

**Introduction:**

This project, implemented by the Eel River Watershed Improvement Group (ERWIG), is designed to cleanup six trespass cannabis cultivation sites located in the headwaters of South Fork Usal Creek. All cultivation infrastructure, toxins, and trash will be removed from all six sites. Hazardous waste located at the sites will be disposed of at a hazardous waste facility. This project will protect wildlife from interacting with these materials and fish from being exposed to toxins as they leach into SF Usal Creek. Removal of the infrastructure that is present at the sites, such as water collection systems and fencing will deter future trespass growing at the sites.

This project is necessary as listed species such as coho salmon and northern spotted owls are negatively impacted by the toxins, fencing and trash left behind after marijuana cultivation activities. Recovery of listed species is impaired when toxins and dangers are present in their habitat. There are chemicals, food waste and garbage at these sites that will sicken and kill fish and wildlife if contacted and/or consumed. Most of the sites have various methods of fencing that will entangle and injure or kill wildlife.

The Grantee shall not proceed with on the ground implementation until all necessary permits, consultations, and/or Notice to Proceed are secured. All habitat improvement will follow techniques in the California Stream Habitat Restoration Manual – Part X Upslope Assessment and Restoration Practices and Part XI Riparian Habitat Restoration.

**Objective(s):**

- 1) This project will remove all the cannabis cultivation related materials currently affecting the aquatic, riparian and at-risk species habitat in the project area. After removal of all toxins, trash, fencing and infrastructure, trees will be planted where trees were cut down and the habitat will be returned to a natural state.
- 2) Hazardous waste that poses a threat to aquatic and riparian habitat and at-risk species will be removed and either contained in a safe location or disposed of at a hazardous waste disposal facility. All risks posed by the cultivation sites will be removed.
- 3) If any contaminants cannot be removed from the sites they will be contained and monitored. If soil is contaminated, it will be removed unless it is in a stream channel. Contaminated soil in stream channels or in volumes too difficult to remove by hand will be marked and monitored.

**Project Description:**

**Location:**

**Project Set Up:**

ERWIG Project Manager: Contract oversight will be conducted by ERWIG Project Manager. Project Manager will be involved with all phases of the project: Tasks 1-7.

ERWIG Project Associate: Purchasing, sub-contracts, invoicing and reporting. Project Associate will be involved with Tasks 1 and 7.

Subcontractors:

Bookkeeper: Will pay out ERWIG employees and subcontractors, and will file all financial documents, including, but not limited to invoices, payments received and payments dispersed. Task 1.

Integral Ecology Research Center: Will help create site specific restoration plans, will identify non-consumer grade substances present at the site, will write a reclamation plan after the cleanup is complete. Tasks 3-5.

California Conservation Corps (CCC) Corps members: Will implement cleanup and removal of cannabis related trash and materials from project sites. Task 4.

CCC Fish Habitat Assistant: Will participate in pre-project planning, will work with the CCC during cleanup, will assist in post-project monitoring and will plant trees. Tasks 3-6.

Redwood Forest Foundation Inc. staff: Will participate in pre-project planning, will determine access to sites, clear trails to sites and determine garbage staging areas. Will use security staff to check sites for renewed cannabis cultivation activity. Tasks 1 and 2.

**Materials:**

1. Disposable hooded hazmat suits: used to protect workers during cleanup
2. Chemical resistant gloves: used to protect workers while handling chemicals
3. Disposable nitrile gloves: additional layer of protection during chemical cleanup, also used under work gloves when no chemicals are known to be present
4. Duct tape: used to seal hazmat suits at foot and hand cuffs, also used to bundle trash for transport.

