

EXHIBIT A
Shasta River Fish Passage – GID Dam Removal and Fish Screen Installation Project
STATEMENT OF WORK

Under direction of the Grantor, and under the following conditions and terms, the Grantee (Grenada Irrigation District) will:

1. The Grantee will improve fish passage and water quality for Chinook and coho salmon, and steelhead trout at the Huseman Ditch diversion on the Shasta River in Siskiyou County. The objective is to protect juvenile salmonids through screening a diversion intake and improve water quality by moving the diversion point down stream, allowing 11.9 cubic feet per second of cold water to remain in the stream for an additional 4.7 miles during the diversion season.
2. The Grantee will conduct work on the Shasta River at Township 44 North, Range 6 West, Section 23 of the Little Shasta USGS Quadrangle; Latitude 41.6329166 North and Longitude 122.4856166 West as depicted in Exhibit C, Project Location Map, as attached and made part of this agreement by this reference.
3. A new irrigation pumping station will be constructed on the Rice Ranch and will supply 11.9 cubic feet per second (cfs) of surface flow water from the Shasta River to the Huseman Ditch. The Huseman Ditch pump station shall consist of two pumps: one 4 cfs soft start pump and one 8 cfs variable frequency drive (VFD) pump. Work at this site includes connecting electrical power to the site; installing a self-cleaning fish screen; installing a wet well and pump system that will lift 11.9 cfs of water to the existing Huseman Ditch; a Department of Water Resources approved flow measurement gage or device; pipe to deliver the 11.9 cfs of water to the Huseman Ditch and a water control box at the pipe discharge to turn water into the ditch.
4. A self-cleaning, 8 foot diameter, “cone” screen will be fitted on the pump intake. The self-cleaning fish screen installed as part of this project be maintained by the water users. It will be the responsibility of the water users to assure daily proper operation of the screen, routinely clean the screen as needed, make any needed repairs in a timely fashion, and install/remove the screen seasonally for a minimum of 10 years.
5. The Grantee shall provide the Department of Fish and Game’s (Department) Project Manager with both an electronic and hard copy of the project plans and specifications prior to implementing work. The project will be constructed as designed by Vestra Resources and approved by the Department. Construction oversight will be provided by Vestra Resources. Any change in the design must be approved in writing by Vestra Resources and by the Department’s Project Manager and Hydraulic Engineer.
6. Fish screen design and construction will follow guidelines developed by DFG and NOAA Fisheries as described in Appendix S, June 2000 Version, Third Edition, *California Salmonid Stream Habitat Restoration Manual*, Flosi et al.
7. Work in flowing streams is restricted to July 1 through October 15. Actual project start and end dates, within this timeframe, are at the discretion of the Department. 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.

8. The Grantee shall notify the Department Project Manager a minimum of ten working days before the project site is de-watered 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 July 1 and October 15 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. The Grantee will not proceed with on-the-ground implementation until all necessary permits and consultations are secured and a notice to proceed is given by the Department's Project Manager. Project permits will be made available to the Grantee prior to implementation. Mitigation, avoidance, and other permitting requirements will be required during the implementation phase of the project and the Grantee will be responsible for compliance. The Department's Project Manager will monitor the project for permitting compliance and will have the authority to stop project work if permit requirements are not adhered to.
10. Upon completion of the project, the Grantee shall submit two (2) hard copies of a final written report and one (1) electronic, Microsoft Word compatible, on a CD. The report shall not be considered final until approved and accepted by the grant manager. 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;
 - A complete final Budget including: 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);
 - Total number of volunteer hours; dollar value of volunteer work; description of how the dollar value of the volunteer labor was determined; dollar value of non-volunteer donated labor; and description and dollar value of non-labor in-kind contributions to the project.
 - 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; and
 - Report measurable metrics for the project by responding to the restoration project metrics listed below.

Habitat Protection and Restoration Projects – Reporting Metrics as identified below.

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.

