

EXHIBIT A
Headwaters Forest South Fork Elk River Road Decommissioning and Erosion Prevention
Program Additional Sites
Statement of Work

Under direction of the Department of Fish and Game, and under the following conditions and terms, the Grantee will:

1. Implement site specific erosion control measures to protect and improve salmonid spawning and rearing habitat for coho salmon, Chinook salmon, steelhead trout, and cutthroat trout in a selected section of the South Fork Elk River and Little South Fork Elk River tributary to South Fork Elk River in Humboldt County. The objective is to save approximately 10,000 cubic yards of potential sediment delivery by dispersing road runoff on 9 miles of road, reestablishing drainage patterns at approximately 81 stream crossings and removing or stabilizing sediment from 47 sites along the alignment. Sediment control treatments include: road surface ripping, cross road drain installation, in-place stream crossing excavation, exported stream crossing excavation, in-place outsloping, and exported outsloping.
2. Conduct work on abandoned roads in the South Fork Elk River watershed in the Headwaters Forest Preserve. The project is located in Township 3 North, Range 1 East, Sections 3,4,5,8,9, and 10 of the McWhinney 7.5 Minute U.S.G.S. Quadrangle, latitude 40.655 north and longitude 124.085 west as depicted in Exhibit C, Project Location Map, which is attached and made part of this agreement by this reference.
3. Decommission 9 miles of road and 128 sites, thereby saving 10,000 cubic yards of sediment from delivery to Little South Fork Elk River and South Fork Elk River. The Grantee shall decommission 81 stream crossings. The Grantee will treat 26 landslides and 21 “other” sites including road-related gullies, ditch relief culverts with delivery, springs, and sinkholes. Approximately 35,000 cubic yards of fill slope and stream crossing fill 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 outsloping 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.

- Where feasible place large wood developed during the project into the South Fork Elk River or Little South Fork Elk River at sites mutually agreed upon by the grantee and the grant manager
 - 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.
4. 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.
 5. 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.
 6. 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*.

7. Approximately 5 acres shall be mulched, seeded or planted with native materials. Additionally, 1,000 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.
8. All road upgrading or 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 sites and techniques shall be approved by the Grant Manager before any equipment work takes place.
9. 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.
10. 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.
11. If the project will not be completed by March 31, 2011, and therefore the grantee will be requesting an amendment for time, this request and a justification for the delay resulting in the time request must be submitted no later than December 1, 2010.
12. An annual report will be submitted each year, no later than November 15, detailing the work completed that field season. The annual report will include, but not necessarily be limited to the following where applicable:
 - Implementation start and end dates
 - Percentage of the project completed in total to date
 - Dewatering and fish relocation on DFG data sheet (to be provided by the DFG Grant Manager upon request)
 - Project start and end dates for work to be implemented the following season

The annual report will also include, on a site by site basis:

- Road length segment decommissioned or upgraded per road segment
- Sediment spoils volume estimate per road segment
- Upslope stream crossings decommissioned (not for fish passage)
- Stream crossings treated to improve fish passage (number)
- Stream length opened for fish passage by improving stream crossings (miles)

- Sediment volume prevented from entering the stream per crossing
 - Sediment spoils volume estimate per crossing
 - Upslope area treated (sq ft) (landslides, bank stabilization)
 - Amount of riparian area treated per site in acres
 - Number of trees planted
 - Number of logs placed in the stream.
13. 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. 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.

Instream Habitat Projects (HI)

- Description of instream treatments used, including site locations referenced to an established landmark, number of treatment sites, and any modifications to site/treatment design.
- Description of instream treatments used, including site locations referenced to an established landmark, number of treatment sites, and any modifications to site/treatment design.
- Type of materials used for channel structure placement, select from: individual logs (unanchored); logs fastened together (logjam); rocks/boulders (unanchored); rocks/boulders (fastened or anchored); stumps with roots attached (root wads); weirs; gabions; deflectors/barbs; or other engineered structures
- Miles of stream treated with channel structure placement
- Number of instream pools created by structure placement
- Number of structures placed in channel.

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.

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.

14. 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 Headwaters Forest South Fork Elk River Road Decommissioning and Erosion Prevention Program project.

