

Santa Clara County WMA

2009 Supplemental Project Proposal

Contract Lead Group and Contact Person(s):

Santa Clara County Division of Agriculture

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Please Confirm. If selected, all projects described in this proposal will be in 1 contract with (if more than 1 contract is desired, please describe here): Confirmed, 1 contract with Santa Clara County Division of Agriculture.

WMA Structure and Partners:

The Santa Clara County Weed Management Area has been working under a cooperative MOU since 1999. The group is lead by the Santa Clara County Division of Agriculture, which holds bi-monthly meetings and coordinates the WMA. Current active partners include:

- Santa Clara County Division of Agriculture
- Acterra
- California Department of Food and Agriculture
- California Department of Transportation
- San Francisco Public Utilities District
- California State Parks
- California Native Plant Society
- Santa Clara County Cattlemen's Association
- City of Palo Alto
- City of Gilroy
- Mantelli Ranch
- Midpeninsula Regional Open Space District
- Santa Clara County Open Space Authority
- Santa Clara Valley Water District
- Santa Clara County Roads and Airports
- University of California Cooperative Extension
- United States Department of Agriculture – Natural Resources Conservation District
- Santa Clara County Parks and Recreation

Past Performance of WMA and Partners in Weed Control:

The Santa Clara County WMA has met 5 times in the past 12 months. Each meeting was attended by a dozen or more participants.

The Santa Clara County WMA has an active MOU, a Coordinated Management Plan, a website and an email list.

Under AB1168, SB1740 and the 2006 RFP, we have undertaken the following projects:

- Developed and printed a brochure of the top eleven weeds of the county.
- Sponsored the development and printing of the original "Don't Plant a Pest!" outreach brochure.
- Held seminars and workshops for ranchers and land managers on Post-fire Plant Regeneration, YST Management, Weed Mapping, Using Fire as a Weed Management Tool, and Rangeland Weed Management.
- Eradicated 10, "rated" weed populations.
- Controlled yellow starthistle, barbed goatgrass, and broom species on over 2400 acres.
- Developed a weed management equipment "co-op" for WMA participants.

Other cooperative projects completed by the Santa Clara County Weed Management Area:

- The County Ag Department maintains a county-wide GIS weed mapping project on behalf of the SCCWMA participants.
- Cooperative *Dittrichia graveolens* management at open space / parks interface.
- Created an educational display for public functions.
- Provided outreach at elementary school “Career Day,” and community Earth Day events.

General In-kind contributions: As projected by WMA partners over the period of this proposed grant (not counting expenses included as in-kind line items in the budget). This does include time and mileage for WMA meetings, WMA educational events, and cooperative control projects involving more than one member of the WMA, funded WMA projects through other grants. = **\$53,500.**

Proposed Project

Project 1 – Barbed goatgrass containment, control, and eradication on Coyote Ridge \$11,000

Project Goal:

To contain, control, and eradicate infestations of barbed goatgrass (*Aegilops triuncialis*) in Coyote Ridge, in San Jose, CA, and prevent its further spread into grazing land and into sensitive serpentine grasslands. This habitat is home to the last viable population of the Bay checkerspot butterfly, listed as threatened by the US Fish & Wildlife Service, and fourteen plants on the California Native Plant Society Inventory of Rare and Endangered Plants.

Barbed goatgrass thrives on serpentine. If unchecked, goatgrass can nearly eliminate host plants and nectar sources for the threatened butterfly, leading to local population extinctions. Rare plant populations and spectacular wildflower displays are also at risk. Goat grass limits grazing value, and grazing is the key management prescription to control other invasive annual grasses.

The infestations were first noted in 2000, and appear to have rapidly spread since then. The complex invasion pattern consists of several large patches (tens of acres), spreading foci (< 1 acre) adjacent to the main infestations, and outliers that are spreading rapidly along ranch and utility roads (see attached map).

A swift response could contain these weed populations and preserve this highly valued habitat. Ownership of preserved lands includes Valley Transportation Authority (to be managed by the Santa Clara County Open Space Authority), Silicon Valley Land Conservancy, Waste Management, Inc., and United Technologies Corporation. The owners and managers are cooperating in weed control efforts.

What are the project’s long-term benefits and/or region-wide positive impacts:

The long-term benefits include protection of numerous imperiled species within a unique ecosystem. We have been developing and scientifically documenting strategic, operational, and tactical approaches to goatgrass control that can be exported to other regions. The quality of grazing lands will be maintained, assuring the continued viability of ranching operations that are critical for management of serpentine grasslands in high pollution areas such as South San Jose.

Priority Topic Area Being Addressed (from request for proposal announcement):

This project addresses elements of the priority areas as follows: #1) complete eradication of small pioneer populations of a Cal-IPC high impact, CDFA B-rated invasive weed – complete eradication within 2 years appears feasible for linear roadside infestations and isolated spreading foci; #2) Containment of the leading edges of the large infestations – goatgrass is still absent from large areas of Coyote Ridge, and the invasion can be contained rapidly; complete eradication of larger patches may prove impossible; #3) Regional collaborations: this project involves numerous agencies and organizations, including the Santa Clara County Open Space Authority, Silicon Valley Land Conservancy, Valley Transportation Authority, United Technologies Corporation, Waste Management, Inc., California Native Plant Society, local ranchers, and others, and #4) High value sites: the serpentine grasslands of Coyote Ridge are a biodiversity hotspot with numerous protected species and an incomparable wildflower

display, as mentioned above, and have been under threat from development, air pollution, and poor grazing management (much of which is being mitigated). Goatgrass has been identified as the major remaining threat.

Project Objectives and Methods – list milestones and performance measures:

Objective: Barbed goatgrass detection, containment, control, and local eradication will be conducted on private and public lands. Previous years of work have shown us what tactics are most effective. Spraying with the graminicide Envoy has given excellent results. Frequency along 50-cm intervals in our transects has dropped from 64% before March 2007 treatment to 0 in June 2008 posttreatment. Goatgrass is still present, but at densities so low that handpulling is sufficient. While followup on these small infestations is critical, we are ready to turn our attention to larger areas along the main infestation. A small infestation was found in June 2008 about 1.5 miles away from previously mapped populations. The ridgetop road appears to be the vector. An important step is to begin treating the entire ridgetop road, reducing the risk of spread through vehicle tires and grading equipment.

Task 1: Spray Envoy in previously untreated areas along ridgetop road when grass is vegetative. This treatment will focus on the infested areas of a 2-mile section of road, spraying the roadbed and a 3-m buffer where the densest infestations occur.

Task 2: Test hydromechanical obliteration as goatgrass plants flower. This approach may be used as an herbicide followup (if needed) on one side of the road, and/or may extend the buffer zone farther beyond the road.

Task 3: Employ string-cutting and hand followup crews. This crew will focus on leading edges of the infestation, beating the population back to its densest core. Hand crews are critical for mowing followup and are effective in treating outliers.

Task 4: Evaluate and document results. Results from monitoring will continue to inform future treatment as part of the adaptive management model.

Performance measures: Treatments will be assessed using frequency and reproductive output (number of flowering stalks) as the response variable.