



## Herbicide Treatment of Invasive Plants



### Project Description

Perennial pepperweed (*Lepidium latifolium*) is a highly invasive weed that has completely taken over many tidal high marsh habitats in San Francisco Bay, eliminating the value of these critically important areas for native plant and wildlife species. Control of this species is difficult, because it spreads both through abundant seed production and rapid spread of underground rhizomes. Eradication using manual methods is problematic, because disposal of flowering stalks or underground rhizomes has the strong potential to spread the species, if not handled very carefully. Even with careful manual removal, the plant will often re-grow and flower again.

The park attempted manual removal of pepperweed on three separate years, but the areal extent of the species has only increased. For this reason, this year, the species will be controlled using chemical means, which has been shown to be very effective in eradicating the species in other natural areas.

### Dates (weather dependent)

Work will occur on one (1) single day between Tuesday, October 14, 2014, and October 31, 2014.

### Location

Treatment areas are located on both the east and west side of Lagunitas Creek in areas above the high tide line. Most treatment areas are located 0.3 miles west of Point Reyes Station. An additional patch is located 0.2 miles north of Inverness Park. All treatment will occur within portions of the wetlands closed to the public. See attached map.

### Methods

Treatment will be applied using backpack sprayers with calibrated nozzles, where spray volume is adjusted to minimize drift. Contractor crews will be 2 people, including an experienced foreman, with National Park Service staff supervision on site, as well.

### Herbicide

Chemical treatment will consist of foliar application with 1.5% concentration of imazapyr (formulated as Habitat® EPA registration # 241-426), and 1% concentration of a non-ionic vegetable oil surfactant (Competitor®), and up to 1% concentration of blue dye (Hi-Light®).

### Re-entry and Safety

Treatment will occur in closed areas. Re-entry dates will be posted on signs adjacent to the treated areas. Treated areas may be entered 24-hours after treatment, however, other rules restricting entry still apply. Please avoid areas where colored dye indicates that plants have been treated with herbicide. DO NOT enter areas

where perennial pepperweed has been visibly treated with herbicide until the date specified on posted signs. If exposure to herbicide does occur, remove contaminated clothing and wash affected areas thoroughly with soap and water.

### Resource Protection

Spray treatments will not be made within the 24 hours following a rainfall event. No spray treatments will be made if wind speeds exceed 10 mph. Wind speeds will be assessed at plant height level throughout the application time period.

Appropriate mitigation measures including drift shields and/or buffers will be used to protect sensitive resources such as wetlands, sensitive native and rare plants, amphibians, and birds. These measures will be carefully followed during application of herbicide.

### Questions?

Contact Amelia Ryan (415-464-5227) or Lorraine Parsons (415-464-5193)

# Perennial Pepperweed Herbicide Treatment 2014

Giacomini Wetland Restoration Project



National Park Service  
Point Reyes National Seashore/  
Golden Gate National Recreation Area  
Marin County, CA

## Herbicide Treatment Area

 Perennial Pepperweed Patches

0 0.05 0.1 0.2 Miles

