

EXHIBIT A
Lower Mad River Road Decommissioning and Fish Habitat Restoration Project
Statement of Work

Under direction of the Department of Fish and Game, and under the following conditions and terms, the Pacific Coast Fish, Wildlife and Wetlands Restoration Association will:

1. Improve spawning and rearing habitat by reducing coarse/fine sediment delivery and improving riparian canopy for Chinook and coho salmon, steelhead and coastal cutthroat trout in a selected section of the Mad River and Vincent Creek tributary to Mad River in Humboldt County. The objective is to save 11,991 cubic yards of sediment from delivery by dispersing road runoff on 2.3 miles of road, reestablishing drainage patterns at 21 stream crossings and removing or stabilizing sediment from 15 sites along the alignment.
2. Conduct work in the Mad River and the Vincent Creek watershed. The project is located in Township 5N, Range 2E, Sections 3, 4, 9, and 10 of the Korbel 7.5 Minute U.S.G.S. Quadrangle, Latitude 40.848683 N, Longitude 123.954380 W as depicted in Exhibit C, Project Location Map, which is attached and made part of this agreement by this reference.
3. Decommission 2.3 miles of road thereby saving 11,991 cubic yards of sediment from delivery to the Mad River and Vincent Creek. Approximately 34,933 cubic yards of fill slope and stream crossing fill from approximately 21 stream crossings and 15 landing/slide/fillslope sites will be excavated and stored in stable locations. The following treatments will be implemented where appropriate:
 - Excavation of in-place stream crossings at locations where roads or landings were built across stream channels. This includes complete excavation of the fill, including the culvert or Humboldt log crossing so the original stream bed and side slopes are exhumed. A stream crossing excavation includes removing the culvert and the underlying and the adjacent fill material. Complete excavation of stream crossing fills, includes 100 year flood channel bottom widths and 2:1 or otherwise stable side slopes. When possible the excavated spoil will be stored at nearby stable locations where it will not erode. If there is a limited amount of stable storage locations at the excavation site the crossing fill material will be hauled off-site for storage.
 - Road surface treatments: 1) ripping of the surface of the road or landing using mechanical rippers to reduce surface runoff and improve revegetation; 2) in-place out-sloping or the excavation of unstable side cast material that could fail and deliver sediment to a stream along the outside edge of a road prism or landing and the replacement of the spoil on the roadbed against the corresponding adjacent cutbank, or in close proximity of the site; 3) exported out-sloping which involves not placing the material against the cutbank so the material is end hauled to a spoil disposal site; 4) installation of cross drains or deep water bars at 50, 75, 100 or 200 foot intervals or as necessary at springs and seeps to disperse road surface runoff. The cross road drains provide road surface drainage and prevent the collection of concentrated runoff on the former roadbed.

- Seeding and mulching of all exposed soils which may deliver sediment to a stream. Woody debris will be concentrated on finished slopes adjacent to stream crossings. The standard for success is 80% ground cover for broadcast planting of seed, after a period of three years.
 - Approximately 14 acres shall be mulched, seeded or planted with native materials. Additionally, 3,000 established native riparian trees will be planted within the project area. Planting of tree seedlings will take place after December 1 or when sufficient rainfall has occurred to insure the best chance of survival of the seedlings. The standard for success is 80% survival of plantings, after a period of three years.
4. The Grantee will not proceed with on the ground implementation until all necessary permits and consultations are secured.
 5. All stream crossings will meet flow carrying capacity required for a 100 year flood event as identified by specifications determined by NOAA Fisheries and the California Department of Fish and Game.
 6. All crossing upgrades in fish bearing reaches of streams will follow the National Marine Fisheries Service (NMFS 2001) Guidelines for Salmonid Passage at Stream Crossings and DFG criteria for adult and juvenile salmonid fish passage as described in the Third Edition, Volume II, Part IX, February 2003, of the *California Salmonid Stream Habitat Restoration Manual*. Culvert replacement or modification designs shall be visually reviewed and authorized by NOAA Fisheries (or DFG) engineers prior to commencement of work.
 7. Sites which are expected to erode and deliver sediment to the stream are the only locations where work will be authorized for reimbursement under the terms of this agreement. Reimbursement will not be authorized for work done to improve aesthetics only.
 8. Notify the Grant Manager a minimum of five working days before any fish bearing stream reaches are dewatered and the stream flow diverted. The notification will provide a reasonable time for Department personnel to supervise the implementation of the water diversion plan and oversee the safe removal and relocation of salmonids and other fish life from the project area. If the project requires dewatering of the site, and the relocation of salmonids, the Grantee will implement the following measures to minimize harm and mortality to listed salmonids:
 - Fish relocation and dewatering activities shall only occur between June 15 and October 31 of each year.
 - The Grantee shall minimize the amount of wetted stream channel dewatered at each individual project site to the fullest extent possible.
 - All electrofishing shall be performed by a qualified fisheries biologist and conducted according to the National Marine Fisheries Service, Guidelines for Electrofishing Waters Containing Salmonids Listed under the Endangered Species Act, June 2000.