Fish Screening of Diversions (SC)

- Miles of stream treated;
- Number of fish screens installed/modified;
- Flow rate in cubic feet per second (cfs) of diversions treated;
- Acre-feet of water protected by screens;

Water Conservation Measures (WC, TW)

- Miles of stream protected for adequate flow;
- Flow rate in cfs of water conserved;
- Start date of return flow to the stream;
- End date of return flow to the stream;
- Number of days that flow was returned to the stream;
- Acre-feet of water conserved;

Water Measuring Devices (Instream and Water Diversion) (WD)

- Number of water flow gages installed.

11. 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 Shasta River Fish Passage – GID Dam Removal and Fish Screen Installation Project.

California Department of Fish and Game

Natural Diversity Database

Selected Elements by Common Name - Portrait

Possible Species within the Lake Shastine and Little Shasta and Surrounding Quads for:

Shasta River Fish Passage - GID Dam Removal and Fish Screen Installation

T43N R5W S6 and T44N R6W S25

Siskiyou County

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1 American badger <i>Taxidea taxus</i>	AMAJF04010			G5	S4	SC
2 Ashland thistle <i>Cirsium ciliolatum</i>	PDAST2E0P0		Endangered	G3	S1.2	2.1
3 Baker's globe mallow <i>Iliamna bakeri</i>	PDMAL0K010			G4	S3.2	4.2
4 Canadian buffalo-berry <i>Shepherdia canadensis</i>	PDELG03020			G5	S1.2	2.2
5 Cascade stonecrop <i>Sedum divergens</i>	PDCRA0A0B0			G5?	S1.3	2.3
6 Cascades frog <i>Rana cascadae</i>	AAABH01060			G3G4	S3	SC
7 Darlingtonia Seep	CTT51120CA			G4	S3.2	
8 Greene's mariposa-lily <i>Calochortus greenei</i>	PMLIL0D0H0			G3	S3.2	1B.2
9 Klamath Spring Stream	CARB2325CA			G?	SNR	
10 Mt. Eddy draba <i>Draba carnosula</i>	PDBRA112T0			G2	S2.2	1B.3
11 Oregon polemonium <i>Polemonium carneum</i>	PDPLM0E050			G4	S1	2.2
12 Pacific fisher <i>Martes pennanti (pacifica) DPS</i>	AMAJF01021	Candidate	unknown code...	G5	S2S3	SC
13 Peck's lomatium <i>Lomatium peckianum</i>	PDAP11B1G0			G4	S1.2	2.2
14 Pickering's ivesia <i>Ivesia pickeringii</i>	PDROS0X0D0			G2	S2.2	1B.2
15 Scott Mountain bedstraw <i>Galium serpticum ssp. scotticum</i>	PDRUB0N1Y6			G4G5T2	S2.2	1B.2
16 Scott Valley phacelia <i>Phacelia greenei</i>	PDHYD0C1V0			G2	S2.2	1B.2
17 Shasta chaenactis <i>Chaenactis suffrutescens</i>	PDAST200H0			G3	S3	1B.3
18 Shasta orthocarpus <i>Orthocarpus pachystachyus</i>	PDSCR1H0L0			G1	S1.1	1B.1
19 Sierra Nevada red fox <i>Vulpes vulpes necator</i>	AMAJA03012		Threatened	G5T3	S1	
20 Siskiyou hesperian <i>Vespericola sierranus</i>	IMGASA4080			G2	S1S2	
21 Siskiyou shoulderband <i>Monadenia chaceana</i>	IMGASC7150			G2	S2	
22 Swainson's hawk <i>Buteo swainsoni</i>	ABNKC19070		Threatened	G5	S2	
23 Townsend's big-eared bat <i>Corynorhinus townsendii</i>	AMACC08010			G4	S2S3	SC