Exhibit C
2010 Headwaters Forest/South Fork Elk River Road Decommissioning and Erosion Prevention Project Location Map 1
T3N R1E S 3,4,5,8,9,10
USGS 7.5 Minute McWhinney Creek Quadrangle
Humboldt County

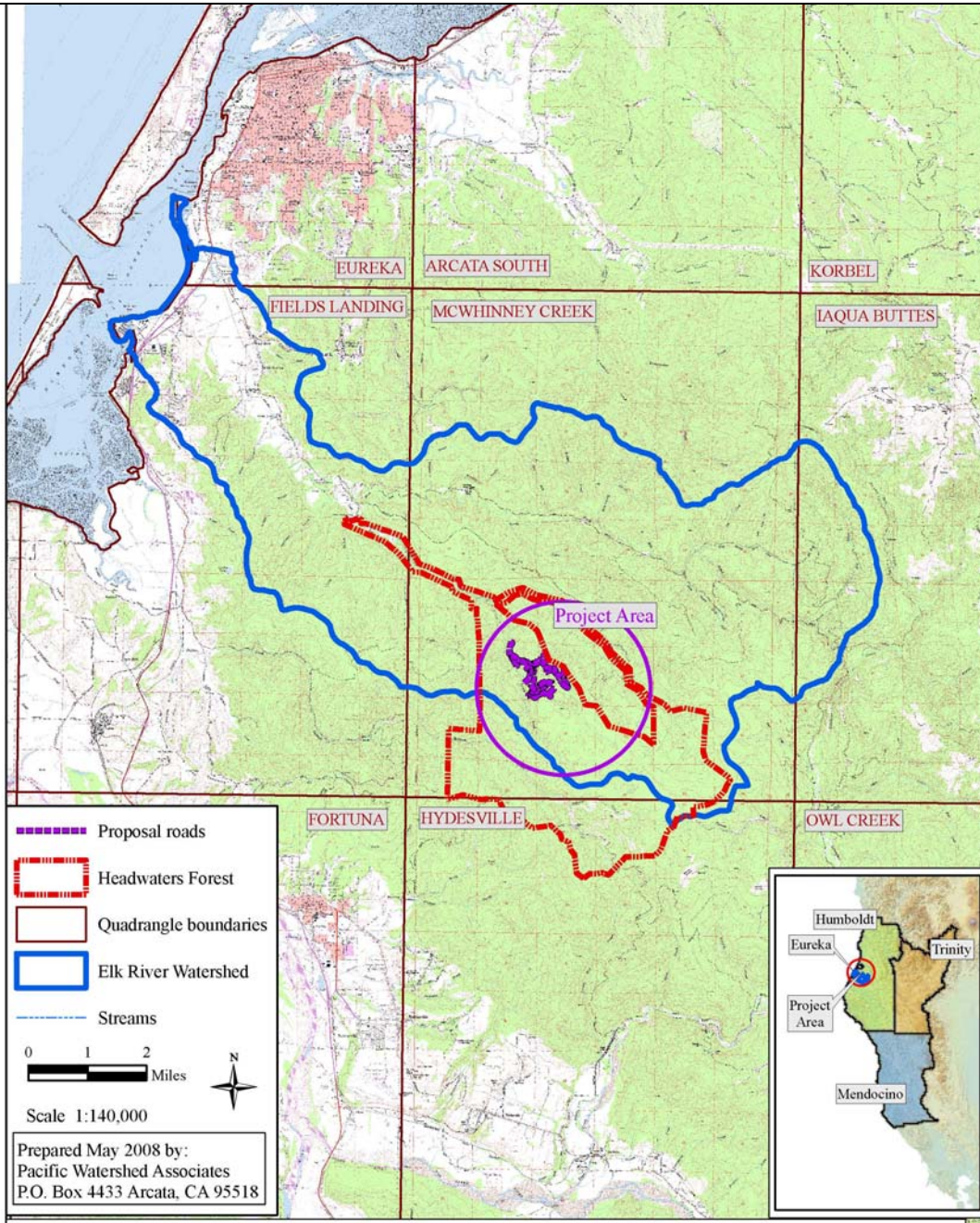


Exhibit C
2010 Headwaters Forest/South Fork Elk River Road Decommissioning and Erosion Prevention Project Location Map 2
T3N R1E S 3,4,5,8,9,10
USGS 7.5 Minute McWhinney Creek Quadrangle
Humboldt County

