MITIGATED NEGATIVE DECLARATION

PROJECT TITLE:

Deer Creek DCID Dam Fish Passage Project

Project Description

The U.S. Fish and Wildlife Service (USFWS) has proposed a fish passage improvement project on Deer Creek at the Deer Creek Irrigation District (DCID) diversion dam, herein referred to as the project. The objective of the project is to improve upstream and downstream passage at the diversion dam for adult and juvenile salmonids and Pacific lamprey while meeting DCID's irrigation needs. Reduced instream flows due to irrigation demands and structural damage to the apron of the DCID dam during the 1997 flood event has contributed to the difficulties of upstream migration for these important native anadromous fish species. The proposed project involves constructing a roughened channel (rock ramp) spanning the entire width of the creek downstream of the existing dam, lowering approximately 1,400 feet of the existing diversion ditch, and replacing the off-channel fish screen and juvenile return at a lower elevation. Improving fish passage at this site will improve anadromous fish access to spawning, rearing and holding stream habitat upstream of the project site through the roughened rock ramp, and will improve anadromous fish passage downstream of the project sites through fish screen and bypass pipe modifications. The project is being implemented by Trout Unlimited with funding from USFWS through the Anadromous Fisheries Restoration Program and from the California Department of Fish and Wildlife (CDFW) through the Proposition 1 Watershed Restoration Grant Program. The USFWS is the lead agency under the National Environmental Policy Act. DCID is the lead agency for the project under the California Environmental Quality Act.

Findings

The USFWS and DCID have prepared an Environmental Assessment / Initial Study for this project, and the USFWS has determined from this study that the proposed project would not have a significant effect on the environment for the following reasons:

- The project will result in a net benefit to Chinook salmon, steelhead and other aquatic fish and wildlife species by improving fish passage conditions.
- Improving fish passage at this site will improve anadromous fish access to spawning, rearing and holding stream habitat upstream of the project site and will improve anadromous fish passage, downstream of the project site.
- Project impacts will be temporary in nature.
- The project incorporates all applicable mitigation measures, as listed below and described in the EA / IS.

The proposed project will have a less-than-significant impact or no impact as related to aesthetics, agricultural / forestry resources, greenhouse gas emissions, land use / planning, noise, population / housing, public services / utilities, recreation, and transportation / traffic.

Potential project impacts will be reduced to a level of less-than-significant through adherence to established best management practices (BMPs) and implementation of mitigation measures related to air quality, biological resources, cultural and tribal cultural resources, hazards / hazardous materials, hydrology / water quality and soils / geology / minerals. The following mitigation measures will be implemented as part of the project to avoid or minimize potential environmental impacts. Implementation of these mitigation measures would reduce the potential environmental impacts of the proposed project to a less-than-significant level.

- **AIR-1:** Fugitive Dust Permits will be obtained from the Tehama County Air Pollution Control District (TCAPCD).
- **AIR-2:** All construction equipment will be maintained in proper tune according to manufacturer's specifications.

  To the extent feasible, the use of diesel construction equipment meeting the California Air Resources Board's (CARB) 1996 or newer certification standard for off-road heavy-duty diesel engines will be maximized.

  If required by the TCAPCD, verify that owners or operators of vehicles are registered with the CARB Diesel Off-Road On-Line Reporting System (DOORS) program: (www.arb.ca.gov/msprog/ordiesel/ordiesel.htm). The DOORS program assists fleet owners in reporting their off-road diesel vehicle inventories to reduce vehicle emissions, as required by the In-Use Off-Road Diesel Regulation.

