California Department of Fish and Wildlife

Northern Region 619 Second Street Eureka, California 95501

Streambed Alteration Agreement

Notification No. EPIMS-HUM-47015-R1 Larabee Creek, Coleman Creek, and unnamed tributaries, Humboldt County

21 Encroachments

Applicant: Henry Schmitt, as represented by Ethan Coonen (NCRM) Property owner: Humsun Ranch LLC. / Henry Schmitt Associated Timber Harvesting Plan: 1-24-00157-HUM "Cemetery Road"

This Streambed Alteration Agreement (Agreement) is entered into between the California Department of Fish and Wildlife (CDFW) and Henry Schmitt (Permittee), as represented by Ethan Coonen.

RECITALS

WHEREAS, pursuant to Fish and Game Code (FGC) section 1602, Permittee notified CDFW on 12/28/2023 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 8.5 miles north of Alderpoint in Humboldt County in Larabee Creek, Coleman Creek, and unnamed tributaries. The project is located in Sections 1, 11, 12, and 13, Township 2S, Range 4E; Section 6, 7, 18, Township 2S, Range 5E, Humboldt Base and Meridian, in the Blocksburg, California, U.S. Geological Survey 7.5-minute quadrangle(s).

PROJECT DESCRIPTION

The project proposes to modify Class II and Class III watercourses at existing road crossings (Table 1 for encroachment details).



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 Table 1: Streambed Alteration Agreement EPIMS-HUM-47015-R1 encroachment details for 1-23-00157-HUM "Cemetery Road THP".

| Map Point | Watercourse Classification | Road Type | Road Classification | Encroachment Description | Minimum culvert size (in) |
|--------------|-------------------------------|--------------|------------------------|--|------------------------------|
| 7 | II | Existing | Permanent | Replace culvert | 36 |
| 8 | | Existing | Permanent | Replace culvert | 36 |
| 18 | III | Existing | Permanent | Replace culvert | 36 |
| 19 | | Existing | Permanent | Replace culvert | 24 |
| 22 | II | Existing | Permanent | Replace culvert | 24 |
| 24 | II | Existing | Permanent | Replace culvert | 30 |
| 25 | | Existing | Permanent | Replace culvert | 30 |
| 54 | III | Temporary | Tractor | Upgrade erosion controls | |
| 56 | ll | Existing | Seasonal | Temporary crossing, re-establish as rock armored ford at end of season | |
| 58 | I | Temporary | Tractor | Temporary crossing, re-establish channel | |
| 68 | II | Existing | Seasonal | Replace culvert | 36 |
| 75 | II | Temporary | Tractor | Temporary crossing, re-establish channel | |
| 77 | II | Existing | Seasonal | Install culvert | 24 |
| 78 | | Existing | Seasonal | Replace culvert | 24 |
| 79 | | Existing | Seasonal | Replace culvert | 48 |
| 82 | II | Existing | Seasonal | Replace culvert | 36 |
| 84 | II | Existing | Seasonal | Replace culvert | 36 |
| 86 | | Existing | Seasonal | Replace culvert | 48 |
| 94 | II | Temporary | Tractor | Temporary crossing, re-establish channel | |
| 97 | II | Temporary | Tractor | Temporary crossing, re-establish channel | |
| 99 | II | Temporary | Tractor | Temporary crossing, re-establish channel | |

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PROJECT IMPACTS

Existing fish or wildlife resources the project could substantially adversely affect include: coho salmon (*O. kisutch*), steelhead (*O. mykiss*), foothill yellow-legged frog (*Rana boylii*), other 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 of species protected under the California Endangered Species Act, mortality contributing to local decline or extirpation of California species of special concern, impeded 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 <u>Documentation at Project Site:</u> 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 <u>Providing Agreement to Persons at Project Site:</u> 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 <u>Notification of Conflicting Provisions:</u> 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 <u>Minor Language Changes</u>. CDFW reserves the right to authorize minor language revisions to this Agreement provided both CDFW and the Responsible Party concur with minor language changes and both initial and date changes on the respective documents belonging to both the Responsible Party and CDFW.
- 1.5 <u>Project Site Entry:</u> Permittee agrees that CDFW personnel may enter the project site at any time to verify compliance with the Agreement.
- 1.6 <u>Project Accordance:</u> Except where otherwise stipulated in this Agreement, all work shall be in accordance with the project description submitted with

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Notification No. EPIMS-HUM-47015-R1 and 1-23-00157-HUM approved by CAL FIRE on 3/6/2024.

