

Introduction:

Humboldt Redwoods State Park has suffered the effects of illegal marijuana cultivation for over three decades. This project, implemented by the Eel River Watershed Improvement Group (ERWIG), will clean up and restore the deleterious effects of two extensive grow areas in the Bull Creek Watershed of Humboldt Redwoods State Park (Park). The Park contains the largest extant contiguous old-growth redwood forest and supports three species of anadromous salmonids: chinook, coho, and steelhead. Additionally, the Park supports marbled murrelets, northern spotted owls, and Pacific fishers.

This project benefits anadromous salmonids and water quality by removing diversions and removing fertilizers, toxins and trash that is entering watercourses leading to fish bearing streams. The project also directly benefits northern spotted owls, Pacific fisher, their prey, and other wildlife species through the removal of pesticide containers and other trash. Hazardous waste will be disposed of at a hazardous waste facility. Water basins and diversions will be restored and the sites will be replanted with conifers and native oaks. These cleanup and restoration efforts will make reoccupation less likely.

Illegal marijuana cultivation creates a severe hazard to the fish and wildlife by littering the landscape with plastic trash, toxic pesticides, fertilizer, propane canisters, fencing and filament wire. Immediate action is required to remove these contaminants from the environment before they cause additional impacts to wildlife. The trash and litter at these sites are dumped into the upstream channels where they can leach toxins into the fish bearing stream. The food waste and garbage can also sicken and kill wildlife if consumed. Many of the plastic containers at these grow sites have bite marks in them from wildlife. The fencing and plastic trash can injure and kill entangled wildlife. Reforestation is needed to replace trees and shrubs that were cut down to provide planting space for the marijuana cultivation. This needs to occur before invasive exotics colonize the site as well as to provide slope and bank stability. Removal and cleanup of toxics and infrastructure protects the public that uses the park for recreation.

ERWIG will not proceed with on the ground implementation of this project, until all necessary permits, consultation, and/or Notice to proceed are secured. From CDFW California Salmonid Stream Habitat Restoration Manual: Part X Upslope Assessment and Restoration Practices and Part XI Riparian Habitat Restoration. Also, the CDFW Aquatic Invasive Species Decontamination protocol will be followed.

Objective:

This proposal will remove all toxins, trash, fencing, and infrastructure currently affecting the aquatic, riparian and at-risk species habitat in the project area. 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. 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. 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.

Project Description:

Location:

The project is located within the Bull Creek Watershed of Humboldt Redwoods State Park, located approximately nine miles west of Highway 101. Two restoration sites have been identified:

Site 1: 40.3244, -124.0258

Site 2: 40.35559, -124.0246

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) Corpsmembers: 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 and will plant trees. Tasks 2-6.

State Parks Law Enforcement: Will enter sites ahead of work crews to ensure no occupancy. Will deal with any law enforcement issues if they come up. Will monitor work sites ahead of crews to ensure worker safety throughout project. Task 2

State Park Senior Environmental Scientist: Will participate in project planning, restoration planning, monitoring, oversight of Park staff, and project compliance. Will coordinate with Law Enforcement to assure sites are clear of recent activity.

State Parks Forestry Staff: Will participate in pre-project planning, will determine access to sites, flag trails to sites and determine garbage staging areas. Will monitor cleanup activities to obtain project metrics. Will coordinate with Law Enforcement 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. 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 California State Parks 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 State Parks staff will determine best points of entry to cleanup sites and clear access trails to sites. State Parks Law Enforcement will check sites for recolonization by trespass growers. State Park Law Enforcement will ensure sites are safe for work crews prior to the start of restoration activities.

Task 3. Site Specific Restoration Plan

ERWIG Project Manager 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 State Parks 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 and State Parks staff 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 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.

