

Invasive Plant Management Work Plan—Early Spring 2009

Overview

The 2008 Yosemite National Park Invasive Plant Management Plan (IPMP); www.nps.gov/yose/parkmgmt/invasive.htm) outlines prioritization of invasive plant species treatment. The 2009 work plan emphasizes treatment of species ranked as high-priority, followed by those of medium-high priority. Among high-priority species, much of the 2009 treatment efforts will be spent on species that currently have large populations and a widespread distribution in the park: Himalayan Blackberry (*Rubus discolor*), velvet grass (*Holcus lanatus*), bull-thistle (*Cirsium vulgare*), yellow star-thistle (*Centaurea solstitialis*). In addition to manual control methods that have been used for several decades in the park, two herbicides, glyphosate and aminopyralid, will now be used to control invasive plant infestations.

The treatment method used in a particular locality depends on the invasive species, plant phenology, and a number of site specific considerations:

Location	Treatment
Within the bed and banks of a designated Wild and Scenic River	manual methods only
Wetland ecosystems	In consultation with Branch of Wildlife Management No herbicide use within 6 feet of standing or flowing water
Terrestrial ecosystems	Herbicide for Himalayan blackberry, other species herbicide if population size exceeds threshold in IPMP
Archeological sites	In consultation with Branch of Archeology and Anthropology
Traditional-use areas	In consultation with tribes
Wilderness areas	Manual methods, or herbicide if ecosystem is threatened

Consistent with the Yosemite's Invasive Plant Management Plan, there will be ongoing internal consultation with other branches in the Division of Resources Management and Science as well as external consultation with American Indian tribes. With the input of these parties, an appropriate treatment plan is selected.

In addition to the site specific considerations mentioned above, the treatment plan is also dependent on the plant species, the availability of methods known to be effective and permitted under the IPMP, as well as the plant phenology (timing of plant growth, flowering, and senescence). The work plan by definition addresses Yosemite's most serious, known invasive plant populations. Through ongoing survey efforts, we still find new invasive plant locations frequently. We will continue to conduct early detection and rapid response work throughout Yosemite, consistent with the IPMP, to minimize the risk of further spread.

Treatment Plan

Yellow star-thistle (*Centaurea solstitialis*) and tocalote (*C. melitensis*)

<u>Location</u>	<u>Timing</u>
El Portal (hillsides)	April-June
Foresta	May-June

Aminopyralid will be used in April to treat yellow star-thistle and tocalote populations larger than 10 square meters. If needed, glyphosate may be used to spot spray plants with backpack sprayers later in the season (April-June), or in case new populations are discovered. Smaller populations will be treated by hand-pulling. Three large populations of yellow star-thistle and tocalote remain in El Portal on steep hillsides. Treatment in and around these areas will be performed by a contractor or by NPS staff. Elsewhere in El Portal, extensive grid surveys have been conducted and have been maintained and will continue to be maintained using manual and mechanical methods. In Foresta, yellow star-thistle will be hand-pulled when found during grid surveys in May and June.

Areas in which herbicide application is taking place will be signed conforming to herbicide label requirements. Signage will include: the type of herbicide in use, target species, time of application, scope of treated area, re-entry time if applicable, and contact information.

Additional treatment locations will be posted in April.

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