1.7 All Lake and Streambed Alteration Agreement (LSAA) notification, amendment, extension, and emergency forms can be found: <u>https://www.wildlife.ca.gov/Conservation/LSA/Forms</u>.

2. REPORTING AND NOTIFICATION MEASURES

- 2.1 <u>CDFW Reporting Location:</u> All reports shall be sent by email to (<u>CTP@wildlife.ca.gov</u>).
- 2.2 <u>Notice of Beginning Work.</u> The Permittee shall contact CDFW within the 7-day period preceding the beginning of work permitted by this Agreement. Information to be disclosed shall include Agreement number, (THP) number, and the anticipated start date.
- 2.3 <u>Notice of Work Completion</u>. The Permittee shall contact CDFW within thirty days of completion of the work permitted by this Agreement. Information to be disclosed shall include Agreement number and THP number.
- 2.4 <u>Annual Water Drafting Logbooks:</u> At the end of the year, all drafting logbooks shall be sent to Eureka CDFW via email or mail.
- 2.5 <u>Water Drafting Reports:</u> During all active Class I and/or Class II watercourse water drafting location operations, streamflow and drafting rate measurements shall be collected at least every two weeks and provided to CDFW by email.
- 2.6 <u>Aquatic Species of Special Concern Surveys</u>: To implement the appropriate Species of Special Concern protections, the permittee shall conduct the following measures when water is present within 100 feet at time of installation/ modification of watercourse crossing(s):
 - a) Prior to initiating operations within a watercourse in which active flow is present, a qualified biologist or person knowledgeable with all life stages of the regionally occurring California Species of Special Concern in the *Emydidae*, *Rhyacotritonidae*, *Ascaphidae*, *and Ranidae* families and similar frog and salamander species that shall conduct a visual encounter survey for all life-stages.
 - b) Visual encounter surveys shall consist of walking the entire survey reach, minimum 100 feet above and 100 feet below the project area footprint and within the streambed at bankfull, visually scanning in the water and on the banks.
 - c) If mobile Species of Special Concern frogs or salamanders or turtles are

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> encountered during operations, animals shall be allowed to leave unharmed and on their own volition, or, moved safely to the nearest suitable habitat outside the project area where project activities are not likely to negatively impact the relocated animals.

- d) All frog, salamander, and turtle species and life stages encountered shall be recorded. Permittee shall use a datasheet that includes a brief description of observations, stream name, habitat, overstory, and weather conditions, date(s), latitude and longitude locations, and a list of all species observed. This information shall be provided to the Department by email (<u>CTP@wildllife.ca.gov</u>) prior to the start of operations.
- e) In the event breeding habitat or egg masses are observed within the area of operations, Henry Schmitt shall consult with local CDFW staff to discuss potential exclusionary fencing and/or relocation of egg masses.
- f) Capturing, handling, moving, and/or relocating State or federally listed species or Candidate species are not permitted under this Agreement.
- 2.7 <u>Emergency Road Work:</u> 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, 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 9.

3. PROJECT TIMING

- 3.1 <u>Timing for Work on Class I, II and III Watercourses:</u> 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.
- 3.2 <u>Early and Late Season Work:</u> 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-f below.
 - a) Permittee shall obtain written approval from CDFW prior to commencement

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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 stockpile 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 <u>Inspections, Timing:</u> All covered crossings in this agreement shall be inspected by Permittee, or Permittee's designee, at least once during the first spring following construction. The inspection shall confirm that crossings are functioning as designed, road approaches are hydrologically disconnected from streams, and fine sediment present on road approach surfaces are prevented from being delivered to streams. Inspection results and follow-up repairs shall be documented and provided to CDFW in an annual monitoring report of the applicants choosing, such as an Erosion Control Plan (ECP) report.
- 4.2 <u>Repair Work:</u> Permittee shall perform routine repair work that prevents diversion of water from a stream or ditch or helps maintain a stable operating surface within