After garbage and hazardous materials are removed, the CCC crew will remove the remaining infrastructure at the 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 native duff from surrounding area 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, State Parks staff 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 additional 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 Project Associate will return the winter following cleanup to plant a combination of 200 native trees (*Sequoia sempervirens* and *Pseudotsuga menziesii*, and native oak) in areas that had been cleared by cannabis growers. If available, native oaks will also be planted. These trees will be spaced at a minimum of 10 feet apart and will follow planting guidelines used by State Parks. 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.

Deliverables:

- Two extensive 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 4500 feet of irrigation hose, 10 gallons of liquid chemicals, 50 lbs of fertilizer, 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 CDFW.

Bull Creek Cannabis Recovery Project | 2017

Timelines:

| Task # | Task Title | Deliverables and Milestones | Estimated Completion Dates |
|--------|--|---|--|
| 1 | Contract Oversight and Project Planning | 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 Flag access trails | 2.3 June 22, 2018 |
| 3 | Site Specific Restoration Plan | 3.1 Create Restoration Plan for each site | 3.1 June 29, 2018 |
| | | 3.2 Identify non-consumer grade hazardous waste | 3.2 June 29, 2018 |
| | | 3.3 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 native duff | 4.3 October 31, 2018 |
| 5 | Cleanup Documentation and Reclamation Plan | 5.1 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 | |
| 6 | Tree Planting | 6.1 Plant 200 native 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 (4012431) OR Taylor Peak (4012442) OR Redcrest (4012348) OR Scotia (4012441) OR Weott (4012338) OR Ettersburg (4012328) OR Honeydew (4012421) OR Shubrick Peak (4012422) OR Buckeye Mtn. (4012432)

Bull Creek Cannabis Recovery Project

| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|--------------|---------------------|----------------------|-------------|------------|--------------------------------|
| American badger <i>Taxidea taxus</i> | AMAJF04010 | None | None | G5 | S3 | SSC |
| bank swallow <i>Riparia riparia</i> | ABPAU08010 | None | Threatened | G5 | S2 | |
| chinook salmon - California coastal ESU <i>Oncorhynchus tshawytscha</i> | AFCHA0205S | Threatened | None | G5 | S1 | |
| coast fawn lily <i>Erythronium revolutum</i> | PMLIL0U0F0 | None | None | G4G5 | S3 | 2B.2 |
| Cooper's hawk <i>Accipiter cooperii</i> | ABNKC12040 | None | None | G5 | S4 | WL |
| fisher - West Coast DPS <i>Pekania pennanti</i> | AMAJF01021 | Proposed Threatened | Candidate Threatened | G5T2T3Q | S2S3 | SSC |
| foothill yellow-legged frog <i>Rana boylei</i> | AAABH01050 | None | Candidate Threatened | G3 | S3 | SSC |
| giant fawn lily <i>Erythronium oregonum</i> | PMLIL0U0C0 | None | None | G4G5 | S2 | 2B.2 |
| golden eagle <i>Aquila chrysaetos</i> | ABNKC22010 | None | None | G5 | S3 | FP |
| Howell's montia <i>Montia howellii</i> | PDPOR05070 | None | None | G3G4 | S2 | 2B.2 |
| Humboldt marten <i>Martes caurina humboldtensis</i> | AMAJF01012 | None | Candidate Endangered | G5T1 | S1 | SSC |
| leafy reed grass <i>Calamagrostis foliosa</i> | PMPOA170C0 | None | Rare | G3 | S3 | 4.2 |
| long-eared myotis <i>Myotis evotis</i> | AMACC01070 | None | None | G5 | S3 | |
| long-legged myotis <i>Myotis volans</i> | AMACC01110 | None | None | G5 | S3 | |
| maple-leaved checkerbloom <i>Sidalcea malachroides</i> | PDMAL110E0 | None | None | G3 | S3 | 4.2 |
| marbled murrelet <i>Brachyramphus marmoratus</i> | ABNNN06010 | Threatened | Endangered | G3G4 | S1 | |
| Methuselah's beard lichen <i>Usnea longissima</i> | NLLEC5P420 | None | None | G4 | S4 | 4.2 |
| mountain shoulderband <i>Helminthoglypta arrosa monticola</i> | IMGASC2035 | None | None | G2G3T1 | S1 | |
| North American porcupine <i>Erethizon dorsatum</i> | AMAFJ01010 | None | None | G5 | S3 | |