5. Hazmat spill kit: A spill kit will be on hand during clean up in case any toxic substances are accidentally spilled during cleanup.
6. Hazardous material containers: suitable plastic and metal containers will be on hand to collect hazardous waste before transport.
7. Trash bags: appropriate high strength trash bags will be used to collect and transport non- hazardous waste.
8. Splash resistant goggles: to protect cleanup crew during cleanup.
9. Zip ties: Used to close trash bags
10. Erosion control materials: Will be used to control potential surface erosion.
11. Wheelbarrows: used to transport garbage

### **Tasks:**

#### **Task 1. Contract Oversight and Project Planning:**

Contract oversight will be conducted by ERWIG. The Project Manager and Project Associate will communicate and coordinate with Redwood Forest Foundation (RFFI) representative to obtain entry permits, coordinate implementation schedules, and go over project implementation details. Project Manager will provide management and direction to subcontractors throughout the duration of the project. Project Associate will purchase materials for the cleanup. All reporting, billing and invoicing will be pursuant to contract and regulatory guidelines. Project Manager will work with a bookkeeper to provide fiscal management to project. ERWIG Project Manager will complete a 40 hour HAZWOPER training course in order to be OSHA compliant in entering the project area and assisting with cleanup.

#### **Task 2. Site Reconnaissance and Preparation:**

ERWIG Project Manager and RFFI staff will determine best points of entry to cleanup sites and clear access trails to sites. RFFI security will check sites for recolonization by trespass growers. Recolonization is not expected at these sites, but if any are occupied, Mendocino County Sheriff and CDFW Captain Holly Spada will be notified in order to get sites cleared and safe for work crews.

#### **Task 3. Site Specific Restoration Plan:**

ERWIG Project Manager and CCC Fish Habitat Assistant will work with Integral Ecology Research Center (IERC) to create a restoration plan at each site. IERC will identify the location of hazardous waste at the sites. ERWIG, IERC and RFFI staff will identify appropriate staging locations for the trash at the sites and will determine the best plan for removal of all trash and materials at the grow sites. IERC and ERWIG Project Manager will photo document cleanup sites and quantify the amount of cannabis related materials present at the sites. ERWIG Project Manager will receive on-site training from IERC on hazardous waste identification and sequestration.

#### **Task 4. Cleanup Implementation:**

IERC will identify and remove non-consumer grade hazardous waste (such as Furadan) before any other trash is removed from the sites. This hazardous waste will be mitigated and sequestered by IERC so that it poses little or no threat to wildlife and humans. Its storage location will be clearly identified and shown to the landowner and all entities involved with this project. If highly toxic material is identified the National Guard will be contacted to determine if they can transport the material for safe disposal.

Once the non-consumer grade hazardous waste is removed from the work area, HAZWOPER trained California Conservation Corpsmembers (CCC) will begin the removal of cannabis related garbage and materials. CCC crews will be supervised by a C1 supervisor and will have technical assistance from a CCC Fish Habitat Assistant. CCC corpsmembers will be outfitted with disposable hazmat suits, gloves and all other required safety gear. All hazardous materials encountered will be placed in the appropriate containment container. Garbage and materials will be placed in heavy duty garbage bags. An IERC representative will be on site during garbage removal to identify additional hazardous waste that is encountered during cleanup.

Once all garbage and hazardous materials are removed the CCC crew will remove the remaining infrastructure at the sites. This includes all spring boxes and water diversion infrastructure associated with the grow sites. Garbage, infrastructure and consumer grade hazardous waste will be transported by hand to staging areas along the nearest vehicle access point. A CCC stakeside pickup truck will be used to bring garbage to the Redway Transfer Station (operated by Eel River Resource Recovery). Consumer grade hazardous waste will be transported to the Eureka based hazardous waste facility operated by Humboldt Waste Management.

Post-cleanup the CCC crew will place rice straw on trails and where garbage piles are cleared if exposed sediment could enter a waterway via overland flow.

#### Task 5. Cleanup Documentation and Reclamation Plan:

ERWIG Project Manager and CCC Fish Habitat Assistant will photo document the cleanup sites and determine the amount of each type of materials removed from the grow sites. IERC will complete a reclamation plan that will outline the addition steps necessary for complete restoration of the cultivation sites. This plan will be used to guide future restoration of the sites.

