



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: Sierra Streams Institute

Project title: Hirschman's Pond Healthy Forest Initiative

SNC Reference Number: SNC 536

Submission Date: 11/20/2015

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Check one:

- 6-Month Progress Report
- Final Report

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

A. Progress Report Summary:

The Hirschman's Pond Healthy Forest Initiative is an effort to protect habitat and water quality within the Deer Creek watershed in Nevada County, CA. Over the course of this project Sierra Streams Institute has monitored the ecological conditions of the forest surrounding Hirschman's Pond and Woods Ravine, collaboratively developed the Hirschman's Pond Land Management Plan, and completed permitting requirements for plan implementation. Throughout the entirety of the project Sierra Streams Institute has worked with volunteer citizen scientists and community members to conduct biological monitoring and develop the land management plan. This important resource will serve as a guiding document for the City of Nevada City to steward this property in perpetuity and has provided a framework for restoration of this landscape. Following completion of the planning, assessment, and permitting phases of the Hirschman's Pond Healthy Forest Initiative, Sierra Streams Institute plans to continue this project by implementing the recommended invasive species, brush, and ladder-fuels reduction work that is outlined within the land management plan. Restoration of the forest at Hirschman's Pond will reduce the risk of catastrophic wildfire within this area, prevent potential water quality impacts to Woods Ravine, and improve wildlife habitat.

B. Deliverables or Outcomes completed during this Reporting Period or Milestones Achieved:

Finalized workplan and budget
Finalized subcontracts/grants

Finalized Report of Existing Data
Reports to Nevada City City Council
Final Survey and Assessment Report
Final Land Management Plan
CEQA Documentation Completed
Permits Secured
Six Month Progress Reports
Final Report

C. Challenges or Opportunities Encountered:

While no significant challenges were encountered during the course of the project, the Hirschman's Pond Healthy Forest Initiative has benefited from repeated opportunities to engage the local community in efforts to monitor and restore this habitat. By involving local "citizen scientists" in biological monitoring efforts, Sierra Streams Institute has been able to foster a community appreciation of this unique landscape and the habitat that it offers. Over 100 volunteers have helped to monitor birds, mammals, amphibians, vegetation, and forest structure during development of the Hirschman's Pond Land Management Plan. Additionally, during the course of the project, Sierra Streams Institute has partnered with the University of California Extension to bring the California Naturalist certification program to the Sierra Nevada Foothills. During the past two springs, Sierra Streams Institute has educated over 40 adults in natural history topics as a part of this program. Sierra Streams Institute has featured the Hirschman's Pond Healthy Forest Initiative as a part of the course, and has hosted multiple classes about forest ecology, amphibian surveys, and vegetation monitoring at the site. Over the course of the project, the opportunities encountered to actively involve community members in biological monitoring and development of the land management plan have proved to be very beneficial and have garnered public support for implementing forest health projects throughout the area.

D. Unanticipated Successes Achieved:

Through the biological monitoring and assessments that Sierra Streams Institute has conducted at Hirschman's Pond the local community has learned more about the unique habitat that this area provides. As a result of the collaborative development of the Hirschman's Pond Land Management Plan, residents of the surrounding neighborhood and members of the general public have become very engaged with this land, and now understand the benefits of supporting a healthy forest ecosystem for both humans and wildlife. The wide level of support enjoyed by this project has demonstrated the importance of protecting and restoring this landscape.

E. Compare Actual Costs to Budgeted Costs:

PROJECT BUDGET CATEGORIES	Budgeted SNC Dollars	Actual Dollars
Project Staff (management, data collection, assessments, plan development)	38,877.48	38,627.29
Project Contractor: (City of NC plan development)	1,722.52	1,722.52
CEQA and Permitting	25,000	25,561.13
Outreach Materials	1,200	881.86
Administrative	8,2000	8,198.82
GRAND TOTAL	75,000	74,991.62

F. Do you have information to report on the project-specific Performance Measures for your project?

Please refer to the final section of this report for detailed information regarding the project-specific Performance Measures.

G. Were there any other relevant materials produced under the terms of this Agreement that are not a part of the budgeted deliverables? If so, please attach copies

Please refer to the supplementary materials included with the hard copy of this report.

H. Next Steps:

Sierra Streams Institute has submitted an application to the Sierra Nevada Conservancy for funding through the Proposition 1 grant program to implement the Hirschman's Pond Land Healthy Forest Initiative. If the project is awarded funding, Sierra Streams Institute will work with the City of Nevada City to implement the Hirschman's Pond Land Management Plan by removing invasive species and thinning the forest. Invasive species removal efforts have already begun at the project site through annual volunteer Scotch Broom Challenges. These efforts will be augmented with regular volunteer invasive removal and thinning workdays.

