

National Park Service
U.S. Department of the Interior
Golden Gate National Recreation Area



Erasing Imaginary Lines: Working collaboratively across state and national park lines to combat invasive plants

Tom Reyes
Natural Resource Specialist
Thomas_Reyes@nps.gov
415-289-1848

- Background on Redwood Creek Watershed
- Veg management
- Benefits and challenges
- Examples of collaborative projects





OneTam



The open spaces on Mt. Tam are a mosaic of interlocking protected areas managed by four separate public agencies: the Marin Municipal Water District, National Park Service, California State Parks, and Marin County Parks and Open Space District. The Tamalpais Lands Collaborative brings together these four agencies and the nonprofit Golden Gate National Parks Conservancy to support a unified approach to the long-term stewardship of Mt. Tam.

Redwood Creek Watershed

- Home to Muir Woods National Monument
- ~5,600 acres
 - 2,960 ac- State Park
 - 555 ac- MUWO
 - 963 ac GGNRA
 - 950 ac- MMWD
 - 172 ac Private





Final Report

Redwood Creek Watershed Assessment



Prepared for:
Golden Gate National Recreation Area
Fort Mason, Building 201
San Francisco, CA 94123-1307

Prepared by:
Stillwater Sciences
2855 Telegraph Avenue, Suite 400
Berkeley, CA 94705

and

Horizon Water and Environment, LLC
1330 Broadway, Suite 424
Oakland, CA 94612

August 2011



ve

- 2002-2003: Redwood Creek Vision for the Future
- 2011- Redwood Creek Watershed Assessment published
- 2011- State Park funding crisis

Funding crisis as an opportunity



- Proposal to close four of the six state parks in Marin County
- Muir Woods entrance fees increased by \$2 then to \$5 to keep State Parks open and fund projects
- Utilize Muir Woods funding to manage resources that directly effect the health of Muir Woods

Invasive Plant Management

- 2013- Redwood Creek Invasive Plant treatments begin
- 2014- Tam Lands Collaborative MOU signed, OneTam created
- 2017- Redwood Creek Interagency Vegetation Crew established



Redwood Creek Vegetation Crew

- Manage vegetation at a watershed level
- Interagency crew managed by NPS
- Conservancy crew leader-
- Conservancy and NPS crew members
- NPS/Conservancy intern

