

EXHIBIT A
Mattole Flow Program: Water Storage and Forbearance Phase II
SCOPE OF WORK

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

1. Improve summer conditions for coho salmon and steelhead trout in the upper Mattole River, in Humboldt and Mendocino counties, by reducing water withdrawals by residents during the dry season. The project will allow an estimated 378,000 gallons of water to remain in the river during the dry season to be available for rearing coho salmon and steelhead trout.
2. The project area is the upper Mattole River Watershed. The project reach begins at the confluence of Bridge Creek and the Mattole River and extends upstream to the confluence of Ancestor Creek and the Mattole River. It is located in Township 5S, Range 2E, Sections 4, 5, 6, 8, 9, 15, 16, 22, 26, 27, 33, 34 and 35; Township 4S, Range 2E, Sections 32 and 33; Township 24N, Range 19W, Section 3 of the Briceland and Bear Harbor 7.5 minute Quadrangles in Humboldt and Mendocino Counties. See Exhibit B, Project Location Map, which is attached and made part of this agreement by this reference.
3. Sanctuary Forest will complete the following tasks:
 - Conduct participant eligibility screening which will include:
 - research the landowner's property title to confirm the validity of water rights and to ensure residences were constructed with all required county building permits and meet current building codes;
 - evaluate existing water systems to determine if they can be upgraded for high capacity storage
 - Conduct a site visit at each potential tank site to include the grantee and DFG grant manager. Each potential tank site must be approved by the grant manager prior to tank installation.
 - Finalize and record a 15 year renewable forbearance agreement for each of the properties where tanks will be installed with specific terms for legal conveyance of water rights.
 - Acquire all necessary permitting to install and operate large capacity water storage tanks as part of a seasonal water management program.
 - Ensure water storage tanks funded under this grant are installed for residences that were constructed with all required county building permits and meet current building codes.
 - Finalize water management plans outlining the best management practices for use of the water storage systems on each of the properties where tanks will be installed. The documents will comply with the forbearance agreement.
 - Install 10 large capacity (50,000 gallons) water tanks. Installation will include the following:

- site preparation;
 - tank assembly;
 - trenching and piping from tank to house;
 - pressure pump and small tank installation if necessary;
 - plumbing and electrical hookups;
 - meter installation;
 - DFG/NOAA compliant fish screen installation;
 - filtration system installation.
 - Conduct landowner compliance monitoring including a minimum of two visits per year to tank properties. Spring monitoring will ensure that water system maintenance and conservation systems are in place for the low flow months and that tanks are properly topped prior to the dry season. Fall monitoring will determine if objectives are being met by reviewing water meter records and pump motor records.
4. All fish screening projects 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.
 5. Work in flowing streams is restricted to June 15 through October 15. Actual project start and end dates, within this timeframe, are at the discretion of the Department of Fish and Game.
 6. The grantee will not proceed with on the ground implementation until all necessary permits and consultations are secured.
 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. 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 location using U.S.G.S. 7.5 minute topographical map or appropriately scaled topographical map
 - implementation start and end dates;
 - a description of the progress on the statement of work deliverables
 - as built project description
 - amount of water returned to the stream (cfs)
 - percentage of the project completed to date;
 - projected start and end dates for work to be implemented the following season;

9. 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 or appropriately scaled topographical map
 - Geospatial reference/location (lat/long is preferred – defined as point, line, or polygon)
 - Project start and end dates
 - 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 each treatment site
 - 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 (HR) (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 Flow Projects (WC, WD, WP)

