

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
REGION 1 – NORTHERN REGION, COASTAL
619 Second Street
Eureka, CA 95501



STREAMBED ALTERATION AGREEMENT

NOTIFICATION NO. EPIMS-HUM-13648-R1C
Unnamed Tributary to Supply Creek, Tributary to the Trinity River,
Tributary to the Klamath River and the Pacific Ocean

Alan Hoang
Hoang Water Diversion, Onstream Reservoir Removal and Stream
Crossings Project
6 Encroachments

This Lake or Streambed Alteration Agreement (Agreement) is entered into between the California Department of Fish and Wildlife (CDFW) and Alan Hoang (Permittee).

RECITALS

WHEREAS, pursuant to Fish and Game Code (FGC) section 1602, the Permittee initially notified CDFW on November 30, 2020, that the Permittee intends to complete the project described herein.

WHEREAS, pursuant to FGC section 1603, CDFW has determined that the project could substantially adversely affect existing fish or wildlife resources and has included measures in the Agreement necessary to protect those resources.

WHEREAS, the Permittee has reviewed the Agreement and accepts its terms and conditions, including the measures to protect fish and wildlife resources.

NOW THEREFORE, the Permittee agrees to complete the project in accordance with the Agreement.

PROJECT LOCATION

The project is located within the Supply Creek watershed, approximately 5.9 miles northwest of the town of Willow Creek, County of Humboldt, State of California; Section 21, T7N, R4E, Humboldt Base and Meridian, in the Willow Creek U.S. Geological Survey 7.5-minute quadrangle; Assessor's Parcel Number 522-024-002 & 522-025-003; latitude 40.9746 N and longitude 123.7383 W at the point of diversion (POD).

PROJECT DESCRIPTION

This Agreement relies on the Notification materials and a desk review without a CDFW site inspection.

The project is limited to six encroachment(s) (Table 1). One encroachment is for water diversion from an unnamed tributary to Supply Creek. Water is diverted for domestic use only. Work for the water diversion will include use and maintenance of the water diversion infrastructure. One encroachment is to authorize work that the Permittee has elected to pursue to remove an unpermitted onstream reservoir. Work for the reservoir removal will involve dewatering, use of a coffer dam, removal of a culvert and decommissioning of a stream crossing. The Permittee will proceed as notified in coordination with CDFW for project timing. Four encroachments are to upgrade stream crossings. Work for these encroachments will include excavation, removal of the failing crossings, replacement with new properly sized crossings, backfilling and compaction of fill, and rock armoring as necessary to minimize erosion.

Table 1. Project Encroachments Covered by this Agreement with Description

ID	Latitude/Longitude	Description
POD-1	40.9746, -123.7383	Water diversion from for domestic use. Domestic Use Water diversion for domestic use year-round. Permittee shall implement Seasonal Diversion Minimization: 200 gallons per day from May 15 – October 31, 80% bypass at all times.
Onstream Reservoir Removal	40.9762, -123.7282	Permittee has elected to remove an unpermitted onstream reservoir. This work shall proceed as notified in coordination with CDFW for project timing.
Crossing-1	40.9754, -123.7283	Replace existing culvert with minimum 24-inch diameter culvert.
Crossing-2	40.9757, -123.7290	Replace existing culvert with minimum 24-inch diameter culvert.
Crossing-3	40.9747, -123.7385	Replace existing culvert with minimum 42-inch diameter culvert.
Crossing-4	40.9745, -123.7396	Replace existing culvert with minimum 42-inch diameter culvert.

The Notification also discloses the use of a well located at Lat/Long 40.9746, -123.7237. This well is presented as the sole source of water for all cannabis cultivation on the properties. CDFW did not evaluate hydraulic connection of the well to surface water, nor was a hydrogeologic evaluation prepared by a licensed geologist provided for CDFW review. Based on the available resources, the well may be hydraulically connected to streams and/or springs and shall be evaluated for potential impacts from commercial cannabis irrigation use through the County's conditional use permit/cannabis cultivation permit (PLN-11978 & PLN-11980).

No other projects that may be subject to FGC section 1602 were disclosed. This Agreement does not retroactively permit any constructed reservoirs (including "ponds"), stream crossings, water diversions, modifications to riparian buffers, or other encroachments not described in Table 1.

PROJECT IMPACTS

Existing fish or wildlife resources the project could substantially adversely affect include **Chinook Salmon** (*Oncorhynchus tshawytscha*), **Coho Salmon** (*O. kisutch*), **Steelhead Trout** (*O. mykiss*), **Western Brook Lamprey** (*Lampetra richardsoni*), **Pacific Lamprey** (*Entosphenus tridentatus*), **Southern Torrent Salamander** (*Rhyacotriton variegatus*), **Pacific Giant Salamander** (*Dicamptodon tenebrosus*), **Foothill Yellow-legged Frog** (*Rana boylei*), **Coastal Tailed Frog** (*Ascaphus truei*), **Western Pond Turtle** (*Actinemys marmorata marmorata*), amphibians, reptiles, aquatic invertebrates, mammals, birds, and other aquatic and riparian species.