#### Task 6. Tree planting:

ERWIG Project Manager and CCC Fish Habitat Assistant will return the winter following cleanup to plant 100 conifer trees (*Sequoia sempervirens* and/or *Pseudotsuga menziesii*) in areas that had been cleared by cannabis growers. These trees will be spaced at a minimum of 10 feet apart and will follow planting guidelines used by RFFI. During tree planting any onsite stored and contained hazardous waste will be monitored and additional containment will be put in place, if necessary.

#### Task 7. Reporting:

Quarterly reports, final report and project close-out report will be completed by ERWIG staff. Invoices will be included with reports when necessary.

# SF Usal Creek Headwaters – Trash and Toxin Cleanup 2017

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## **Deliverables:**

- Six cannabis cultivation sites will be cleaned up so that cannabis cultivation materials no longer pose a threat to fish and wildlife.
- One hundred coniferous trees will be planted to replace trees removed during cannabis cultivation activities.
- Approximately 5,000 lbs of cannabis cultivation trash and materials will be removed and disposed of. This will include approximately 6,000 feet of irrigation hose, 10 gallons of liquid chemicals, 50 lbs of fertilizer, 5 water diversion networks, and 1,000 feet of fencing.
- A reclamation plan will be delivered to CDFW.
- A map of the extent of the cultivation sites will be delivered.
- Pre and post photos and cleanup metrics will be submitted to CDFW.
- Quarterly reports, a final report and a project close-out report will be delivered to

## **Timelines:**

<b>Task #</b>	<b>Task Title</b>	<b>Deliverables and Milestones</b>	<b>Estimated Completion Dates</b>
1	Contract and Project Planning	Oversight	
		1.1 Access agreements complete	1.1 June 1, 2018
		1.2 Subcontractor agreements complete	1.2 June 1, 2018
		1.3 Implementation Schedule Complete	1.3 June 1, 2018
		1.4 Materials purchased	1.4 June 15, 2018
		1.5 HAZWOPER training completed	1.5 June 15, 2018
		1.6 Invoicing	1.6 Delivered quarterly and a final invoice delivered with final report.
2	Site Reconnaissance and Preparation	2.1 Security check	2.1 June 15, 2018
		2.2 Determine points of entry	2.2 June 22, 2018
		2.3 Clear access trails	2.3 July 10, 2018
3	Site Specific	3.1 Create Restoration Plan for each site	3.1 June 29, 2018

# SF Usal Creek Headwaters – Trash and Toxin Cleanup 2017

	Restoration Plan		
		3.2 Identify non-consumer grade hazardous waste	3.2 June 29, 2018
		3.3 Pre-project photo document sites and quantify cannabis cultivation materials at each site.	3.3 June 29, 2018
4	Cleanup Implementation	4.1 Mitigate and sequester non-consumer grade hazardous waste	4.1 October 31, 2018
		4.2 Removal and disposal of all consumer grade hazardous waste, garbage and infrastructure from grow sites.	4.2 October 31, 2018
		4.3 Surface erosion control with rice straw	4.3 October 31, 2018
5	Cleanup Documentation and Reclamation Plan	5.1 Post-project photo document cleanup sites	5.1 December 31, 2018
		5.2 Quantify material removed from sites and any material left behind.	5.2 December 31, 2018
		5.3 Complete reclamation plan	5.3 December 31, 2018
		5.4 Report all data collected	5.4 January 31, 2019
6	Tree Planting	6.1 Plant 100 coniferous trees	6.1 December 31, 2018
		6.2 Previously identified hazardous waste that was left on site (if any) will be checked for containment.	6.2 December 31, 2018



# Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad (Hales Grove (3912377) OR Bear Harbor (3912388) OR Piercy (3912387) OR Noble Butte (3912386) OR Leggett (3912376) OR Lincoln Ridge (3912366) OR Westport (3912367) OR Mistake Point (3912378))