- The Grantee will provide fish relocation data to the Grant Manager on a form provided by the Department of Fish and Game.
 - Additional measures to minimize injury and mortality of salmonids during fish relocation and dewatering activities shall be implemented as described in Part IX, pages 52 and 53 of the *California Salmonid Stream Habitat Restoration Manual*.
9. All road decommissioning will be done in accordance with techniques described in the Handbook for Forest and Ranch Roads, (PWA, 1994c.) and the *California Salmonid Stream Habitat Restoration Manual*, Third Edition, Volume II, Part X, January 2004. All road decommissioning and upgrade sites and techniques shall be approved by the Grant Manager before any equipment work takes place.
10. All habitat improvements will follow techniques described in the Third Edition, January 1998, of the *California Salmonid Stream Habitat Restoration Manual*, Flosi et al and the *California Salmonid Stream Habitat Restoration Manual*, Third Edition, Volume II, Part XI, January 2004.
11. Work in flowing streams is restricted to June 15 through October 31. Actual project start and end dates, within this timeframe, are at the discretion of the Department of Fish and Game.
12. Upon completion of the project, the Grantee shall submit two hard copies of a final written report and one electronic, Microsoft Word compatible, copy on a CD. If the project is not completed in the current year, the Grantee will submit a summary of the completed portion no later than December 1 and again each year until completed. The report shall include, but not necessarily be limited to the following information:
- Grant number
 - Project name
 - Geographic area (e.g., watershed name)
 - Location of work – show project location using U.S.G.S. 7.5 minute topographical map or appropriately scaled topographical map
 - Geospatial reference/location (lat/long is preferred – defined as point, line, or polygon)
 - Project start and end dates and the number of person hours expended
 - Total of each fund source, by line item, expended to complete the project, breaking down Grant dollars, by line item, and any other funding, including type of match (cash or in-kind service)
 - Expected benefits to anadromous salmonids from the project
 - Labeled before and after photographs of any restoration activities and techniques
 - Specific project access using public and private roads and trails, with landowner name and address
 - Complete as built project description
 - Report measurable metrics for the project by responding to the restoration project metrics listed below.

Habitat Protection and Restoration Projects– Reporting Metrics (HU) (Report N/A to those that do not apply)

Habitat Projects: (all)

- Identify the watershed/sub-basin plan or assessment in which the project is identified as a priority.
- Name the priority habitat limiting factors identified in that plan that are addressed by the project
- Type of monitoring included in the project
 - Design spec achieved
 - Fish movement/abundance
- Number of stream miles treated/affected by the project within the project boundaries.

Upland Habitat Projects (HU)

- Number of actions (road decommission / upgrade)
- Total acres of upslope area treated.
- Total miles of road treated.
- Miles of road treated for road drainage system improvements.
- Miles of road decommissioned.
- Number of cubic yards of sediment saved from entering the stream.

Fish Passage Improvement Projects (HB):

- Miles of stream treated.
- Types of crossings treated, select from: culvert, bridge or ford.
- Miles of stream made more accessible by treating stream crossings.
- Number of road crossings removed.
- Number of barriers other than culverts treated for fish passage.
- Miles of stream made more accessible by removing barriers other than culverts.

Riparian Habitat Projects (HR, HS)

- Miles of stream treated overall, count stream reach only once.
- Miles of riparian stream bank treated, measure both sides of the bank.
- Total acres of riparian area treated.
- Acres of riparian area planted.
- Species scientific names of plants planted.

