

Sierra Nevada Conservancy-Progress Report

**Sierra Nevada Conservancy Grant Program
Safe Drinking Water, Water Quality and Supply, Flood Control
River and Coastal Protection Act of 2008 (Proposition 84)**

Grantee Name: Inyo/Mono Counties Agricultural Commissioner's Office

Project title: Lower Owens River Watershed Habitat Improvement Project

SNC Reference Number: 070195

Submittal Date: 12-16-2009

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Check one:

6-Month Progress Report

Final Report

<p>6-Month Progress Reports should reflect the previous six months. Final Reports should reflect the entire grant period.</p>

A. Progress Report Summary: The Lower Owens River Watershed Habitat Improvement Project has been completed. The goal of this project was to increase personnel resources in order to employ new weed management strategies and hopefully decrease or eradicate weed population, and also to survey about 8 miles of the Owens River for invasive weed species. We were able to employ new strategies for weed eradication and control, with mixed results. The information that was gleaned from this process will be invaluable during future management efforts, and several very successful management methods have been identified. All areas that were identified in the project proposal as not previously surveyed, and several in addition to these, have been mapped and the new infestations have been added to the weed database.

B. Deliverables or Outcomes completed during this Reporting Period or Milestones Achieved: Overall, 4,388 more acres were managed during the course of this project than was originally proposed. Much of this is a direct result of new infestations discovered during the course of this project. Every new infestation that was discovered in early stages of colonization will save years of work and resources expended. The total known net weed infestations within these sites grew from 18.43 acres in 2007 to 25.58 acres in 2009, and although this is unsatisfactory for an eradication effort, the increases were largely a result of new infestations, and were almost exclusively Perennial pepperweed sites. Old infestations that crews were able to treat for the entire project timeline were in decline (see Attachment "A"). There were three Perennial pepperweed sites out of 41 that had no growth in 2009 and these will be closely monitored in coming years to assess whether they have been fully eradicated.

Total Canada thistle populations are down over 91%, from just over 1/10 acre in 2007 to under 100 plants in 2009 and should be eradicated in the next one to two years. This was a result of utilizing a new herbicide and also the ability to treat infestations during the very late fall, which was not previously possible with only two staff members. This was a key area where the increased personnel resources from this grant were a vital contribution to weed management efforts.

Russian knapweed populations are down 54% since the project began. Of these sites, only one site is not in decline, and two of the declining sites now contain less than 100 plants.

Counting repeat visits to sites and survey efforts, during the course of this project crews covered over 214,919 acres of watershed. Numerous data were collected that will help future efforts, and the lessons involved in coordinating this large effort have helped to streamline coordination and communication methods used not only within our department, but also with outside agencies and landowners.

C. Challenges or Opportunities Encountered: *Lepidium latifolium* populations rose dramatically during 2008, which posed a challenge but also presented an opportunity to manage these populations while we had increased staff as a result of this grant. There is a good chance that, had this funding not been granted, the Owens River Watershed might have been lost to *Lepidium latifolium* during this 2008 expansion. In addition to this, there were a few small wildfires on lands within the project area that altered our treatment schedule and method, and for a short while impeded our access to these lands. There were also initial difficulties hiring seasonal employees, but this problem was short-lived and treatment schedules were altered to mitigate this issue.

During this project there were several opportunities to interact with members of the public and to educate them about the issues associated with invasive species. This project was highlighted by staff in two presentations to area landowners as an example of multiple agencies and organizations working together to achieve a goal. There were also several personal contacts made with fishermen, hunters and other types of recreationalists in the Owens River area where educational materials and information was passed on.

D. Unanticipated Successes Achieved: Although there were many acres to manage initially, many more acres were added to these as new infestations were discovered. In spite of this, crews were able to manage these infestations ahead of schedule, which permitted additional retreatment in populations. There was also additional time to conduct surveys in sensitive areas adjoining the project area, and these surveys led to the discovery and treatment of several new pioneer populations before they had the opportunity to establish.

