommendation and hereby forward the comment to the NID Board for their consideration.

Response C-11: Comment C-11 reiterates information presented in Appendix 3.8E (Hemphill Diversion Structure and Fish Passage Assessment - Final Report) of the DEIR concerning the potential for failure of the existing Hemphill Diversion Structure and possible effects of the loss of grade-control at the diversion site. The comment also notes that preliminary project concepts presented in the appendix could allow for safe fish passage through the project site. The comment is hereby noted.

Comment C-11 further states that NOAA criteria for roughened channels, similar to that proposed for Alternative 2 in the DEIR, in general should be used only when: 1) Channel slope using stream simulation is less than 6%, and 2) total

length of the passage is less than 150 feet. In response to the comment, we note that, consistent with Section 3.4.2 of Appendix 3.8E cited above, the roughened rock ramp proposed for Alternative 2 would have an overall slope of approximately 2.2% over approximately 180 feet. As such, the slope of the Alternative would be less than 6% and, thus, would meet NOAA criteria for roughened channels, but the length of the ramp, 180 feet, would exceed the maximum NOAA criteria of 150 feet. Applicability of NOAA criteria for construction of the roughened channel will be determined during the final project design process in the event that Alternative 2 is selected as the proposed project, and the criteria will be applied as appropriate. NID expects that close coordination with NOAA and CDFW staff will be implemented during the project design process.

- Response C-12: Comment C-12 suggests the DEIR should include sufficient information to demonstrate in the design analysis that any scouring of fines from the constructed channel will be refilled by subsequent bedload transport and aggradations. In response to the comment we refer to DEIR Appendices 3.8-A. Sediment Characterization Report for Hemphill Diversion Structure (Holdrege & Kull 2017); 3.8-B. Auburn Ravine-Hemphill Diversion Assessment Sediment Transport Study (Balance Hydrologics 2021); 3.8-D. Hemphill Diversion Structure Final Report on Field Study Investigations (Kleinschmidt 2017); and 3.8-E. Hemphill Diversion Structure and Fish Passage Assessment – Final Report (NHC 2021). The Balance Hydrologics (2021) report specifically completed a sediment transport modelling analysis of conceptual dam removal alternatives. Results of this analysis were used to estimate potential upstream incision for various approaches to removal of the Hemphill Diversion and applied to the DEIR's analysis of Alternative 2. One concept that was evaluated by Balance included lowering the dam two feet which is consistent with Alternative 2. More detailed analyses will be conducted as part of the final project design process and will be used to quantify potential effects of final design and verify minimum expected channel incision and scour. As noted above, NID expects that close coordination with NOAA and CDFW staff will be implemented during the project design process.
- Response C-13: Comment C-13 requests that NID staff and their consultants work with CDFW staff through the design process to prepare finalized passage plans that meet fish passage and screening criteria and will be constructed using materials that will be stable through the expected range of flows that are observed at this site location. We concur with this recommendation.
- Response C-14: Comment C-14 reiterates various determinations from the DEIR in regard to the potential adverse impacts of implementing Alternative 3. The comment states that CDFW agrees with the DEIR conclusions that reductions in flows in Auburn

Ravine downstream of Gold Hill Dam associated with the Project Alternative 3 would result in significant and unavoidable impacts on rearing Chinook salmon, steelhead, and Pacific lamprey habitat within the affected reach of Auburn Ravine, in addition to significant unavoidable impacts on migration and instream movement of fish. This comment is noted and forwarded to the NID Board for their consideration.

Comment C-14 concludes that: "Based on these potential effects, CDFW recommends that the DEIR be updated to evaluate the potential impacts to HCP/NCCGP Covered Species and natural communities associated with Project Alternative 3, and further evaluate whether or not Project Alternative 3 is likely to impede the HCP/NCCPS ability to fulfill the biological goals and objectives (CEOA Guidelines Section 15125, subd.(d)). In response to the comment, please refer to Response to Comment C-5 above.

Response C-15:

According to the DEIR, foothill yellow-legged frog (FYLF) was determined to be absent from the Project Study Area due to the lack of suitable habitat and/or because the Project Study Area is outside of the current known range of the species.

Comment C-15 states that in spring of 2018 an individual FYLF (*Rana boylei*) and egg masses were observed at a similar elevation in an irrigation ditch located within the Doty Ravine/Raccoon Creek watershed [emphasis added] approximately 4.28 miles due north from the Project site. Given the limited historic survey data available in the immediate Project vicinity, and the lack of information regarding the distribution and extent of the current FYLF population in Placer County within the HCP/NCCP Plan Area, CDFW recommends that NID conduct FYLF surveys and habitat assessments throughout the Project Study Area and include the results in the DEIR. CDFW recommends that these surveys be conducted in accordance with CDFW's Considerations for Conserving the Foothill Yellow-Legged Frog (2018).

As discussed in the Special-Status Amphibian Species section of the DEIR (page 3.3-19), FYLF was identified as having the potential to occur within the Project Study Area based on literature review. However as discussed below, upon further analysis and site reconnaissance, FYLF were determined to be absent from the Project Study Area due to the lack of suitable habitat or because the Project Study Area is located outside of the current known range of the species and in a different watershed from the afore-mentioned sighting.

