Exhibit A
San Geronimo Upland Restoration Project
Statement of Work

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

1. Reduce sediment contributions to the San Geronimo Creek watershed by implementing 36 road upgrades and erosion-control measures within the Giacomini Open Space Preserve.

2. Work will be conducted in the Montezuma Creek and Creamery Creek drainages, tributaries to San Geronimo Creek in Marin County. The project is located in Township 2N, Range 7W, of the San Geronimo 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. The following includes all road drainage, decommissioning and road to trail conversion treatments for this project:

   Upgrade, convert or decommission 2.22 miles of road thereby saving 4,055 cubic yards of sediment from delivery to Montezuma Creek and Creamery Creek . The Grantee shall upgrade, convert to trail or decommission 36 sites as necessary to disperse road runoff and decrease sedimentation.

   Stream-crossing treatments:
   Construct a total of 6 critical dips to prevent possible diversions at streams with diversion potential; and
   Install 3 culverts where they are currently absent,
   Replace 7 undersized culverts,
   Construct 17 armored fill crossings that will require 161 yds3 of rip rap,
   Permanently decommission 3 stream crossings
   Install 1 trail bridge

   Road Treatments:
   Construct 15 cross-road drains,
   Clean or cut 1,045 feet of drainage ditch,
   Outslope the road and remove the ditch at 9 locations totaling 2,510 feet
   Outslope the road and retain the ditch in 1 location for a total of 486 feet
   Crown the road in 4 locations for a total of 1,710 feet
   Install 65 rolling dips
   Install or replace 7 ditch relief culverts.

   Miscellaneous Treatments:
   The application of 280 cubic yds of rock armor on fillslopes and at inboard ditch

headcuts,
The application of 25 cubic yds of road rock
The excavation and removal of 1,749 yds3 of unstable fill primarily from landslide and stream crossings.

Approximately 1,749 cubic yards of fill slope and stream crossing fill from stream crossings and landing/slide/fillslope sites will be excavated and stored in stable locations. The following treatments will be implemented where appropriate:

- Complete excavation of stream crossing fills, including 100 year flood channel bottom widths and 2:1 or otherwise stable side slopes
- Excavation of unstable or potential unstable sidecast materials that could otherwise fail and deliver sediment to a stream
- Road surface treatments (ripping, outsloping and/or cross draining) to disperse and reduce surface runoff
- 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. The following treatments will be implemented where appropriate:
    - Upgrading stream crossings installing culverts sized for the 100-year flood flow, including sufficient capacity for expected wood and sediment; eliminate diversion potential by installing a critical dip; replacing culverted fills with hardened fords or armored fills, etc
    - Excavation of unstable fill slopes
    - Dispersion of road runoff and disconnecting road surface runoff from streams, including but not limited to, berm removal, road surface shaping and installation of ditch relief culverts
    - Seed and mulch 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

5. 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.

6. The Grantee shall notify the Grant Manager a minimum of two weeks 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 Restoration Manual, Third Edition, Volume II, Part XI, January 2004.

8. Annually and 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 November 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 road log including sediment savings per site
   - Report measurable metrics for the project by responding to the restoration project metrics listed below.

Habitat Protection and Restoration Projects– Reporting Metrics (HI, HR, HS) (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)
- Number of acres treated.
- Number of miles of road decommissioned or upgraded (e.g., treated).
- Number of cubic yards of sediment saved from entering the steam per site.

Water Quality Projects

- Water quality limitations addressed by the project (e.g. 303(d), TMDL)

9. 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 *San Geronimo Upland Restoration* project.

California Department of Fish and Game
Natural Diversity Database
Selected Elements by Common Name - Portrait
Possible species within the San Geronimo and surrounding quads for the San Geronimo Creek Upland Habitat Restoration Project

	Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1	A leaf-cutter bee *Trachusa gummifera*	IIHYM80010			G1	S1	
2	American badger *Taxidea taxus*	AMAJF04010			G5	S4	SC
3	Baker's larkspur *Delphinium bakeri*	PDRAN0B050	Endangered	Endangered	G1	S1.1	1B.1
4	Baker's navarretia *Navarretia leucocephala ssp. bakeri*	PDPLM0C0E1			G4T2	S2.1	1B.1
5	California beaked-rush *Rhynchospora californica*	PMCYP0N060			G1	S1.1	1B.1
6	California black rail *Laterallus jamaicensis coturniculus*	ABNME03041		Threatened	G4T1	S1	
7	California clapper rail *Rallus longirostris obsoletus*	ABNME05016	Endangered	Endangered	G5T1	S1	
8	California freshwater shrimp *Syncaris pacifica*	ICMAL27010	Endangered	Endangered	G1	S1	
9	California red-legged frog *Rana aurora draytonii*	AAABH01022	Threatened		G4T2T3	S2S3	SC
10	Coastal Brackish Marsh	CTT52200CA			G2	S2.1	
11	Coastal Terrace Prairie	CTT41100CA			G2	S2.1	
12	Contra Costa goldfields *Lasthenia conjugens*	PDAST5L040	Endangered		G1	S1.1	1B.1
13	Diablo helianthella *Helianthella castanea*	PDAST4M020			G3	S3.2	1B.2
14	Franciscan onion *Allium peninsulare var. franciscanum*	PMLIL021R1			G5T2	S2.2	1B.2
15	Franciscan thistle *Cirsium andrewsii*	PDAST2E050			G2	S2.2	1B.2
16	Humboldt Bay owl's-clover *Castilleja ambigua ssp. humboldtiensis*	PDSCR0D402			G4T2	S2.2	1B.2
17	Lyngbye's sedge *Carex lyngbyei*	PMCYP037Y0			G5	S2.2	2.2
18	Marin County navarretia *Navarretia rosulata*	PDPLM0C0Z0			G2?	S2?	1B.2
19	Marin blind harvestman *Calicina diminua*	ILARAU8040			G1	S1	
20	Marin checker lily *Fritillaria lanceolata var. tristulis*	PMLIL0V0P1			G5T1	S1.1	1B.1
21	Marin checkerbloom *Sidalcea hickmanii ssp. viridis*	PDMAL110A4			G3T2	S2.2?	1B.3
22	Marin elfin butterfly *Callophrys mossii marinensis*	IILEPE2207			G4T1	S1	
23	Marin hesperian *Vespericola marinensis*	IMGASA4140			G2G3	S2S3	
24	Marin knotweed *Polygonum marinense*	PDPGN0L1C0			G1Q	S1.1	3.1