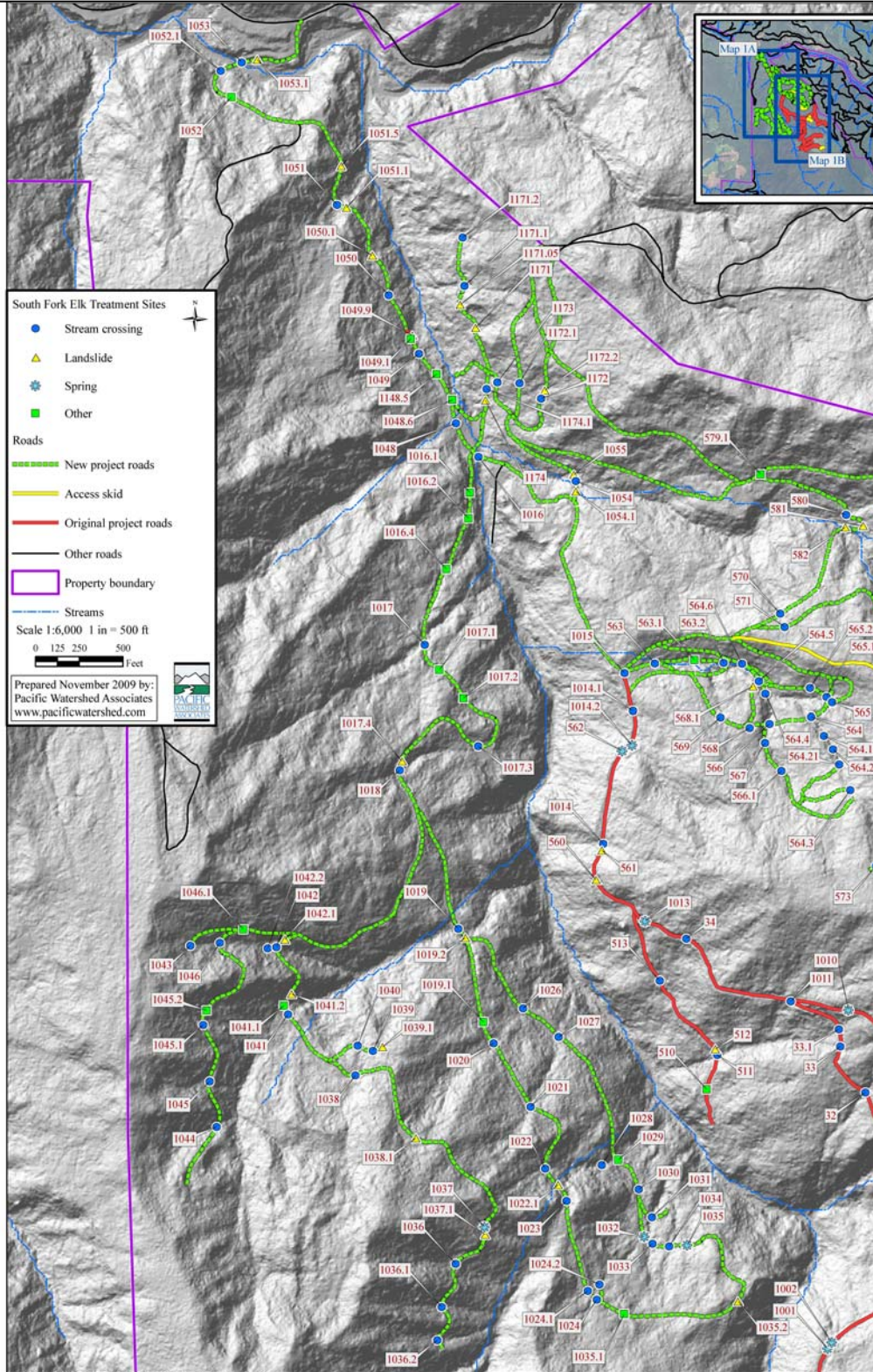