The adverse effects the project could have on the fish or wildlife resources identified above include:

Impacts to water quality:

- increased water temperature;
- increased turbidity;
- increased sedimentation (chronic or episodic);

Impacts to bed, channel, or bank and direct effects on fish, wildlife, and their habitat:

- loss or decline of riparian habitat;
- loss or decline of instream channel habitat;
- direct impacts on benthic organisms;
- direct and/or incidental take of aquatic and/or terrestrial organisms;

Impacts to natural flow and effects on habitat structure and process:

- reduced instream flow;
- cumulative effect of diversions in the watershed;
- impediment of up- or down-stream movement;
- water quality degradation; and
- damage to aquatic habitat and function.

MEASURES TO PROTECT FISH AND WILDLIFE RESOURCES

1. Administrative Measures

Permittee shall meet each administrative requirement described below.

- 1.1 Documentation at Project Site.** Permittee shall make the Agreement, any extensions and amendments to the Agreement, and all related notification materials and California Environmental Quality Act (CEQA) documents, readily available at the project site at all times and shall be presented to CDFW personnel, or personnel from another state, federal, or local agency upon request.

- 1.2 Providing Agreement to Persons at Project Site. Permittee shall provide copies of the Agreement and any extensions and amendments to the Agreement to all persons who will be working on the project at the project site on behalf of Permittee, including but not limited to contractors, subcontractors, inspectors, and monitors.
- 1.3 Notification of Conflicting Provisions. Permittee shall notify CDFW if Permittee determines or learns that a provision in the Agreement might conflict with a provision imposed on the project by another local, state, or federal agency. In that event, CDFW shall contact Permittee to resolve any conflict.
- 1.4 Project Site Entry. Permittee agrees to allow CDFW employees access to the Project site for the purpose of inspecting and/or monitoring, provided CDFW: a) provides 24 hours advance notice; and b) allows Permittee or representatives to participate in the inspection and/or monitoring. This condition does not apply to CDFW law enforcement personnel.
- 1.5 Applicable Permits. Land development or alterations may be subject to additional federal, state and local laws, regulations, and permitting requirements, including but not limited to the following:
 - The Clean Water Act (CWA) as implemented through permits, enforcement orders, and self-implementing requirements. When needed per the requirements of the CWA, Permittee shall obtain a CWA section 404 (33 U.S.C. § 1344) permit from the United States Army Corps of Engineers (Army Corps) and a CWA section 401 (33 U.S.C. § 1341) water quality certification from the State Water Board or the Regional Water Board with jurisdiction.
 - The California Water Code as implemented through applicable water quality control plans (often referred to as Basin Plans), waste discharge requirements (WDRs) or waivers of WDRs, enforcement orders, and self-implementing requirements issued by the State Water Resources Control Board (State Water Board) or Regional Water Quality Control Boards (Regional Water Boards).
 - All applicable state, city, county, or local regulations, ordinances, or license requirements including, but not limited to those for grading, construction, and building.
 - All applicable requirements of the California Department of Forestry and Fire Protection (CAL FIRE), including the Board of Forestry.
- 1.6 Cannabis Cultivation Policy. If commercial cannabis cultivation occurs on the project parcel, the State Water Resources Control Board (SWRCB) requires enrollment in the Cannabis Cultivation General Order and compliance with the Cannabis Cultivation Policy - Principles and Guidelines for Cannabis Cultivation,

available at:

https://www.waterboards.ca.gov/water_issues/programs/cannabis/cannabis_policy.html

- 1.6.1 Site Management Plan and Related Technical Reports. Permittee shall submit to CDFW the initial preparation and subsequent updates to the project's Site Management Plan and related technical reports prepared in conformance with the SWRCB Cannabis Cultivation Policy.
- 1.7 Water Rights. This Agreement does not constitute a valid water right. All water diversion facilities that Permittee owns, operates, or controls shall be operated and maintained in accordance with current law and applicable water rights. Water rights are administered by the State Water Resources Control Board as described here: https://www.waterboards.ca.gov/waterrights/water_issues/programs/registrations/.
- 1.8 Change of Conditions and Need to Cease Operations. If conditions arise, or change, in such a manner as to be considered deleterious by CDFW to the stream or fish and wildlife, operations shall cease until corrective measures approved by CDFW are taken. This includes new information that indicates bypass flows, diversion rates or other measures provided in this Agreement are not providing adequate protection to keep aquatic life downstream in good condition or to avoid "take" or "incidental take" of federal or State listed species.
- 1.9 Notification Materials. Permittee's Notification of Lake or Streambed Alteration, together with all maps, plans, photographs, drawings, and all other supporting documents submitted with the Notification and received on November 30, 2020, is hereby incorporated by reference into this Agreement. Permittee shall conduct project activities within the work areas, and using the protective measures, described in the Notification and supporting documents, unless such project activities, work areas or protective measures are modified by the provisions of this Agreement, in which case the activities shall be conducted as described in this Agreement.