  If required by the TCAPCD, verify that owners or operators of portable engines and certain other types of equipment are registered under the CARB's Statewide Portable Equipment Registration Program (PERP) in order to operate their equipment throughout California without having to obtain individual permits from local air districts: (www.arb.ca.gov/portable/portable.htm).
- **VEGETATION-1:** Disturbance to existing vegetation will be avoided or minimized to the extent possible.
- **VEGETATION-2:** Disturbance to riparian vegetation will be avoided or minimized to the extent possible.
- **VEGETATION-3:** A revegetation plan will be prepared in coordination with the landowners to replace impacted riparian wetlands and other woody vegetation by a measure of quantity and quality equal to, or exceeding impacts of the project using appropriate native plant species.
- **VEGETATION-4:** All heavy equipment shall be thoroughly cleaned prior to mobilization onsite to remove any soil, weed seeds and plant parts in order to reduce the importation and spread of invasive exotic plant species.
- **VEGETATION-5:** Only certified weed-free straw shall be used for erosion control or other purposes to reduce the importation and spread of invasive exotic plant species.
- **VEGETATION-6:** Road improvement and grading activities shall be conducted in such a manner that disturbances are confined to the already disturbed road prism.
- **VEGETATION-7:** Vehicle traffic will be limited to the existing disturbed road prism. The condition of the road post-project will be coordinated with the landowners and all measures will be taken to return the road to pre-project conditions. Truck passing and parking areas will be established in areas away from Tehama navarretia, Bidwell's knotweed and hogwallow starfish populations and seasonal wetlands. Truck passing areas will be clearly mapped in the field with high visibility fencing or flagging and all construction personnel will be made aware of the sensitive resources and avoidance measures.
- **VEGETATION-8:** An appropriately-timed preconstruction rare plant survey will be conducted prior to the construction of the two new road segment realignments to ensure that nothing was missed during the winter 2018 rare plant survey.
- **VEGETATION-9:** Disturbance associated with the two new road segment realignments shall be restricted to the degree possible to the new road prism. To the extent possible, truck passing and parking areas associated with the new road prism will be established in areas away from Tehama navarretia and hogwallow starfish populations.
- **VEGETATION-10:** No smoking will be allowed on the construction site or within the project area, for fire prevention purposes.

- **VEGETATION-11:** No road improvements shall occur within the 0.6-mile reach of the south access road within the sub-watershed of the large vernal pool / Hoover's Spurge population.

  Signage in both directions and flagging shall be used to clearly indicate the sensitive habitat area bordering the eastern side of the road. All drivers and machinery operators will be made aware of the sensitive resource area and will confine all vehicle / machinery travel to the existing road surface.
- **FISH-1:** Instream work can occur between July 1st and September 30th. Instream work could start sooner if the California Department of Fish and Wildlife (CDFW) determines that the adult CV spring-run Chinook salmon are no longer present based on environmental conditions and real time passage data. Instream work could be extended October 14th, if environmental conditions which would preclude juvenile steelhead and spring-run Chinook salmon emigration or adult steelhead and late-fall-run Chinook salmon immigration are expected to persist. Instream work outside of the July 1st to September 30th work window must be approved by CDFW and the National Marine Fisheries Service (NMFS) on a case-by-case basis with details on how take will be avoided and / or minimized.
- **FISH-2:** All construction debris (concrete, metal, etc.) from the fish passage improvement-related construction activities shall be removed from the active stream channel post-construction.
- **FISH-3:** Immediately prior to installation of temporary dam structures, a qualified fish biologist, in coordination with CDFW, will conduct snorkel surveys above and below the dam and diversion, to identify presence of salmonids. The U.S. Fish and Wildlife Service (USFWS), in coordination with the contractor, and in consultation with NMFS and CDFW, will ensure that qualified fish biologists are onsite to implement fish rescue operations within the dewatered area through the use of herding, seining and / or electrofishing, if necessary. Best professional determination will be used to decide which method(s) of rescue is to be used and where the relocation of captured fish, either upstream or downstream of the temporary dams is to occur. Biologists will first try to haze and herd fish out of the fish exclusion area. If fish biologists determine that the use of electrofishing is necessary for the efficient and successful removal of fish, NMFS electrofishing guidelines (National Marine Fisheries Service 2000) will be strictly followed. The fish rescue team will be comprised of fishery biologists with professional experience using seines and electrofishing equipment. The same methodologies will be used during dewatering of the diversion ditch.
- **FISH-4:** For the duration of the project, all diverted water must be screened through the existing screens, which currently do not meet CDFW and NMFS criteria, however best professional judgement will be used to prevent harm to juvenile fish through frequent monitoring and site specific modifications as needed. Furthermore, all water returned to the stream will comply with NMFS bypass return criteria, including consideration of the location of the bypass pipe exit (i.e. bypassed water will enter the watercourse and will not be of an excessive height, or empty onto rocks, etc.) for the duration of the bypass period.
- **FISH-5:** All Reasonable and Prudent Measures and Terms and Conditions found in the Programmatic Biological Opinion issued by NMFS for the project (National Marine Fisheries Service 2016) will be adhered to.
- **FISH-6:** All dewatering and re-watering activities will be conducted slowly, in order to minimize disturbance to fish. A qualified fisheries biologist will be onsite during these activities, and CDFW will be notified prior to these activities.
- **FISH-7:** All water pumps used during construction shall be screened to meet CDFW and NMFS criteria, unless deemed unnecessary by CDFW and NMFS (i.e. if water was being diverted from an off-channel pool). The refueling of pumps will occur away from the wetted area / channel. If pumps are using fuel, they will be outfitted with a spill kit.
- **FISH-8:** Adequate erosion and pollution control measures shall be taken to ensure that sediment, turbidity, petroleum products or other harmful chemicals do not enter Deer Creek as a result of