E. Compare Actual Costs to Budgeted Costs:

PROJECT BUDGET CATEGORIES	Budgeted SNC Dollars	Actual Dollars
Seasonal field assistants salaries (two seasonals)	\$ 37,274	\$ 37,273
Herbicides	\$ 9,053	\$ 9,051
Equipment rental	\$ 46,866	\$ 46,863
Equipment purchase	\$ 43,000	\$ 43,000
Administrative costs	\$ 20,429	\$ 20,415
GRAND TOTAL	\$ 156,622	\$ 156,602

Explanation:

F. Were there any other relevant materials produced under the terms of this Agreement that are not a part of the budgeted deliverables? Update brochures were created using in-kind monies for this project, and were delivered to board members during their October 2008 meeting. See attachment “B”.

G. Next Steps: Inyo/Mono Counties Agriculture and the Eastern Sierra Weed Management Area (ESWMA) group will continue to seek funding to eradicate populations that were included in this project, using methods found effective with the help of funding from this project.

Please Complete this Section for FINAL Report ONLY

Capacity-Building Results and Collaboration and Cooperation with Stakeholders:

This funding directly fostered increased cooperation between the Inyo and Mono Counties Agriculture Department and the Los Angeles Department of Water and Power. Other agencies were also consulted during the course of this project from within the ESWMA, and results from this project were shared with all members. This information dissemination will undoubtedly be the most important contribution of this project to our watershed health over time. Communication with the lessees of the lands within this project’s boundaries has also been enhanced, and they are now better educated regarding the threats of invasive species.

Description of Project Accomplishments:

1. Most Significant Accomplishment

The overall health of the Owens River watershed will be improved in the future as a direct result of this project. Although some areas had significant decline in weed populations, others unfortunately did not. The lasting contribution that these resources will have through education and outreach, strengthened interagency and community awareness, and increased knowledge regarding successful management

practices on the future of the watershed as a whole will by far exceed the resources expended during this project. If this project had not been awarded, our weed management efforts would have been years behind where they are today.

2. WOW Factor

When we hired on twice the personnel over previous years, we expected to get twice the amount of work done. We ended up getting about three times the amount of work accomplished, mostly because of increased organization and pre-planning activities.

3. Design and Implementation

Plan ahead and plan early. Most of our issues resulted from waiting on other agencies/people to respond to our requests, and contacting them earlier would have helped us to stay more within our anticipated timeframe.

4. Indirect Impact

The data generated regarding the effectiveness of the treatment methods that were used during the course of this project has been shared with the other member agencies and groups in the ESWMA. This data has also been shared with various ranchers, farmers, pest control operators, and landowners via presentations given at local pesticide safety seminars. Outlining which methods have been successful and which have not will help all of these parties in future efforts.

5. Collaboration and Conflict Resolution

The project itself helped Inyo County and LADWP, two agencies that are used to conflict with each other, work cooperatively on a project that will positively affect both parties. There was also collaboration with the Bureau of Land Management and Inyo National Forest, both of which have land adjacent to the project area, and all of the lessees of the LADWP land.

6. Capacity-Building

The ESWMA is a group of 14 public and private agencies and groups that work together to eradicate and control invasive plant infestations in Inyo and Mono Counties. The ESWMA encompasses over 8 million acres of California, and our main weakness is obtaining resources to have enough “feet on the ground” to manage weed threats in such a large area. Cooperation between members has always been good, but this project helped to strengthen these ties, and has also encouraged members from the public and other agencies to attend our meetings and learn more about the threat of invasive species.

7. Challenges

A big issue was, of course, the freezing of bond money by the State of California. This single act had the potential to ruin our project, but through other funding opportunities and hard work by employees, we were able to complete the project on time. Other challenges included wildfires, drought conditions, and personnel hiring problems, all of which slowed our project from time to time and required us to alter treatment schedules.

8. Photographs

Please see attachment “A”

9. Post Grant Plans

Inyo/Mono Counties Agriculture has secured American Recovery and Reinvestment Act (ARRA) funds that will enable us to continue the increased levels of staffing that the SNC project initiated. Using the framework developed under the SNC project, we should be able to coordinate our efforts efficiently, and on a slightly larger scale. The information gleaned from the SNC project on the effectiveness of certain treatment methods has already been used to create a strategy for 2010. Our intention is to continue our efforts while perfecting our management strategies until known populations are eradicated, and then to carry this knowledge forward in order to stop new infestations before they can establish. Reaching this eventual goal will enable land managers to exclude invasive weeds with far fewer resources.