2. Avoidance and Minimization Measures

To avoid or minimize adverse impacts to fish and wildlife resources identified above, Permittee shall implement each measure listed below.

Work Periods and Pre-Project Notice

- 2.1 Work Period. All work, not including authorized diversion of water, shall be confined to the period **June 15 through October 15** of each year. Work within the active channel of a stream shall be restricted to periods of **dry weather**. Permittee shall monitor precipitation forecasts and potential increases in stream flow when planning construction activities. Construction activities shall cease, and all necessary erosion control measures shall be implemented prior to the onset of

precipitation. A notice of completed work, including dates of activities and photographs of each site, shall be submitted to CDFW within seven (7) days of project completion.

2.2 CDFW Notification of Work Initiation and Completion. Permittee shall contact CDFW in writing within the 7-day period preceding the beginning of work permitted by this Agreement. Information provided shall include Agreement number, and the anticipated start date. Subsequently, Permittee shall notify CDFW in writing no later than seven (7) days after the project is fully completed. **Notification of completion will include photographs of the completed work, erosion control measures, waste containment and disposal, and a summary of any CNDDB submissions as required below.**

2.3 Work Period Extension Requests. If Permittee needs more time to complete the project, CDFW may grant a work period extension on a day-to-day basis. Extension requests shall be made in writing before **October 5** of each year and shall: 1) describe the extent of work already completed; 2) detail the uncompleted activities; 3) detail the time required to complete each remaining activity; and 4) provide photographs of the completed work site(s) and remaining work. Requests shall describe the effects of increased stream flows, rain delays, increased erosion control measures, access constraints caused by saturated soils, and anticipated effects of climatic conditions on growth of erosion control grasses. Work period extensions are issued at the discretion of CDFW. CDFW will review the written request and may require additional measures to protect fish and wildlife resources.

General Stream Protection Measures

2.4 Prohibition of Live Stream Work. Except for the onstream reservoir removal project, no work is authorized in a live flowing stream. All work shall be conducted when the stream is dry. Permittee shall notify CDFW if it determines that work in a live flowing stream is required to complete a project and will submit a diversion plan.

2.5 Fish and Aquatic Species. For the onstream reservoir removal project, Permittee shall follow dewatering and sediment control conditions herein. If surface water is or becomes present during construction, Permittee shall: a) have a qualified biologist survey the site and adjacent area for fish, amphibians, and turtles three (3) days or less before commencing project activities and b) if fish, amphibians, or turtles are detected, CDFW shall be contacted and work shall not commence until authorized by a CDFW representative.

2.6 Maintain Passing of Fish Up and Down Stream. It is unlawful to construct or maintain in any stream any device or contrivance that prevents, impedes, or tends to prevent or impede, the passing of fish (as defined in FGC Section 45 "fish" means a wild fish, mollusk, crustacean, invertebrate, amphibian, or part, spawn, or ovum of any of those animals) up and down stream pursuant to FGC section 5901.

- 2.7 Decontamination. Permittee shall ensure all project personnel adhere to the Northern Region California Department of Fish and Wildlife Aquatic Invasive Species Decontamination Protocol for all field gear and equipment that will be in contact with water. Heavy equipment and other motorized or mechanized equipment that contacts water shall adapt watercraft decontamination protocols found in the AIS Decontamination Protocol.
<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=92821&inline>
- 2.8 Staging and Storage. Staging and storage areas for equipment, materials, fuels, lubricants and solvents shall be located outside of the stream channel and banks, and away from riparian vegetation. Structures and associated materials not designed to withstand high seasonal flows shall be removed to areas above the ordinary high-water mark before such flows occur or at the end of the yearly work period, whichever occurs first.
- 2.9 Equipment and Vehicle Leaks. Equipment or vehicles operated in or near the stream shall be checked and maintained daily to prevent leaks. Stationary equipment (e.g. motors, pumps, generators, welders, etc.) in or near the stream shall be positioned over drip pans. Stationary heavy equipment shall have sufficient containment to manage catastrophic spills or leaks.
- 2.10 Hazardous Substances. Debris, soil, silt, bark, slash, sawdust, rubbish, creosote-treated wood, raw cement/concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any substance or material deleterious to fish, plant life, mammals, or bird life, or their habitat, shall be prevented from contaminating the soil and/or entering the waters of the State, pursuant to FGC Sections 5650 and 5652. Permittee shall ensure hazardous or toxic materials are stored in watertight containers and promptly removed from the worksite.
- 2.11 Spill Containment and Cleanup. All authorized activities performed in or near a stream shall have on-site cleanup equipment (e.g. boom, skimmers, etc.) and absorbent materials for spill containment and cleanup prior to the start of work and for the duration of the project. In the event of a spill, Permittee shall immediately notify the California Office of Emergency Services State Warning Center at 1-800-852-7550 and initiate clean-up. Permittee shall immediately notify CDFW of any spills and shall follow CDFW cleanup procedures and guidance.
- 2.12 Stockpiled Materials. Materials shall not be stockpiled where they may wash into the stream or cover aquatic or riparian vegetation. Permittee shall monitor the National Weather Service (NWS) 72-hour forecast for the project area and cover stockpiles if NWS predicts precipitation.
- 2.13 Erosion Control. Permittee shall implement erosion control measures throughout all phases of operation where sediment delivery could occur. Silt fences, straw