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|---|--------------|----------------|--------------|-------------|------------|--------------------------------|
| northern clustered sedge <i>Carex arcta</i> | PMCYP030X0 | None | None | G5 | S1 | 2B.2 |
| northern red-legged frog <i>Rana aurora</i> | AAABH01021 | None | None | G4 | S3 | SSC |
| obscure bumble bee <i>Bombus caliginosus</i> | IIHYM24380 | None | None | G4? | S1S2 | |
| Oregon polemonium <i>Polemonium carneum</i> | PDPLM0E050 | None | None | G3G4 | S2 | 2B.2 |
| osprey <i>Pandion haliaetus</i> | ABNKC01010 | None | None | G5 | S4 | WL |
| Pacific gilia <i>Gilia capitata ssp. pacifica</i> | PDPLM040B6 | None | None | G5T3 | S2 | 1B.2 |
| Pacific tailed frog <i>Ascaphus truei</i> | AAABA01010 | None | None | G4 | S3S4 | SSC |
| red-bellied newt <i>Taricha rivularis</i> | AAAAF02020 | None | None | G4 | S2 | SSC |
| running-pine <i>Lycopodium clavatum</i> | PPLYC01080 | None | None | G5 | S3 | 4.1 |
| seacoast ragwort <i>Packera bolanderi var. bolanderi</i> | PDAST8H0H1 | None | None | G4T4 | S2S3 | 2B.2 |
| sharp-shinned hawk <i>Accipiter striatus</i> | ABNKC12020 | None | None | G5 | S4 | WL |
| short-leaved evax <i>Hesperexax sparsiflora var. brevifolia</i> | PDASTE5011 | None | None | G4T3 | S2 | 1B.2 |
| Siskiyou checkerbloom <i>Sidalcea malviflora ssp. patula</i> | PDMAL110F9 | None | None | G5T2 | S2 | 1B.2 |
| Sonoma tree vole <i>Arborimus pomo</i> | AMAFF23030 | None | None | G3 | S3 | SSC |
| southern torrent salamander <i>Rhyacotriton variegatus</i> | AAAAJ01020 | None | None | G3G4 | S2S3 | SSC |
| summer-run steelhead trout <i>Oncorhynchus mykiss irideus</i> | AFCHA0213B | None | None | G5T4Q | S2 | SSC |
| Townsend's big-eared bat <i>Corynorhinus townsendii</i> | AMACC08010 | None | None | G3G4 | S2 | SSC |
| Upland Douglas Fir Forest <i>Upland Douglas Fir Forest</i> | CTT82420CA | None | None | G4 | S3.1 | |
| western bumble bee <i>Bombus occidentalis</i> | IIHYM24250 | None | None | G2G3 | S1 | |
| western pond turtle <i>Emys marmorata</i> | ARAAD02030 | None | None | G3G4 | S3 | SSC |
| western red bat <i>Lasiurus blossevillii</i> | AMACC05060 | None | None | G5 | S3 | SSC |



