

EXHIBIT A
Elk Creek Tributary #1
SCOPE OF WORK

Under direction of the Grantor, and under the following conditions and terms, the Grantee will:

1. Improve habitat conditions for coho salmon, Chinook salmon and steelhead trout in an unnamed tributary to Elk Creek. Elk Creek is tributary to South Fork Eel River, in Humboldt County. The objective is to reduce sediment delivery and create habitat complexity.
2. Work will take place within the drainage of Tributary #1, unnamed tributary to Elk Creek. The project is located in Township 2S, Range 3E, Sections 15 and 22 of the Myers Flat 7.5 Minute U.S.G.S. Quadrangle, as depicted in Exhibit C, Project Location Map, which is attached and made part of this agreement by this reference.
3. Treatments to increase habitat complexity will be implemented along a 1,000' section of stream and will include the following:
 - Construction of six instream habitat structures;
 - A minimum of 24 pieces of large wood will be incorporated into the structures;
 - Specific placement and configuration of logs, rootwads and boulders will be determined through field consultation with the Grantee and DFG Project Manager.
 - The Grantee will construct instream log structures according to the site specific plans to be provided, using locally available logs or logs from other locations.
 - Logs may be moved into location by using heavy equipment.
 - Various anchoring techniques, which will be approved by the DFG grant manager prior to the initiation of work, may be used to hold multiple logs together to form complex structures. Anchoring techniques will include wedging logs into existing trees along the riparian banks or anchoring to live mature trees growing on riparian banks. Anchoring materials will consist of 1" threaded rebar, cable, nuts and washers.

Treatments will be implemented at three sites to stabilize 250' of eroding stream bank and will include the following:

- Construction of two boulder deflectors;
- Construction of approximately 2,000' of willow mattress;
- Excavation of perched sediment and sloping back the banks to a stable shape;
- Seeding and mulching of all exposed soils which may deliver sediment to a stream. The standard for success is 80% ground cover for broadcast planting of seed, after a period of three years.

Treatments to address upslope sediment issues will include the following:

- Decommissioning of one Humboldt stream crossing. 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. Armor stream crossings with rock where it will minimize post-decommissioning adjustments. 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.

- Realignment of two stream channels back to their natural drainage pattern;
 - Seeding and mulching of all exposed soils which may deliver sediment to a stream. The standard for success is 80% ground cover for broadcast planting of seed, after a period of three years.
4. 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.
 5. The Grantee will not proceed with on the ground implementation until all necessary permits and consultations are secured.
 6. The Grantee shall 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 aquatic species 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. 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.
 8. 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 or 80% ground cover for broadcast planting of seed, after a period of three years.
 9. If the project will not be completed by March 31, 2012, 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 also be submitted no later than December 1, 2011.
 10. A progress report will be submitted annually no later than November 15 detailing the work completed that field season. The progress report will include, but not necessarily be limited to the following where applicable:

- Grant number;
- Project name;
- Geographic area (e.g., watershed name);
- Location of work – show project feature locations using U.S.G.S. 7.5 minute topographical map(s) or appropriately scaled topographical map(s);
- implementation start and end dates;
- as built project description including the following: length of stream treated, number of structures built, number of pieces of large wood used;
- percentage of the project completed to date;
- dewatering and fish relocation data on DFG data sheet (to be provided by the DFG grant manager upon request);
- projected start and end dates for work to be implemented the following season.

The progress report will also include the following information on a site by site basis:

- Description of instream treatment;
- site location referenced to an established landmark and latitude and longitude;
- any modifications to site/treatment design;
- number of logs, rootwads and boulders used;
- area of structure installed within bankfull width;
- length of aquatic habitat disturbed during construction;
- number of trees planted;
- area treated with planting.

11. 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 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(s) or appropriately scaled topographical map(s);
- 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;
- Length of stream treated;
- Labeled before and after photographs of each structure;
- Specific project access using public and private roads and trails, with landowner name and address;
- Complete as built project description including the following information for each structure: gps coordinates, number of logs, rootwads and boulders used;
- Report measurable metrics for the project by responding to the restoration project metrics listed below.

Habitat Protection and Restoration Projects– Reporting Metrics (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, HS)

- 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.

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)

- 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.

12. 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 Elk Creek Tributary #1.