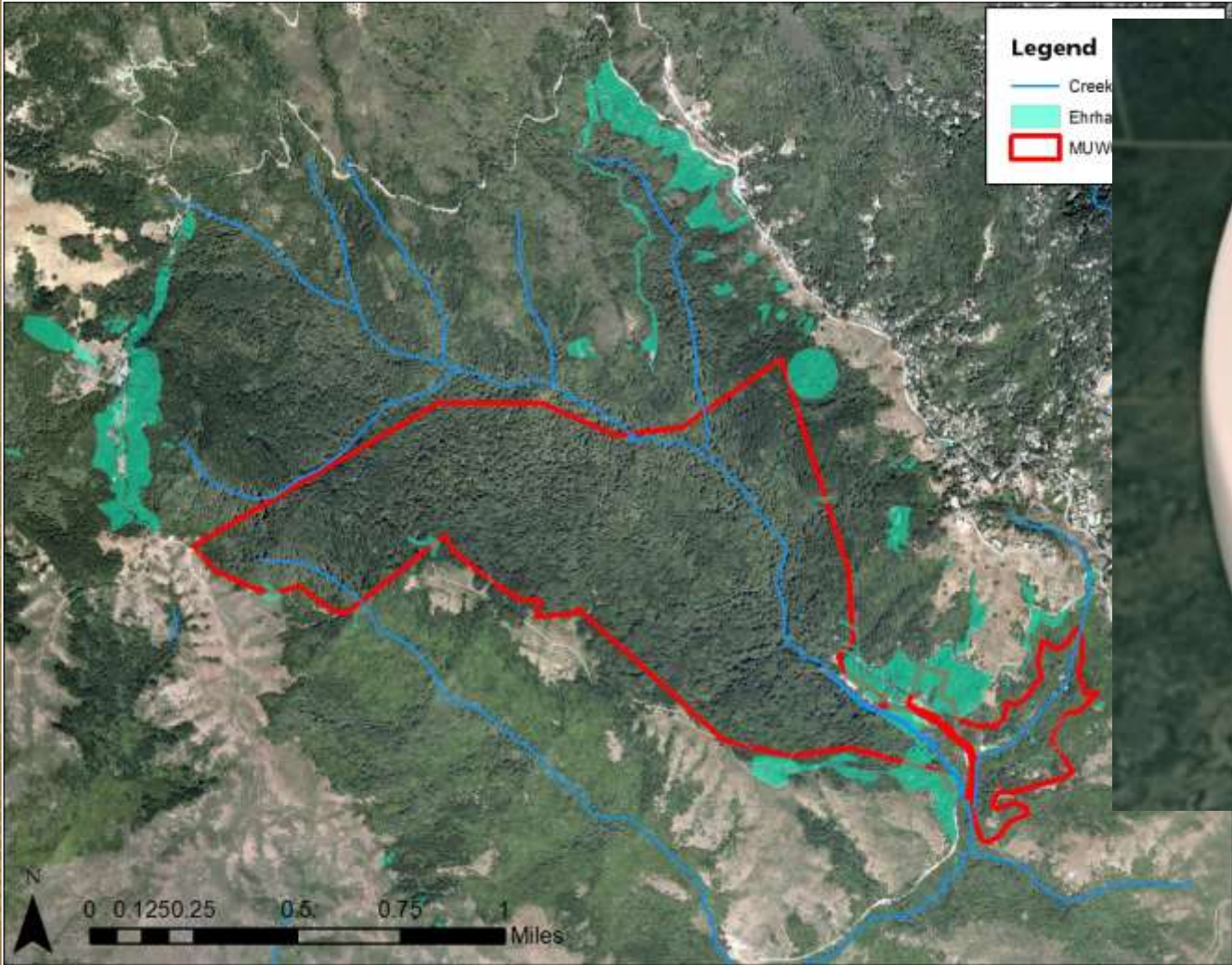


Invasive Plant Management



- Treated more than 10 infested acres in FY 2017
- 88 non-native taxa treated (~12 priority species actively managed)
- Prioritize control in and around Muir Woods, riparian areas, and native perennial grasslands

Ehrharta erecta in Muir Woods





Clematis vitalba in Muir Woods and Redwood Creek

- Superficially similar to native species
- Stewarded and protected for many years
- Mostly within riparian 'no-spray' buffer

Multi-agency Early Detection/Rapid Response



- OneTam EDRR
- NPS I&M Early Detection Team
- Redwood Creek Veg crew
- CalFlora alerts

Revegetation

- Parks Conservancy native plant nurseries
- Revegetation sites on both jurisdictions
- Seed collection on both jurisdictions
- CalTrans partnership



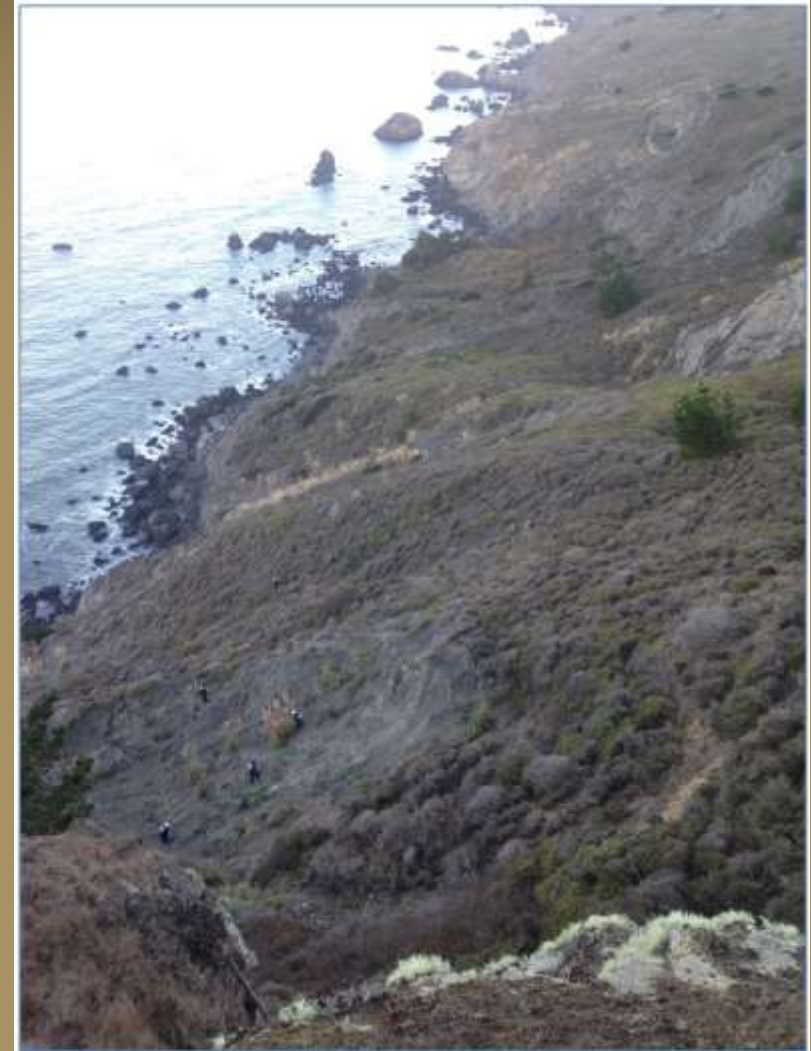
Benefits to State Parks- Bay Area District



