

# Notice of Determination

TO:  Office of Planning and Research

FROM: Department of Fish and Wildlife  
Northern Region  
601 Locust Street  
Redding, California 96001  
Contact: Nicholas Simpson  
Phone: (707) 445-6512

*For U.S. Mail:*  
P.O. Box 3044  
Sacramento, CA 95812-3044

*Street Address:*  
1400 Tenth Street  
Sacramento, CA 95814

LEAD AGENCY (if different from above):  
Department of Forestry and Fire Protection  
135 Ridgway Avenue  
Santa Rosa, California 95401  
Contact: Dominik Schwab  
Phone: (707) 576-2941

*SUBJECT: Filing of Notice of Determination pursuant to § 21108 of the Public Resources Code*

State Clearinghouse Number (if submitted to State Clearinghouse): 2019100158

Project Title: Lake or Streambed Alteration Agreement No. 1600-2016-0257-R1 for Timber Harvesting Plan (THP) 1-16-055 HUM

Project Location: The project is located approximately Approximately 1 mile north of Blue Lake in Humboldt County on Noisy Creek, tributary to the Mad River. The project is located in Section 18, T6N, R01E Humboldt Base and Meridian, in the Blue Lake, U.S. Geological Survey 7.5-minute quadrangle.

Project Description: The Department of Fish and Wildlife (CDFW) is issuing an agreement to reconstruct and maintain Class II and III culvert crossings.

This is to advise that CDFW, acting as  the Lead Agency /  a Responsible Agency approved the above-described project and has made the following determinations:

1. The project  will /  will not have a significant effect on the environment. (This determination is limited to effects within CDFW's jurisdiction when CDFW acts as a responsible agency.)
  2.  An environmental impact report /  A negative declaration /  A timber harvesting plan / nonindustrial timber management plan was prepared for this project pursuant to the California Environmental Quality Act (CEQA).
  3. Mitigation measures  were /  were not made a condition of CDFW's approval of the project.
  4. A Statement of Overriding Considerations  was /  was not adopted by CDFW for this project.
  5. Findings  were /  were not made by CDFW pursuant to Public Resources Code § 21081(a). CDFW adopted findings to document its compliance with CEQA.
  6. Payment is not required due to provisions of Public Resources Code §4629.6 (c).
- Lead Agency certification: CDFW, as Lead Agency, has made the final Environmental Impact Report (EIR) with comments and responses and record of project approval, or the Negative Declaration, available to the General Public at the CDFW office identified above.
- Responsible Agency statement: The final EIR, Negative Declaration or THP/NTMP that was prepared by the Lead Agency for this project is available to the General Public at the office location listed above for the Lead Agency. CDFW's CEQA Findings are available at the Eureka CDFW office located at 619 Second Street, Eureka, California, 95501.

Signature:



acting for

Date: 9/30/19

Jon Hendrix, Senior Environmental Scientist (Supervisory)  
Northern Region, Department of Fish and Wildlife

Governor's Office of Planning & Research

OCT 04 2019

STATE CLEARINGHOUSE

Date Received for filing at OPR:

**CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE  
CALIFORNIA ENVIRONMENTAL QUALITY ACT FINDINGS FOR  
LAKE OR STREAMBED ALTERATION AGREEMENT No. 1600-2016-0257-R1**

**Introduction**

The California Environmental Quality Act (CEQA) (Public Resources Code Section 21000, *et seq.*) and the State CEQA Guidelines (Guidelines) (Section 15000, *et seq.*, Title 14, California Code of Regulations) require that no public agency shall approve or carry out a project that identifies one or more significant effects, unless the agency makes the following finding as to each significant effect:

Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment.

Timber Harvesting Plans (THPs) and Nonindustrial Timber Management Plans (NTMPs) are documents prepared according to a certified state regulatory program and they substitute for a Negative Declaration or an Environmental Impact Report, pursuant to Guidelines sections 15251 and 15252. As the Lead Agency for THPs and NTMPs, the California Department of Forestry and Fire Protection (CAL FIRE) approved THP 1-16-055 HUM on 9/1/2016. CAL FIRE found that the THP will not result in significant environmental effects with the mitigation measures required in, or incorporated into the THP.