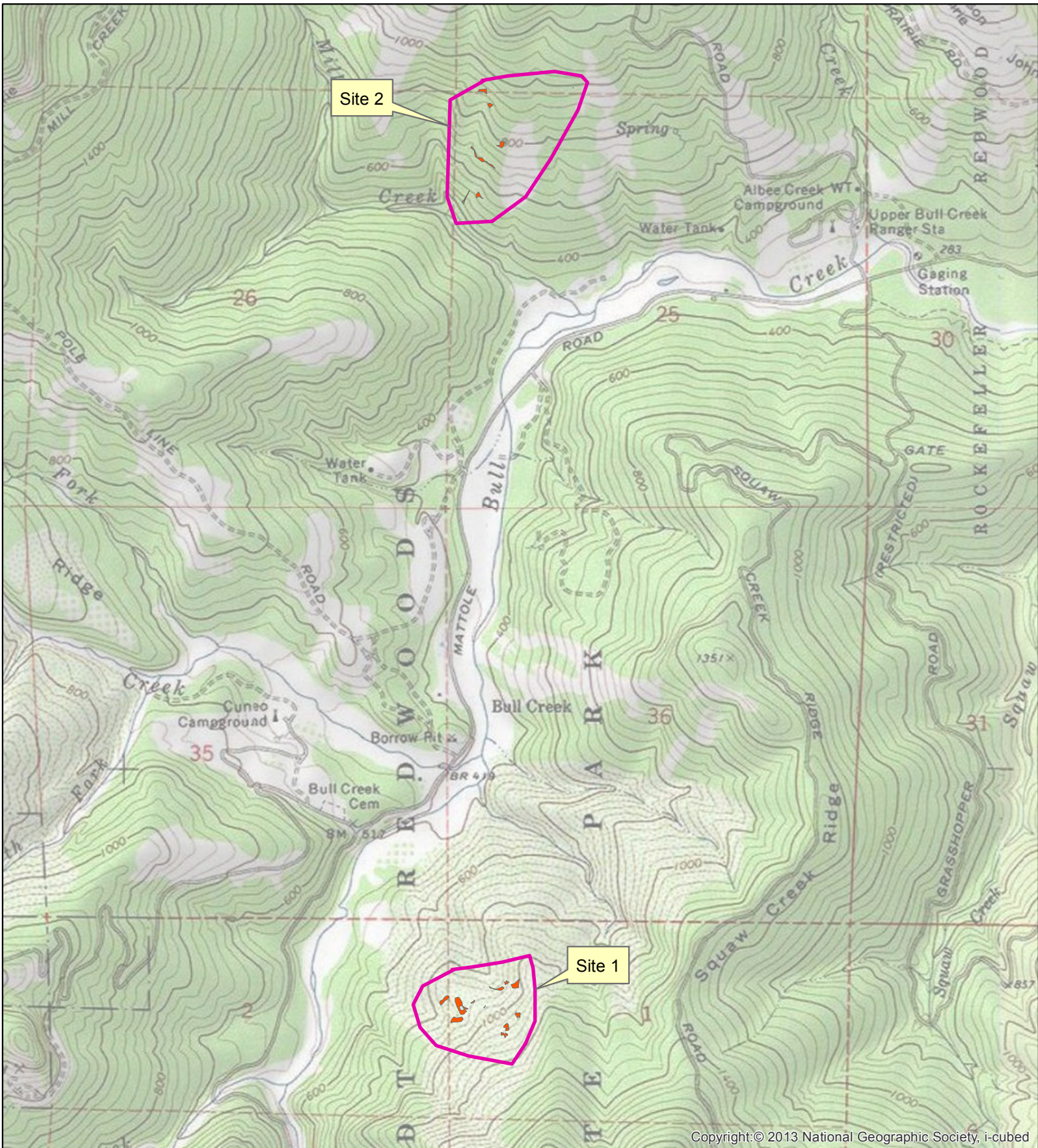
Selected Elements by Common Name
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|--|---------------------|-----------------------|---------------------|--------------------|-------------------|---------------------------------------|
| white-flowered rein orchid <i>Piperia candida</i> | PMORC1X050 | None | None | G3 | S3 | 1B.2 |
| Yuma myotis <i>Myotis yumanensis</i> | AMACC01020 | None | None | G5 | S4 | |
| northern spotted owl <i>Strix occidentalis caurina</i> | ABNSB12011 | Threatened | Candidate | G3T3 | S2S3 | SC |

Record Count: 43

Feature Location Map Bull Creek Cannabis Recovery Project Bull Creek Quad, Humboldt County



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 Marijuana_Sites