Capacity-Building Results and Collaboration and Cooperation with Stakeholders:

City of Nevada City – Collaborated together to develop the Hirschman's Pond Land Management Plan and disseminate findings from on-the-ground assessments

Bear Yuba Land Trust – Created and maintained public trail through project area, provided background information regarding the property

California Naturalist Program – Students participated in biological assessments and learned about ecology of pond and surrounding forest during course field trips

Greater Cement Hill Neighborhood Association – Participated in assessments, collaboratively helped to develop Hirschman’s Pond Land Management Plan, provided community feedback and outreach, hosted Scotch Broom Challenge events

Nevada County Firesafe Council – Organized Scotch Broom Challenge events, provided tools and event outreach

Sierra Foothills Audubon Society – Provided assistance conducting yearly bird surveys and co-sponsored a Scotch Broom Challenge event

Sierra Nevada AmeriCorps Partnership – Service members participated in on-the-ground assessments, data entry and outreach efforts

Description of Project Accomplishments:

1. Most Significant Accomplishment

The Hirschman’s Pond Healthy Forest Initiative has helped to protect wildlife habitat and water quality within the Deer Creek watershed in Nevada County, CA. This project has facilitated the collaborative development of the Hirschman’s Pond Land Management Plan by Sierra Streams Institute and the City of Nevada City. Over the course of this project Sierra Streams Institute has conducted extensive biological monitoring throughout the project area and has worked with volunteer citizen scientists to conduct these assessments. The Hirschman’s Pond Land Management Plan provides an important framework for restoration of this landscape and stewardship in perpetuity. Through invasive species, brush, and ladder-fuels removal, restoration of the forest at Hirschman’s Pond will reduce the risk of catastrophic wildfire within this area, prevent potential water quality impacts to Woods Ravine, and improve wildlife habitat.

2. WOW Factor

Throughout the course of the project, Sierra Streams Institute was able to feature the property as a “living laboratory” for California Naturalist Program and local schoolchildren when learning about forests and aquatic ecosystems. Students and community members of all ages helped to monitor wildlife populations and forest conditions to guide development of the Hirschman’s Pond Land Management Plan, a document that will help the City of Nevada City to steward this property in addition to their other forested lands in perpetuity. During project development, more than 100 community volunteers contributed over 1500 hours of volunteer time when conducting biological assessments, collaborating on the land management plan, and removing invasive species.

Additionally, during the course of this project Sierra Streams Institute worked closely with volunteers from the Sierra Foothill Audubon Society to monitor the bird populations residing throughout the forest habitat at Hirschman’s Pond. This

information not only guided development of the land management plan, but will also provide beneficial data for demonstrating the response of wildlife to habitat improvements as a result of implementing the Healthy Forest Initiative. With the data collected during these monitoring efforts, Sierra Streams Institute also produced 'A Guide to Common Birds of Hirschman's Pond', an educational resource for community use.

3. Design and Implementation

Throughout all stages of project implementation it is important to maintain an open conversation with nearby property owners. Engaging them in all phases developing a land management plan gives them ownership of project and facilitates friendly collaboration. Community members have expert knowledge in many relevant fields (birds, forestry, etc.) and are often eager to share this knowledge for the improvement of local open space. When engaged in the process, community members and neighboring property owners are more willing to work towards a common goal, but they may not support land management decisions that lack significant public involvement.

4. Indirect Impact

During the course of this project Sierra Streams Institute, the City of Nevada City, and community members collaboratively produced the Hirschman's Pond Land Management Plan. As a result of the biological monitoring and research that has contributed to the creation of this document, the City of Nevada City will be assisted in managing the multiple forested lands that they own and protect.

Additionally, the project has enjoyed local publicity, helping to create an appreciation for the wildlife habitat that this area offers. By creating an awareness of the scientific efforts to monitor and restore this habitat, there has been a great increase locally in the appreciation of the natural history of Hirschman's Pond. This project has also helped to raise awareness regarding the need for managing landscapes to reduce the risk of catastrophic wildfire and while improving wildlife habitat.