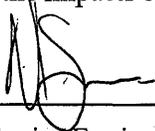
The California Department of Fish and Wildlife (CDFW) is entering into a lake or streambed alteration agreement (Agreement) with Robert MacMullin, representing MacMullin Forestry. The activities to be completed according to the Agreement are located approximately 1 mile north of Blue Lake in Humboldt County on Noisy Creek, tributary to the Mad River. The project is located in Section(s) 18, T6N, R01E Humboldt Base and Meridian, in the Blue Lake, U.S. Geological Survey 7.5-minute quadrangle.

Because CDFW is issuing the Agreement, it is a Responsible Agency under CEQA. As a CEQA-Responsible Agency, CDFW is required by Guidelines Section 15096 to review a THP or NTMP approved by the Lead Agency that includes the activities addressed in the Agreement and to make a finding that the Agreement's activities will not cause significant, adverse environmental effects. However, when considering alternatives and mitigation measures approved by the Lead Agency, a Responsible Agency is more limited than the Lead Agency. When issuing the Agreement, CDFW is responsible only for ensuring that the direct or indirect environmental effects of activities addressed in the Agreement are adequately mitigated or avoided. Consequently, the findings adopted or independently made by CDFW with respect to an Agreement's activities are more limited than the findings of the Lead Agency funding, approving, or carrying out the activities addressed in a THP or NTMP.

**Findings**

CDFW has considered the THP approved by CAL FIRE that is named above. CDFW has independently concluded that the Agreement should be issued under the terms and conditions specified therein. In this regard, CDFW hereby adopts the findings of CAL FIRE as set forth in the THP insofar as they pertain to the impacts on biological resources from the activities addressed in the Agreement.

Signature:



acting for

Date: 9/30/19

Jon Hendrix, Senior Environmental Scientist (Supervisory)  
Northern Region, California Department of Fish and Wildlife

**California Department of Fish and Wildlife**

Northern Region  
619 Second Street  
Eureka, California 95501



**Streambed Alteration Agreement**

Notification No. 1600-2016-0257-R1  
Noisy Creek, tributary to the Mad River, Humboldt County

**9 Encroachments**

Applicant: Darren Moug, as represented by Jonathan Szecei  
Property owner: Darren Moug  
Associated THP: 1-16-055 HUM; "Fraser Trust"

This Streambed Alteration Agreement (Agreement) is entered into between the California Department of Fish and Wildlife (CDFW) and Darren Moug (Permittee), as represented by Robert MacMullin.

**RECITALS**

WHEREAS, pursuant to Fish and Game Code (FGC) section 1602, Permittee notified CDFW on June 16, 2016 that 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, Permittee has reviewed the Agreement and accepts its terms and conditions, including the measures to protect fish and wildlife resources.

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

**PROJECT LOCATION**

The activities to be completed according to the Agreement are located Approximately 1 mile north of Blue Lake in Humboldt County on the property of Darren Moug (see Appendix A). The project is located in Section 18, T6N, R01E, Humboldt Base and Meridian, in the Blue Lake, U.S. Geological Survey 7.5-minute quadrangle.

**PROJECT DESCRIPTION**

The project is limited to the sites outlined below in Table 1.

**Table 1.**  
 Encroachment details for Lake and Streambed Alteration Agreement # 1600-2016-0257-R1

Site #	Site Type (Treatment)	Minimum Culvert Size (Diameter/ inches)	Watercourse Class
C1	Culvert Crossing or Armored Ford Crossing	42-inch standard culvert 36-inch armored ford	2
C2	Culvert Crossing	36	2
C3	Culvert Crossing	36	2
C4	Culvert Maintenance	36	2
C6	Culvert Maintenance	32	2
C7	Culvert Crossing	32	2
C8	Culvert Crossing	18	3
C9	Culvert Crossing	28	3
C10	Culvert Crossing	24	3

**PROJECT IMPACTS**

Existing fish or wildlife resources the project could substantially adversely affect include: Chinook salmon (*Oncorhynchus tshawytscha*), coho salmon (*O. kisutch*), steelhead (*O. mykiss*), coastal cutthroat trout (*O. clarki clarki*), Foothill Yellow-legged Frog (*Rana boylei*), 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: direct and/or incidental take, impede up- and/or down-stream migration of aquatic species, damage to spawning and/or rearing habitats and potential cumulative impacts.

