

1. Narrative Descriptions (EFN: Narrative .docx)

a. Detailed Project Description

Project Summary

The goal of this project is to develop an Integrated Regional Management Plan that contains all the planning, documentation, environmental clearances, and public support necessary to leverage funds and resources for landscape scale implementation of on-the-ground management activities to control Perennial Pepperweed, *Lepidium latifolium*, (a.k.a. Tall Whitetop) in the Lahontan Basins Region, which encompasses the Susan River, Long Valley Creek, Eagle Lake, and Madeline Plains Watersheds in Lassen and Sierra County, California.

In 2009, two groups with leadership in addressing natural resource concerns in the Honey Lake Valley: the Honey Lake Valley Resource Conservation District (and riparian water rights water master for the Honey Lake Valley) and the Lassen County Special Weed Action Team (SWAT) formed the Susan River Watershed Group (SRWG) to address two key resource issues of local concern – aging irrigation infrastructure in the Lower Susan River, and the ongoing concerns about the spread of Perennial Pepperweed (*Lepidium latifolium*) populations. The SRWG has worked with the Natural Resource Conservation Service (NRCS) to develop a Susan River Area Rapid Watershed Assessment (SRARWA), is in the process of completing a Susan River Watershed Management Strategy, and has worked with the Honey Lake Valley RCD to submit an Integrated Regional Watershed Management Planning (IRWMP) grant proposal for the Lahontan Basins Region to the California Department of Water Resources (DWR). All of these efforts have lead to the conclusion that Perennial pepperweed is a significant problem, and a significant constraint on the riparian health of the watersheds within the Lahontan Basins Region.

Many Lassen land managers feel a coordinated watershed approach used to manage perennial pepperweed in the Lahontan Basins Region has the best chance of success for restoring historic agricultural productivity and environmental benefits on infested lands. The watershed approach focuses on synchronizing landowner efforts by starting control efforts at the top of the watershed and then controlling Perennial Pepperweed downstream to the deltas. Landowners have spent millions of dollars battling Perennial Pepperweed in Lassen County over the last 20 years without a coordinated watershed approach. Many landowners have controlled the weed on their property, but constant re-infestation from upstream seeds and root fragments moving down the waterways makes long-term weed control impossible.

This project addresses the critical first steps of a watershed-based management approach for Perennial Pepperweed within the Lahontan Basins Region. The project focuses on promoting landowner cooperation, developing landowner management groups, educating landowners about effective management strategies, mapping current infestations, and planning control efforts. Our goal at project completion is to have all the necessary planning, documentation, environmental clearances, and public support in place to apply for grant funds and implement on-the-ground management activities to control perennial pepperweed in the Lahontan Basins Region. The plan

will also include an evaluation and recommendations for utilizing County ordinances and food and agriculture law to regulate the control of Perennial Pepperweed.

Environmental Setting and Impacts

The Lahontan Basins Region boundary, established for the development of an Integrated Regional Watershed Management Plan (IRWMP), includes the Susan River watershed, Eagle Lake Basins, Madeline Plains, and Long Valley Creek watershed. Typical of the Great Basins geography, the Lahontan Basins IRWM is hydrologically unique in that it is comprised of many distinct watersheds/closed Basins. Yet, in terms of effective resource management, community involvement and culture, this area is best managed as a single IRWM region. Within the defined region there are similarities in the resources issues and the individuals, communities, resource agencies and organizations have a history of working and interacting with each other. The entire boundary falls within the area of the Lahontan Regional Water Quality Control Board and mostly within Lassen County. There are some jurisdictional distinctions, but the primary basis for the proposed regional boundary has more to do with a workable area, and watersheds with common communities, similar resources, and cultures. Basically, there are many more commonalities within this region than differences. The Lahontan Basins Region encompasses approximately 1,421,573 acres or 3,170 square miles in Lassen and Sierra Counties. All of the water currently used in the Lahontan Basins Region comes from naturally occurring water within the Lahontan Basins Region (surface water and groundwater accumulated from rain and snow that falls in the Lahontan and surrounding mountains).

Current land-uses for the project area are diverse. They include rangeland, irrigated pasture, cropland, wildlife areas, and wildlands. Most land within the flood plain is managed for grazing, wildlife, or wildlands. Land adjacent to the floodplain includes irrigated pasture, alfalfa, row crops, and wildlife areas. Most of these parcels are stable, rural lands that are not susceptible to human development or near future changes.