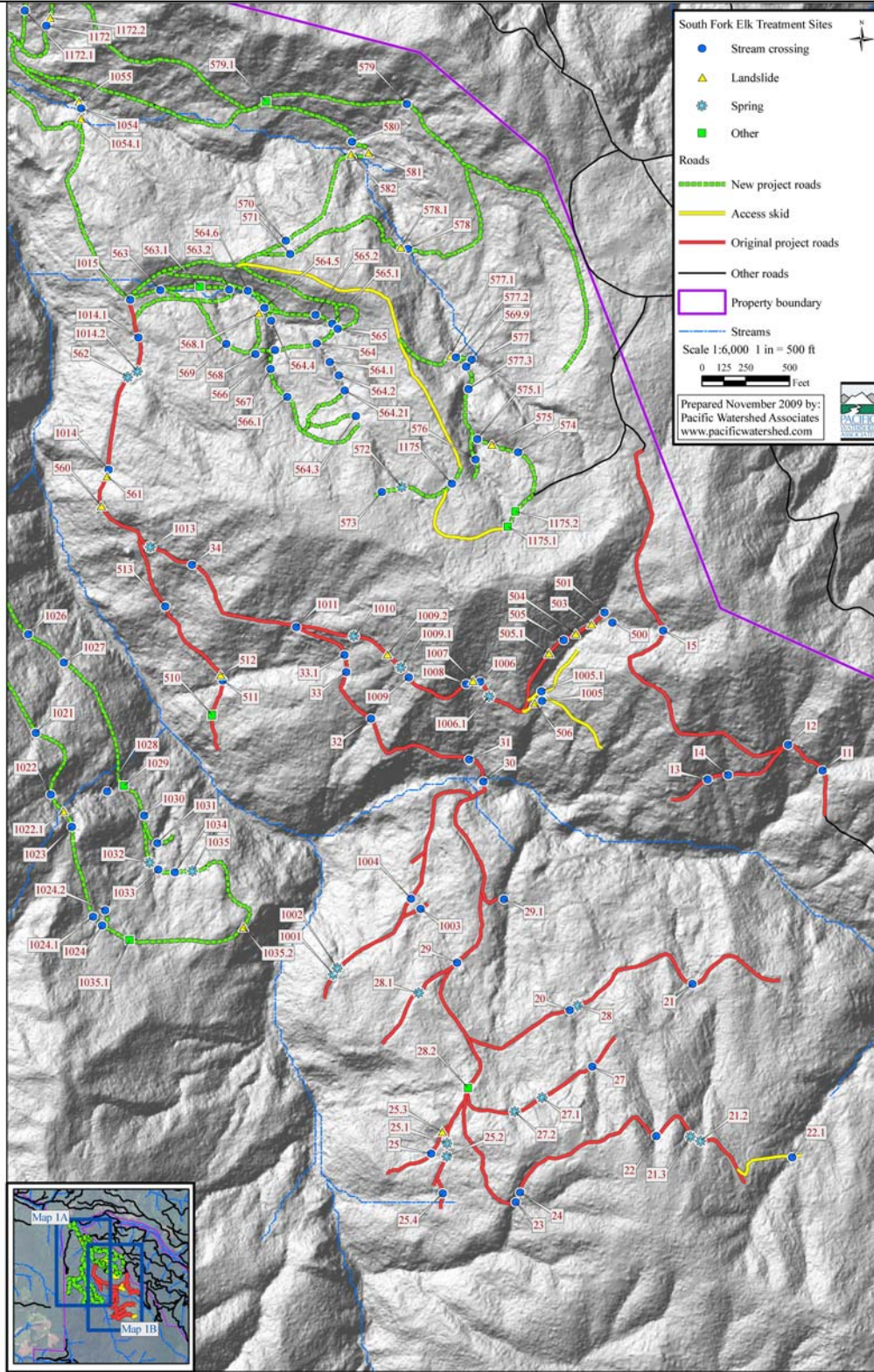