**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 that CDFW personnel may enter the project site at any time to verify compliance with the Agreement.
- 1.5 Project Accordance: Except where otherwise stipulated in this Agreement, all work shall be in accordance with the project description submitted with Notification No. 1600-2016-0257-R1 and 1-16-055 HUM.
- 1.6 Amendment of Agreement into the THP: Before any work covered by this Agreement is undertaken, this Agreement shall be amended into and made enforceable as part of the THP.
- 1.7 All Lake and Streambed Alteration Agreement (LSAA) notification, amendment, extension and emergency forms can be found:  
<https://www.wildlife.ca.gov/Conservation/LSA/Forms>.

## 2. REPORTING MEASURES

- 2.1 CDFW Reporting Location: All reports shall be sent by email to ([CTP@wildlife.ca.gov](mailto:CTP@wildlife.ca.gov)).
- 2.2 Regional Water Quality Control Board (RWQCB) Reports: All RWQCB reports, relating to sites permitted under this LSA, shall be sent to CDFW via email at the time they are submitted to the RWQCB. This includes annual work plans, erosion control point summaries and discharge notifications.
- 2.3 Class I and II Watercourse Crossing Foothill Yellow-legged Frog (FYLF) Notification Report: Within five days before initiating a Class I and II crossing installation/removal, a person familiar with life stages of FYLF shall examine the site and determine if any FYLF life stages are present. If FYLF are found present within 100 feet of the crossing, Permittee shall not commence operations and immediately notify and consult with CDFW to incorporate avoidance or disturbance minimization measures during crossing installation.
- 2.4 Emergency Road Work: Permittee may remove obstructions and sediment at any time if the obstructions and sediment would reasonably be expected to cause substantial damage to resources or cause the facility to fail outside the time periods specified above. If heavy equipment is used, please notify CDFW within 14 days after completing activity using the emergency work form (<https://www.wildlife.ca.gov/Conservation/LSA/Forms>).

## AVOIDANCE AND MINIMIZATION MEASURES

To avoid or minimize adverse impacts to fish and wildlife resources identified above, Permittee shall implement each measure listed below as outlined in Sections 3 through 6.

### 3. PROJECT TIMING

- 3.1 Timing for Work on Class I, II and III Watercourses: Permittee shall conduct the following activities only during periods between June 1 and October 15: vegetation removal; bank stabilization; and maintenance, replacement and installation of watercourse crossings. Temporary crossings installed during this time shall be removed prior to October 15. All work on the stream banks or within the stream channel shall be confined to periods of low rainfall (less than ¼" per 24 hour period) between May 1 and October 15 for Class II watercourses.
- 3.2 Early and Late Season Work: The project may commence early between May 1 and May 31 or be extended late from October 15 to November 15, provided adherence to all conditions in this Agreement and a-h) below.
- a) Permittee shall obtain written approval from CDFW prior to commencement of work activities.
  - b) Permittee shall complete any unfinished encroachment work, including erosion control measures, within 24 hours of CDFW directing the Responsible Party to do so.
  - c) Prior to any ground disturbing work at a project site, Permittee shall stock-pile erosion control materials at the site. All bare mineral soil exposed in conjunction with crossing construction, deconstruction, maintenance or repair, shall be treated for erosion immediately upon completion of work on the crossing, and prior to the onset of precipitation capable of generating runoff. Erosion control shall consist of packed slash or weed-free straw mulch in a mosaic of depths of ½ to 2 inches. If the site is seeded, a mix of native grasses common to the area shall be used, free from seeds of noxious or invasive weed species, and applied at a rate which will ensure establishment. No annual (Italian) ryegrass (*Lolium multiflorum*) shall be used.
  - d) Road construction leading directly into or out of a proposed stream crossing shall only be performed when soils are sufficiently dry so that sediment is not discharged into streams.
  - e) All crossing installation or removal work at a given site shall be conducted in one day. If equipment breakdowns prevent completion of installation or removal in one day, work shall be completed in the shortest period feasible.

- f) When a 7-day National Weather Service forecast of rain includes a minimum of 5 consecutive days with any chance of precipitation, 3 consecutive days with a 30% or greater chance of precipitation, or 2 consecutive days of 50% or greater chance of precipitation, the Responsible Party shall finish work underway at encroachment and refrain from starting any new work at encroachment prior to the rain event.