bales, gravel or rock lined ditches, water check bars, broadcasted weed-free straw, or other approved erosion control measures shall be used wherever sediment has the potential to leave the work site and enter the stream.

- 2.14 Silt Laden Runoff. At no time shall silt laden runoff enter the stream or be directed to where it may enter the stream. Silt control structures shall be monitored for effectiveness and shall be repaired or replaced as needed.
- 2.15 Disposal and Removal of Material. Permittee shall remove from the work area, and relocate outside of the stream and riparian area, all spoils and construction debris prior to inundation. All removed material and debris shall be disposed of according to State and local laws and ordinances.
- 2.16 Waste Containment and Disposal. Permittee shall contain all refuse in enclosed, wildlife proof, storage containers, at all times, and relocate refuse to an authorized waste management facility, in compliance with State and local laws, on a regular and ongoing basis. All refuse shall be removed from the site and properly disposed of at the close of the cultivation season and/or when the parcel is no longer in use.
- 2.17 Wash Water. Water containing mud, silt, or other pollutants from equipment washing or other activities, shall not be allowed to enter a lake or flowing stream or placed in locations that may be subjected to high storm flows.
- 2.18 Allow Wildlife to Leave Unharmd. Permittee shall allow any wildlife encountered to leave the project area unharmed. This Agreement does not allow for the trapping, capture, or relocation of any state or federally listed species.
- 2.19 Escape Ramp in Trench. At the end of each work day, Permittee shall place an escape ramp at each end of any open trench deeper than six inches with walls greater than 30 degrees to allow entrapped animals to escape. The ramp may be constructed of either dirt fill, non-treated wood, or other suitable material placed at an angle no greater than 30 degrees.
- 2.20 Prohibition Against Use of Plastic Netting in Erosion Control Measures. Permittee shall not use erosion control devices containing plastic, including photo- or bio-degradable plastic netting. Erosion control mats, blankets, and straw or fiber wattles shall consist entirely of natural fiber.
- 2.21 Remove Temporary Flagging, Fencing, and Barriers. Permittee shall remove all temporary flagging, fencing, and/or barriers from the project site and vicinity of the stream upon completion of project activities.

Special Status Species Avoidance and Minimization

- 2.22 Prohibition on Take of Listed Species. This agreement does not authorize the take or incidental take of any State or Federal listed threatened or endangered listed species. State Listed or Fully Protected Species include any native plant species listed as rare under the Native Plant Protection Act (FGC, § 1900 et seq.; Cal. Code Regs., tit. 14, § 670.2), any species that is listed or is a candidate for listing under the California Endangered Species Act (FGC Code, § 2080 et seq.; Cal. Code Regs., tit. 14, §§ 670.2, 670.5), or any fully protected species (FGC, §§ 3511, 4700, 5050, 5515). Permittee shall consult with the appropriate agency prior to commencing the project.
- 2.23 Avoidance of Nesting Birds. Permittee shall avoid nests occurring within and near the project site pursuant to the Migratory Bird Treaty Act of 1918 and FGC section 3503. Vegetation maintenance/removal shall be confined to the period **September 1 to January 31** of any year in which this Agreement is valid, provided the work area is outside the stream. Vegetation maintenance/removal may continue during precipitation events provided stream flows have not risen into work areas and sediment delivery will not result.
- 2.24 Special-Status Plants. If Special-Status plants (State listed and taxa that meet the definition of Rare or Endangered under CEQA Guidelines 15380) may occur on the project site, the Designated Biologist shall conduct seasonally-appropriate surveys of the area to document potential effects prior to the implementation of Project-related activities. If populations of any of these species are found:
- 2.24.1 Exclusion fencing shall be installed a minimum of 100 feet from the location of special-status plants, and no Project activity shall occur within the area occupied by special-status plants or the 100-foot buffer area around these plants.
- 2.24.2 If special-status plant populations are found on the Project site and it is not feasible to avoid them during Project-related activities, the Project applicant shall consult with CDFW to determine if the project may be covered under this Agreement. Separate notification pursuant to FGC section 1602 may be required in some instances.