construction activities. Standard Best Management Practices (BMPs) shall be incorporated into the project designs.

- **FISH-9:** BMPs will be developed and implemented to ensure that wet concrete does not enter Deer Creek, wetlands or other aquatic sites during construction.
- **FISH-10:** All reasonable measures will be taken to minimize impacts to lamprey, including spending more time at the area as it becomes dewatered (and they are moving out of the mud, chasing the water as it recedes), and possibly electroshocking.
- **FISH-11:** Appropriate measures will be used to avoid the spread of aquatic invasive species such as zebra / quagga mussels, New Zealand mudsnails and chytrid fungus to and from the project area according to the current CDFW Aquatic Invasive Species Disinfection / Decontamination Protocols (Northern Region) and the current USFWS Red Bluff Fish and Wildlife Office Anadromous Fish Restoration Program Hazard Analysis Critical Control Point Plan.
- **WILDLIFE-1:** Within ten (10) calendar prior to the onset of potentially disturbing construction activities, areas that will be disturbed within 100 feet of water bodies shall be surveyed by a qualified biologist to determine if any western pond turtles or turtle nests are present. If any turtles or turtle nests are found, a qualified and permitted biologist shall determine and implement appropriate relocation procedures, in coordination with CDFW. The site shall be checked daily by trained construction workers prior to work commencing, including underneath vehicles and equipment that will be used. If turtles are found, they will be moved by a qualified and permitted biologist to an area of safety out of harm's way.
- **WILDLIFE-2:** Within ten (10) calendar days prior to work in aquatic habitats, water bodies shall be surveyed by a qualified biologist to determine if any foothill yellow-legged frogs are present. If any foothill yellow-legged frogs are found, a qualified and permitted biologist shall determine and implement appropriate relocation procedures, in coordination with CDFW. The site shall be checked daily by trained construction workers prior to work commencing, including underneath vehicles and equipment that will be used. If foothill yellow-legged frogs are found, they will be moved by a qualified and permitted biologist to an area of safety out of harm's way.
- **WILDLIFE-3:** Any tree removal, vegetation clearing, or the onset of potentially disturbing construction activities shall occur between September 1 and January 1 (outside of the nesting season for raptors with potential to occur within, or in the vicinity of the project site). Note: Also see measure WILDLIFE-4.

  If tree removal, vegetation clearing, or the onset of potentially disturbing construction activities must occur during the nesting season, a raptor nesting survey of the construction area and adjacent suitable habitat shall be conducted by a qualified biologist no more than seven (7) days prior to the initiation of the onset of these activities or as appropriate survey protocols require. If active raptor nests are found to be present, tree removal, vegetation clearing and the onset of potentially disturbing construction activities shall be suspended until a qualified biologist, in consultation with CDFW and / or USFWS can establish an appropriate protective buffer area to minimize impacts to the nesting raptors. No construction activities shall commence within the buffer area until the qualified biologist determines that the young birds have fledged or the nest is no longer active.

  Construction activities shall occur continuously (not including weekends) until the end of the nesting season to discourage raptors from initiating nesting. If construction activities cease for more than seven (7) consecutive days (including weekends), all construction activities shall cease until CDFW can be consulted to determine if a subsequent raptor nesting survey must be performed.