Perennial pepperweed has invaded over 40,000 acres in the Lahontan Basins Region. It was first documented in Lassen County in the early 1980s, and became pervasive following a large Susan River flood event during the mid-1980s. Monoculture perennial pepperweed stands are destroying the productivity and sustainability of our watersheds by crowding out desirable vegetation, altering ecosystem function, reducing stream bank stability, and threatening wildlife habitat. Perennial pepperweed costs Lassen County landowners millions of dollars each year by invading cropland, dramatically decreasing grazing land productivity, and depreciating land values. The plant is a site-changing organism that easily out-competes other native or beneficial non-woody species. The plant offers no known benefit to land managers, or to the ecological sites it invades. It often occupies riparian areas, but its roots, although extensive, do not hold soil during flood events. It also limits the regenerative capabilities of beneficial woody species such as willows and cottonwoods, destroying wildlife habitat. The plant can tolerate salty, dry, and water-logged environments. Infestations are difficult to treat. Perennial Pepperweed infests most of the land surrounding the riparian corridors in the lower Susan River Watershed, has spotty presence in the Upper Susan River Watershed and Eagle Lake watershed, and has begun to spread within the Long Valley Creek watershed. Pepperweed primarily spreads via irrigation

ditches and flood events. The seeds float, and seedlings can grow while submerged in water. The seed is spread to new fields by farm equipment and livestock.

Due to Pepperweed's pervasive nature, and complete lack of marketable value, it is a major burden to farmers. The plant, if given the opportunity, will invade pasture and cropland in just a few years. The plant offers little nutritional value, and livestock have not been observed eating it in a decadent state. Pepperweed's presence in hay fields is problematic for a variety of reasons. It sprouts before planted crop species, and can easily out-compete them if left untreated. If seeds and flowers are present in hay, it may be refused or sent back by the buyer, county, or state the hay is entering. This has occurred with Lassen County hay both in Stanislaus County and at the Nevada border during the summer of 2010. The University of California, Cooperative Extension (UCCE) Lassen County Office, University of Nevada, Reno, and University of Idaho have identified integrated pest management techniques that have been effective in reducing the plant's biomass and root reserves, creating an opportunity for the plant to be completely killed.

Sensitive habitats include Carson Wandering Skipper (CWS) (endangered butterfly) habitat near Honey Lake. The management team has worked with the U.S. Fish and Wildlife Service (USFWS) on developing perennial pepperweed treatment options within CWS habitat. In 2007, the Lassen Special Weed Action Team (SWAT) crew treated CWS habitat along the Lake Shore with recommended treatments to control perennial pepperweed. These treatments were successful, and in 2008, survey crews observed an increase in CWS counts within the treated areas. Other sensitive areas within the project area include riparian habitat along the Susan River and Long Valley Creek. Management plans will be designed to control perennial pepperweed in these areas with the least impact on non-target vegetation such as willows and broadleaf forbs.

Project Scope and Intended Project Results

There are five major components to this project: 1) **Education** through the use of on-the-ground demonstration projects regarding effective techniques for treating perennial pepperweed; 2) Detailed **Mapping** of the current range of Perennial pepperweed infestations in the region; 3) **Outreach** to landowners and agencies to promote cooperation in the development of working groups in Susanville, Standish, and Doyle; 4) Development of three **Integrated Management Plans** with input from Working groups that outlines an effective management strategy and demonstrates public support necessary to acquire grants funds for on-the-ground management activities to control perennial pepperweed in the Lahontan Basins Region; and 5) Development of **Environmental Compliance** documents necessary to implement Management Plans.

Compatibility with Goals of Proposition 84

This project is consistent with the Goals of Proposition 84 and multiple public benefits will be provided to the Lahontan Basins Region. A major improvement will be achieved by developing a coordinated effort to treat perennial pepperweed within the region. The project will lay the groundwork for management activities that will benefit both land and water resources. Revegetation of grazing land, native meadows, riparian areas, and agricultural lands will re-establish native vegetation or desirable crops. Perennial pepperweed control along waterways will reduce streambank erosion from flood and spring run-off. Controlling perennial

pepperweed will also prevent changes to soil chemistry and soil moisture cycles caused by the invasive weed. Benefits to water resources include greater stream bank stabilization, improved water quality, and greater bio-diversity of aquatic and riparian species. Re-establishment of native feed and forage species will also increase the amount, diversity, and quality of wildlife habitat. Additionally, habitat for the endangered species, the Carson Wandering Skipper, will be restored and preserved. Working landscapes like livestock grazing will be restored and reestablished.