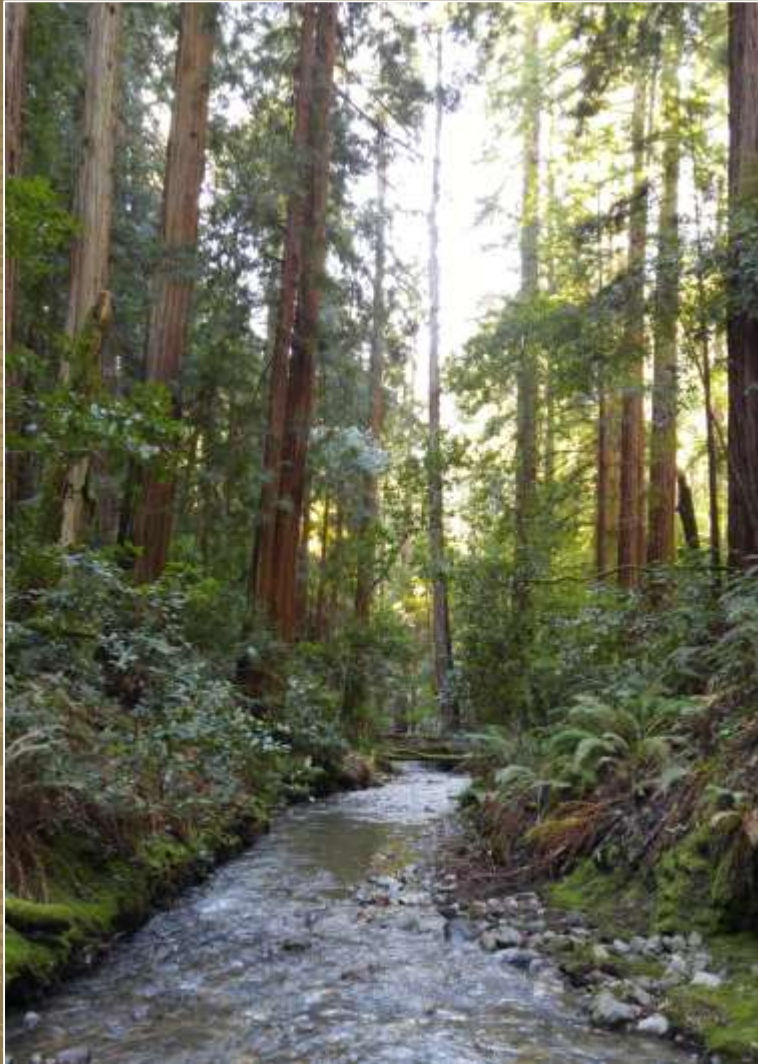
- Mt Tam State Park is open!
- Bay Area District funds can be redistributed to other parks in the district
- 7.2 acres of invasive plants treated

Benefits to Muir Woods NM and GGNRA

- Reduce invasive plant seed source surrounding weed-free areas
- Use of State Park facilities
- Borrowing expertise of State Park staff
- Plants on State Park lands directly affect Muir Woods



Incidental Benefits



- Different invasive plant treatment histories and methods provide impromptu field studies
- Take advantage of strengths from each partner
- Get around weaknesses from each partner
- Tap into established relationships
- Larger pool of diverse funding sources

Parks Conservancy- The glue that holds everything together

- Easier contracting process
- Logistic support
- Financial support
- Staffing support



Data Management...CalFlora

- Easy data collection and sharing across different agencies
- Access to plant sightings from other agencies and the public
- Early Detection email alerts
- Export monthly and annual reports



Challenges

- Different compliance processes-
NEPA, CEQA
- Different herbicide
recommendations
- Different protection measures for
T&E species
- 3 different computer networks
- Double the reporting!
 - Different fiscal years
- Double the weeds!



Working together: Muir Woods rip-rap removal project

NPS

- Mostly on NPS land
- Biomonitors
- Native plant nursery
- NPS contracting
- Improve T&E fish habitat, restore hydrologic processes

State Parks

- Provide staging area
- Grip hoist skills
- Established relationship with CCC
- Seed sources for locally rare species

Perennial Grasslands

- Preservation of grasslands guides State Park management
- Succession management on State Park land (*Baccharis pilularis* removal) only
- Different management histories leads to impromptu study



State Park grassland 1987



Google Earth

Image © U.S. Geological Survey
Image Landsat / Copernicus
Image Landsat / Copernicus

1000 ft

State Park grassland 2017



Google Earth

Image U.S. Geological Survey
Image Landsat / Copernicus

1000 ft

NPS grassland 1987



NPS grassland 2017



Looking Ahead

- Continue to expand invasive plant treatment
- Watershed-wide volunteer program
- Streamline data management and reporting processes to different agencies
- Grassland studies/ management
- Rare plant surveys

Thanks!



- Elliot Gunnison and the Redwood Creek Vegetation Crew
- Catey Ritchie, Danny Franco and Parks Conservancy Staff
- Bree Hardcastle and the Bay Area District of CA State Parks
- Alison Forrestel and GGNRA Natural Resource Staff

Questions?

Thomas_Reyes@nps.gov