#### 4. INSPECTIONS AND REPAIR WORK

- 4.1 Inspection Timing: All crossings appurtenant to proposed operations shall be inspected by Permittee at least once during the first spring following construction. The inspection shall ensure that crossings are functioning as designed, road approaches hydrologically disconnect the road prism from waters, and the fine sediment present on road approach surfaces is prevented from delivery to streams. Inspection results and follow-up repair measures shall be documented and provided to CDFW in the annual monitoring report.
- 4.2 Repair Work: Permittee shall perform routine repair work that prevents diversion of water from a stream or ditch or helps maintain a stable operating surface within 50 feet of a crossing (e.g. repairing inboard ditches, cross drains, water bars, road surface and fill, unblocking of culverts) as soon as possible, regardless of the time of year. Forest floor discharge sites below the outlets of drainage facilities on all roads within the plan area and appurtenant to proposed operations shall be inspected for evidence of sediment delivery to streams. If evidence of sediment delivery is present, additional measures shall be undertaken to reduce the discharge of sediment from the site.
- 4.3 Emergency Road Work: Permittee may remove obstructions and sediment at any time if the obstructions and sediment would reasonably be expected to cause substantial damage to resources or cause the facility to fail outside the time periods specified above. If heavy equipment is used, please notify CDFW within 14 days after completing activity using the emergency work form (<https://www.wildlife.ca.gov/Conservation/LSA/Forms>).

#### 5. GENERAL CONDITIONS FOR ALL ENCROACHMENTS

- 5.1 Heavy equipment shall not enter, cross, or operate in a stream when surface water is present. If heavy equipment is approved by CDFW for use in the stream at a particular site, equipment shall be cleaned of materials deleterious to aquatic life including oil, grease, hydraulic fluid, soil and other debris. Cleaning of equipment shall take place outside of the Watercourse and Lake Protection Zone (WLPZ) and prior to entering the water.
- 5.2 Where flowing water is present during operations:

- a) Cofferdams shall be installed to divert stream flow, isolate and dewater the work site, catch any sediment-laden water, and minimize sediment transport downstream. Cofferdams shall be constructed of non-polluting materials including sand bags, rock, and/or plastic tarps. Mineral soil shall not be used in the construction of cofferdams.
- b) 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 shall prevent pollution and/or siltation and provide flows to downstream reaches.
- c) Permittee shall remove any turbid water and sediment present in the work area prior to restoring water flow through the project site, and place them in a location where they cannot enter the Waters of the State.

5.3 No fill material shall be placed within a stream except as specified in this Agreement.

5.4 Adequate and effective erosion and siltation control measures shall be used to prevent sediment or turbid or silt-laden water from entering streams at all times. Where needed, Permittee shall use native vegetation or other treatments including jute netting, straw wattles, and geotextiles to protect and stabilize soils. Geotextiles, fiber rolls, and other erosion control treatments shall not contain plastic mesh netting.

5.5 All bare mineral soil outside of the stream channel and in the riparian area exposed in conjunction with road work and drafting activities shall be treated for erosion prior to the onset of precipitation capable of generating run-off or the end of the yearly work period, whichever comes first. Restoration shall include the seeding and mulching of all bare mineral soil with at least 2 to 4 inches straw mulch and native plants or regionally appropriate seeds, or sterile varieties or short-lived non-native annuals that are known not to persist or spread such as cereal cover crops [e.g. barley (*Hordeum vulgare*), buckwheat (*Fagopyron esculentum*), oats (*Avena sativa*), rye (*Secale cereale*), wheat (*Triticum aestivum*)] to avoid the propagation of non-native (invasive) plants and minimize competition with native vegetation. Annual (Italian) ryegrass (*Lolium multiflorum*) shall not be used.

5.6 Encroachments and associated approaches, structures, fills, and other exposed soils shall be armored as needed to protect the stream channel and banks from erosion. Armoring shall be comprised of rock riprap, large woody debris (LWD), or other non-polluting materials and shall be constructed to remain in place during periods of high flow events. When used on permanent culverts, armoring shall extend at least as high as the top of the culvert, and shall prevent bank erosion by extending a sufficient distance upstream and downstream along the banks.

5.7 Encroachments shall be constructed, deconstructed, and maintained in a manner that minimizes to the extent feasible headcutting or downcutting of the stream channel by

installing grade control such as riprap, woody debris, or through other effective measures.