13. The Grantee will acknowledge the participation of the Department of Fish and Game, Fisheries Restoration Grant funds on any signs, flyers, or other types of written communication or notice to advertise or explain the Lower Mad River Road Decommissioning and Fish Habitat Restoration Project.

Exhibit C
2010 Lower Mad River Road Decommissioning and Fish Habitat Restoration Project Location Map 1
T 5N, R 2E, Sec 3,4,9,10
Korbel USGS 7.5 Quadrangle
Humboldt County

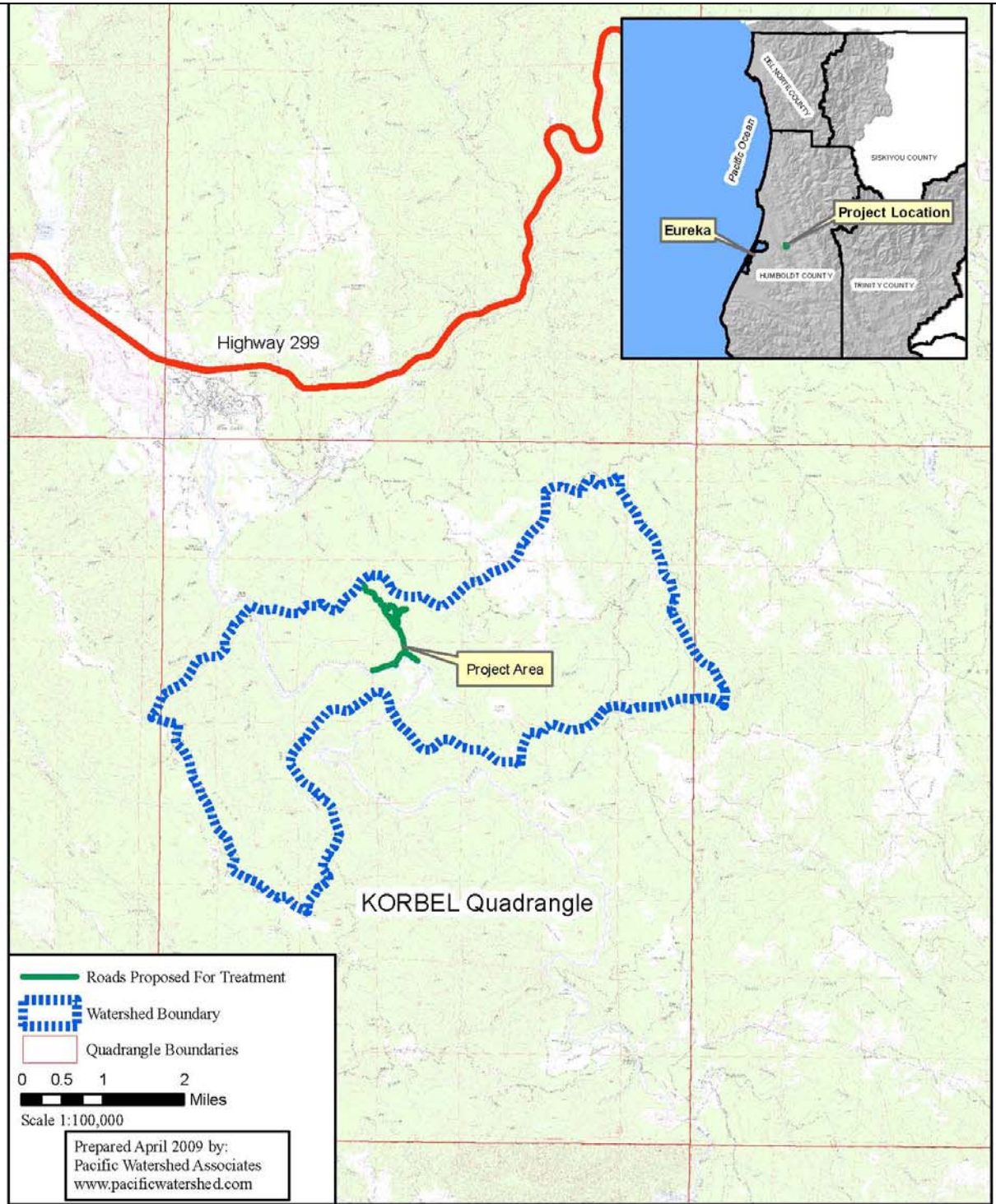