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Siskiyou County

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
24 Waldo daisy <i>Erigeron bloomeri</i> var. <i>nudatus</i>	PDAST3M0M2			G5T4	S2?	2.3
25 Yreka phlox <i>Phlox hirsuta</i>	PDPLM0D100	Endangered	Endangered	G1	S1.1	1B.2
26 alkali hymenoxys <i>Hymenoxys lemmonii</i>	PDAST530C0			G3?	S2.2	2.2
27 bald eagle <i>Haliaeetus leucocephalus</i>	ABNKC10010	Delisted	Endangered	G5	S2	
28 bank swallow <i>Riparia riparia</i>	ABPAU08010		Threatened	G5	S2S3	
29 blue alpine phacelia <i>Phacelia sericea</i> var. <i>ciliosa</i>	PDHYD0C4A1			G5T5	S1.3?	2.3
30 brittle prickly-pear <i>Opuntia fragilis</i>	PDCAC0D0H0			G4G5	SH	2.1
31 broad-nerved hump moss <i>Meesia uliginosa</i>	NBMUS4L030			G4	S2	2.2
32 coast fawn lily <i>Erythronium revolutum</i>	PMLIL0U0F0			G4	S3	2.2
33 golden eagle <i>Aquila chrysaetos</i>	ABNKC22010			G5	S3	
34 gray-headed pika <i>Ochotona princeps schisticeps</i>	AMAEA0102H			G5T2T4	S2S4	
35 great blue heron <i>Ardea herodias</i>	ABNGA04010			G5	S4	
36 greater sandhill crane <i>Grus canadensis tabida</i>	ABNMK01014		Threatened	G5T4	S2	
37 northern goshawk <i>Accipiter gentilis</i>	ABNKC12060			G5	S3	SC
38 pallid bird's-beak <i>Cordylanthus tenuis</i> ssp. <i>pallescens</i>	PDSCR0J0S3			G4G5T1	S1.1	1B.2
39 pendulous bulrush <i>Scirpus pendulus</i>	PMCYP0Q160			G5	S1.2	2.2
40 prairie falcon <i>Falco mexicanus</i>	ABNKD06090			G5	S3	
41 silver-haired bat <i>Lasionycteris noctivagans</i>	AMACC02010			G5	S3S4	
42 single-flowered mariposa-lily <i>Calochortus monanthus</i>	PMLIL0D0W0			GH	SH	1A
43 slender-stemmed androsace <i>Androsace filiformis</i>	PDPRI02040			G4	S1?	2.3
44 subalpine aster <i>Eurybia merita</i>	PDASTE030			G5	S1.3	2.3
45 western pond turtle <i>Actinemys marmorata</i>	ARAAD02030			G3G4	S3	SC