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50 feet of a crossing (e.g., repairing inboard ditches, cross drains, waterbars, 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 <u>Emergency Road Work:</u> 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, 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 Equipment shall not operate in a Class I watercourse when water is present unless site specifically provided for in this Agreement. In Class II and/or Class III watercourses, equipment shall not operate in a flowing stream or wetted channel except as may be necessary to construct and remove in-stream structures to catch and contain water (i.e., cofferdams) to divert stream flow and isolate the work site, or as otherwise specifically provided for in this Agreement.
- 5.2 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.
- 5.3 In Class II and III watercourses, 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 sandbags, 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

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> 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.

- 5.4 No fill material shall be placed within a stream except as specified in this Agreement.
- 5.5 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.
- 5.6 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.
- 5.7 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.
- 5.8 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.
- 5.9 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.

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- 5.10 Disturbance or removal of vegetation shall not exceed the minimum necessary to complete operations. Any trees felled in encroachment road approaches pursuant to this condition shall be left on site as large wood.
- 5.11 Temporary erosion control devices, such as straw bales, silt fencing, and sandbags, 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.
- 5.12 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.
- 5.13 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.
- 5.14 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.
- 5.15 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.
- 5.16 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 <u>Culvert Alignment:</u> Permittee shall align culverts with the watercourse channel. Culverts shall extend beyond the road fill and shall not be perched (suspended). Notification # EPIMS-HUM-47015-R1 Streambed Alteration Agreement Page 10 of 17

> 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.

- 6.2 <u>Basins at Culvert Inlets:</u> Permittee shall ensure basins are not constructed and channels are not widened at culvert inlets unless designed and approved.
- 6.3 <u>Culverts Extend Beyond Toe of Fill:</u> Permittee shall ensure that culverts extend lengthwise completely beyond the toe of fill.
- 6.4 <u>Culverts Aligned With the Stream Channel:</u> 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.
- 6.5 <u>Culvert Bottom at Natural Streambed Elevation</u>: 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.
- 6.6 <u>Culverts Not Set to Grade:</u> 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.
- 6.7 <u>Permanent Culvert Sized to Pass One Hundred Year Flow:</u> 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.
- 6.8 <u>Culvert Protection:</u> 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.
- 6.9 <u>Excavate and Dispose of Sediment Depositions:</u> Permittee shall excavate and dispose of sediment depositions from stream channels at the inlets of the culvert

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at a location and in a manner where sediment shall not enter the waters of the State.

7. FORD, ARMORED FILL and VENTED CROSSINGS

- 7.1 <u>Definitions:</u> Type of ford, armored fill and vented crossing shall be specified, defined, and installed as follows
 - a) <u>Ford Crossing</u>: A watercourse crossing where the road surface crosses at the natural grade of the channel. Thus, in ford crossings, no fill is placed in the watercourse 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.
 - b) <u>Rock-fill crossing</u>: A watercourse crossing where rock that is free of fines is placed as fill in the watercourse 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.
 - c) <u>Rock-armored crossing</u>: 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.
 - d) <u>Log-armored crossing</u>: Built to remediate historically constructed 'Humboldt' large wood-fill watercourse crossings where complete removal of all preexisting soil and large wood from the historical crossing is not feasible. Soil and organic fill material are removed to the extent feasible while stable large wood within the channel is retained in place. The crossing is backfilled 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 watercourse channel below.
 - e) <u>Vented Crossing</u>: A watercourse crossing structure designed to allow low

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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.

- 7.2 Ford crossings, armored and vented, are considered permanent watercourse encroachments, and shall accommodate the 100-year flood flow plus associated sediment and debris.
- 7.3 Ford crossings, armored and vented, shall not be used for log hauling except when the road surface is dry.
- 7.4 Hydrologically connected road approaches to ford crossings, armored and vented, shall be rocked and maintained to avoid delivery of fine sediment to the watercourse below.
- 7.5 Ford crossings, armored and vented, shall be maintained as necessary to avoid delivery of fine sediment to the watercourse below.
- 7.6 Ford crossings, armored and vented, shall be sufficiently outsloped to minimize aggradation of suspended sediments at the crossing
- 7.7 The lowest point of ford crossings, armored and vented, shall be constructed within or directly over the original stream channel, to the extent feasible, to contain high flows up to twice bank-full and to avoid diversion potential.
- 7.8 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.
- 7.9 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 Cafferata et al, California Forestry Report No. 1 Designing Watercourse Crossings for Passage of 100-Flood Flows, Wood, and Sediment (Updated 2017) Figure 23.
- 7.10 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. Some scour is expected through road surface rock cap.