- 5.8 Approaches to all encroachments shall be treated to eliminate the generation and transport of sediment to streams. Treatment locations shall include, but not be limited to, road surfaces, fill faces, cut banks, and road drainage ditches. Road approaches and other work shall be left in a finished condition with all hydrologic connectivity from the road or ditch to the site eliminated as feasible and effective erosion control in place prior to any rainfall event capable of generating runoff. Effective erosion control shall extend away from the crossing to at least the first waterbreak.
- 5.9 Disturbance or removal of vegetation shall not exceed the minimum necessary to complete operations.
- 5.10 Temporary erosion control devices, such as straw bales, silt fencing, and sand bags, may be used, as appropriate, to prevent siltation of the stream. To minimize the risk of ensnaring and strangling wildlife, coir rolls, erosion control mats or blankets, straw or fiber wattles, or similar erosion control products shall be composed entirely of natural-fiber, biodegradable materials. Permittee shall not use "photodegradable" or other plastic erosion control materials.
- 5.11 All non-merchantable LWD excavated during crossing construction or deconstruction shall be used on site for streambed and bank stabilization or erosion control. LWD shall be sufficiently anchored or keyed-in to resist movement during high flows and placed in a manner that prevents undercutting of streambanks.
- 5.12 Permittee shall provide site maintenance including, but not limited to, re-applying erosion control to minimize surface erosion and ensure streambeds and banks remain sufficiently armored and/or stable at the encroachment for as long as the encroachment remains.
- 5.13 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 the end of the yearly work period, whichever comes first.
- 5.14 Refueling of equipment and vehicles and storing, adding or draining lubricants, coolants or hydraulic fluids shall not take place within RMZs or within stream beds, banks or channels. All such fluids and containers shall be disposed of properly. Heavy equipment including water drafting trucks parked within RMZs or streambeds, banks or channels shall use drip pans or other devices (e.g. absorbent blankets, sheet barriers or other materials) as needed to prevent soil and water contamination.
- 5.15 No debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete washings, oil or petroleum products, or other organic or earthen material from any logging, construction, or associated activity of whatever nature shall be allowed to enter into or

be placed where it may be washed by rainfall or runoff into Waters of the State. When operations are completed, any excess materials or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the high water mark of any stream.

## 6. PERMANENT CULVERT CROSSINGS

- 6.1 Site C-1 shall have armoring along the entire inlet and outlet fillslope sized to accommodate the 100 year flow.
- 6.2 Culvert Alignment: Permittee shall align culverts with the watercourse channel. Culverts shall extend beyond the road fill and shall not be perched (suspended). On Class II and III watercourses they shall be installed at watercourse gradient or have downspouts or energy dissipaters (rock rip-rap or boulders) at the outfall to prevent erosion.
- 6.3 Basins at Culvert Inlets: Permittee shall ensure basins are not constructed and channels are not be widened at culvert inlets unless designed and approved.
- 6.4 Culverts Extend Beyond Toe of Fill: Permittee shall ensure that culverts extend lengthwise completely beyond the toe of fill.
- 6.5 Culverts Aligned With the Stream Channel: Permittee shall ensure that permanent culverts and their outfall structures are aligned with the stream channel and as wide as or wider than the channel width.
- 6.6 Culvert Bottom at Natural Streambed Elevation: Permittee shall ensure that permanent culverts are placed with the bottom set at or slightly below the natural streambed elevation to the maximum extent feasible.
- 6.7 Culverts Not Set to Grade: Permittee shall ensure, if permanent culverts cannot or will not be set to grade, that they shall have downspouts and/or energy dissipators below the outfall as needed to effectively control erosion. If half-round downspouts (flumes) are used, they shall be placed in line with the culvert, sized larger than the culvert and of sufficient size to accommodate entire anticipated stream flow. Downspouts shall be securely attached to the culvert and staked or otherwise anchored to the fill slope.
- 6.8 Permanent Culvert Sized to Pass One Hundred Year Flow: Permittee shall size permanent culverts at stream crossings to pass the estimated 100-year flood flow, including debris and sediment loads, without overtopping or diverting. Culvert sizing factors shall include transportation of bedload and the abundance and size of woody debris likely to be introduced to the stream upstream of the culvert crossing. Culverts shall be set at the natural streambed elevation to the maximum extent feasible.