SF Usal Creek Headwaters - Trash and Toxin Cleanup

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b>Blasdale's bent grass</b> <i>Agrostis blasdalei</i>	PMPOA04060	None	None	G2	S2	1B.2
<b>bluff wallflower</b> <i>Erysimum concinnum</i>	PDBRA160E3	None	None	G3	S2	1B.2
<b>California floater</b> <i>Anodonta californiensis</i>	IMBIV04020	None	None	G3Q	S2?	
<b>coast fawn lily</b> <i>Erythronium revolutum</i>	PMLIL0U0F0	None	None	G4G5	S3	2B.2
<b>coho salmon - central California coast ESU</b> <i>Oncorhynchus kisutch</i>	AFCHA02034	Endangered	Endangered	G4	S2?	
<b>coho salmon - southern Oregon / northern California ESU</b> <i>Oncorhynchus kisutch</i>	AFCHA02032	Threatened	Threatened	G4T2Q	S2?	
<b>Cooper's hawk</b> <i>Accipiter cooperii</i>	ABNKC12040	None	None	G5	S4	WL
<b>Crotch bumble bee</b> <i>Bombus crotchii</i>	IIHYM24480	None	None	G3G4	S1S2	
<b>fisher - West Coast DPS</b> <i>Pekania pennanti</i>	AMAJF01021	Proposed Threatened	Candidate Threatened	G5T2T3Q	S2S3	SSC
<b>foothill yellow-legged frog</b> <i>Rana boylei</i>	AAABH01050	None	Candidate Threatened	G3	S3	SSC
<b>Humboldt milk-vetch</b> <i>Astragalus agnicidus</i>	PDFAB0F080	None	Endangered	G2	S2	1B.1
<b>Kellogg's buckwheat</b> <i>Eriogonum kelloggii</i>	PDPGN083A0	None	Endangered	G2	S2	1B.2
<b>leafy reed grass</b> <i>Calamagrostis foliosa</i>	PMPOA170C0	None	Rare	G3	S3	4.2
<b>leafy-stemmed mitrewort</b> <i>Mitellastrum caulescens</i>	PDSAX0N020	None	None	G5	S4	4.2
<b>maple-leaved checkerbloom</b> <i>Sidalcea malachroides</i>	PDMAL110E0	None	None	G3	S3	4.2
<b>McDonald's rockcress</b> <i>Arabis mcdonaldiana</i>	PDBRA06150	Endangered	Endangered	G3	S3	1B.1
<b>Mendocino Coast paintbrush</b> <i>Castilleja mendocinensis</i>	PDSCR0D3N0	None	None	G2	S2	1B.2
<b>Mendocino gentian</b> <i>Gentiana setigera</i>	PDGEN060S0	None	None	G2	S1	1B.2