Dewatering and Sediment Control

- 2.25 Dewatering and Sediment Control Plan. All work should be conducted when the stream is dry, to the extent feasible. At sites where flowing water is present during operations the following shall be applied:
- 2.25.1 Biological Survey. Within five (5) days prior to operations, the Designated Biologist shall survey the portion of stream or lake proposed for dewatering. If fish or amphibians are observed during the survey(s), Permittee shall not commence operations, and shall immediately notify and consult with CDFW

to incorporate avoidance or disturbance minimization measures.

2.25.2 Methods for Dewatering. Cofferdams shall be installed to divert stream flow, isolate and dewater the work site, catch sediment-laden water, and minimize sediment transport downstream. Cofferdams shall be constructed of non-polluting materials including sandbags, rock, and/or plastic tarps. Mineral soil shall not be used in the construction of cofferdams.

2.25.3 Diversion of Flow. Flowing water shall be cleanly bypassed and/or prevented from entering the work area through pumping or gravity flow, and cleanly returned to the stream below the work area. Flow diversions shall be done in a manner that prevents pollution and/or siltation and provide flows to downstream reaches.

2.25.4 Restore Normal Flows. Permittee shall restore normal flows to the affected stream immediately upon completion of work.

Vegetation Management

2.26 Riparian Buffers. Riparian buffers shall not be modified, unless authorized by CDFW in writing.

2.27 Minimum Vegetation Removal. No native riparian vegetation shall be removed, except where authorized by CDFW. Permittee shall limit the disturbance or removal of native vegetation to the minimum necessary to achieve design guidelines and standards for the authorized activity. Permittee shall take precautions to avoid damage to vegetation outside the work area.

2.28 Vegetation Maintenance. Permittee shall limit vegetation management (e.g., trimming, pruning, or limbing) and removal for the purpose of the authorized activity to the use of hand tools. Vegetation management shall not include treatment with herbicides.

2.29 Invasive Plant Species. Permittee shall not plant, seed or otherwise introduce invasive plant species within the Project area. Invasive plant species include those identified in the California Invasive Plant Council's inventory database, which is accessible at: <https://www.cal-ipc.org/plants/inventory/>.

Water Diversion

2.30 Maximum Diversion Rate. The maximum instantaneous diversion rate from the water intake shall not exceed **three (3) gallons per minute** at any time.

2.31 Bypass Flow. Permittee shall pass **80% of the flow** at all times to keep all aquatic species including fish and other aquatic life in good condition below the POD.

- 2.32 Seasonal Diversion Minimization. No more than 200 gallons in any one day shall be diverted (intended for household domestic use only) during the low flow season from **May 15 to October 31** of each year. Water shall be diverted only if Permittee can adhere to the maximum diversion rate and bypass flow conditions of this Agreement.
- 2.33 Measurement of Diverted Flow. Permittee shall install and maintain an adequate measuring device for measuring the instantaneous (gallons per minute) and cumulative (gallons per day) rates of diversion. Measurement shall begin as soon as this Agreement is signed by Permittee. The device shall be installed within the flow of diverted water. Permittee shall maintain records of diversion, and provide information including, but not limited to the following:
- 2.33.1 A log including the date, time and quantity of water diverted from the POD.
 - 2.33.2 The amount of water used per day for cannabis cultivation separated out from the amount of water used for other irrigation purposes and other uses of water (e.g., domestic use or fire protection).
 - 2.33.3 Permittee shall make available for review at the request of CDFW the diversion records required by the SWRCB Cannabis Cultivation Policy.

Water Diversion Infrastructure

- 2.34 Intake Structure. No polluting materials (e.g., particle board, plastic sheeting, bentonite) shall be used to construct or screen, or cover the diversion intake structure.
- 2.35 Intake Structure Placement. Infrastructure installed in the streambed (e.g. spring box) shall not exceed 10% of the active-channel width and shall not be located in the deepest portion of the channel. The depth of the intake shall be no greater than 12 inches below the streambed.
- 2.36 Intake Screening Maintenance. Permittee shall regularly inspect, clean, and maintain screens in good condition.
- 2.37 Intake Screens on Fish Bearing Streams. All intakes shall be screened with at least 2.5 square feet of wetted, unobstructed screen, have at least 2.5 square feet of wetted, unobstructed screen. Screens shall be constructed of wire mesh, perforated plate, or pipe with at least 27 percent open area. Round openings in the screen shall not exceed 3/32 inch (2.38 millimeters) in diameter. Slotted openings shall not exceed 1/16 inch (1.75 mm) horizontally (providing a maximum diagonal opening of 3/32 inch).

- 2.38 Intake Screens on Non-Fish Bearing Streams. All intakes shall be screened and openings in the screen shall not exceed 1/8 inch diameter (horizontal for slotted or square openings) or 3/32 inch for round openings.
- 2.39 Intake Shall Not Impede Aquatic Species Passage. Water diversion structures shall be designed, constructed, and maintained such that they do not constitute a barrier to upstream or downstream movement of aquatic life.
- 2.40 Exclusionary Devices. Permittee shall keep diversion-related structures covered at all times to prevent the entrance and entrapment of amphibians and other wildlife.
- 2.41 Diversion Intake Removal. Permittee shall plug, cap, block (e.g., with a shut-off valve located near the source), or remove all intakes when no water diversion is planned for a period of one week or longer.
- 2.42 Heavy Equipment Use. No heavy equipment shall be used in the excavation or replacement of the existing water diversion structure. Permittee shall use hand tools or other low impact methods of removal/replacement. All project materials and debris shall be removed from the project site and properly disposed of off-site upon project completion.