  Active or inactive nests are not to be disturbed or removed as a result of construction activities without DCFW consultation per Fish and Game Code Section 3503.5.
- **WILDLIFE-4:** Any tree removal, vegetation clearing, or the onset of potentially disturbing construction activities shall occur between August 1 and March 1 (outside of the nesting season for grasshopper

sparrow, yellow-breasted chat, loggerhead shrike, yellow warbler and other nesting migratory birds). Note: Also see measure WILDLIFE-3.

If tree removal, vegetation clearing, or the onset of potentially disturbing construction activities must occur during the nesting season, a nesting survey of the construction area and adjacent suitable habitat shall be conducted by a qualified biologist no more than seven (7) days prior to the initiation of the onset of these activities. If active bird nests are found to be present, tree removal, vegetation clearing and the onset of potentially disturbing construction activities shall be suspended until a qualified biologist, in consultation with CDFW, can establish an appropriate protective buffer area to minimize impacts to the nesting birds. No construction activities shall commence within the buffer area until the qualified biologist determines that the young birds have fledged or the nest is no longer active.

Construction activities shall occur continuously (not including weekends) until the end of the nesting season to discourage avian species from initiating nesting. If construction activities cease for more than seven (7) consecutive days (including weekends), all construction activities shall cease until CDFW can be consulted to determine if a subsequent nesting bird survey must be performed.

Active nests are not to be disturbed or removed as a result of construction activities per Fish and Game Code Section 3503.

- **WILDLIFE-5:** Prior to the onset of potentially disturbing construction activities, a Swainson's hawk nesting survey of the construction area and adjacent suitable habitat shall be conducted by a qualified biologist in accordance with the protocols in *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (Swainson's Hawk Technical Advisory Committee 2000). If active Swainson's hawk nests are found to be present, the onset of potentially disturbing construction activities shall be suspended until a qualified biologist, in consultation with CDFW, can establish an appropriate protective buffer area to minimize impacts to the nesting birds. No construction activities shall commence within the buffer area until the qualified biologist determines that the nest is no longer active.
- **WILDLIFE-6:** Within seven (7) calendar days prior to the onset of potentially disturbing construction activities, a burrowing owl nesting / roosting survey of the construction area and adjacent suitable habitat shall be conducted by a qualified biologist. If active burrowing owl burrows are found to be present, the onset of potentially disturbing construction activities shall be suspended until a qualified biologist, in consultation with CDFW, can establish an appropriate protective buffer area to minimize impacts to the nesting / roosting birds. No construction activities shall commence within the buffer area until the qualified biologist determines that the burrow is no longer active.
- **WILDLIFE-7:** Prior to any vegetation removal, a survey of the vegetation to be removed shall be conducted by a qualified biologist to ensure that pallid bats are not roosting in the area to be removed.

  If pallid bats are found to be roosting within the vegetation to be removed, these activities shall be suspended until a qualified biologist, in consultation with CDFW, can establish appropriate measures to minimize impacts to this species. Examples of measures would include tree removal over several days, removal at night after bats have emerged, delayed removal until after the maternity season, etc.
- **WILDLIFE-8:** All vegetation clearing within potential western red bat roosting habitat (woody riparian habitat with mature trees) shall occur between August 31 and May 1, in order to minimize the likelihood of injuring or killing juvenile bats during the period when they are still unable to fly.

  As it relates to bats only, tree removal may occur prior to August 31 based upon a site-specific tree removal plan approved by CDFW. The plan shall consider or include the following:

  Monitoring of the affected trees shall be conducted using bat detection equipment within five (5) calendar days of tree removal. If red bats are not present, tree removal can proceed. If red bats are present, a survey on the night prior to tree removal may help confirm the use of that tree by red bats. If

red bats are potentially using the tree, a qualified biologist shall monitor removal / trimming of trees that provide suitable red bat roosting habitat. Prior to tree removal / trimming, each tree shall be shaken gently, and several minutes shall pass before felling trees or limbs to allow red bats time to arouse and leave the tree. The biologist shall search downed vegetation for dead or injured red bats and report any dead or injured special-status bat species to CDFW. All bat observations should be reported to CDFW.

- **WILDLIFE-9:** Prior to construction, a qualified biologist will inspect the project site for signs of denning by ringtails.