Exhibit C
2010 Headwaters Forest/South Fork Elk River Road Decommissioning and Erosion Prevention Project Location Map 3
T3N R1E S 3,4,5,8,9,10
USGS 7.5 Minute McWhinney Creek Quadrangle
Humboldt County



P:\GIS\34 South Fork Elk River 2009\34 South Fork Elk River Map Template 11-24-09.mxd

California Department of Fish and Game

Natural Diversity Database

Selected Elements by Common Name - Portrait

Possible species within the McWhinney and surrounding quads for Headwaters Forest/South Fork Elk River Road Decommissioning and Erosion Prevention Project, T3N R1E S 3,4,5,8,9,10, Humboldt County

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1 California clapper rail <i>Rallus longirostris obsoletus</i>	ABNME05016	Endangered	Endangered	G5T1	S1	
2 California globe mallow <i>Iliamna latibracteata</i>	PDMAL0K040			G3	S2.2	1B.2
3 Cooper's hawk <i>Accipiter cooperii</i>	ABNKC12040			G5	S3	
4 Del Norte salamander <i>Plethodon elongatus</i>	AAAAD12050			G4	S3	SC
5 Howell's montia <i>Montia howellii</i>	PDPOR05070			G3G4	S3.2	2.2
6 Humboldt Bay owl's-clover <i>Castilleja ambigua ssp. humboldtensis</i>	PDSCR0D402			G4T2	S2.2	1B.2
7 Humboldt Bay wallflower <i>Erysimum menziesii ssp. eurekaense</i>	PDBRA160E2	Endangered	Endangered	G3?T1	S1.1	1B.1
8 Humboldt marten <i>Martes americana humboldtensis</i>	AMAJF01012			G5T2T3	S2S3	SC
9 Kneeland Prairie pennycress <i>Thlaspi californicum</i>	PDBRA2P041	Endangered		G1	S1.1	1B.1
10 Lyngbye's sedge <i>Carex lyngbyei</i>	PMCYP037Y0			G5	S2.2	2.2
11 Norris' beard moss <i>Didymodon norrisii</i>	NBMUS2C0H0			G2G3	S2.2	2.2
12 Northern Coastal Salt Marsh	CTT52110CA			G3	S3.2	
13 Oregon coast paintbrush <i>Castilleja affinis ssp. litoralis</i>	PDSCR0D012			G4G5T4	S2.2	2.2
14 Oregon goldthread <i>Coptis laciniata</i>	PDRAN0A020			G4G5	S2.2	2.2
15 Pacific fisher <i>Martes pennanti (pacifica) DPS</i>	AMAJF01021	Candidate		G5	S2S3	SC
16 Pacific gilia <i>Gilia capitata ssp. pacifica</i>	PDPLM040B6			G5T3T4	S2.2?	1B.2
17 Point Reyes bird's-beak <i>Cordylanthus maritimus ssp. palustris</i>	PDSCR0J0C3			G4?T2	S2.2	1B.2
18 Siskiyou checkerbloom <i>Sidalcea malviflora ssp. patula</i>	PDMAL110F9			G5T1	S1.1	1B.2
19 Sonoma tree vole <i>Arborimus pomo</i>	AMAFF23030			G3	S3	SC
20 Upland Douglas Fir Forest	CTT82420CA			G4	S3.1	
21 Whitney's farewell-to-spring <i>Clarkia amoena ssp. whitneyi</i>	PDONA05025			G5T2	S2.1	1B.1
22 Wolf's evening-primrose <i>Oenothera wolfii</i>	PDONA0C1K0			G1	S1.1	1B.1
23 alpine marsh violet <i>Viola palustris</i>	PDVIO041G0			G5	S1S2	2.2

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Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
24 bald eagle <i>Haliaeetus leucocephalus</i>	ABNKC10010	Delisted	Endangered	G5	S2	
25 beach layia <i>Layia carnosa</i>	PDA5T5N010	Endangered	Endangered	G2	S2.1	1B.1
26 bensoniella <i>Bensoniella oregona</i>	PDSAX02010		Rare	G3	S2.2	1B.1
27 black-crowned night heron <i>Nycticorax nycticorax</i>	ABNGA11010			G5	S3	
28 bristle-stalked sedge <i>Carex leptalea</i>	PMCYP037E0			G5	S2?	2.2
29 coast cutthroat trout <i>Oncorhynchus clarkii clarkii</i>	AFCHA0208A			G4T4	S3	SC
30 coast fawn lily <i>Erythronium revolutum</i>	PMLIL0U0F0			G4	S2.2	2.2
31 coast sidalcea <i>Sidalcea oregana ssp. eximia</i>	PDMAL110K9			G5T1	S1.2	1B.2
32 coastal marsh milk-vetch <i>Astragalus pycnostachyus var. pycnostachyus</i>	PDFAB0F7B2			G2T2	S2.2	1B.2
33 dark-eyed gilia <i>Gilia millefoliata</i>	PDPLM04130			G2	S2.2	1B.2
34 double-crested cormorant <i>Phalacrocorax auritus</i>	ABNFD01020			G5	S3	
35 foothill yellow-legged frog <i>Rana boylei</i>	AAABH01050			G3	S2S3	SC
36 ghost-pipe <i>Monotropa uniflora</i>	PDMON03030			G5	S2S3	2.2
37 giant fawn lily <i>Erythronium oregonum</i>	PMLIL0U0C0			G5	S2.2	2.2
38 great blue heron <i>Ardea herodias</i>	ABNGA04010			G5	S4	
39 great egret <i>Ardea alba</i>	ABNGA04040			G5	S4	
40 green sturgeon <i>Acipenser medirostris</i>	AFCAA01030	Threatened		G3	S1S2	SC
41 hoary bat <i>Lasiurus cinereus</i>	AMACC05030			G5	S4?	
42 leafy-stemmed mitrewort <i>Mitella caulescens</i>	PDSAX0N020			G5	S4.2	4.2
43 long-beard lichen <i>Usnea longissima</i>	NLLEC5P420			G4	S4.2	
44 long-eared myotis <i>Myotis evotis</i>	AMACC01070			G5	S4?	
45 maple-leaved checkerbloom <i>Sidalcea malachroides</i>	PDMAL110E0			G3G4	S3S4.2	4.2
46 marsh pea <i>Lathyrus palustris</i>	PDFAB250P0			G5	S2S3	2.2