10. Post Grant Contact

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SNC-approved Performance Measures: (Please list each Performance Measure for your Project, as identified in your Grant Agreement, and the results/outcomes.)

Number of acres treated for invasive weed removal 2008 to 2009 – 21,256

Number of acres significantly free of invasive species due to treatment during the first year of project – 7,021

ATTACHMENT "A"
Project Photos



Site #1017 – 2006



Site #1017 – 2009 (after wildfire)

ATTACHMENT "A"
Project Photos (continued)



Site #1302 – 2006



Site #1302 – 2009

ATTACHMENT "A"
Project Photos (continued)



Site #1401 – 2007



Site# 1401 – 2009



Spray Crews at Work – 2008

ATTACHMENT “B”

Update Brochures from 2008

See Following Pages

Accomplishments:

(as of 9/25/2008)

- **Over 30,000 gross acres managed in the project area**
- **All project area sites visited at least twice—more than a 200% increase in net acreage over 2007**
- **One previously unknown site found, potentially saving years of work**

Activities Remaining:

- **28 sites require 3rd revisit for 2008**
- **Survey of several portions of the Owens River**
- **Weed removal from all project sites, Summer 2009**

Although staff from Inyo/Mono Agriculture and members of the Eastern Sierra Weed Management Area Group regularly survey areas in Inyo and Mono Counties for noxious weed populations, the public has been very valuable in spotting new weed infestations. If you think you may have found a weedy invader, we would appreciate you reporting it. Please visit:

<http://www.inyomonoagriculture.com>

Lower Owens River Watershed and Habitat Improvement Project



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An Inyo/Mono Counties Agriculture Department watershed protection and enhancement project, paid for by grant funding from the Sierra Nevada Conservancy

Lower Owens River Watershed and Habitat Improvement Project



Helping to Maintain a Healthy Owens River Watershed

The Inyo/Mono Counties Agriculture Department began the Lower Owens River Watershed and Habitat Improvement Project in Spring of 2008 with funding from the Sierra Nevada Conservancy. This project aims to step up efforts to

eradicate selected "high value" invasive weed sites that threaten not only the success of the Lower Owens River Project, but the Owens River watershed overall.

Three weedy invaders in particu-

lar were targeted for this project. These include Perennial pepperweed, Canada thistle, and Russian knapweed. These plant species are known for their aggressiveness in competition with native plants, and for being difficult to eradicate once established. These ongoing efforts will ensure that no new infestations can take hold, and that known weed populations are effectively managed.



Perennial pepperweed (*Lepidium latifolium*)



Canada thistle (*Cirsium arvense*)

Timing for the Lower Owens River Watershed and Habitat Improvement Project could

not have been better.

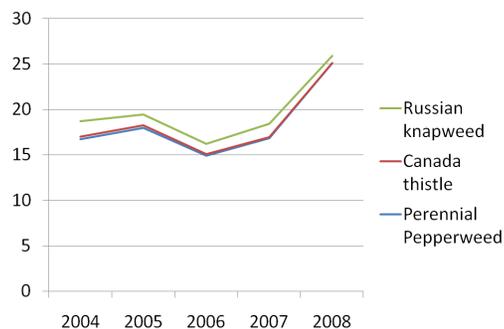
With the re-watering of the lower Owens River and the expansion of invasive weeds, staff from Inyo/Mono Agriculture were unable to



Russian knapweed (*Acroptilon repens*)

visit all sites in the project area. Funding from the Sierra Nevada Conservancy has enabled this important work to be completed and for efforts to be expanded during a year when weed populations have grown considerably.

Net Acreage of Target Weeds in Project Area – 2004 to 2008



Perennial pepperweed infestation in the project area, Summer 2007



Same Perennial pepperweed infestation, Summer 2008