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Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b>Methuselah's beard lichen</b> <i>Usnea longissima</i>	NLLEC5P420	None	None	G4	S4	4.2
<b>North Central Coast Fall-Run Steelhead Stream</b> <i>North Central Coast Fall-Run Steelhead Stream</i>	CARA2631CA	None	None	GNR	SNR	
<b>northern goshawk</b> <i>Accipiter gentilis</i>	ABNKC12060	None	None	G5	S3	SSC
<b>Northern Interior Cypress Forest</b> <i>Northern Interior Cypress Forest</i>	CTT83220CA	None	None	G2	S2.2	
<b>northern red-legged frog</b> <i>Rana aurora</i>	AAABH01021	None	None	G4	S3	SSC
<b>obscure bumble bee</b> <i>Bombus caliginosus</i>	IIHYM24380	None	None	G4?	S1S2	
<b>Oregon coast paintbrush</b> <i>Castilleja litoralis</i>	PDSCR0D012	None	None	G3	S3	2B.2
<b>Oregon goldthread</b> <i>Coptis laciniata</i>	PDRAN0A020	None	None	G4	S3	4.2
<b>oval-leaved viburnum</b> <i>Viburnum ellipticum</i>	PDCPR07080	None	None	G4G5	S3?	2B.3
<b>Pacific gilia</b> <i>Gilia capitata ssp. pacifica</i>	PDPLM040B6	None	None	G5T3	S2	1B.2
<b>Pacific tailed frog</b> <i>Ascaphus truei</i>	AAABA01010	None	None	G4	S3S4	SSC
<b>pallid bat</b> <i>Antrozous pallidus</i>	AMACC10010	None	None	G5	S3	SSC
<b>pink sand-verbena</b> <i>Abronia umbellata var. breviflora</i>	PDNYC010N4	None	None	G4G5T2	S1	1B.1
<b>Point Reyes horkelia</b> <i>Horkelia marinensis</i>	PDROS0W0B0	None	None	G2	S2	1B.2
<b>pygmy cypress</b> <i>Hesperocyparis pygmaea</i>	PGCUP04032	None	None	G1	S1	1B.2
<b>Raiche's manzanita</b> <i>Arctostaphylos stanfordiana ssp. raichei</i>	PDERI041G2	None	None	G3T2	S2	1B.1
<b>Red Mountain catchfly</b> <i>Silene campanulata ssp. campanulata</i>	PDCAR0U0A2	None	Endangered	G5T3Q	S3	4.2
<b>Red Mountain stonecrop</b> <i>Sedum laxum ssp. eastwoodiae</i>	PDCRA0A0L1	None	None	G5T2	S2	1B.2
<b>red-bellied newt</b> <i>Taricha rivularis</i>	AAAAF02020	None	None	G4	S2	SSC
<b>robust false lupine</b> <i>Thermopsis robusta</i>	PDFAB3Z0D0	None	None	G2	S2	1B.2
<b>seaside bittercress</b> <i>Cardamine angulata</i>	PDBRA0K010	None	None	G5	S1	2B.1





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Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b>Sonoma tree vole</b> <i>Arborimus pomo</i>	AMAFF23030	None	None	G3	S3	SSC
<b>southern torrent salamander</b> <i>Rhyacotriton variegatus</i>	AAAAJ01020	None	None	G3G4	S2S3	SSC
<b>steelhead - northern California DPS</b> <i>Oncorhynchus mykiss irideus</i>	AFCHA0209Q	Threatened	None	G5T2T3Q	S2S3	
<b>summer-run steelhead trout</b> <i>Oncorhynchus mykiss irideus</i>	AFCHA0213B	None	None	G5T4Q	S2	SSC
<b>Townsend's big-eared bat</b> <i>Corynorhinus townsendii</i>	AMACC08010	None	None	G3G4	S2	SSC
<b>Upland Douglas Fir Forest</b> <i>Upland Douglas Fir Forest</i>	CTT82420CA	None	None	G4	S3.1	
<b>Vine Hill ceanothus</b> <i>Ceanothus foliosus var. vineatus</i>	PDRHA040D6	None	None	G3T1	S1	1B.1
<b>western bumble bee</b> <i>Bombus occidentalis</i>	IIHYM24250	None	None	G2G3	S1	
<b>western pearlshell</b> <i>Margaritifera falcata</i>	IMBIV27020	None	None	G4G5	S1S2	
<b>white-flowered rein orchid</b> <i>Piperia candida</i>	PMORC1X050	None	None	G3	S3	1B.2
<b>Whitney's farewell-to-spring</b> <i>Clarkia amoena ssp. whitneyi</i>	PDONA05025	None	None	G5T1	S1	1B.1
<b>Yuma myotis</b> <i>Myotis yumanensis</i>	AMACC01020	None	None	G5	S4	
<b>northern spotted owl</b> <i>Strix occidentalis caurina</i>	ABNSB12011	Threatened	Candidate	G3T3	S2S3	SC