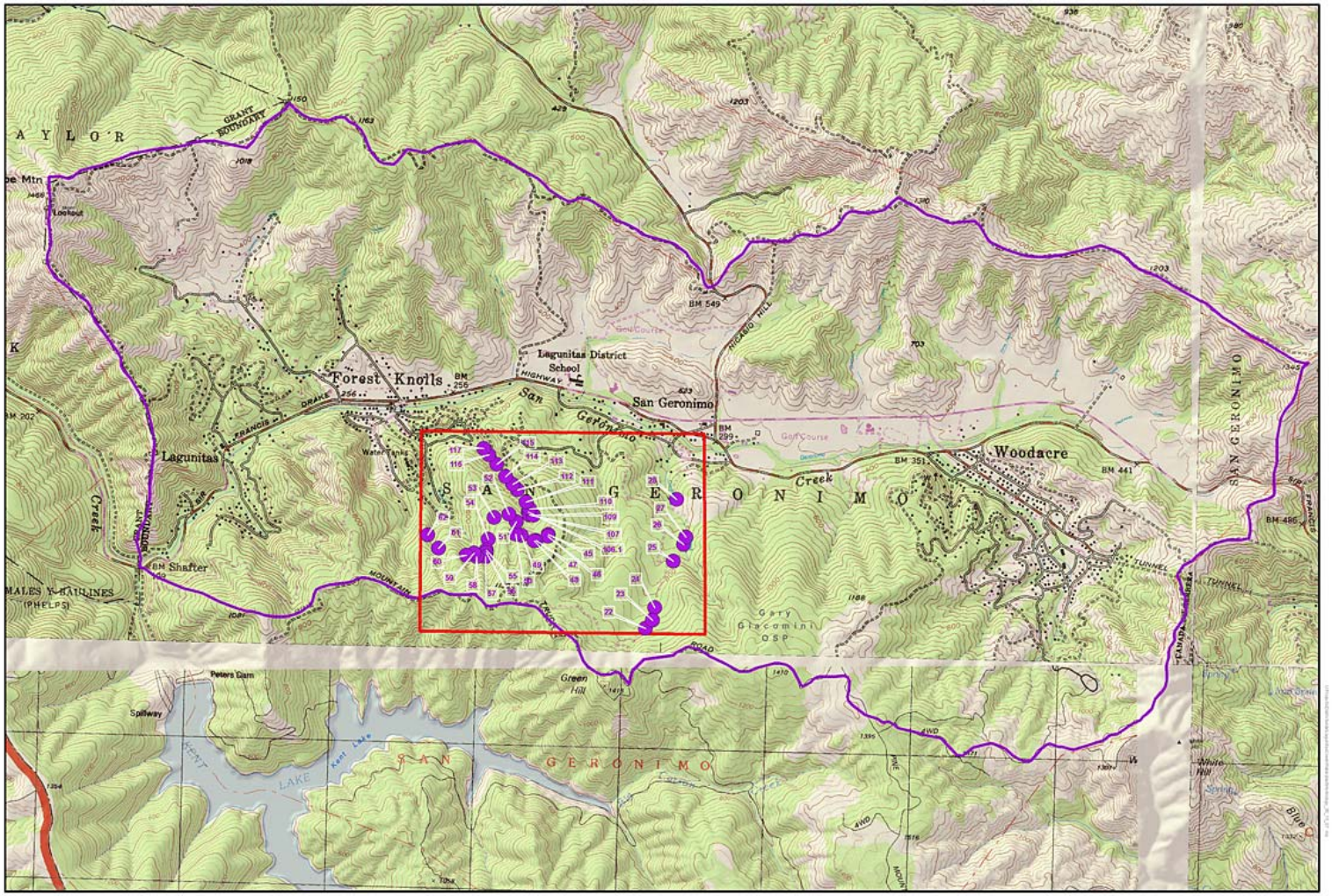
	Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
25	Marin manzanita *Arctostaphylos virgata*	PDERI041K0			G2	S2.2	1B.2
26	Marin western flax *Hesperolinon congestum*	PDLIN01060	Threatened	Threatened	G2	S2.1	1B.1
27	Mason's ceanothus *Ceanothus masonii*	PDRHA04200		Rare	G1	S1.3	1B.2
28	Mason's lilaeopsis *Lilaeopsis masonii*	PDAPI19030		Rare	G3	S3.1	1B.1
29	Mt. Tamalpais jewel-flower *Streptanthus glandulosus ssp. pulchellus*	PDBRA2G0J2			G4T1	S1.2	1B.2
30	Mt. Tamalpais manzanita *Arctostaphylos hookeri ssp. montana*	PDERI040J5			G3T2	S2.2	1B.3
31	Mt. Tamalpais thistle *Cirsium hydrophilum var. vaseyi*	PDAST2E1G2			G1T1	S1.2	1B.2
32	Mt. Vision ceanothus *Ceanothus gloriosus var. porrectus*	PDRHA040F7			G3G4T2	S2.2	1B.3
33	Napa false indigo *Amorpha californica var. napensis*	PDFAB08012			G4T2	S2.2	1B.2
34	North Coast phacelia *Phacelia insularis var. continentis*	PDHYD0C2B1			G2T1	S1.2	1B.2
35	North Coast semaphore grass *Pleuropogon hooverianus*	PMPOA4Y070		Threatened	G1	S1.1	1B.1
36	Northern Coastal Salt Marsh	CTT52110CA			G3	S3.2	
37	Northern Maritime Chaparral	CTT37C10CA			G1	S1.2	
38	Northern Vernal Pool	CTT44100CA			G2	S2.1	
39	Petaluma popcorn-flower *Plagiobothrys mollis var. vestitus*	PDBOR0V0Q2			G4?TX	SX	1A
40	Point Reyes bird's-beak *Cordylanthus maritimus ssp. palustris*	PDSCR0J0C3			G4?T2	S2.2	1B.2
41	Point Reyes checkerbloom *Sidalcea calycosa ssp. rhizomata*	PDMAL11012			G5T2	S2.2	1B.2
42	Point Reyes horkelia *Horkelia marinensis*	PDROS0W0B0			G2	S2.2	1B.2
43	Point Reyes mountain beaver *Aplodontia rufa phaea*	AMAFA01012			G5T2	S2	SC
44	Ricksecker's water scavenger beetle *Hydrochara ricksecker*i	IICOL5V010			G1G2	S1S2	
45	Sacramento splittail *Pogonichthys macrolepidotus*	AFCJB34020			G2	S2	SC
46	San Bruno elfin butterfly *Callophrys mossii bayensis*	IILEPE2202	Endangered		G4T1	S1	
47	San Francisco Bay spineflower *Chorizanthe cuspidata var. cuspidata*	PDPGN04081			G2T2	S2.2	1B.2
48	San Francisco forktail damselfly *Ischnura gemina*	IIODO72010			G2	S2	

	Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
49	San Pablo song sparrow *Melospiza melodia samuelis*	ABPBXA301W			G5T2?	S2?	SC
50	Santa Cruz microseris *Stebbinsoseris decipiens*	PDAST6E050			G2	S2.2	1B.2
51	Santa Cruz tarplant *Holocarpha macradenia*	PDAST4X020	Threatened	Endangered	G1	S1.1	1B.1
52	Serpentine Bunchgrass	CTT42130CA			G2	S2.2	
53	Sonoma alopecurus *Alopecurus aequalis var. sonomensis*	PMPOA07012	Endangered		G5T1Q	S1.1	1B.1
54	Sonoma spineflower *Chorizanthe valida*	PDPGN040V0	Endangered	Endangered	G1	S1.1	1B.1
55	Tamalpais jewel-flower *Streptanthus batrachopus*	PDBRA2G050			G1	S1.2	1B.3
56	Tamalpais lessingia *Lessingia micradenia var. micradenia*	PDAST5S063			G2T1	S1.1	1B.2
57	Tamalpais oak *Quercus parvula var. tamalpaisensis*	PDFAG051Q3			G4T1	S1.3	1B.3
58	Tiburon buckwheat *Eriogonum luteolum var. caninum*	PDPGN083S1			G5T3	S3.2	1B.2
59	Tiburon paintbrush *Castilleja affinis ssp. neglecta*	PDSCR0D013	Endangered	Threatened	G4G5T1	S1.2	1B.2
60	Tomales isopod *Caecidotea tomalensis*	ICMAL01220			G2	S2	
61	Tomales roach *Lavinia symmetricus ssp. 2*	AFCJB19022			G5T2T3	S2S3	SC
62	Townsend's big-eared bat *Corynorhinus townsendii*	AMACC08010			G4	S2S3	SC
63	Ubick's gnaphosid spider *Talanites ubicki*	ILARA98030			G1	S1	
64	alkali milk-vetch *Astragalus tener var. tener*	PDFAB0F8R1			G1T1	S1.1	1B.2
65	bent-flowered fiddleneck *Amsinckia lunaris*	PDBOR01070			G2	S2.2	1B.2
66	black swift *Cypseloides niger*	ABNUA01010			G4	S2	SC
67	bumblebee scarab beetle *Lichnanthe ursina*	IICOL67020			G2	S2	
68	burrowing owl *Athene cunicularia*	ABNSB10010			G4	S2	SC
69	coast lily *Lilium maritimum*	PMLIL1A0C0			G2	S2.1	1B.1
70	coast yellow leptosiphon *Leptosiphon croceus*	PDPLM09170			G1	S1.1	1B.1
71	coastal marsh milk-vetch *Astragalus pycnostachyus var. pycnostachyus*	PDFAB0F7B2			G2T2	S2.2	1B.2

	Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
72	coastal triquetrella *Triquetrella californica*	NBMUS7S010			G1	S1.2	1B.2
73	coho salmon - central California coast ESU *Oncorhynchus kisutch*	AFCHA02034	Endangered	Endangered	G4	S2?	
74	dune gilia *Gilia capitata ssp. chamissonis*	PDPLM040B3			G5T2	S2.1	1B.1
75	elongate copper moss *Mielichhoferia elongata*	NBMUS4Q022			G4?	S2.2	2.2
76	foothill yellow-legged frog *Rana boylii*	AAABH01050			G3	S2S3	SC
77	fragrant fritillary *Fritillaria liliacea*	PMLIL0V0C0			G2	S2.2	1B.2
78	great blue heron *Ardea herodias*	ABNGA04010			G5	S4	
79	great egret *Ardea alba*	ABNGA04040			G5	S4	
80	hairless popcorn-flower *Plagiobothrys glaber*	PDBOR0V0B0			GH	SH	1A
81	hoary bat *Lasiurus cinereus*	AMACC05030			G5	S4?	
82	marsh microseris *Microseris paludosa*	PDAST6E0D0			G2	S2.2	1B.2
83	mimic tryonia (=California brackishwater snail) *Tryonia imitator*	IMGASJ7040			G2G3	S2S3	
84	minute pocket moss *Fissidens pauperculus*	NBMUS2W0U0			G3?	S1.2	1B.2
85	monarch butterfly *Danaus plexippus*	IILEPP2010			G5	S3	
86	northwestern pond turtle *Actinemys marmorata marmorata*	ARAAD02031			G3G4T3	S3	SC
87	osprey *Pandion haliaetus*	ABNKC01010			G5	S3	
88	pallid bat *Antrozous pallidus*	AMACC10010			G5	S3	SC
89	pink sand-verbena *Abronia umbellata ssp. breviflora*	PDNYC010N2			G4G5T2	S2.1	1B.1
90	robust walker *Pomatiopsis binneyi*	IMGASJ9010			G1	S1	
91	round-leaved filaree *California macrophylla*	PDGER01070			G3	S3.1	1B.1
92	salt-marsh harvest mouse *Reithrodontomys raviventris*	AMAFF02040	Endangered	Endangered	G1G2	S1S2	
93	saltmarsh common yellowthroat *Geothlypis trichas sinuosa*	ABPBX1201A			G5T2	S2	SC
94	sandy beach tiger beetle *Cicindela hirticollis gravida*	IICOL02101			G5T2	S1	

	Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
95	silver-haired bat *Lasionycteris noctivagans*	AMACC02010			G5	S3S4	
96	small groundcone *Boschniakia hookeri*	PDORO01010			G5	S1S2	2.3
97	soft bird's-beak *Cordylanthus mollis ssp. mollis*	PDSCR0J0D2	Endangered	Rare	G2T1	S1.1	1B.2
98	steelhead - Central California Coast ESU *Oncorhynchus mykiss irideus*	AFCHA0209G	Threatened		G5T2Q	S2	
99	swamp harebell *Campanula californica*	PDCAM02060			G3	S3.2	1B.2
100	thin-lobed horkelia *Horkelia tenuiloba*	PDROS0W0E0			G2	S2.2	1B.2
101	tidewater goby *Eucyclogobius newberryi*	AFCQN04010	Endangered		G3	S2S3	SC
102	two-fork clover *Trifolium amoenum*	PDFAB40040	Endangered		G1	S1.1	1B.1
103	western leatherwood *Dirca occidentalis*	PDTHY03010			G2G3	S2S3	1B.2
104	western pond turtle *Actinemys marmorata*	ARAAD02030			G3G4	S3	SC
105	western red bat *Lasiurus blossevillii*	AMACC05060			G5	S3?	SC
106	western snowy plover *Charadrius alexandrinus nivosus*	ABNNB03031	Threatened		G4T3	S2	SC
107	white-rayed pentachaeta *Pentachaeta bellidiflora*	PDAST6X030	Endangered	Endangered	G1	S1.1	1B.1
108	white-tailed kite *Elanus leucurus*	ABNKC06010			G5	S3	
109	woolly-headed gilia *Gilia capitata ssp. tomentosa*	PDPLM040B9			G5T1	S1.1	1B.1
110	yellow larkspur *Delphinium luteum*	PDRAN0B0Z0	Endangered	Rare	G1	S1.1	1B.1
111	yellow warbler *Dendroica petechia brewsteri*	ABPBX03018			G5T3?	S2	SC

Project location Map



San Geronimo Creek Upland Habitat Restoration Project

Attachment C: Project Location
USGS Quad: San Geronimo
Grantee: Marin County Open Space District
Stream: San Geronimo Creek