Compatibility with SNC Program Areas

This project applies to the following SNC Program Areas:

1. Provide increased opportunities for tourism and recreation.

Access along the Susan River and Long Valley Creek is limited in many areas by thick, impassable thatch of old perennial pepperweed growth. Removal of this old growth will improve access for hiking, bird watching, fishing, hunting, photography, boating, and many other outdoor activities. Restoration of native vegetation will improve wildlife habitat and aesthetic views within infested areas for recreation.

2. Aid in the preservation of working landscapes

The project will aid in preserving working landscapes by restoring range and grazing land productivity by replacing perennial pepperweed monocultures with forage species that support responsible livestock grazing practices.

3. Reduce the risk of natural disasters such as wildfires.

In addition to restoring stream bank stability and reducing the disastrous risk of erosion during flood events, a reduction in perennial pepperweed infestations will reduce the risk for wildfire. Large areas of accumulated thatch provide a large fuel source that could easily be ignited and destroy thousands of acres in Honey Lake Valley. Such a wildfire has the potential to destroy houses, structures, out buildings, and threaten both livestock and pets as well as human life.

4. Protect and improve water and air quality resources.

Perennial pepperweed infestations can become widespread monocultures that reduce stream bank stability and increase, in a dramatic way, soil erosion during flooding. Reduction of perennial pepperweed infestations followed by re-seeding of native vegetation will restore and promote natural bio-diversity of species in riparian areas and thereby increase stream bank stability along the Susan River and Long Valley Creek. Since perennial pepperweed increases soil nutrient cycling and depletes deep soil moisture reserves compared to native vegetation, control and re-vegetation within infested areas will prevent soils changes that can permanently alter ecosystem function.

5. Assist the regional economy through the operation of SNC's program.

The project will assist the regional economy by increasing awareness of the perennial pepperweed problem and increasing landowner cooperation with regard to perennial pepperweed. A watershed management approach will create the opportunity for increased agricultural production on some 5,000 + acres increasing the demand for agricultue infrastructure

including demand for farm workers, farm equipment and supplies, and their contribution to small towns in Lassen County.

6. Undertake efforts to enhance public use and enjoyment of lands owned by the public.

The project will result in the restoration of native vegetation and wildlife habitat at CA Wildlife Areas and other public lands along Long Valley Creek and the Susan River. Perennial pepperweed management will make available more diversified and developed recreational resources and opportunities like those mentioned in the first SCN goal including hiking, hunting, fishing, boating, photography, and bird watching.

b. Workplan and Schedule

Task	Schedule
<p><u>Demonstration Projects</u> - Demonstration projects will be established near Susanville, Doyle, and Standish with HLV RCD and SWAT partner funding to demonstrate effective management strategies for perennial pepperweed control. Demonstration project plots will be up to 20 acres and will include: 1)Riparian habitat; 2)Cropland; 3)Rangeland; and 4)Small landowner properties. Plots will be established specific to the land-uses common for each landowner group (Susanville, Standish, Doyle). The primary function of the demonstration projects will be to educate landowners and give them a first-hand look at successful perennial pepperweed control. Many landowners have misconceptions regarding the efficacy of different management strategies and the actual feasibility of controlling pepperweed on their properties. Treatments will be completed in Spring 2014. Field tours will be conducted throughout the project timeline to view results and educate landowners. <u>Deliverables:</u> Tour Sign-In Sheets, Tour Evaluation Forms, and Photo Points.</p>	<p>Spring 2013 - Spring 2014</p>
<p><u>Hire Project Coordinator:</u> A Request for Proposals (RFP) for the Project Coordinator will be issued as soon as an agreement is signed between HLVRCD and SNC. Prospective consultants will have two weeks to respond. HLVRCD and partner agency representatives will review proposals, interview candidates, and hire a consultant based on the most qualified bid. The HLV RCD Watershed Coordinator will assist the Weed Coordinator with GIS Mapping and all other aspects of this proposal. <u>Deliverables:</u> Contract</p>	<p>June 2013</p>
<p><u>Landowner Survey</u> - Parcel data and GIS will be used to develop a mailing list of landowners with potential perennial pepperweed problems. The goal of the survey will be to more accurately estimate acreage, determine landowners' perception of the problem, determine landowners' current management effort, and landowner interest in participating in working groups to address perennial pepperweed as part of a landscape scale effort. Morning radio spots and newspaper announcements will be used to let the community know that the survey effort is taking place. <u>Deliverables:</u> Completed Surveys</p>	<p>June – Sept. 2013</p>