As discussed in the Biological Resources Assessment (BRA) technical study prepared for the Project (DEIR Appendix 3.3-A), PCCP modeled year-round habitat for foothill yellow-legged frog is defined by riverine land-cover above 500 feet in elevation. The Project site occurs between elevations 196 and 430 feet in the Auburn Ravine Watershed, with most project construction activities occurring

in the 200-foot elevation range. The Project site is characterized by sharply incised and deeply shaded banks with heavy clay soils. The streambed is narrow, averaging approximately 3 feet wide. FYLF use broad surface waters with gentle banks and a rock/cobble substrate, usually with a high proportion of direct sunlight. Egg attachment sites are cobble, rock, or sometimes bedrock, of which these components are completely missing in the Project area. Finally, the Project Study Area was found to support non-native bull frogs and fish species that prey on FYLF. While presence of these species doesn't by itself rule out FYLF occurrence, the combination of site elevation, incompatible soils, deep shade, and presence of non-native predator species, together with local land use patterns in the Auburn Ravine Watershed (upstream agriculture, downstream golf course) support the absent determination. Therefore, Project site characteristics lack justification to require FYLF determinant surveys and/or habitat assessments.

Comment C-15 also states the Northeast/Northern Sierra clade of FYLF is listed as threatened under CESA and that the project may result in "take" of FYLF. The comment explains that the FYLF is a Covered Species under the Western Placer County HCP/NCCP and recommends that the Project seek incidental take coverage under the plan as a special entity. The comment notes that if the Project does not participate in the HCP/NCCP, the Project must still comply with CESA by implementing measures to avoid take of FLYF or obtain a CESA Incidental Take Permit. Finally, to ensure that any impacts to FYLF can be mitigated to a less-than-significant level, the comment recommends the DEIR include additional avoidance and minimization measures should FYLF be detected during Project surveys.

While it is considered unlikely, should FYLF be found to occur on the Project site, NID would comply with CESA by either implementing measures to avoid take of FLYF and/or by obtaining a CESA Incidental Take Permit. As discussed beginning on DEIR page 3.3-88, this would be accomplished by either requesting approval from the Placer Conservation Authority (PCA) and Wildlife Agencies to cover the Project under the HCP/NCCP as a Special Participating Entity, or by obtaining an Incidental Take Permit through the standard CESA process. In doing so, the Project would comply with all applicable CESA and/or HCP/NCCP requirements and would acquire take authorization. To date NID has initiated conversations with the Placer County Conservation Plan (PCCP) PCA program administrator regarding PCCP participation. However formal participation is contingent on NID Board approval. In the unlikely event FYLF are found onsite and NID does not request coverage under the HCP/NCCP, additional site-specific avoidance and minimization measures would be developed through the CESA consultation and 1602 Permit process. .

Response C-16: This comment summarizes certain conditions of DEIR Mitigation Measure BIO-10 which includes a requirement for a minimum 100-foot no disturbance

construction buffer when active nests are found. In their comment, CDFW expresses concern that a 100-foot buffer may not be sufficient to avoid significant impacts during Project activities or to ensure that take of tricolored blackbird (*Agelaius tricolor*) does not occur due to nest abandonment/failure.

This concern is noted and is addressed in Mitigation Measure BIO-10. As discussed in Mitigation Measure BIO-10, should a nest be found, a minimum 100-foot construction buffer and consultation with CDFW is required. Further, Mitigation Measure BIO-10 states: "These recommended buffer areas may be reduced or expanded through consultation with CDFW." Therefore, the specific avoidance buffers would be developed following the initial survey during CDFW consultation so that the location and nature of construction impacts, presence of visual barriers such as vegetation or structures, and nest location, can be considered. Therefore, CDFW's concern over insufficient buffer width is addressed by requirements already contained in Mitigation Measure BIO-10. No revisions are necessary as the appropriate buffer width would be determined in consultation with CDFW.

This comment also notes that Mitigation Measure BIO-10 does not specify the designated survey area for conducting nesting tricolored blackbird preconstruction surveys, only referring to surveys as occurring before vegetation removal activities within potential nesting habitat. To address this, CDFW recommends preconstruction surveys for nesting tricolored blackbirds include all suitable nesting habitat located within 1,300 feet of Project work areas, equipment access routes, and staging areas (with landowner permission or including those areas visible from the Project footprint and/or public roads) to ensure that all active nesting colonies adjacent to the Project footprint are identified and avoided during Project implementation. This recommendation has been incorporated into Mitigation Measure BIO-10 as shown in Section 3 of this Final EIR.

MM BIO-10 found on DEIR page 3.3-56 is revised as follows:

**BIO-10 Survey for Tricolored Blackbird and Protect Nesting Activity
(applies to all alternatives)**

The following measures shall be implemented to avoid or minimize loss of active tricolored blackbird nests:

To minimize the potential for loss of tricolored blackbird nesting colonies and other nesting birds, vegetation removal activities shall commence during the nonbreeding season (September 1-January 31) to the extent feasible. If all suitable nesting habitat is removed

during the nonbreeding season, no further mitigation would be required.

Before removal of any vegetation within potential nesting habitat between February 1 and August 31, a qualified biologist shall conduct preconstruction surveys for nesting tricolored blackbirds (colonies). The surveys shall be conducted no more than 14 days before construction commences and include all suitable nesting habitat located within 1,300 feet of Project work areas, equipment access routes, and staging areas (with landowner permission or including those areas visible from the Project footprint and/or public roads) to ensure that all active nesting colonies adjacent to the Project footprint are identified and avoided during Project implementation. If no active nests or tricolored blackbird colonies are found during focused surveys, no further action under this measure will be required. If active nests are located during the preconstruction surveys, the biologist shall notify CDFW. If necessary, modifications to the Project design to avoid removal of occupied habitat while still achieving Project objectives shall be evaluated and implemented to the extent feasible. If avoidance is not feasible or conflicts with Project objectives, construction shall be prohibited within a minimum of 100 feet of the nest to avoid disturbance until the nest colony is no longer active. These recommended buffer areas may be reduced or expanded through consultation with CDFW. Monitoring of all occupied nests shall be conducted by a qualified biologist during construction activities to adjust the 100-foot buffer if agitated behavior by the nesting bird is observed.