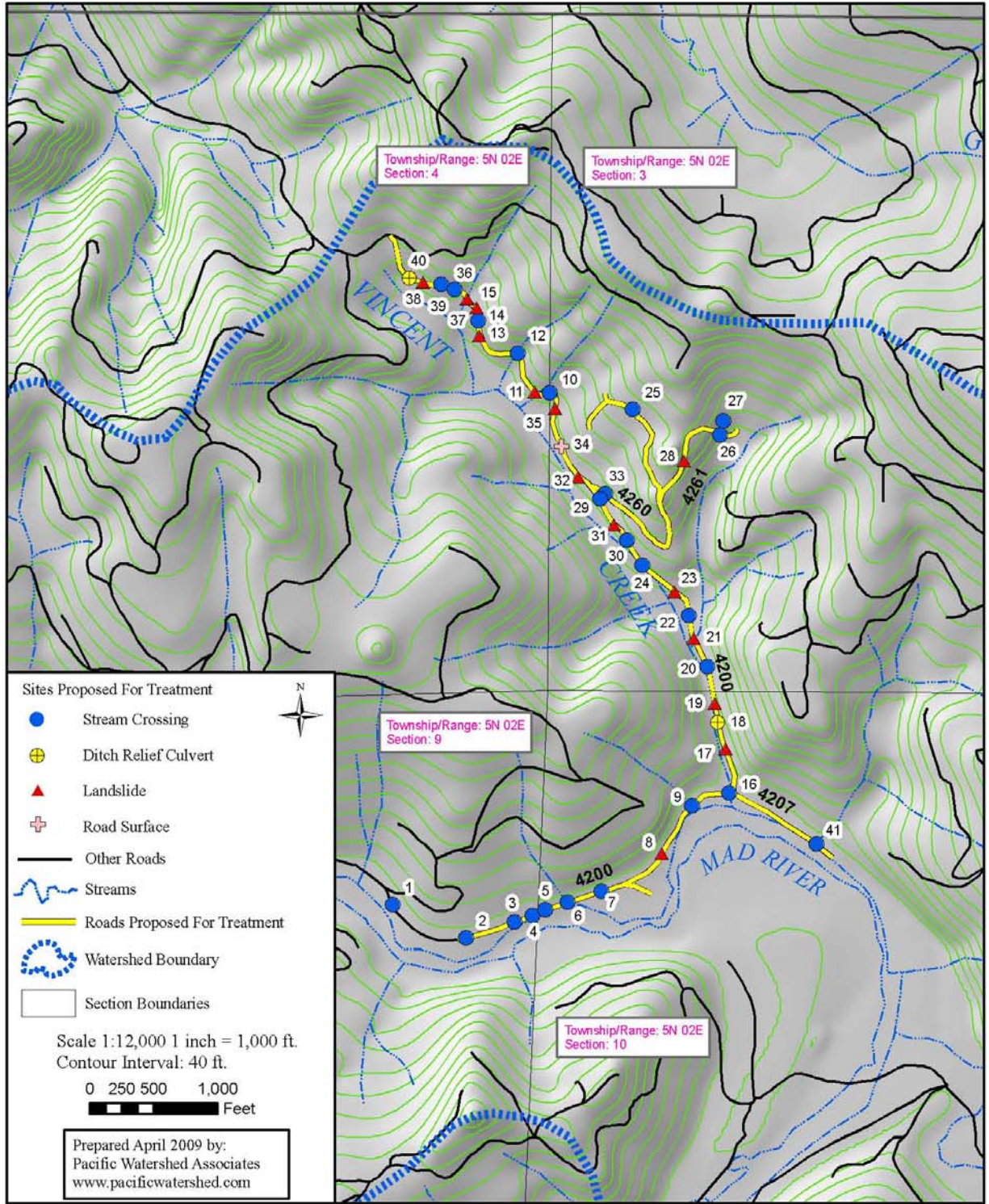


Exhibit C
2010 Lower Mad River Road Decommissioning and Fish Habitat Restoration Project Location Map 2
T 5N, R 2E, Sec 3,4,9,10
Korbel USGS 7.5 Quadrangle
Humboldt County



California Department of Fish and Game

Natural Diversity Database

Selected Elements by Common Name - Portrait

Possible species within the Korbelt Quad and surrounding quads for the Lower Mad River Road Decommissioning and Fish Habitat Restoration Project, T 5N, R 2E, Sec 3,4,9,10, Humboldt County.