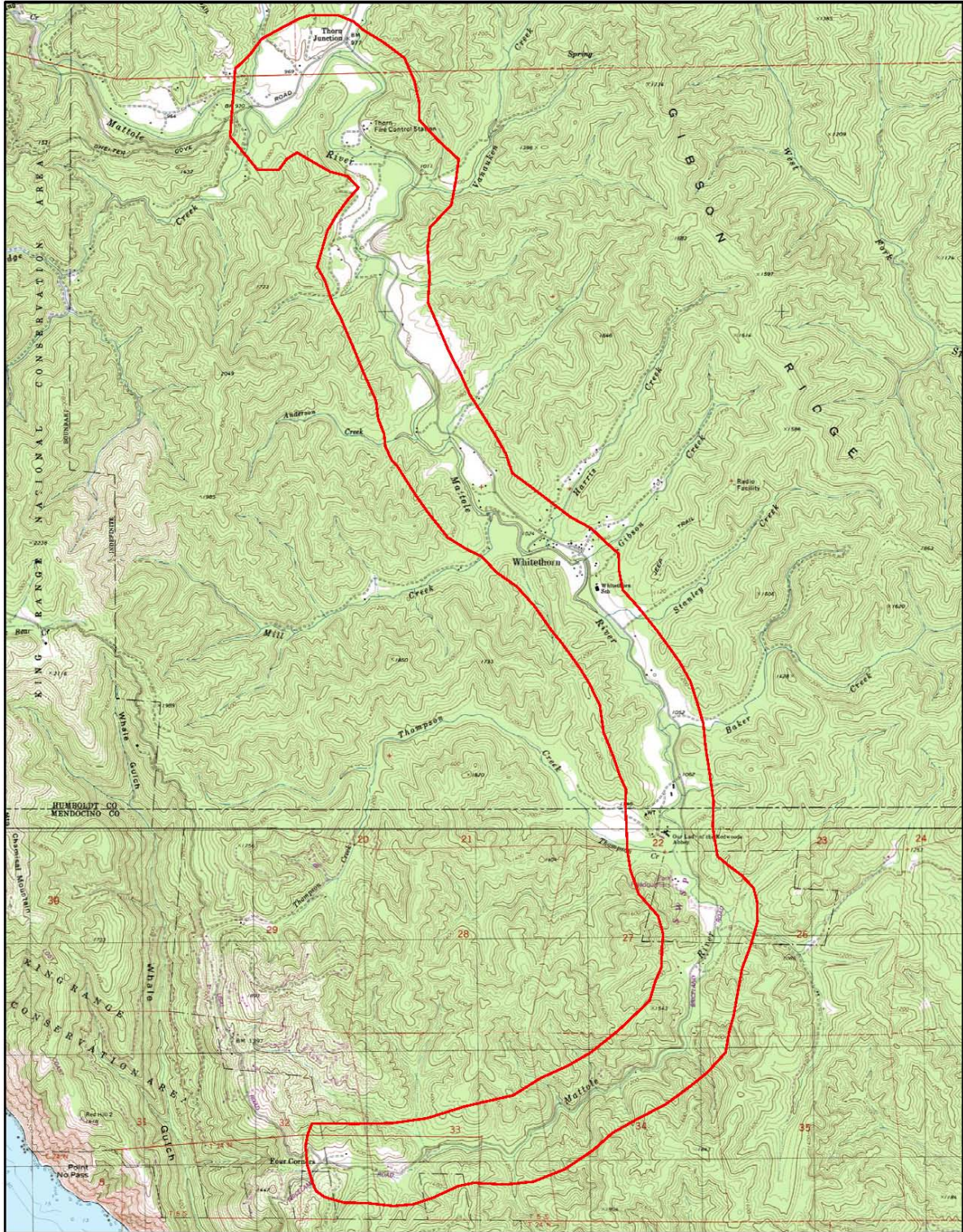
- Miles of stream protected for adequate flow
- Flow rate in cfs of water conserved
- Start date of return flow to the stream
- End date of return flow to the stream
- Number of days that flow was returned to the stream
- Acre feet of water conserved
- Number of flow gages installed

Fish Screening (SC)

- Miles of stream treated
- Number of fish screens installed / modified
- Flow rate in cfs of diversions treated
- Acre feet of water protected by screens

10. 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 Mattole Flow Program: Water Storage and Forbearance Phase II.