- 6.9 Culvert Protection: Permittee shall protect culvert inlets and outlets from erosion as appropriate through armoring constructed of rock rip-rap or other non-erodible material (e.g. concrete head wall). Where used, rock rip-rap or armoring shall be of sufficient size and depth to remain in place during 100-year peak flows (generally 12 inch or greater diameter or equal to the largest size that naturally exists in the channel), extend at least as high as the top of the pipe on inlets, and shall extend sufficient distance upstream as wing walls to prevent bank erosion. Where armoring is used, the channel at the culvert outlet shall be rip-rapped in a U-shaped channel and rip-rap set below grade so as to allow the natural accumulation of bedload at watercourse grade.
- 6.10 Excavate and Dispose of Sediment Depositions: Permittee shall excavate and dispose of sediment depositions in the stream channels at the inlets of the culvert at a location and in a manner where sediment shall not enter into the waters of the State.
- 6.11 Culvert Paving at Sites C4 and C6. The Permittee shall repair the deteriorated culverts at Sites C4 and C6 via invert paving. The following conditions shall apply:
- A. The stream channel shall be dry during the work activity.
  - B. The culvert invert shall be properly prepared for the application of concrete. Surfaces to be in contact with concrete shall be clean (dirt and debris) and dry prior to application of materials. The lowest practicable water/cement ratios and hardest available aggregates shall be used to maximize abrasion resistance.
  - C. Voids and scour holes under the culvert shall be filled with concrete to reestablish the connection between the soil and the pipe and provide support under the culvert.
  - D. The bottom 25 percent of the inside circumference of the culvert shall be paved with a minimum coverage to the top of the rust line.
  - E. Concrete shall be kept moist as required to set up and cure properly. All water that has come into contact with concrete shall not be discharged to or allowed to enter ground or surface waters.
  - F. The Permittee shall install a cement wash station outside of the WLPZ as needed to clean equipment used for invert repair. All wash water generated by cleaning equipment shall be contained within an impervious container or lined settling basin and shall be allowed to evaporate or shall be pumped to a flat, stable upland site where it shall not enter into Waters of the State. No wildlife shall have access to the water in the holding facility or settling basin while it is in place. Any water used to keep concrete moist or mix concrete shall not be allowed to enter a live stream.

## 7. FORD, ARMORED FILL and VENTED CROSSINGS

- 7.1 Definitions: Type of ford, armored fill and vented crossing shall be specified, defined and installed as follows
- 7.2 Ford Crossing: A watercourse crossing where the road surface crosses at the natural grade of the channel. Thus, in ford crossings, no fill is placed within the channel to elevate the road grade and to make the crossing passible by vehicle traffic. If water is present at the time of use, the crossing is a "wet ford" and if water is not present at the time of use, the crossing is a "dry ford". In some cases a small amount of sacrificial clean rock may be placed in the ford crossing to provide additional stability and a more suitable running surface for vehicle traffic or to ease the transition from the channel banks to the natural grade of the channel.
- 7.3 Rock-fill crossing: A watercourse crossing where rock that is free of fines is placed as fill in the channel to establish a usable road grade through the crossing to accommodate traffic. Often a thin layer of sacrificial small-diameter rock is placed on top of the rock fill to provide a running surface that can accommodate truck traffic. Streamflow will typically pass through the rock fill during periods of low flow, but will pass over the rock fill during periods of high flow.
- 7.4 Rock-armored crossing: A watercourse crossing where fill, often composed of native earth material, is placed in the channel to establish a usable road grade through the crossing to accommodate traffic. The outfall of the crossing and road surface are protected against scour by revetment composed of rock. Streamflow will typically pass over, rather than through, the crossing fill.
- 7.5 Log-armored crossing: Built to remediate historically constructed 'Humboldt' large wood-fill watercourse crossings where complete removal of all pre-existing soil and large wood from the historical crossing is not feasible. Soil and organic fill material is removed to the extent feasible while stable large wood within the channel is retained in place. The crossing is back-filled with screened, well-graded rock material as necessary to fill any voids created by the excavation of pre-existing soil and loose organic fill material prior to armoring the roadbed. Low flows pass through the remaining Humboldt fill material while seasonal high flows may also pass over the armored roadbed and down an armored fill slope to the natural channel below.
- 7.6 Vented Crossing: A watercourse crossing structure designed to allow low water flow in the stream channel to pass through the structure (e.g., culverts) below a hardened (usually rock or concrete) roadway. During periods of high water or flooding, streamflow passes over the roadway.
- 7.7 Fords, armored and vented crossings are considered permanent watercourse encroachments and shall accommodate the 100-year flood flow plus associated sediment and debris.