Because Tricolored blackbird is a PCCP covered species, mitigation for this species could also be accomplished via the PCCP as further discussed below.

Timing/Implementation: Prior to and during construction

Monitoring/Enforcement: NID/Consultant

Response C-17: In Comment C-17, CDFW recommends that Mitigation Measure BIO-13 be revised to include additional protections to ensure Project activities do not result in significant adverse impacts to hibernating or maternity bat colonies. In consideration of the recommendations presented in Comment C-17, Mitigation Measure BIO-13 has been revised as follows with new text in underline format:

BIO-13 Survey for Townsend's big-eared bat and western red bat and Protect Nesting Activity (applies to all alternatives)

The following measures shall be implemented to avoid or minimize impacts to roosting bats:

Habitat Assessment: A qualified biologist will conduct a bat habitat assessment for suitable bat roosting habitat for bat species including Townsend's big-eared bat and western red bat prior to any construction activities. The habitat assessment should be conducted at least one year prior to the initiation of construction activities. If no suitable roosting habitat is identified, no further measures are necessary. If suitable roosting habitat and/or signs of bat use is identified during the assessment, the roosting habitat should be avoided to the extent possible.

Bat Management Plan: If the habitat assessment surveys reveal potential bat roosting habitat within the project, a Bat Management Plan that will include avoidance and minimization measures to reduce impacts to roosting bats shall be prepared and consultation with CDFW initiated prior to the commencement of construction activities. The Project-specific Bat Management Plan may include any of the following as necessary and appropriate based on the findings of the habitat assessment: emergence and/or pre-construction surveys for roosting bats including acoustic monitoring, roost removal timing and methodology, no-disturbance buffers, passive exclusion of bats, and/or species-specific replacement structures.

~~Bat Roost Surveys: Bat roost surveys shall be conducted by a qualified wildlife biologist within 14 days before any tree removal or clearing during each construction season. Locations of vegetation and tree removal or excavation will be examined for potential bat roosts. Specific survey methodologies will be determined in coordination with CDFW, and may include visual surveys of bats (e.g., observation of bats during foraging period), inspection for suitable habitat, bat sign (e.g., guano), or use of ultrasonic detectors (e.g., SonoBat, Anabat). Removal of any significant roost sites located will be avoided to the extent feasible. If it is determined that an active roost site cannot be avoided and will be affected, bats will be excluded from the roost site before the site is removed. The biologist shall first notify and consult with CDFW on appropriate bat exclusion methods and roost removal procedures. Exclusion methods may include use of one way doors at roost entrances (bats~~

may leave, but not reenter), or sealing roost entrances when the site can be confirmed to contain no bats. Once it is confirmed that all bats have left the roost, crews will be allowed to continue work in the area.

Timing/Implementation: Prior to construction

Monitoring/Enforcement: NID/Consultant

- Response C-18: Comment C-18 cites the requirement to report any special-status species and natural communities detected during surveys conducted in support of preparing this EIR. In response to the comment, occurrences of listed species and communities were submitted as required for all surveys conducted to date as part of the CEQA review process for the proposed project.
- Response C-19: Comment C-19 lists filing fee requirements for any Notice of Determination for the Final EIR. The comment is noted.
- Response C-20: CDFW requests written notification of proposed actions and pending decisions regarding the project and provides an address for those notifications. The comment also expresses appreciation for the opportunity to comment. The comment is hereby noted and forwarded to the NID Board for consideration.

2.4.2 Organizations and Individual Comments and Responses

Received by NID 4/29/2021 / JSt

Letter 1

April 24, 2021

Attn:

Tonia M. Tabucchi-Herrera
Senior Engineer
Nevada Irrigation District

My name is Robert Hase and I am an NID rate payer and a SARSAS board member.

I am glad to see that this project is moving forward (Hemphill fish passage). I would also hope the NID board will choose Alternative 2 Fish Passage at \$4,343,300⁰⁰.

On October 1, 2020 you received a 16 page document from Dept of Fish & Wildlife. The subject of the document is:

Hemphill Diversion Structure Project
Notice of Preparation
SCH# 2020090032

On page 7 of 16 the last paragraph of the document states the following:

One alternative discussed at the August 13, 2019 TAC meeting was dam removal and site grade restoration through a nature-like fishway or series of concrete weirs (similar to the Highway 65 Gaging Station Radder) coupled with the installation of conical fish screens at the diversion point to Hemphill Canal.

1-1

1-2

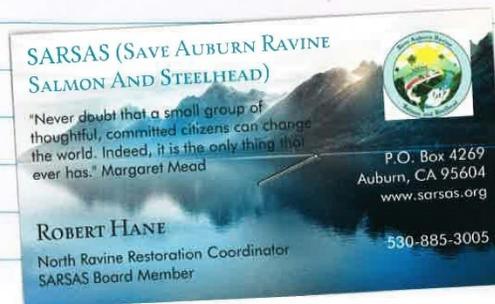
Letter 1 Continued

With the use of concrete pre-fabricated concave weirs we feel there would be better stability to the roughened rock ramp. Also, we feel that fish passage at all water flows would provide for better fish passage.

After reading your EIR report, I was not clear as to the use of concrete weirs or large rocks to form the pools. So, what we are asking you to consider is using pre-fabricated concrete weirs along with large boulders to form the pools. This is similar to the Highway 65 Gaging Station Ladder which has been a huge success for fish passage at all water levels.