<p><u>Ground Mapping/Landowner Outreach/Photo Point Establishment</u> - The Project Coordinator and Watershed Coordinator will conduct ground mapping of perennial pepperweed infestations during peak flowering to fill gaps in current maps and verify current map accuracy. When possible the Coordinator will conduct outreach with landowners regarding the effort to address perennial pepperweed on a watershed scale. The Coordinator will also establish photo points throughout the project area that can be used to monitor the effectiveness of future treatment efforts. The University of California's manual on photo monitoring will be used to establish monitoring protocol. <u>Deliverables:</u> Landowners Surveys, Photo Points, and GPS Data</p>	<p>June-Aug 2013</p>
<p><u>GIS Mapping of Perennial Pepperweed</u> - Previous mapping efforts, the landowner survey and ground mapping data will be used to update the current map of perennial pepperweed infestations within the Honey Lake Valley. This map will be used to facilitate the development of landowner management groups within the Honey Lake Valley. <u>Deliverables:</u> Updated Map</p>	<p>July-Sept 2013</p>
<p><u>Public Meetings to Introduce Project</u> - Public meetings will be held in Susanville, Stadish, and Doyle to present current infestation maps and educate landowners regarding perennial pepperweed's negative environmental and economic impacts. Also, landowners will be educated regarding effective integrated management strategies for perennial pepperweed control and the importance of coordinating control efforts to manage the weed on a watershed level. Landowner meetings will also serve as a way to introduce landowners to the project, determine their interest in participating, and determine which management activities they would be interested in pursuing. A field tour will be schedule as part of these public meetings to give landowners a hands on look at perennial pepperweed issues and treatment techniques. <u>Deliverables:</u> Sign-In Sheet and Powerpoints</p>	<p>July - Aug 2013</p>
<p><u>Develop Coordinated Landowner Working Groups</u> - Two to three meetings will be held in order to develop coordinated landowner groups within the watershed for the Susanville, Standish, and Doyle areas. Meetings will allow landowners to join the groups, set priorities with regard to key treatment areas, set timelines for treatment, and decide on management objectives and strategies. <u>Deliverables:</u> Sign-In Sheets and Working Group Evaluation Forms</p>	<p>Aug 2013 - Dec 2013</p>
<p><u>Develop Management Plans for each Coordinated Landowner Group</u> - A management plan will be developed for each of the three working groups (Susanville, Standish, Doyle) based on the input collected at working group meetings. Management plans will include management strategies specific to the key treatment areas identified by the group. Landowners will be asked to enter into an agreement with the management group in order to receive future funding to augment their management costs. Management Plans will be used to leverage funding to implement the plans on a watershed scale. <u>Deliverables:</u> Three Management Plans</p>	<p>Nov 2013 - June 2014</p>
<p><u>CEQA Compliance for Workgroup Plans</u> - An environmental review of each of the three management plan will be conducted in order to comply with the California Environmental Quality Act (CEQA) in order to ensure that potential environmental impacts from project implementation are addressed and that projects are cleared for implementation when implementation funds are received. <u>Deliverables:</u> CEQA Compliance Documents</p>	<p>Nov. 2013 - June 2014</p>
<p><u>Six-month and Final Progress Reports:</u> Progress reports will be submitted to the SNC every six-months regarding project progress to date and performance measures reached in order to track progress toward meeting project goals and desired outcomes. <u>Deliverables:</u> Progress Reports</p>	<p>Dec. 2013, July 2014</p>

c. Restrictions, Technical/Environmental Documents and Agreements

No extraordinary restrictions have been placed on this project. The project is a planning and information gathering project and does not have potential to significantly impact the environment.

California Environmental Quality Act (CEQA):

The project is exempt from CEQA per Article 19: Categorical Exemption 15306 – Information Gathering and Article 18: Statutory Exemptions 15262 - Feasibility/Planning Studies. The Honey Lake Valley Resource Conservation District staff and its Board of Directors have reviewed the proposed project environmental analysis and determined that it is exempt from the California Environmental Quality Act. The Pit RCD filed a Notice of Exemption with the Lassen County Clerk (see attached Notice).