- 7.8 Fords, armored and vented crossings shall not be used for log hauling except when the road surface is dry.
- 7.9 Hydrologically-connected road approaches to fords, armored and vented crossings shall be rocked and maintained to avoid delivery of fine sediment to the watercourse below.
- 7.10 Fords, armored and vented crossings shall be maintained as necessary to avoid delivery of fine sediment to the watercourse below.
- 7.11 Fords, armored and vented crossings shall be sufficiently outsloped to minimize aggradation of suspended sediments at the crossing
- 7.12 The lowest point of fords, armored and vented crossings shall be constructed within or directly over the original stream channel, to the extent feasible, in order to contain high flows up to twice bank-full and to avoid diversion potential.
- 7.13 Armor material shall be comprised of durable angular screened quarry rock of sufficient size and placement to minimize mobilization during a 100-year storm event. Wood may be used for armoring if sound, tight-grained, redwood is applied and sufficiently keyed into the fillslope to resist movement during a 100-year storm event.
- 7.14 If maximum fill heights exceed 15 feet or fills exceed 500 cubic yards of fill, rock sizing, armoring thickness, chute width and chute depth shall be calculated and sized using the nomograph provided in Figure 23 of Cafferata et al (2017).
- 7.15 Stream crossing spillway fill slopes shall be armored from roadbed to the natural channel in a manner sufficient to prevent significant scour or removal of armor during high flows. Scour is expected through road surface rock cap.

## **CONTACT INFORMATION**

Written communication that Permittee or CDFW submits to the other shall be delivered to the address below unless Permittee or CDFW specifies otherwise:

To Permittee:

Darren Moug  
944 Hidden Pond Lane  
McKinleyville, California 95519

To CDFW:

Department of Fish and Wildlife  
North Coast Region  
619 Second St  
Eureka, California 95501  
ATTN: Lake and Streambed Alteration Program  
Notification # 1600-2016-0257-R1  
Fax: (707) 441-2021

**LIABILITY**

Permittee shall be solely liable for any violations of the Agreement, whether committed by Permittee or any person acting on behalf of 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 Permittee to proceed with the project. The decision to proceed with the project is Permittee's alone.

**SUSPENSION AND REVOCATION**

CDFW may suspend or revoke in its entirety the Agreement if it determines that Permittee or any person acting on behalf of 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 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 Permittee an opportunity to correct any deficiency before CDFW suspends or revokes the Agreement, and include instructions to 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 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 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 the FGC including, but not limited to, FGC sections 2050 et seq. (threatened and endangered species), 3503 (bird nests and eggs), 3503.5 (birds of prey), 5650 (water pollution), 5652 (refuse disposal into water), 5901 (fish passage), 5937 (sufficient water for fish), and 5948 (obstruction of stream).

Nothing in the Agreement authorizes Permittee or any person acting on behalf of 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.

Permittee may amend the Agreement at any time during its term, provided the amendment is mutually agreed to in writing by CDFW and Permittee. To request an amendment, Permittee shall submit to CDFW a completed CDFW "Request to Amend Lake or Streambed Alteration" form.

## **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 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, Permittee shall submit to CDFW a completed CDFW "Request to Amend Lake or Streambed Alteration" form.

## **EXTENSIONS**

In accordance with FGC section 1605(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. CDFW shall process the extension request in accordance with FGC 1605(b) through (e).

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

### **EFFECTIVE DATE**

The Agreement becomes effective on the date of CDFW's signature, which shall be: 1) after Permittee's signature; 2) after CDFW complies with all applicable requirements under CEQA.

### **TERM**

This Agreement shall expire 5 years from the CDFW signature date below, unless it is terminated or extended before then. All provisions in the Agreement shall remain in force throughout its term. 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(a)(2) requires.