1-2
cont.

Sincerely,
Robert Hane
10680 Kemper Road
Auburn, CA 95603
(530) 885-3005



Response to Comment Letter 1 – Robert Hane, Save Auburn Ravine Salmon and Steelhead

Response 1.1: Comment 1-1 expresses the commenter’s approval of the project moving forward and their preference for selection of Alternative 2 as the proposed project. The comment is noted and hereby forward to the NID Board for their consideration.

Response 1.2: Comment 1-2 cites a portion of a CDFW comment letter dated October 1, 2020 describing a series of concrete weirs to accommodate fish passage at the Hemphill Diversion site. The commenter suggests NID consider using pre-fabricated concrete weirs along with large boulders for fish passage at the diversion site. This alternative would be similar to that used at the Highway 65 Gaging Station.

In response to the comment, we note that, in the event that Alternative 2 (Fish Passage Alternative) is selected as the Project, NID will carry out a design analysis to identify appropriate materials for construction at the site. Concrete weirs may increase cost and may actually reduce stability of the Project due to impacts of local scour around the weirs. Concrete weirs are also used where stable boulder sizes may become too large to be efficiently installed. Concrete weirs, will however be considered during the final design process, and the final material selection will be made in between the development of 35% and 65% design documentation.

Letter 2



**Friends of
Auburn Ravine**
AuburnRavine.org

FOOTHILLS WATER NETWORK



May 15, 2021

Kris Stepanian, Board Secretary
Nevada Irrigation District
1036 West Main Street
Grass Valley, California 95945

Sent via email to stepianik@nidwater.com and via U.S. Mail

Dear Ms. Stepanian:

Friends of Auburn Ravine (FAR) and the Foothills Water Network (Network) respectfully respond to the Draft Environmental Impact Report (DEIR) for the Hemphill Diversion Structure Project (Project) prepared by Nevada Irrigation District (NID).

The Network represents a broad group of non-governmental organizations (NGOs) and water resource stakeholders in the geographic area bounded by the Yuba River, Bear River, and American River watersheds. The overall goal of the Network is to provide a forum that increases the effectiveness of non-profit conservation organizations to achieve river and watershed restoration and protection benefits for the Yuba, Bear, and American rivers and adjacent watersheds.

2-1

Preferred Alternative

Among the three Alternatives presented in the DEIR, it is our opinion that Alternative 2 is the best alternative. That alternative would install a nature-like roughened rock ramp within the stream channel to allow unimpeded fish passage, and a vertical screen at the entrance to the Hemphill canal to prevent entrainment of fish into the canal. It is much less expensive than the other alternatives and involves lower risk of construction delays and unforeseeable construction expenses. Operation and maintenance expenses will probably be lower than the other alternatives because all components of the proposed design will be visible and accessible – not buried under fields, roadways, or the streambed as with the other alternatives.

2-2

Public Access

Letter 2 Continued

Whichever alternative is chosen, provisions for public access to the site should be part of the final design. This should include an interpretive sign, a shade structure, seating, safety railings, and parking. The existing dirt pathway that begins near the Hemphill Diversion and extends along the high bank on the north side of the creek downstream to the old Lincoln dump should be improved. The ancient Native American campground along this trail should be protected from vandalism, and an interpretive sign provided nearby. This area is now within the City of Lincoln and has been designated as future City of Lincoln Open Space in their Village 1 plan. 2-3

Fish Passage Monitoring

To obtain reliable data as to the success of the Project, funding for “walk and wade” surveys should be included in the Project. The surveys should be conducted each week upstream from the Hemphill site from mid-October to mid-April (weather and water conditions permitting). The surveys should include counts of salmon, steelhead, and lamprey, their redds, and collection of DNA samples from salmonid carcasses. With professional supervision, the cost for these surveys could be mitigated by using volunteer “citizen scientists” such as the well-trained volunteers that Friends of Auburn Ravine has deployed for the last four years to do such surveys from central Lincoln up to Hemphill Dam. Funding would need to include provisions for liability insurance, survey equipment, safety equipment, and training supplies, etc. UC Davis has recently published a manual for planning such projects: <https://education.ucdavis.edu/featured-pod/new-resources-citizen-science-project-planning> 2-4

At the Hemphill site, a secure weather-proof cabinet should be provided on the south bank near the canal entrance to support potential future installation of an in-stream PIT tag monitoring system. The cabinet should be pre-wired to the same circuit breaker panel that will serve the selected water diversion system and contain a dual 15A, 110V power outlet and knock-outs for future installation of conduits, and a mast for a cellular data antenna. Examples of such systems are available on request.

Contingency Plan

The Project should include a Contingency Plan that will provide temporary fish passage and water diversion if Project Completion is delayed beyond October 15 of the year when construction begins. 2-5

Thank you for considering these comments on the Draft Environmental Impact Report for the Hemphill Diversion Structure Project. Please contact us if you have any questions.