California Department of Fish and Game

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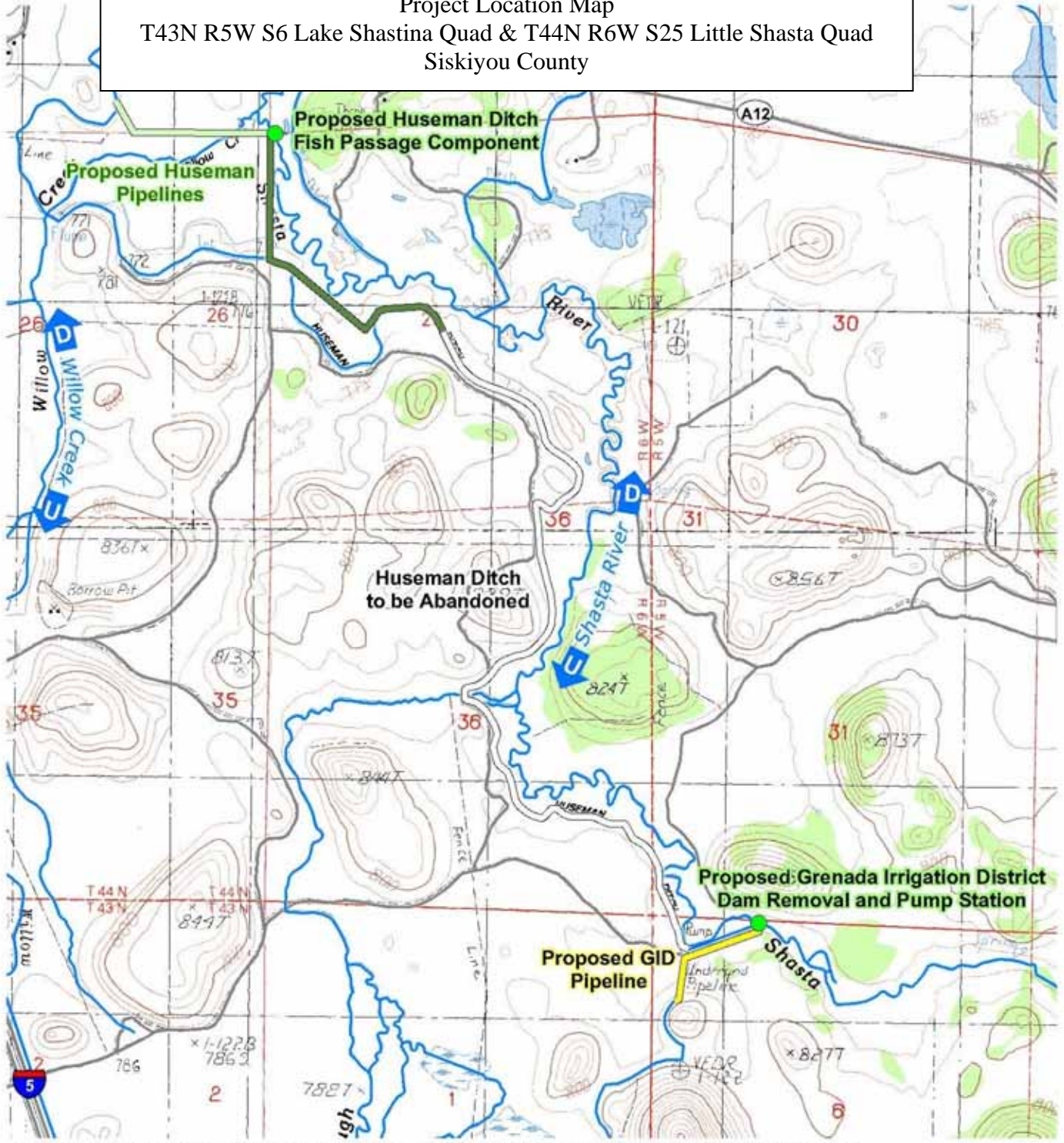
Shasta River Fish Passage - GID Dam Removal and Fish Screen Installation

T43N R5W S6 and T44N R6W S25

Siskiyou County

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
46 western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	ABNRB02022	Candidate	Endangered	G5T3Q	S1	
47 willow flycatcher <i>Empidonax traillii</i>	ABPAE33040		Endangered	G5	S1S2	
48 woolly balsamroot <i>Balsamorhiza lanata</i>	PDAST11047			G3	S3	1B.2
49 woolly meadowfoam <i>Limnanthes floccosa ssp. floccosa</i>	PDLIM02043			G4T4	S3.2	4.2

Exhibit B
 Shasta River Fish Passage - GID Dam Removal and Fish Screen Installation
 Project Location Map
 T43N R5W S6 Lake Shastina Quad & T44N R6W S25 Little Shasta Quad
 Siskiyou County



Data Sources: USGS 7.5 Minute Topographic Map, NHD Streams, 2007. ESRI County Boundaries and Roads, 2008.

Legend

- Pump Stations
- Abandoned Ditch
- Streams
- Streets
- Proposed Pipelines**
- GID
- Huseman
- Huseman

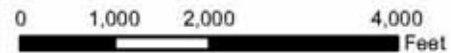
Reference Map



GID and Huseman Fish Passage Improvements

Project Location Topographic Map

Scale - 1:24,000



CA State Plane, Zone 1	NAD 83	horiz. units: feet
northwest hydraulic consultants	project no. 2009-76	April 2010