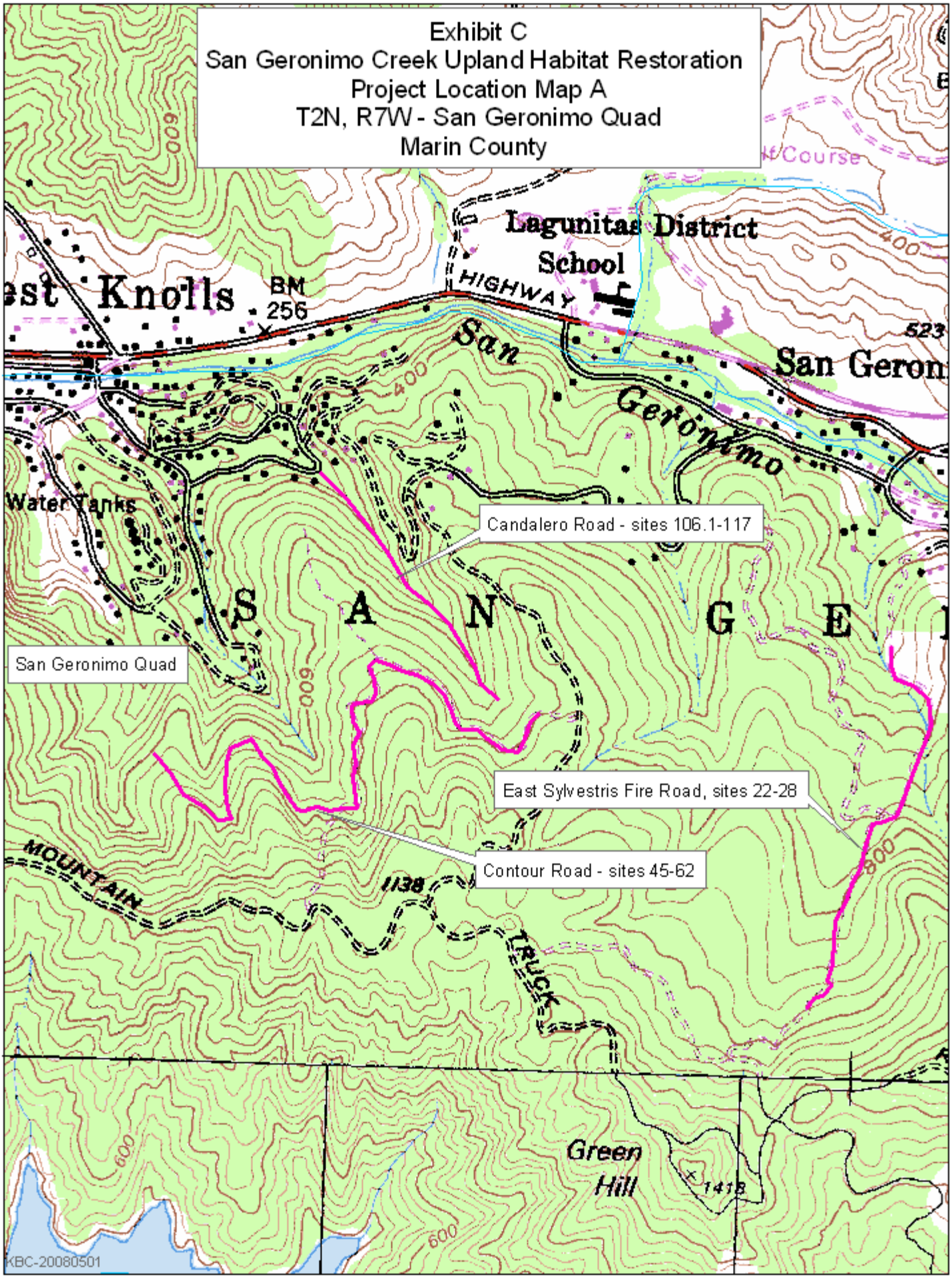


Exhibit C
San Geronimo Creek Upland Habitat Restoration
Project Location Map A
T2N, R7W - San Geronimo Quad
Marin County
Lagunitas District School
HIGHWAY
BM 256
San Geronimo
Water Tanks
Candalero Road - sites 106.1-117
San Geronimo Quad
East Sylvestris Fire Road, sites 22-28
Contour Road - sites 45-62
MOUNTAIN
TRUCK
Green Hill
1418
KBC-20080501
0
0.125
0.25
0.5
0.75
1
Miles