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1 Howell's montia <i>Montia howellii</i>	PDPOR05070			G3G4	S3	2.2
2 Humboldt Bay owl's-clover <i>Castilleja ambigua ssp. humboldtiensis</i>	PDSCR0D402			G4T2	S2.2	1B.2
3 Lyngbye's sedge <i>Carex lyngbyei</i>	PMCYP037Y0			G5	S2.2	2.2
4 Northern Coastal Salt Marsh	CTT52110CA			G3	S3.2	
5 Pacific tailed frog <i>Ascaphus truei</i>	AAABA01010			G4	S2S3	SC
6 Point Reyes bird's-beak <i>Cordylanthus maritimus ssp. palustris</i>	PDSCR0J0C3			G4?T2	S2.2	1B.2
7 Sonoma tree vole <i>Arborimus pomo</i>	AMAFF23030			G3	S3	SC
8 alpine marsh violet <i>Viola palustris</i>	PDVIO041G0			G5	S1S2	2.2
9 black-crowned night heron <i>Nycticorax nycticorax</i>	ABNGA11010			G5	S3	
10 coast cutthroat trout <i>Oncorhynchus clarkii clarkii</i>	AFCHA0208A			G4T4	S3	SC
11 double-crested cormorant <i>Phalacrocorax auritus</i>	ABNFD01020			G5	S3	
12 foothill yellow-legged frog <i>Rana boylei</i>	AAABH01050			G3	S2S3	SC
13 ghost-pipe <i>Monotropa uniflora</i>	PDMON03030			G5	S2S3	2.2
14 great blue heron <i>Ardea herodias</i>	ABNGA04010			G5	S4	
15 green sturgeon <i>Acipenser medirostris</i>	AFCAA01030	Threatened		G3	S1S2	SC
16 leafy-stemmed mitrewort <i>Mitella caulescens</i>	PDSAX0N020			G5	S4.2	4.2
17 long-beard lichen <i>Usnea longissima</i>	NLLEC5P420			G4	S4.2	
18 long-eared myotis <i>Myotis evotis</i>	AMACC01070			G5	S4?	
19 maple-leaved checkerbloom <i>Sidalcea malachroides</i>	PDMAL110E0			G3G4	S3S4.2	4.2
20 marbled murrelet <i>Brachyramphus marmoratus</i>	ABNNN06010	Threatened	Endangered	G3G4	S1	
21 minute pocket moss <i>Fissidens pauperculus</i>	NBMUS2W0U0			G3?	S1.2	1B.2
22 northern red-legged frog <i>Rana aurora</i>	AAABH01021			G4T4	S2?	SC
23 northern spotted owl <i>Strix occidentalis caurina</i>	ABNSB12011	Threatened		G3T3	S2S3	SC

California Department of Fish and Game

Natural Diversity Database

Selected Elements by Common Name - Portrait

Possible species within the Korbel Quad and surrounding quads for the Lower Mad River Road Decommissioning and Fish Habitat Restoration Project, T 5N, R 2E, Sec 3,4,9,10, Humboldt County.

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
24 osprey <i>Pandion haliaetus</i>	ABNKC01010			G5	S3	
25 running-pine <i>Lycopodium clavatum</i>	PPLYC01080			G5	S4.1	4.1
26 sandy beach tiger beetle <i>Cicindela hirticollis gravida</i>	IICOL02101			G5T2	S1	
27 southern torrent salamander <i>Rhyacotriton variegatus</i>	AAAAJ01020			G3G4	S2S3	SC
28 tidewater goby <i>Eucyclogobius newberryi</i>	AFCQN04010	Endangered		G3	S2S3	SC
29 western lily <i>Lilium occidentale</i>	PMLIL1A0G0	Endangered	Endangered	G1	S1.2	1B.1
30 western sand-spurrey <i>Spergularia canadensis var. occidentalis</i>	PDCAR0W032			G5T4?	S1.1	2.1