Respectfully submitted,

Letter 2 Continued



James Haufler – President
Friends of Auburn Ravine
P.O. Box 1197
Lincoln, CA 95648
(916) 672-9672
projects@auburnravine.org



Traci Sheehan Van Thull
Coordinator, Foothills Water Network
PO Box 573
Coloma, CA 95613
traci@foothillswaternetwork.org



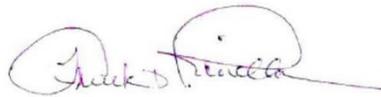
Chris Shutes

Letter 2 Continued

FERC Projects Director
California Sportfishing Protection Alliance
1608 Francisco St, Berkeley, CA 94703
blancapaloma@msn.com
(510) 421-2405



Ron Otto
Auburn Ravine Preservation Committee
Ophir Property Owners Assoc., Inc.
10170 Wise Road
Auburn, CA 95603
rottoophir@gmail.com



Frank Rinella
Northern California Federation of Fly Fishers International
Gold Country Fly Fishers
303 Vista Ridge Dr.
Meadow Vista CA, 95722
sierraguide@sbcglobal.net

Letter 2 Continued



JH

James Haufler – President
Friends of Auburn Ravine
P.O. Box 1197
Lincoln, CA 95648
(916) 672-9672
projects@auburnravine.org



TSV

Traci Sheehan Van Thull
Coordinator, Foothills Water Network
PO Box 573
Coloma, CA 95613
traci@foothillswaternetwork.org



Chris Shutes

Chris Shutes

Letter 2 Continued



Barbara Rivenes
Conservation Committee
Sierra Club - Mother Lode Chapter
909 12th St #202
Sacramento, CA 95814
brivenes@sbcglobal.net



Brian J. Johnson
California Director
Trout Unlimited
5950 Doyle Street, Suite 2
Emeryville, CA 94608
(510) 528-4772
bjohnson@tu.org

Response to Comment Letter 2 – James Haufler, Friends of Auburn Ravine

- Response 2-1: Comment 2-1 describes the nature and purpose of FAR. The comment is noted and hereby forwarded to the NID Board for consideration.
- Response 2-2: Comment 2-2 expresses the preference of commentor for selecting Alternative 2 (Fish Passage Alternative) and the rationale for that preference. The comment is hereby noted.
- Response 2-3: Comment 2-3 states that public access to the Project Site should be included as an element of the Project. In response to the comment, the Project Site and potential access routes to the site are privately owned and the feasibility of acquiring an easement across these properties for public access is unknown. NID easements for operation and maintenance of its facilities across privately owned lands do not grant public access. In addition, public safety at the site would be of concern to NID which may result in additional fencing/safety railing not expected by the commenter. Although public access is not needed in response to an identified impact in the DEIR, the suggestion is hereby forwarded to the NID Board for consideration.
- Response 2-4: Comment 2-4 suggests NID implement fish passage monitoring as part of the Project and provides guidance as to how to do so. In response, we note that fish passage monitoring was not included as part of Project operations in the Draft EIR, nor is it required to mitigate any potential environmental impact associated with implementation of Alternative 2. The suggestion is noted, however, and forwarded to the NID Board for consideration.
- Response 2-5: Comment 2-5 suggests the Project include a contingency plan in the event Project construction cannot be completed by October 15 of the year construction is initiated. The District is committed to providing a timely project once selected by the NID Board. Until construction can be implemented, the District will continue its best practices and normal operation and remove the flash boards October 14 to remove the barrier during fall migration.

Letter 3

From: Water Audit California <general@waterauditca.org>
Sent: Monday, May 17, 2021 11:15 AM
To: Kris Stepanian <stepaniank@nidwater.com>
Subject: Hemphill Diversion Structure

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or on clicking links from unknown senders.

Dear Ms. Stepanian

Water Audit California wishes to express support for the Hemphill Dam diversion structure EIR alternative 2, the fish passage proposal. Our support is subject to the qualification expressed by others that the screening mechanism into the Hemphill Canal must be consistent with the standards of NOAA Fisheries and the California Department of Fish & Wildlife, and subject to their approval.

We congratulate the NID for timeliness of the EIR, the quality of the examination of the alternatives, and note the unusual situation that the best alternative is also the most economical. Finally, we note that addition to the acknowledged benefits of this alternative, that it also provides a potential educational and tourist benefit to the adjacent City of Lincoln. We hope that the NID will in due course use the presence of this structure to introduce the wonders of salmonid migration to the community at large.

3-1

Now let's get 'er done!

Respectfully,

William McKinnon
General Counsel
Water Audit California

WATER AUDIT CALIFORNIA - A California Public Benefit Corporation
952 School Street #316, Napa, CA 94559 / phone: (707) 681-5111

Response to Comment Letter 3 – William McKinnon, Water Audit California

Response 3-1: The comment expresses support for the Alternative 2 presented in the Draft EIR and notes that support is contingent on the inclusion of an acceptable screening mechanism for Hemphill Canal subject to approval by NOAA Fisheries and CDFW. The comment compliments the adequacy of the EIR and notes that the Draft EIR found Alternative 2 to be both the environmentally superior alternative and the most economical. While these comments do not call for a response from the Lead Agency, they are hereby noted and forwarded to the NID Board for their consideration.

Comment 3-1 further recommends that Alternative 2 could provide potential educational and tourist benefits. In response to this comment, we refer the reader to Response to Comment 2-3 which addresses potential public access to the Project Site.

3.0 REVISIONS TO THE DRAFT EIR

3.1 Purpose of this Chapter

In referring to preparing responses to comments on a Draft EIR, Section 15088 (d) of the State CEQA Guidelines states:

The response to comments may take the form of a revision to the draft EIR or may be a separate section in the final EIR. Where responses to comments makes important changes in the information contained in the text of the draft EIR, the Lead Agency should either:

- (1) Revise the text in the body of the EIR, or
- (2) Include marginal notes showing that the information is revised in the response to comments.