Diversion to Storage

- 2.43 Water Storage. All water storage facilities (WSFs) (e.g., reservoirs, storage tanks, mix tanks, and bladders tanks) shall be located outside the active 100-year floodplain. Covers/lids shall be securely affixed to water tanks to prevent entry by wildlife. Permittee shall cease all water diversion at the POD when WSFs are full.
- 2.44 Water Storage Maintenance. WSFs shall have float valves to prevent overfilling. Water shall not leak, overflow, or overtop WSFs at any time. Permittee shall regularly inspect all WSFs and water diversion infrastructure, and immediately repair leaks.
- 2.45 Water Conservation. Permittee shall make best efforts to minimize water use, and to follow best practices for water conservation and management.
- 2.46 Limitations on Impoundment and Use of Diverted Water. Permittee shall impound and use water in accordance with a valid water right, including any limitations on when water may be impounded and used, the purpose for which it may be impounded and used, and the location(s) where water may be impounded and used.

Stream Crossings

- 2.47 Road Approaches. Permittee shall treat road approaches to new or re-constructed crossings to minimize erosion and sediment delivery to the stream. Permittee shall ensure road approaches are hydrologically disconnected to the maximum extent

feasible to prevent sediment from entering the crossing site, including during the construction or reconstruction of a stream crossing. Road approaches shall be armored from the crossing for a minimum of 50 feet in both directions, or to the nearest effective water bar or point where road drainage does not drain to the crossing, with durable, clean, screened, angular rock.

- 2.48 Excavated Fill. Excavated fill material shall be placed in upland locations where it cannot deliver to a watercourse. To minimize the potential for material to enter the stream, all excavated and relocated fill material shall be tractor contoured (to drain water) and tractor compacted to effectively incorporate and stabilize loose material into existing road and/or landing features.
- 2.49 Runoff from Steep Areas. Permittee shall make preparations so that runoff from steep, erodible surfaces will be diverted into stable areas with little erosion potential, or contained behind erosion control structures. Erosion control structures such as straw bales and/or siltation control fencing shall be placed and maintained until the threat of erosion ceases. Frequent water checks shall be placed on dirt roads, cat tracks, or other work trails to control erosion.
- 2.50 No Equipment in Wetted Areas. No heavy equipment shall enter the wetted stream channel.
- 2.51 Fill Materials. No fill material, other than clean rock, shall be placed in the stream channel.
- 2.52 Material Sizing. Rock shall be sized to withstand washout from high stream flows and extend above the ordinary high-water level.
- 2.53 Crossing Maintenance. Permittee shall provide site maintenance for the life of the structures, including, but not limited to, re-applying erosion control to minimize surface erosion and ensuring drainage structures, streambeds and banks remain sufficiently armored and/or stable. Permanent culverts shall be maintained and kept open year-round. Permittee is responsible for such maintenance as long as the culvert remains in the stream.
- 2.54 Armoring. The placement of armoring shall be confined to the work period when the stream is dry or at its lowest flow.
- 2.55 Armor Placement. Rock armoring shall not constrict the natural stream channel width and shall be keyed into a footing trench with a depth sufficient to prevent instability.
- 2.56 Crossing Decommissioning. When stream crossings and fills are removed, all fill shall be excavated down to the original stream channel and outwards, horizontally, as wide as or wider than the natural channel to form a channel as close as feasible to the natural stream grade and alignment. The restored stream bank slopes shall

be no steeper than a 2:1 slope (horizontal: vertical) or natural slope. Restored slopes shall be stabilized to prevent slumping and to minimize soil erosion that could lead to sediment deposition into Waters of the State.