### **EXHIBITS**

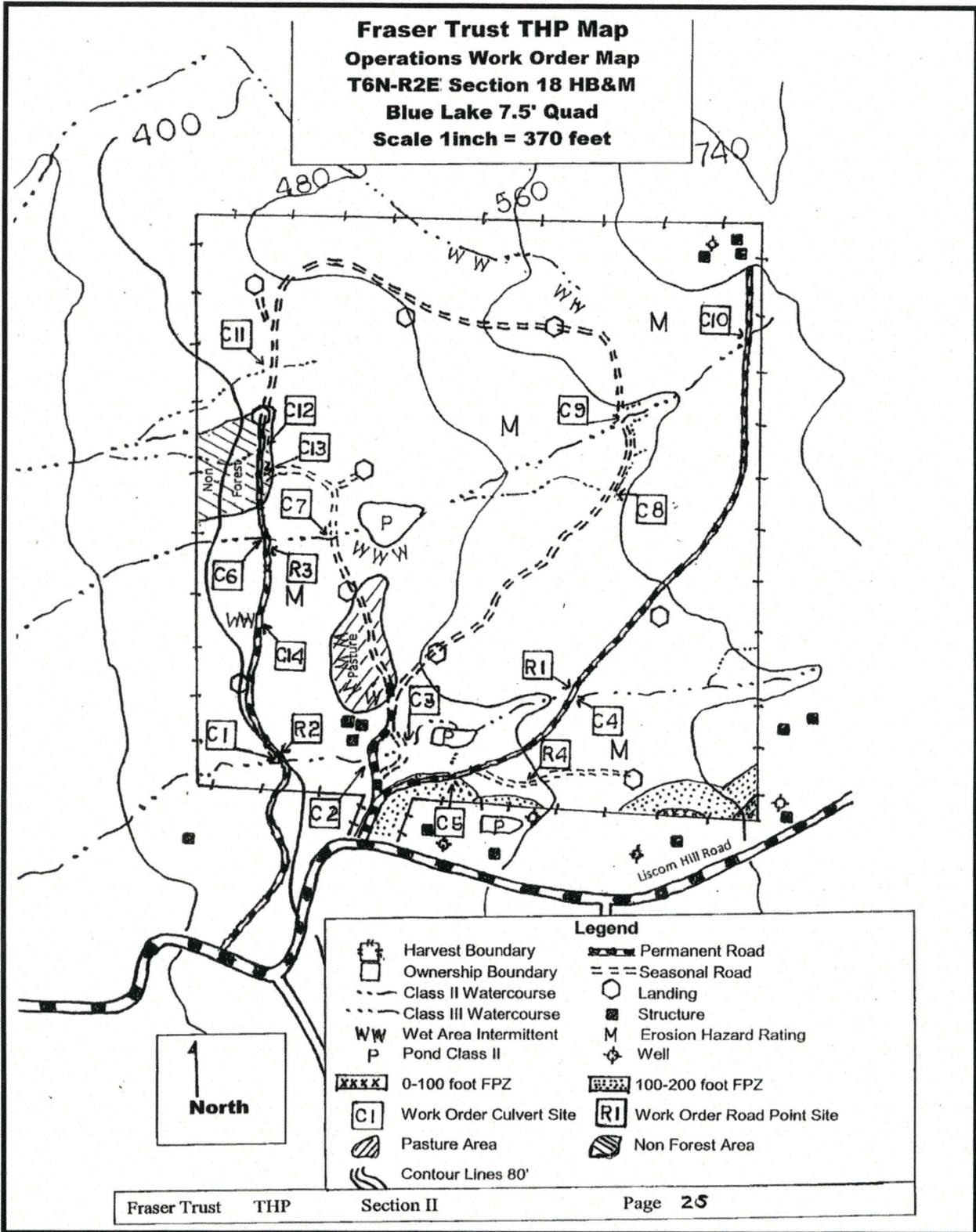
Maps of the encroachment sites are included as an exhibit to the Agreement and shall be incorporated herein by reference.

### **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**

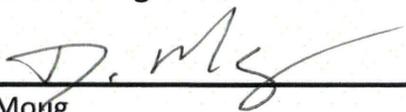
This Agreement authorizes only the project described herein. If Permittee begins or completes a project different from the project the Agreement authorizes, Permittee may be subject to civil or criminal prosecution for failing to notify CDFW in accordance with FGC section 1602.



**CONCURRENCE**

The undersigned accepts and agrees to comply with all provisions contained herein.

**FOR: Darren Moug**

 9-29-19  
\_\_\_\_\_  
Darren Moug Date

**FOR: California Department of Fish and Wildlife**

 acting for 9/30/19  
\_\_\_\_\_  
Jon Hendrix Date  
Senior Environmental Scientist (Supervisory)  
Timber Conservation Planning

**Prepared by:**

Nicholas Simpson  
Senior Environmental Scientist (Specialist)  
Timber Conservation Planning

May 3, 2018

**Appendix A:**