In accordance with Section 15088 (d) above, this Chapter of the Final EIR presents revisions to the DEIR that are hereby made in response to comments received on the DEIR and at the discretion of the Lead Agency. The following lists the section number of the Draft EIR in which the change is made and the location of the revision within the section. Original Draft EIR text that is hereby deleted is shown in ~~strike-through~~ format. New text that is added to the Draft EIR is shown in underlined format.

The changes clarify and amplify the information and analysis presented in the Draft EIR and do not alter the EIR in a way that deprives the public of a meaningful opportunity to comment on a substantial adverse environmental effect or a feasible way to mitigate or avoid such an effect. No new significant environmental effects and no increase in the severity of an environmental impact are identified in this FEIR. Revisions to the Cultural Resource and Tribal Cultural Resource mitigation measures were made as part of the AB 52 consultation process.

It should be noted that since circulation of the Draft EIR, the late season Sensitive Plant Species Survey was completed. Both the early season and late season surveys did not identify any sensitive plant species within the project boundary. Consequently, Mitigation Measure BIO-7 as identified in the Draft EIR has been completed. There are no changes required to the Draft EIR and the late season Sensitive Plant Species Survey results are included in this Final EIR as Appendices C.

3.2 Revisions to the DEIR

Executive Summary, page ES-12, Biological Resources Mitigation Measure BIO-10, is hereby revised to read:

The following measures shall be implemented to avoid or minimize loss of active tricolored blackbird nests:

To minimize the potential for loss of tricolored blackbird nesting colonies and other nesting birds, vegetation removal activities shall commence during the nonbreeding season (September 1-January 31) to the extent feasible. If all suitable nesting habitat is removed during the nonbreeding season, no further mitigation would be required.

Before removal of any vegetation within potential nesting habitat between February 1 and August 31, a qualified biologist shall conduct preconstruction surveys for nesting tricolored blackbirds (colonies). The surveys shall be conducted no more than 14 days before construction commences and include all suitable nesting habitat located within 1,300 feet of Project work areas, equipment access routes, and staging areas (with landowner permission or including those areas visible from the Project footprint and/or public roads) to ensure that all active nesting colonies adjacent to the Project footprint are identified and avoided during Project implementation. If no active nests or tricolored blackbird

Hemphill Diversion Structure Project Final Environmental Impact Report

colonies are found during focused surveys, no further action under this measure will be required. If active nests are located during the preconstruction surveys, the biologist shall notify CDFW. If necessary, modifications to the Project design to avoid removal of occupied habitat while still achieving Project objectives shall be evaluated and implemented to the extent feasible. If avoidance is not feasible or conflicts with Project objectives, construction shall be prohibited within a minimum of 100 feet of the nest to avoid disturbance until the nest colony is no longer active. These recommended buffer areas may be reduced or expanded through consultation with CDFW. Monitoring of all occupied nests shall be conducted by a qualified biologist during construction activities to adjust the 100-foot buffer if agitated behavior by the nesting bird is observed.

Because Tricolored blackbird is a PCCP covered species, mitigation for this species could also be accomplished via the PCCP as further discussed below.

Executive Summary, page ES-16, Biological Resources Mitigation Measure BIO-13, is hereby revised to read:

BIO-13: Survey for Townsend's big-eared bat and western red bat and Protect Nesting Activity (applies to all alternatives)

The following measures shall be implemented to avoid or minimize impacts to roosting bats:

Habitat Assessment: A qualified biologist will conduct a bat habitat assessment for suitable bat roosting habitat for bat species including Townsend's big-eared bat and western red bat prior to any construction activities. The habitat assessment should be conducted at least one year prior to the initiation of construction activities. If no suitable roosting habitat is identified, no further measures are necessary. If suitable roosting habitat and/or signs of bat use is identified during the assessment, the roosting habitat should be avoided to the extent possible.

Bat Management Plan: If the habitat assessment surveys reveal potential bat roosting habitat within the project, a Bat Management Plan that will include avoidance and minimization measures to reduce impacts to roosting bats shall be prepared and consultation with CDFW initiated prior to the commencement of construction activities. The Project-specific Bat Management Plan may include any of the following as necessary and appropriate based on the findings of the habitat assessment: emergence and/or pre-construction surveys for roosting bats including acoustic monitoring, roost removal timing and methodology, no-disturbance buffers, passive exclusion of bats, and/or species-specific replacement structures.

Bat Roost Surveys: Bat roost surveys shall be conducted by a qualified wildlife biologist within 14 days before any tree removal or clearing during each construction season. Locations of vegetation and tree removal or excavation will be examined for potential bat roosts. Specific survey methodologies will be determined in coordination with CDFW, and may include visual surveys of bats (e.g., observation of bats during foraging period), inspection for suitable habitat, bat sign (e.g., guano), or use of ultrasonic detectors (e.g., SonoBat, Anabat). Removal of any significant roost sites located will be avoided to the extent feasible. If it is determined that an active roost site cannot be avoided and will be affected, bats will be excluded from the roost site before the site is removed. The biologist shall first notify and consult with CDFW on appropriate bat exclusion methods and roost removal procedures. Exclusion methods may include use of one way doors at roost entrances (bats may leave, but not reenter), or sealing roost entrances when the site can be confirmed to contain no bats. Once it is confirmed that all bats have left the roost, crews will be allowed to continue work in the area.