  If ringtails are found to be denning, construction activities will be suspended until a qualified biologist, in consultation with CDFW, can establish appropriate measures to protect ringtail.

- **WILDLIFE-10:** The USFWS shall be consulted to 1) develop appropriate avoidance and minimization measures, and 2) determine whether an Endangered Species Act Section 7 take permit will be required for the project. All protective measures imposed by USFWS through the consultation shall be adhered to.

- **WILDLIFE-11:** To reduce potential impacts to the valley elderberry longhorn beetle (VELB) to less than significant levels, the proposed project shall comply with the current USFWS *Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (Desmocerus californicus dimorphus)* (U.S. Fish and Wildlife Service 2017).

- **WILDLIFE-12:** Prior to construction, all elderberry shrubs to be avoided within 150 feet of any project activity will be clearly flagged, marked and maintained throughout construction in order to avoid impacts to the valley elderberry longhorn beetle. All elderberry shrubs to be avoided within 100 feet of project activity will be marked with high-visibility orange fencing.

- **WILDLIFE-13:** Project activities shall avoid direct impacts to seasonal wetlands or other potential large branchiopod (fairy shrimp, tadpole shrimp) habitats, to the extent possible.

  High-visibility fencing shall be installed in areas where equipment will be working near any potential large branchiopod habitat that is not to be disturbed.

  No road grading or road improvements shall be allowed in or, where feasible, near potential large branchiopod habitat that is not to be disturbed.

  All transporters of potentially hazardous materials (fuel, oil, cement, etc.) will be notified as to the presence of potential large branchiopod habitats, and be required to inspect their vehicles prior to entry and exit of the project site to prevent accidental discharge.

  All vehicular traffic will be restricted to stay within the designated work boundaries. The work boundaries will be flagged or fenced and identified on construction drawings to limit equipment and personnel to the minimum area necessary to perform the project work and minimize impacts to potential large branchiopod habitat.

- **WILDLIFE-14:** For potential large branchiopod habitat that cannot be avoided within the existing roads, a layer of geotextile material will be placed across the entire pool bottom up to the edge of the depression. 0.5- to 2-inch diameter gravel or rock will be used to fill the basin up to a level surface with the surrounding road elevation. Gravel / rock fill will be placed prior to the onset of construction and will be maintained throughout the project. After construction is completed, the gravel / rock and geotextile material shall be removed and the pool will be left in pre-project conditions.

- **WILDLIFE-15:** A qualified biologist (biological monitor) shall regularly inspect construction-related activities to ensure that no unnecessary disturbance to special-status species and / or their associated habitats occurs. The biological monitor shall have the authority to stop all activities that may result in such disturbance until appropriate corrective measures have been completed. The biologist will also be required to report any unauthorized take to CDFW, USFWS and / or NMFS immediately.

- **WILDLIFE-16:** Prior to the onset of construction activities, a construction worker education program shall be implemented that includes an explanation of all special-status animal species, identification, avoidance measures, and federal and state laws that protect the species. This shall include, at a minimum, those species listed in the environmental documents.
- **WILDLIFE-17:** All food-related trash will be disposed of in closed containers and removed from the project area daily during the construction period. Construction personnel will not feed or otherwise attract wildlife to the project area.
- **WILDLIFE-18:** No pets will be allowed within the project area.
- **WETLAND-1:** Project activities will avoid impacts to wetlands and other aquatic habitats to the extent possible.
- **WETLAND-2:** High-visibility fencing will be installed in areas where equipment will be working near any wetlands or other aquatic habitats that are not to be disturbed.
- **WETLAND-3:** Construction crews will be informed about the importance of avoiding sensitive areas, including wetlands.
- **WETLAND-4:** A Clean Water Act Section 404 Permit will be obtained from the U.S. Army Corps of Engineers and a Clean Water Act Section 401 Certification will be obtained from the Central Valley Regional Water Quality Control Board (RWQCB).
- **WETLAND-5:** A California Fish and Game Code Section 1600 Lake or Streambed Alteration Agreement will be obtained from CDFW.
- **CULTURAL-1:** The 400 foot section of access road passing within 100 feet of DCID Site #3 shall be considered environmentally sensitive and any use or modification of the access road in this area (e.g., placement of fill materials) shall be confined to the approximate footprint of the existing roadbed.
- **CULTURAL-2:** Prior to the onset of construction, two new permanent DCID south access by-pass routes shall be constructed and used for all project activities to completely avoid impacts to DCID Site # 1 and DCID Site #2.
- **CULTURAL-3:** At DCID North #1, where avoidance is not feasible, composite environmental matting shall be in place for the duration of Project construction in accordance with the methods outlined in White and Reifschneider-Smith (2018). The composite matting shall be composed of a basal layer of landscaping fabric, capped by a minimum 4 inch thick bed of wood chips, in turn capped by environmental matting. The composite matting shall cover any portion of impacted archaeological deposits and a 10-foot buffer on all sides. The integrity of the matting shall be checked on a daily basis and maintained as necessary to protect the site for the duration of Project construction.