5. Collaboration and Conflict Resolution

This project has significantly benefited the collaborative relationship between Sierra Streams Institute, the City of Nevada City, and the Greater Cement Hill Neighborhood Association. Prior to development of the Hirschman's Pond Land Management Plan there was a level of mistrust between the neighborhood association and the city regarding the level of recreational development throughout the recently acquired area. However, as Sierra Streams Institute worked together with both groups to develop the land management plan all parties realized a shared interest in the protection of wildlife habitat and forest health. By creating a platform for all parties to share their perspectives, the plan created an opportunity for the groups to work together to protect this valuable recreational resource and wildlife habitat. Many

neighbors ended up being volunteers for fieldwork, editors of land management plan, and supporters of project. Additionally, the Nevada City City Council has repeatedly voiced their support and appreciation for the project.

6. Capacity-Building

The project has coincided with a period of considerable growth for SSI, with the addition of 3 new board members and a significant increase in grant funding and new projects. As an organization, the board and staff have engaged in strategic planning to manage this growth and ensure that our work continues to support our mission. We have also added several new opportunities for our community members to get involved as citizen scientists, including phenology studies and surveys of mammals, birds, and amphibians. Additionally, we have partnered with University of California Extension to bring the California Naturalist program to the Sierra Nevada foothill region, and have taught over 40 adults over the past two springs. We have added a volunteer coordinator position to help us engage our community volunteers more effectively. Finally, our education department has gone through a period of considerable growth with many new partnerships with local schools and with the Nevada County Superintendent of Schools, with whom we cofounded a highly successful summer program for at-risk students. The Hirschman's Pond Healthy Forest Initiative has provided a prime opportunity for students to get engaged in hands-on science, and has been the location for a number of field trips for local community members as well as the California Naturalist Program.

7. Challenges

No significant challenges were encountered during the course of the project. At the beginning of the project implementation there was a level of disagreement between the Greater Cement Hill Neighborhood Association and the City of Nevada City. However, as Sierra Streams Institute worked with both of these groups to develop the Hirschman's Pond Land Management Plan, a collaborative relationship developed between all parties. By involving neighbors of the project in meetings, biological monitoring, and empowering them to be a part of the process this project has helped to create a collaborative plan for stewarding this open space. As a result, all of these groups are in support of implementing the Hirschman's Pond Healthy Forest Initiative for the habitat protection.

8. Photographs

Please refer to the supplementary materials included with this report; photographs are included on the compact disk.

9. Post Grant Plans

Sierra Streams Institute and the City of Nevada City plan to continue the Hirschman's Pond Healthy Forest Initiative by proceeding with implementation of the Hirschman's Pond Land Management Plan. A proposal for funding to support this project is currently under review by The Sierra Nevada Conservancy. With the involvement of community volunteers and the California Conservation Corps, invasive species removal and forest thinning work can begin immediately following approval of funding. Sierra Streams Institute plans to continue public outreach efforts regarding the project through their monthly electronic newsletter, the quarterly print Greater Cement Hill Neighborhood Association newsletter, Scotch Broom Challenge event publicity, the City of Nevada City Recreation Department, onsite signage, the California Naturalist Program, and local media outlets.

10. Post Grant Contact

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SNC-approved Performance Measures:

Dollar Value of Resources Leveraged for the Sierra Nevada

Project funds from other sources	Source	Description	Amount
	Greater Cement Hill Neighborhood Association	Scotch Broom Challenge	\$3,000
	Bear Yuba Land Trust	Trail Maintenance	\$2,250
	National Environmental Education Foundation	Public Lands Every Day Capacity Building Grant	\$2,000
	California Naturalist Program	Student Course Fees	\$11,400
	The Living Wild Project	California Naturalist Program Scholarship	\$5,000

Volunteer hours	Total volunteers	Total hours	Total Value*
	103	1731	\$44,480.87
Major In-Kind Contributions	Source	Description	Value
	SSI Volunteer Monitors	Community volunteer environmental monitors and biological monitoring equipment	\$44,960.87

*Rates of \$24.75/hr (2013), \$26.34/hr (2014), and \$26.87/hr (2015) were used to calculate the value of volunteer time (California: http://www.independentsector.org/volunteer_time)

Number of People Reached

Demographic	Total	Education	Information Distribution	Collaboration
General Public	861	120	725	16
Sierra Nevada Residents	861	120	725	16
Youth/ Students	16	10	-	6
Community volunteers	103	40	-	63
Conservation groups/individuals	9	3	-	6
Landowner groups/individuals	61	15	41	5
Resource professionals	8	4	-	4
Government officials	25	20	-	5

Number and Type of Jobs Created

Occupational Group	Number of people employed	Length of employment (weeks)	Average number of hours per week	Total FTEs	Season of employment
Professional	4	140	15	1.5	All