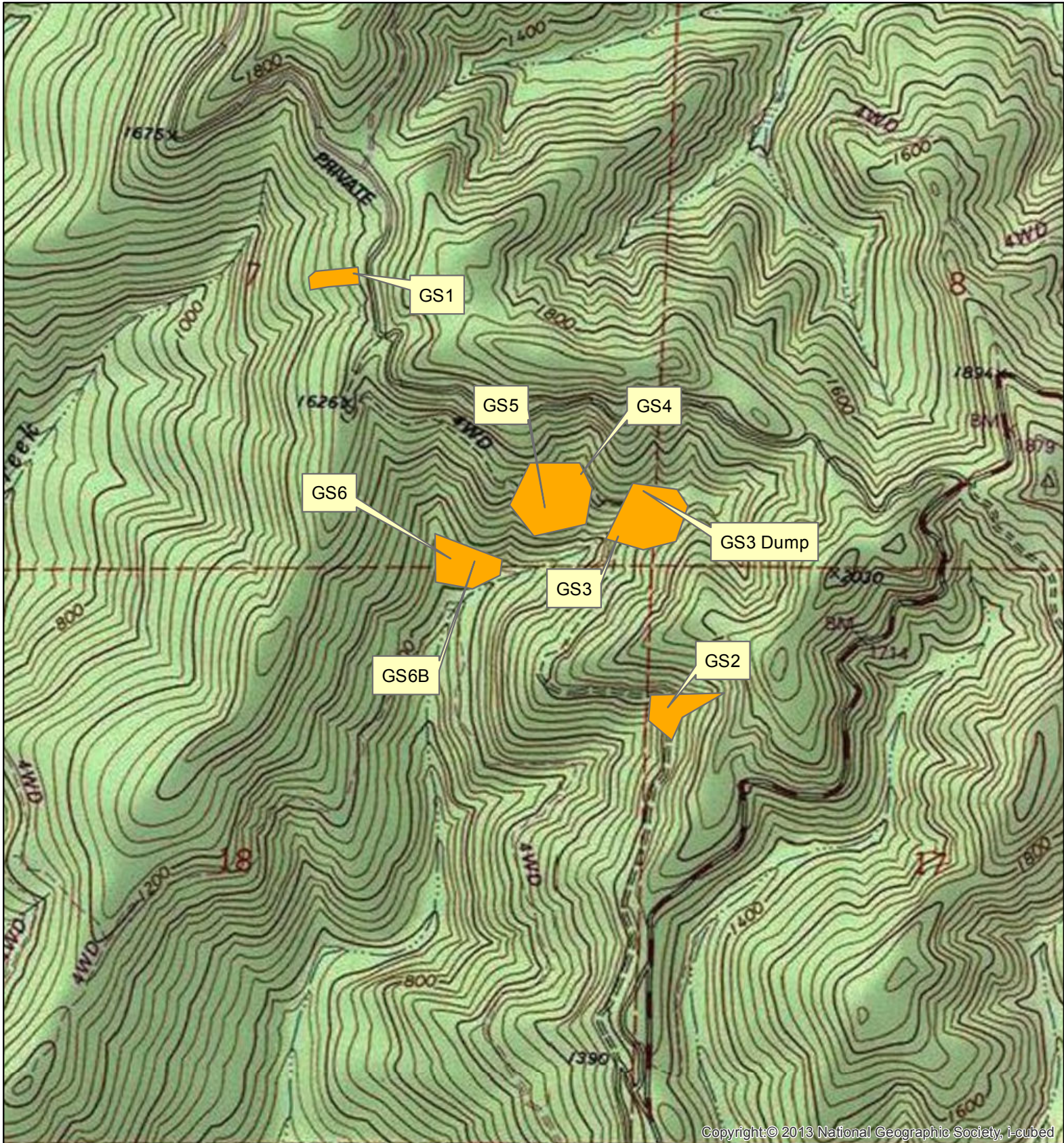
Record Count: 52



# Project Location Map

## SF Usal Headwaters Cannabis Trash and Toxin Cleanup

### Hales Grove Quad, Mendocino County



 Extent of Site(s)