Exhibit B
Mattole Flow Program: Water Storage and Forbearance Phase II
Project Location Map – T5S, R2E, S 4, 5, 6, 8, 9, 15, 16, 22, 26, 27, 33, 34 and 35; T4S,
R2E, S 32 and 33; T24N, R19W, S 3
Briceland and Bear Harbor Quads – Humboldt and Mendocino Counties



California Department of Fish and Game

Natural Diversity Database

Selected Elements by Common Name - Portrait

Possible Species within the Briceland, Bear Harbor and Surrounding Quads for:

Mattole Flow Program: Water Storage and Forbearance Phase II

T5S, R2E, S 4, 5, 6, 8, 9, 15, 16, 22, 26, 27, 33, 34 and 35; T4S, R2E, S 32 and 33; T24N, R19W, S 3

Humboldt and Mendocino Counties

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 milk-vetch <i>Astragalus agnicidus</i>	PDFAB0F080		Endangered	G2	S2.1	1B.1
5 Mendocino Coast paintbrush <i>Castilleja mendocinensis</i>	PDSCR0D3N0			G2	S2.2	1B.2
6 Oregon coast paintbrush <i>Castilleja affinis ssp. litoralis</i>	PDSCR0D012			G4G5T4	S2.2	2.2
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 Point Reyes horkelia <i>Horkelia marinensis</i>	PDROS0W0B0			G2	S2.2	1B.2
11 Sonoma tree vole <i>Arborimus pomo</i>	AMAFF23030			G3	S3	SC
12 Upland Douglas Fir Forest	CTT82420CA			G4	S3.1	
13 Whitney's farewell-to-spring <i>Clarkia amoena ssp. whitneyi</i>	PDONA05025			G5T2	S2.1	1B.1
14 coast fawn lily <i>Erythronium revolutum</i>	PMLIL0U0F0			G4	S3	2.2
15 coho salmon - central California coast ESU <i>Oncorhynchus kisutch</i>	AFCHA02034	Endangered	Endangered	G4	S2?	
16 foothill yellow-legged frog <i>Rana boylei</i>	AAABH01050			G3	S2S3	SC
17 golden eagle <i>Aquila chrysaetos</i>	ABNKC22010			G5	S3	
18 leafy reed grass <i>Calamagrostis foliosa</i>	PMPOA170C0		Rare	G3	S3.2	4.2
19 leafy-stemmed mitrewort <i>Mitella caulescens</i>	PDSAX0N020			G5	S4.2	4.2
20 long-beard lichen <i>Usnea longissima</i>	NLLEC5P420			G4	S4.2	
21 maple-leaved checkerbloom <i>Sidalcea malachroides</i>	PDMAL110E0			G3G4	S3S4.2	4.2
22 marbled murrelet <i>Brachyramphus marmoratus</i>	ABNNN06010	Threatened	Endangered	G3G4	S1	

California Department of Fish and Game

Natural Diversity Database

Selected Elements by Common Name - Portrait

Possible Species within the Briceland, Bear Harbor and Surrounding Quads for:

Mattole Flow Program: Water Storage and Forbearance Phase II

T5S, R2E, S 4, 5, 6, 8, 9, 15, 16, 22, 26, 27, 33, 34 and 35; T4S, R2E, S 32 and 33; T24N, R19W, S 3
Humboldt and Mendocino Counties

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
23 marsh pea <i>Lathyrus palustris</i>	PDFAB250P0			G5	S2S3	2.2
24 mountain shoulderband <i>Helminthoglypta arrosa monticola</i>	IMGASC2035			G2G3T1	S1	
25 northern spotted owl <i>Strix occidentalis caurina</i>	ABNSB12011	Threatened		G3T3	S2S3	SC
26 osprey <i>Pandion haliaetus</i>	ABNKC01010			G5	S3	
27 pallid bat <i>Antrozous pallidus</i>	AMACC10010			G5	S3	SC
28 robust monardella <i>Monardella villosa ssp. globosa</i>	PDLAM180P7			G5T2	S2.2	1B.2
29 small groundcone <i>Boschniakia hookeri</i>	PDORO01010			G5	S1S2	2.3
30 southern torrent salamander <i>Rhyacotriton variegatus</i>	AAAAJ01020			G3G4	S2S3	SC
31 summer-run steelhead trout <i>Oncorhynchus mykiss irideus</i>	AFCHA0213B			G5T4Q	S2	SC
32 western pond turtle <i>Actinemys marmorata</i>	ARAAD02030			G3G4	S3	SC
33 white-flowered rein orchid <i>Piperia candida</i>	PMORC1X050			G3	S3.2	1B.2
34 willow flycatcher <i>Empidonax traillii</i>	ABPAE33040		Endangered	G5	S1S2	