8. TEMPORARY CROSSINGS

8.1 Incised, Deep, Rough or Steep Channels: Permittee shall use a bridge, Spittler, or modified Spittler-type crossing on Class II and III watercourses that have incised, deep, rough, or steep channels to minimize bank disturbance.

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- 8.2 Temporary crossings shall not restrict surface flows at the time of installation.
- 8.3 At all temporary crossings, logs, green slash, tops and/or straw bales shall be used as fill instead of earthen material to the maximum extent feasible.
- 8.4 When surface water is present, temporary crossing fill shall only be composed of clean, durable, screened rock and a culvert or a combination of such rock, filter fabric, sound logs and green slash, and straw. These materials shall cause no siltation. Above this fill, a fractured rock or native soil cap may be installed to provide a compacted road surface. The cap's thickness and soil content shall not exceed the minimum necessary to provide for adequate compaction. No soil from the cap shall come in contact with the stream channel.
- 8.5 During temporary crossing deconstruction and removal activities, when stream crossings, stream channels, and fills are excavated, all materials 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.

Spittler or Modified Spittler-Type Crossings

- 8.6 Permittee shall ensure that Spittler and modified Spittler-type crossings include a culvert to carry flows, choked-logs to fill the channel, a six-inch minimum straw layer, and a temporary running surface of local earthen fill or rock.
- 8.7 Culverts shall be of sufficient size to accommodate the expected flow during the use period.
- 8.8 Log fill crossing (Spittler Type) shall be constructed by laying choker cables or similar cables across stream channel, then placing pipe and/or sound logs in the channel bottom. The logs shall then be covered with filter fabric and/or straw mats, and rock or a local earthen fill used for road surfacing. For removal, the earthen fill shall be scraped off, the logs removed as a unit by pulling the chokers, and loose soil removed from the crossing using mechanized equipment and/or hand tools, as necessary. The straw layer in temporary log fill crossings (Spittler Type) shall extend beyond the road fill surface to prevent fill from entering the logs and stream (i.e., the straw layer should be visible on the crossing edges after installation). If whole bales are used the twine shall be cut after installation of the bales to create a continuous straw layer.

9. DECONSTRUCTION AND ABANDONMENT

9.1 When stream crossings and fills are removed, all fills 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

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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.

- 9.2 Sites previously not fully excavated shall be completely excavated when crossings are deconstructed. Adjacent potentially unstable road or landing fill that can enter a stream shall also be excavated when crossings are deconstructed.
- 9.3 All excavated fills shall be placed and stabilized/compacted in stable areas where it cannot enter or erode into a stream.

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:

| <u>To Permittee:</u> | To CDFW: |
|-------------------------|---|
| Ethan Coonen | Department of Fish and Wildlife |
| Henry Schmitt | North Coast Region |
| 2501 North State Street | 619 Second St. |
| Ukiah, CA 95482 | Eureka, California 95501 |
| | ATTN: Lake and Streambed Alteration Program |
| Email: ecoonen@ncrm.com | Notification# EPIMS-HUM-47015-R1 |
| | CTP@wildlife.ca.gov |

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. Notification # EPIMS-HUM-47015-R1 Streambed Alteration Agreement Page 15 of 17

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 under the California Endangered Species Act – CESA), 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.

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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

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None.

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: HENRY SCHMIT Henry/Schmitt

FOR: California Department of Fish and Wildlife

Jon Hendria

5/1/2024

Date

Jon Hendrix Senior Environmental Scientist (Supervisory) Timber Conservation Planning

Prepared by: Janelle Deshais Environmental Scientist March 27, 2024