Executive Summary, page ES-23, Cultural Resources Mitigation Measure CUL-3, second to last paragraph, is hereby revised to read:

If subsurface deposits believed to be cultural or human in origin are discovered during construction by the monitor, all work must halt within 100 feet of the discovery. The monitoring archaeologist will evaluate the significance of the find and shall have the authority to modify the no-work radius as appropriate, in communication and coordination with the tribal monitor, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required. ~~Should tribal monitors desire to take possession of any such materials, they may do so as long as the possession is documented by the archaeologist and tribal monitor, and as long as removal has been approved in writing by the property owner and authorized by NID.~~
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify NID and the on-site tribal monitor. NID, the archaeologist, and UAIC shall consult on a finding of eligibility. If the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines, appropriate treatment measures will be implemented. Work may not resume within the no-work radius until NID, through consultation as appropriate, determines that the site either: 1) is not a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines; or 2) that the treatment measures have been completed to its satisfaction. This mitigation measure will be carried out in concert with TCR-2.

Executive Summary, page ES-32, Tribal Cultural Resources Mitigation Measure TCR-1, is hereby revised to read:

A consultant and construction worker tribal cultural resources awareness brochure and in-field training program for all personnel involved in ground-disturbing activities will be developed and disseminated by a UAIC tribal representative to all operators of ground-disturbing equipment

Hemphill Diversion Structure Project Final Environmental Impact Report

prior to construction commencing. The program will include relevant information regarding sensitive tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The worker tribal cultural resources awareness program will also describe appropriate avoidance and minimization measures for resources that have the potential to be located in the project area and will outline the communication protocols in the event of the discovery of any potential tribal cultural resources or artifacts are encountered during ground-disturbing activity. The program will underscore the requirement for confidentiality and culturally appropriate treatment and respect of any find of significance to Native Americans, and behaviors consistent with Native American tribal values. All ground-disturbing equipment operators shall be required to receive the training and sign a form that acknowledges receipt of the training. A copy of the form shall be provided to NID as proof of compliance. This mitigation measures shall be carried out in coordination with mitigation measure CUL-2.

Executive Summary, page ES-33, Tribal Cultural Resources Mitigation Measure TCR-2 second and third paragraphs, are hereby revised to read:

TCR-2 Monitor Ground Disturbance, Installation of Environmentally Sensitive Area Fencing, and Stop Work if Cultural Resources or Remains are Detected

Resources TCE-1/2, HD-009, HD-012, P-31-1696 (Alternative 1), P-31-1693, P-31-1694, (Alternative 2), and HD-012 (Alternative 3) and P-31-1696 shall be designated Environmentally Sensitive Areas prior to construction activities with high-visibility temporary exclusionary fencing installed surrounding the known boundaries of these sites, plus a 5 meter (approximately 16 foot) buffer, as shown on the *confidential* Environmentally Sensitive Area Fencing map on file with NID. No ground-disturbing activities shall be allowed within the exclusionary fencing. A tribal representative from UAIC shall be present to observe the installation of environmentally sensitive area fencing around these resources.

The tribal monitor will be present for ground disturbing activity within 200 feet of the ESA zones for TCE-1/2, HD-009, HD-012, P-31-1693, P-31-1694, and P-31-1696. The tribal monitor shall also be present for all ground disturbing activity in the Hemphill Canal Study Area and Near and Instream Improvements Study Area. The tribal monitor shall also be present for all ground disturbing activity within the Project Area at the outset of the project, after which the frequency of monitoring in areas deemed less sensitive for TCRs may be re-assessed based on the observations and judgment of the UAIC tribal monitor. Ground disturbing activity includes all areas of soil newly disturbed, excavated, or dredged during the current Project. Placement of imported fill soils, movement of previously monitored soils, or placement and movement of non-soil material such as concrete need not be monitored.

If subsurface deposits believed to be cultural or human in origin are discovered during construction by the monitor, all work must halt within 100 feet of the discovery. The UAIC tribal monitor will work with the onsite archaeologist to evaluate the significance of the find and shall have the authority to modify the no-work radius as appropriate, in communication and coordination with the archaeologist, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the tribal representative determines that the find does not represent a TCR, work may resume following the procedures outlined in mitigation measure CUL-3.
- If the tribal monitor determines the find represents a TCR, as defined in Section 21074, he or she shall immediately notify NID and the on-site archaeologist, and the parties shall consult on appropriate treatment measures. Work may not resume within the no-work radius until NID, through consultation as appropriate, determines that the find either: 1) is not a TCR under CEQA, as defined in Section 21074(a) of the Public Resources Code; or 2) that the treatment measures have been completed to its satisfaction.
- In the event of an unanticipated discovery of a TCR, culturally appropriate treatment by the tribal monitor may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, returning objects to a location within the project area where they will not be subject to future impacts.
- An onsite location to securely store the discovered items shall be provided by NID that may include a lock box, locking drawer, or cabinet. The tribal monitor shall have access to the secure storage.
- ~~Should tribal monitors desire to take possession of any materials the archaeologist does not deem a cultural resource, they may do so as long as the possession is documented by the archaeologist and tribal monitor, and as long as removal has been approved in writing by the property owner and authorized by NID.~~
- This mitigation measure will be carried out in concert with mitigation measure CUL-3.

Section 1, page 1-2, first paragraph is revised as follows:

The following agencies have been identified as potential responsible, trustee, or interested agencies with direct or indirect interest in the project:

- California Department of Fish and Wildlife (CDFW), Region 2
- City of Lincoln
- National Oceanic and Atmospheric Administration - National Marine Fisheries Service (NOAA-NMFS)
- Federal Emergency Management Agency
- Placer County Air Pollution Control District
- Placer County Community Development Department

Hemphill Diversion Structure Project Final Environmental Impact Report

- ~~Placer County Flood Control and Water Conservation District~~
- Placer County Floodplain Management
- Placer Conservation Authority
- Placer County Water Agency
- Regional Water Quality Control Board, Region 5
- South Sutter Water District
- U.S. Army Corps of Engineers

Section 2.2, Second paragraph is hereby revised to read:

The Project objectives are defined as follows:

- 1) Provide for passage for anadromous fish, including but not limited to California Central Valley steelhead, at Hemphill Diversion Structure through elimination or modification of the existing structure.