0 0.25 0.5 Miles

Eel River Watershed Improvement Group 2017

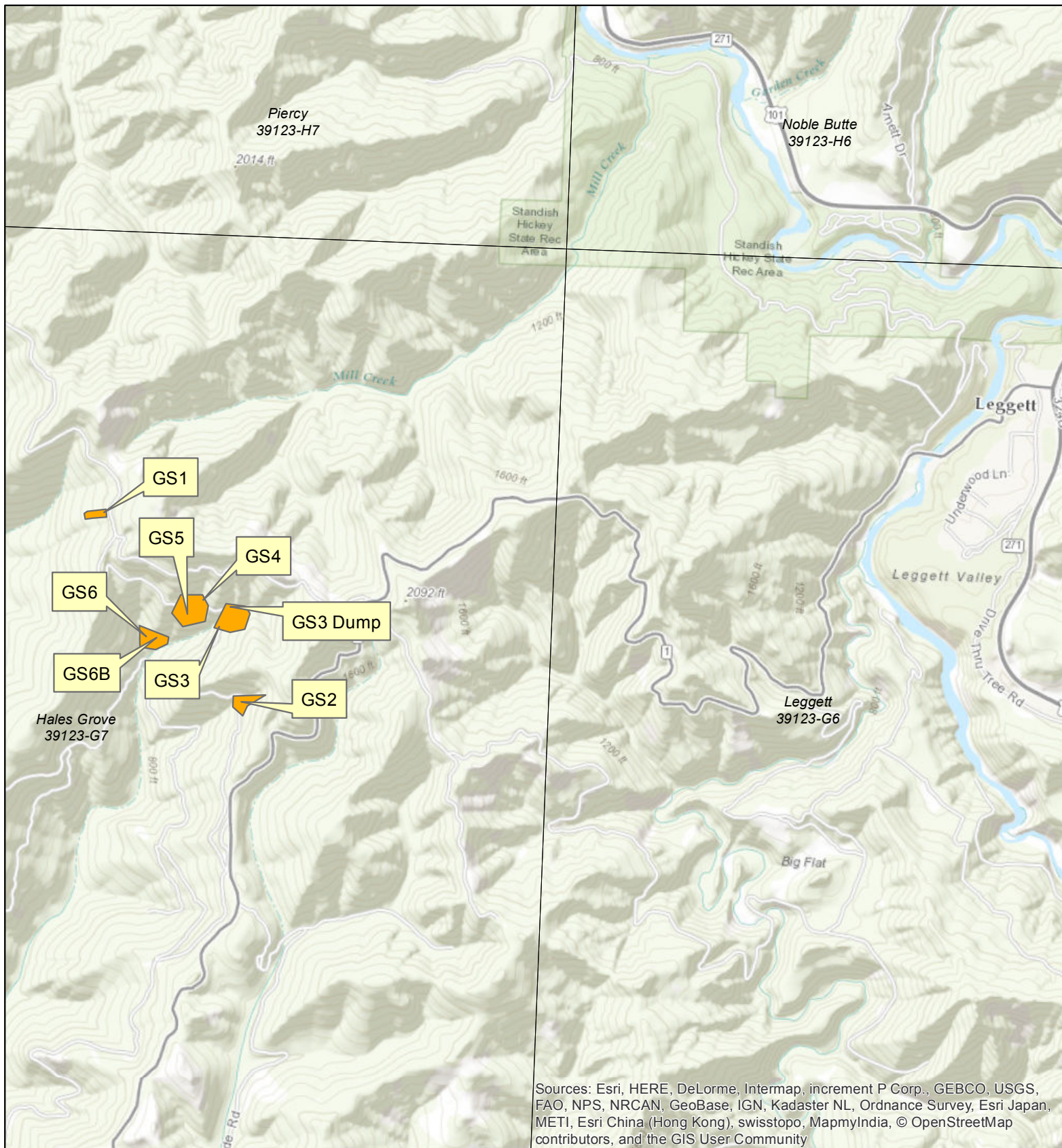




# Project Location Map with Quads

## SF Usal Headwaters Cannabis Trash and Toxin Cleanup

### Hales Grove Quad, Mendocino County



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

- CA USGS Quad
- Extent of Site(s)