  Equipment and vehicle traffic shall be confined to the matting in the vicinity of DCID North #1.

  Prior to installation of the basal fabric, boulders scraped onto the site surface during the original DCID North Access construction shall be hand removed and the tree, used as a fence corner-post at the south edge of the locus shall be flush cut.
- **CULTURAL-4:** In the event subsurface archaeological resources are encountered during ground-disturbing activities, all work will cease at the general area of discovery and the USFWS regional archaeologist, or other lead agency archaeologist, will be notified immediately. A field exam by a professional archaeologist may be required and further steps for resource protection will be implemented, including mitigation and consultation with the Native American Indian community if human remains are encountered (following Native American Graves Protection and Repatriation Act procedures). Work may proceed on other parts of the project site while mitigation for historical, unique archaeological or tribal resources is being carried out.

- **HAZ-1:** A designated concrete washout area will be located at least 100 feet from any high water mark within adjacent waterways, and from any wetlands and will be developed and used following the U.S. EPA Stormwater BMP for a Concrete Washout.
- **HAZ-2:** BMPs will be developed and implemented to ensure that wet concrete does not enter Deer Creek or other aquatic sites during construction.
- **HAZ-3:** Measures WATER-3 through WATER-6 associated with potential petroleum product spills will be fully implemented.
- **HAZ-4:** Construction equipment and materials shall not be stored or stockpiled in the creek channel, and shall be stored at least 50 feet from the top of the stream bank, any wetlands or other aquatic sites.
- **WATER-1:** All construction shall be conducted in the summer / early fall during the low flow period. Any work within the channel and banks, outside of this instream work window must be isolated from flowing water and dewatering will be required.
- **WATER-2:** Monitoring of water turbidity and settleable materials shall be conducted in accordance with the Clean Water Act Section 401 Certification through consultation with the RWQCB.
- **WATER-3:** All equipment and machinery that contains fuel, oil or other petroleum products used during construction-related activities shall be checked for petroleum leaks immediately prior to being mobilized to the project site, and again each day prior to use.
- **WATER-4:** All equipment refueling and / or maintenance shall take place within a secondary containment structure and a minimum of 100 feet away from Deer Creek, any wetlands or other aquatic sites.
- **WATER-5:** An emergency spill kit and absorbent oil booms will be onsite during construction activities.
- **WATER-6:** All equipment operations within the channel and banks of Deer Creek will be required to use readily biodegradable hydraulic oil.
- **WATER-7:** A dewatering permit will be obtained from the RWQCB, if deemed necessary based on the dewatering methods used.
- **SOIL / GEO / MIN-1:** After ground-disturbing activities are complete, all disturbed areas (outside of the active stream channel) shall be seeded with native plant species and / or mulched as described in the revegetation plan and the Stormwater Pollution Prevention Plan (SWPPP), if required.
- **SOIL / GEO / MIN -2:** Construction of all project actions shall comply with RWQCB Basin Plan Objectives. Standard BMPs will be incorporated into the project designs and / or the SWPPP, if required.
- **SOIL / GEO / MIN -3:** If the total disturbance area is greater than one acre, a Notice of Intent will be submitted to the State Water Resources Control Board to obtain coverage under the National Pollution Discharge Elimination System General Permit for Discharges of Stormwater Associated with Construction Activity.

John Edson, DCID Board President

5/28/2019
Date