Culvert Installation

- 2.57 Permanent Culvert Sizing. Permanent culverts shall be sized to accommodate the estimated 100-year flood flow [i.e. ≥ 1.0 times the width of the bankfull channel width or the 100-year flood size, whichever is greater], including debris, culvert embedding, and sediment loads (Cafferata et al. 2017, Designing Watercourse Crossings for Passage of 100-Year Flood Flows, Wood, and Sediment).
<http://timbertraining.resources.ca.gov/mod/resource/view.php?id=378>
- 2.58 Critical Dips. Where diversion potential exists, a critical dip shall be installed to direct flood flow over the crossing fill and back into the channel. Critical dips shall be constructed to accommodate the entire estimated 100-year flood flow and may be installed by lowering the existing fill over the crossing or by constructing a deep, broad rolling dip over the crossing surface to prevent flood flow from diverting down the road.
- 2.59 Culvert Materials in High Fire Zones. If the project is located in a high to very high Fire Hazard Severity Zone as designated by CAL FIRE, CDFW recommends culvert materials consist of corrugated metal pipe. Use of High-Density Polyethylene pipe is discouraged. <https://osfm.fire.ca.gov/divisions/wildfire-prevention-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/>
- 2.60 Fill Material. Existing fill material in the crossing shall be excavated down vertically to the approximate original channel and outwards horizontally to the approximate crossing hinge points (transition between naturally occurring soil and remnant temporary crossing fill material) to remove any potential unstable debris and voids in the older fill prism.
- 2.61 Culvert Grade. Culvert shall be installed to grade (not perched or suspended), aligned with the natural stream channel, and extend lengthwise completely beyond the toe of fill. If culvert cannot be set to grade, it shall be placed in the lower third of the fill face, and a downspout or energy dissipator (such as boulders, rip-rap, or rocks) shall be installed above or below the outfall as needed to effectively control stream bed, channel, or bank erosion (scouring, headcutting, or downcutting). Permittee shall ensure basins are not constructed and channels are not widened at culvert inlets.
- 2.62 Culvert Bed. Culvert bed shall be composed of either compacted rock-free soil or crushed gravel. Bedding beneath the culvert shall provide for even distribution of the load over the length of the pipe, and allow for natural settling and compaction to help the pipe settle into a straight profile. The crossing backfill materials shall be

free of rocks, limbs, or other debris that could allow water to seep around the pipe, and shall be compacted. No geotextile fabric shall be placed in the culvert bed, streambed, bank or channel.

- 2.63 Culvert Armoring. Culvert inlet, outlet (including the outfall area), and fill faces shall be armored where stream flow, road runoff, or rainfall energy is likely to erode fill material and the outfall area.

3. Reporting Measures

Permittee shall meet each reporting requirement described below.

- 3.1 CDFW Notification of Work Initiation. Permittee shall contact CDFW within the seven-day period **preceding the beginning of work** permitted by this Agreement. Information to be disclosed shall include Agreement number, and the anticipated start date.
- 3.2 Work Completion. The proposed work shall be completed by no later than October 15, 2024. Notification of completion will include dates work occurred, photographs of work stages and the completed work, erosion control measures, waste containment and disposal, and a summary of any CNDDDB submissions and shall be submitted to CDFW in the Environmental Permit Information Management System (EPIMS) at <https://wildlife.ca.gov/Conservation/Environmental-Review/EPIMS> within seven (7) days of project completion.
- 3.3 Project Inspection. The Project shall be inspected by a qualified professional licensed to practice in California to ensure that the stream crossings were installed and function as designed and in accordance with this Agreement, and the reservoir removal and crossing decommissioning was implemented as designed, and the diversion infrastructure complies with the terms of this Agreement. A copy of the inspection report, including photographs of each site, shall be submitted to CDFW within 90 days of completion of each separate project. Permittee shall submit the **Project Inspection Report** to CDFW in EPIMS.
- 3.4 Measurement of Diverted Flow. Copies of the **Water Diversion Records** shall be submitted to CDFW in no later than **March 31** of each year beginning in **2022**, to report the preceding year's diversion.
- 3.5 Site Management Plan and Related Technical Reports. Permittee shall submit to CDFW the project's current draft of the Site Management Plan and related technical reports if it was not included in the Notification. If the Site Management Plan and/or related technical reports are still in preparation, Permittee shall submit it and all subsequent revisions and updates within **30 days** of submittal to the SWRCB.

- 3.6 Notification to the California Natural Diversity Database. If any special status species are observed at any time during the project, the Designated Biologist shall submit California Natural Diversity Data Base (CNDDB) forms to the CNDDB within **five (5) working days** of the sightings. A summary of CNDDB submissions shall be included with the completion notification. Forms and instructions for submissions to the CNDDB may be found at:
<https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data>.

CONTACT INFORMATION

Any communication that Permittee or CDFW submits to the other shall be submitted through EPIMS as instructed by CDFW.

To Permittee:

Alan Hoang
EPIMS-HUM-13648-R1C
Hoang Water Diversion, Onstream Reservoir Removal and Stream Crossings
Project
alan.hoang38@gmail.com

To CDFW:

Department of Fish and Wildlife
Northern Region, Coastal
EPIMS-HUM-13648-R1C
Hoang Water Diversion, Onstream Reservoir Removal and Stream Crossings
Project
EPIMS.R1C@wildlife.ca.gov
Andrew.Orahoske@wildlife.ca.gov

LIABILITY

Permittee shall be solely liable for any violation of the Agreement, whether committed by the Permittee or any person acting on behalf of the Permittee, including its officers, employees, representatives, agents or contractors and subcontractors, to complete the project or any activity related to it that the Agreement authorizes.