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Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
47 minute pocket moss <i>Fissidens pauperculus</i>	NBMUS2W0U0			G3?	S1.2	1B.2
48 northern clustered sedge <i>Carex arcta</i>	PMCYP030X0			G5	S1S2	2.2
49 northern meadow sedge <i>Carex praticola</i>	PMCYP03B20			G5	S2S3	2.2
50 northern red-legged frog <i>Rana aurora aurora</i>	AAABH01021			G4T4	S2?	SC
51 northern spotted owl <i>Strix occidentalis caurina</i>	ABNSB12011	Threatened		G3T3	S2S3	SC
52 northwestern pond turtle <i>Actinemys marmorata marmorata</i>	ARAAD02031			G3G4T3	S3	SC
53 osprey <i>Pandion haliaetus</i>	ABNKC01010			G5	S3	
54 pallid bat <i>Antrozous pallidus</i>	AMACC10010			G5	S3	SC
55 pink sand-verbena <i>Abronia umbellata ssp. breviflora</i>	PDNYC010N2			G4G5T2	S2.1	1B.1
56 running-pine <i>Lycopodium clavatum</i>	PPLYC01080			G5	S4.1	4.1
57 sandy beach tiger beetle <i>Cicindela hirticollis gravida</i>	IICOL02101			G5T2	S1	
58 seacoast ragwort <i>Packera bolanderi var. bolanderi</i>	PDAST8H0H1			G4T4	S1.2	2.2
59 seaside pea <i>Lathyrus japonicus</i>	PDFAB250C0			G5	S1.1	2.1
60 sharp-shinned hawk <i>Accipiter striatus</i>	ABNKC12020			G5	S3	
61 short-leaved evax <i>Hesper-evax sparsiflora var. brevifolia</i>	PDASTE5011			G4T2T3	S2S3	1B.2
62 snowy egret <i>Egretta thula</i>	ABNGA06030			G5	S4	
63 southern torrent salamander <i>Rhyacotriton variegatus</i>	AAAAJ01020			G3G4	S2S3	SC
64 summer-run steelhead trout <i>Oncorhynchus mykiss irideus</i>	AFCHA0213B			G5T4Q	S2	SC
65 tidewater goby <i>Eucyclogobius newberryi</i>	AFCQN04010	Endangered		G3	S2S3	SC
66 tricolored blackbird <i>Agelaius tricolor</i>	ABPBXB0020			G2G3	S2	SC
67 western lily <i>Lilium occidentale</i>	PMLIL1A0G0	Endangered	Endangered	G1	S1.2	1B.1
68 western sand-spurrey <i>Spergularia canadensis var. occidentalis</i>	PDCAR0W032			G5T4?	S1.1	2.1
69 western snowy plover <i>Charadrius alexandrinus nivosus</i>	ABNNB03031	Threatened		G4T3	S2	SC

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Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
70 western tailed frog <i>Ascaphus truei</i>	AAABA01010			G4	S2S3	SC
71 white-footed vole <i>Arborimus albipes</i>	AMAFF23010			G3G4	S2S3	SC