Exhibit C
Elk Creek Tributary #1
Project Location Map
T 2S, R 3E, S 15 and 22 - Myers Flat Quad – Humboldt County



California Department of Fish and Game

Natural Diversity Database

Selected Elements by Common Name - Portrait

Possible Species within the Myers Flat and Surrounding Quads for:

Elk Creek Tributary #1

T2S, R3E, S15 and 22, Humboldt County

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1 American peregrine falcon <i>Falco peregrinus anatum</i>	ABNKD06071	Delisted	unknown code...	G4T3	S2	
2 Cooper's hawk <i>Accipiter cooperii</i>	ABNKC12040			G5	S3	
3 Howell's montia <i>Montia howellii</i>	PDPOR05070			G3G4	S3	2.2
4 Humboldt marten <i>Martes americana humboldtensis</i>	AMAJF01012			G5T2T3	S2S3	SC
5 Humboldt milk-vetch <i>Astragalus agnicidus</i>	PDFAB0F080		Endangered	G2	S2.1	1B.1
6 North Central Coast Summer Steelhead Stream	CARA2634CA			G?	SNR	
7 Pacific fisher <i>Martes pennanti (pacifica) DPS</i>	AMAJF01021	Candidate	unknown code...	G5	S2S3	SC
8 Pacific gilia <i>Gilia capitata ssp. pacifica</i>	PDPLM040B6			G5T3T4	S2.2?	1B.2
9 Pacific tailed frog <i>Ascaphus truei</i>	AAABA01010			G4	S2S3	SC
10 Siskiyou checkerbloom <i>Sidalcea malviflora ssp. patula</i>	PDMAL110F9			G5T1	S1.1	1B.2
11 Sonoma tree vole <i>Arborimus pomo</i>	AMAFF23030			G3	S3	SC
12 Ten Mile shoulderband <i>Noyo intersessa</i>	IMGASC5070			G2	S2	
13 Townsend's big-eared bat <i>Corynorhinus townsendii</i>	AMACC08010			G4	S2S3	SC
14 Tracy's sanicle <i>Sanicula tracyi</i>	PDAP11Z0K0			G3	S3.2	4.2
15 Trinity shoulderband <i>Helminthoglypta talmadgei</i>	IMGASC2630			G1G3	S1S3	
16 Upland Douglas Fir Forest	CTT82420CA			G4	S3.1	
17 Wawona riffle beetle <i>Atractelmis wawona</i>	IICOL58010			G1G3	S1S2	
18 Yuma myotis <i>Myotis yumanensis</i>	AMACC01020			G5	S4?	
19 beaked tracyina <i>Tracyina rostrata</i>	PDAST9D010			G1G2	S1S2.2	1B.2
20 chinook salmon - California coastal ESU <i>Oncorhynchus tshawytscha</i>	AFCHA0205S	Threatened		G5	S1	
21 coast fawn lily <i>Erythronium revolutum</i>	PMLIL0U0F0			G4	S3	2.2
22 foothill yellow-legged frog <i>Rana boylei</i>	AAABH01050			G3	S2S3	SC
23 giant fawn lily <i>Erythronium oregonum</i>	PMLIL0U0C0			G5	S2.2	2.2

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Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
24 golden eagle <i>Aquila chrysaetos</i>	ABNKC22010			G5	S3	
25 long-beard lichen <i>Usnea longissima</i>	NLLEC5P420			G4	S4.2	
26 long-legged myotis <i>Myotis volans</i>	AMACC01110			G5	S4?	
27 maple-leaved checkerbloom <i>Sidalcea malachroides</i>	PDMAL110E0			G3G4	S3S4.2	4.2
28 northern clustered sedge <i>Carex arcta</i>	PMCYP030X0			G5	S1S2	2.2
29 northern red-legged frog <i>Rana aurora</i>	AAABH01021			G4T4	S2?	SC
30 osprey <i>Pandion haliaetus</i>	ABNKC01010			G5	S3	
31 robust monardella <i>Monardella villosa ssp. globosa</i>	PDLAM180P7			G5T2	S2.2	1B.2
32 running-pine <i>Lycopodium clavatum</i>	PPLYC01080			G5	S4.1	4.1
33 seacoast ragwort <i>Packera bolanderi var. bolanderi</i>	PDAST8H0H1			G4T4	S1.2	2.2
34 sharp-shinned hawk <i>Accipiter striatus</i>	ABNKC12020			G5	S3	
35 small groundcone <i>Boschniakia hookeri</i>	PDORO01010			G5	S1S2	2.3
36 southern torrent salamander <i>Rhyacotriton variegatus</i>	AAAAJ01020			G3G4	S2S3	SC
37 summer-run steelhead trout <i>Oncorhynchus mykiss irideus</i>	AFCHA0213B			G5T4Q	S2	SC
38 three-ranked hump moss <i>Meesia triquetra</i>	NBMUS4L020			G5	S3S4.2	4.2
39 western pond turtle <i>Actinemys marmorata</i>	ARAAD02030			G3G4	S3	SC
40 white-flowered rein orchid <i>Piperia candida</i>	PMORC1X050			G3	S3.2	1B.2