This Agreement does not constitute CDFW's endorsement of, or require the Permittee to proceed with the project. The decision to proceed with the project is the Permittee's alone.

SUSPENSION AND REVOCATION

CDFW may suspend or revoke in its entirety this Agreement if it determines that the Permittee or any person acting on behalf of the Permittee, including its officers,

employees, representatives, agents, or contractors and subcontractors, is not in compliance with the Agreement.

Before CDFW suspends or revokes the Agreement, it shall provide the Permittee written notice by certified or registered mail that it intends to suspend or revoke. The notice shall state the reason(s) for the proposed suspension or revocation, provide the Permittee an opportunity to correct any deficiency before CDFW suspends or revokes the Agreement, and include instructions to the Permittee, if necessary, including but not limited to a directive to immediately cease the specific activity or activities that caused CDFW to issue the notice.

ENFORCEMENT

Nothing in the Agreement precludes CDFW from pursuing an enforcement action against the Permittee instead of, or in addition to, suspending or revoking the Agreement.

Nothing in the Agreement limits or otherwise affects CDFW's enforcement authority or that of its enforcement personnel.

OTHER LEGAL OBLIGATIONS

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with, or obtaining any other permits or authorizations that might be required under, other federal, state, or local laws or regulations before beginning the project or an activity related to it. For example, if the project causes take of a species listed as threatened or endangered under the Endangered Species Act (ESA), such take will be unlawful under the ESA absent a permit or other form of authorization from the U.S. Fish and Wildlife Service or National Marine Fisheries Service.

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with other applicable statutes in FGC including, but not limited to, FGC sections 2050 *et seq.* (threatened and endangered species), section 3503 (bird nests and eggs), section 3503.5 (birds of prey), section 5650 (water pollution), section 5652 (refuse disposal into water), section 5901 (fish passage), section 5937 (sufficient water for fish), and section 5948 (obstruction of stream).

Nothing in the Agreement authorizes the Permittee or any person acting on behalf of the Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, to trespass.

AMENDMENT

CDFW may amend the Agreement at any time during its term if CDFW determines the amendment is necessary to protect an existing fish or wildlife resource.

The Permittee may amend the Agreement at any time during its term, provided the amendment is mutually agreed to in writing by CDFW and the Permittee. To request an amendment, the Permittee shall submit to CDFW a completed CDFW "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the corresponding amendment fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5).

TRANSFER AND ASSIGNMENT

This Agreement may not be transferred or assigned to another entity, and any purported transfer or assignment of the Agreement to another entity shall not be valid or effective, unless the transfer or assignment is requested by the Permittee in writing, as specified below, and thereafter CDFW approves the transfer or assignment in writing.

The transfer or assignment of the Agreement to another entity shall constitute a minor amendment, and therefore to request a transfer or assignment, the Permittee shall submit to CDFW a completed CDFW "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the minor amendment fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5).

EXTENSIONS

In accordance with FGC section 1605, subdivision (b), Permittee may request one extension of the Agreement, provided the request is made prior to the expiration of the Agreement's term. To request an extension, Permittee shall submit to CDFW a completed CDFW "Request to Extend Lake or Streambed Alteration" form and include with the completed form payment of the extension fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5). CDFW shall process the extension request in accordance with FGC section 1605, subdivisions (b) through (e).

If Permittee fails to submit a request to extend the Agreement prior to its expiration, Permittee must submit a new notification and notification fee before beginning or continuing the project the Agreement covers (Fish & G. Code § 1605, subd. (f)).

EFFECTIVE DATE

The Agreement becomes effective on the date of CDFW's signature, which shall be: 1) after the Permittee signature; 2) after CDFW complies with all applicable requirements under CEQA; and 3) after payment of the applicable FGC section 711.4 filing fee listed at <https://www.wildlife.ca.gov/Conservation/CEQA/Fees>.

TERM

This Agreement shall **expire five (5) years** from date of execution, unless it is terminated or extended before then. All provisions in the Agreement shall remain in force throughout its term. The Permittee shall remain responsible for implementing any provisions specified herein to protect fish and wildlife resources after the Agreement expires or is terminated, as FGC section 1605, subdivision (a)(2) requires.

AUTHORITY

If the person signing the Agreement (signatory) is doing so as a representative of Permittee, the signatory hereby acknowledges that he or she is doing so on Permittee's behalf and represents and warrants that he or she has the authority to legally bind Permittee to the provisions herein.

AUTHORIZATION

This Agreement authorizes only the project described herein. If Permittee begins or completes a project different from the project the Agreement authorizes, Permittee may be subject to civil or criminal prosecution for failing to notify CDFW in accordance with FGC section 1602.

CONCURRENCE

Through the electronic signature by the permittee or permittee's representative as evidenced by the attached concurrence from CDFW's Environmental Permit Information Management System (EPIMS), the permittee accepts and agrees to comply with all provisions contained herein.

The EPIMS concurrence page containing electronic signatures must be attached to this agreement to be valid.