Section 3.4, page 3.4-19, Cultural Resources Mitigation Measure CUL-3, second to last paragraph, is hereby revised to read:

If subsurface deposits believed to be cultural or human in origin are discovered during construction by the monitor, all work must halt within 100 feet of the discovery. The monitoring archaeologist will evaluate the significance of the find and shall have the authority to modify the no-work radius as appropriate, in communication and coordination with the tribal monitor, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required. ~~Should tribal monitors desire to take possession of any such materials, they may do so as long as the possession is documented by the archaeologist and tribal monitor, and as long as removal has been approved in writing by the property owner and authorized by NID.~~
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify NID and the on-site tribal monitor. NID, the archaeologist, and UAIC shall consult on a finding of eligibility. If the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines, appropriate treatment measures will be implemented. Work may not resume within the no-work radius until NID, through consultation as appropriate, determines that the site either: 1) is not a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines; or 2) that the treatment measures have been completed to its satisfaction. This mitigation measure will be carried out in concert with TCR-2.

Section 3.10, page 3.10-13, Tribal Cultural Resources Mitigation Measure TCR-1, is hereby revised to read:

A consultant and construction worker tribal cultural resources awareness brochure and in-field training program for all personnel involved in ground-disturbing activities will be developed and disseminated by a UAIC tribal representative to all operators of ground-disturbing equipment prior to construction commencing. The program will include relevant information regarding sensitive tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The worker tribal cultural resources awareness program will also describe appropriate avoidance and minimization measures for resources that have the potential to be located in the project area and will outline the communication protocols in the event of the discovery of any potential tribal cultural resources or artifacts are encountered during ground-disturbing activity. The program will underscore the requirement for confidentiality and culturally appropriate treatment and respect of any find of significance to Native Americans, and behaviors consistent with Native American tribal values. All ground-disturbing equipment operators shall be required to receive the training and sign a form that acknowledges receipt of the training. A copy of the form shall be provided to NID as proof of compliance. This mitigation measures shall be carried out in coordination with mitigation measure CUL-2.

Section 3.10, page 3.10-14, Tribal Cultural Resources Mitigation Measure TCR-2 is hereby revised to read:

TCR-2 *Monitor Ground Disturbance, Installation of Environmentally Sensitive Area Fencing, and Stop Work if Cultural Resources or Remains are Detected*

Hemphill Diversion Structure Project Final Environmental Impact Report

Resources TCE-1/2, HD-009, HD-012, P-31-1696 (Alternative 1), P-31-1693, P-31-1694, (Alternative 2), and HD-012 (Alternative 3) and P-31-1696 shall be designated Environmentally Sensitive Areas prior to construction activities with high-visibility temporary exclusionary fencing installed surrounding the known boundaries of these sites, plus a 5 meter (approximately 16 foot) buffer, as shown on the *confidential* Environmentally Sensitive Area Fencing map on file with NID. No ground-disturbing activities shall be allowed within the exclusionary fencing. A tribal representative from UAIC shall be present to observe the installation of environmentally sensitive area fencing around these resources.

The tribal monitor will be present for ground disturbing activity within 200 feet of the ESA zones for TCE-1/2, HD-009, HD-012, P-31-1693, P-31-1694, and P-31-1696. The tribal monitor shall also be present for all ground disturbing activity in the Hemphill Canal Study Area and Near and Instream Improvements Study Area. The tribal monitor shall also be present for all ground disturbing activity within the Project Area at the outset of the project, after which the frequency of monitoring in areas deemed less sensitive for TCRs may be re-assessed based on the observations and judgment of the UAIC tribal monitor. Ground disturbing activity includes all areas of soil newly disturbed, excavated, or dredged during the current Project. Placement of imported fill soils, movement of previously monitored soils, or placement and movement of non-soil material such as concrete need not be monitored.

If subsurface deposits believed to be cultural or human in origin are discovered during construction by the monitor, all work must halt within 100 feet of the discovery. The UAIC tribal monitor will work with the onsite archaeologist to evaluate the significance of the find and shall have the authority to modify the no-work radius as appropriate, in communication and coordination with the archaeologist, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the tribal representative determines that the find does not represent a TCR, work may resume following the procedures outlined in mitigation measure CUL-3.
- If the tribal monitor determines the find represents a TCR, as defined in Section 21074, he or she shall immediately notify NID and the on-site archaeologist, and the parties shall consult on appropriate treatment measures. Work may not resume within the no-work radius until NID, through consultation as appropriate, determines that the find either: 1) is not a TCR under CEQA, as defined in Section 21074(a) of the Public Resources Code; or 2) that the treatment measures have been completed to its satisfaction.
- In the event of an unanticipated discovery of a TCR, culturally appropriate treatment by the tribal monitor may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, returning objects to a location within the project area where they will not be subject to future impacts.
- An onsite location to securely store the discovered items shall be provided by NID that may include a lock box, locking drawer, or cabinet. The tribal monitor shall have access to the secure storage.
- ~~Should tribal monitors desire to take possession of any materials the archaeologist does not deem a cultural resource, they may do so as long as the possession is documented by the archaeologist and tribal monitor, and as long as removal has been approved in writing by the property owner and authorized by NID.~~

This mitigation measure will be carried out in concert with mitigation measure CUL-3.

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