National Environmental Policy Act (NEPA):

Project is not subject to NEPA.

d. Organizational Capacity

The Honey Lake Valley Resource Conservation District (RCD) currently implements a wide variety of projects and programs including: acting as the Water Master for the Susan River; operating and managing the Lassen County Special Weed Action Team (SWAT) to treat noxious weeds throughout Lassen County; facilitation of the Buffalo-Skedaddle Sage-Grouse Working Group; implementation of a CA Department of Conservation Watershed Coordinator Grant for the Susan River and Pine Creek/Eagle Lake watersheds and development of an Integrated Regional Water Management (IRWM) Plan for the Lahontan Basins Region.

Members of the RCD Board have a diverse background in natural resource management and working landscapes including a retired NRCS Engineer, retired Forest Service District Ranger/Rancher, owner of a Logging Company/Rancher, Appraiser/Rancher, and a Registered Professional Forester.

Tim Keeseey, HLV RCD Watershed Coordinator, has fourteen years of work experience in biology and environmental studies. His diverse background includes independent consulting, private-sector consulting, and employment with State, Federal, and Tribal agencies. Mr. Keeseey has extensive experience in Grant Writing, Project Management and GIS Mapping applications. During his 10 years as the Natural Resources Director at the Susanville Indian Rancheria, Tim managed an eighteen member staff and secured and managed over \$4 million for tribal environmental and cultural programs. He also developed SIR's GIS databases.

The Honey Lake Valley has successfully implemented numerous grant funded projects from a variety of funding sources including several SNC funded projects, including: the Buffalo-Skedaddle Landscape Management and Restoration Initiative and the Diamond Mountain Forest and Meadow Restoration Project.

e. Cooperation and Community Support

Lassen County has a strong tradition for promoting weed management. Lassen County was one of the first counties in the state of California to develop a County weed management group. The Northern County Agricultural Commissioner's organized a weed tour in the northern counties in the summer of 2006 attended by State Secretary of Agriculture A.G. Kawamura. The Lassen County portion of the weed tour focused on the perennial pepperweed infestation in Honey Lake Valley. After seeing the perennial pepperweed infestations, Secretary Kawamura suggested that a collaborative watershed effort be undertaken to control perennial pepperweed in the Honey Lake valley. To respond to this direction from the Secretary of Agriculture, the Lassen County Board of Supervisors appointed a perennial pepperweed control and funding committee. This committee was comprised of several individuals and organizations within Lassen County with an interest in controlling perennial pepperweed. The committee notified the public of all meetings and developed comprehensive agendas seeking public input for strategic planning of perennial pepperweed management. This project continues the efforts of the committee to actually develop watershed management plans for perennial pepperweed.

This project has numerous partners and support from many different facets of the Lassen County community including federal, state, local and tribal governments and agencies, agricultural organizations, agricultural producers and private landowners. Several of the project partners including the University of California Cooperative Extension – Lassen County Farm Advisor and Lassen County Department of Agriculture are providing in-kind contributions to the project to establish demonstration projects that will demonstrate effective integrated management strategies for addressing perennial pepperweed in riparian habitat, cropland, rangeland, and small landowner properties.

The following governments, agencies, and organizations have provided letters of support:

- Lassen County Board of Supervisors
- Susanville Indian Rancheria (SIR)
- Natural Resource Conservation Service (NRCS)
- Lassen National Forest
- Bureau of Land Management – Eagle Lake Field Office
- University of California, Cooperative Extension – Lassen County
- County of Lassen – Department of Agriculture
- Lassen Land and Trails Trust
- Lassen Irrigation Company (LIC)
- Sierra County Fire Safe and Watershed Council, Inc.

f. Long-Term Management and Sustainability

The HLV RCD has received preliminary approval to receive funding from the CA Department of Water Resources (DWR) to develop an Integrated Regional Watershed Management Plan (IRWMP) for the Lahontan Basins Region. The Integrated Management Plan for Perennial Pepperweed that would be developed with SNC funding would be incorporated into the IRWMP which is scheduled to be completed along the same time line in July 2014. The IRWMP will be

used to apply for the final round of IRWM Implementation funding, which will likely be due in late 2014 at which time funds to treat Perennial pepperweed would be pursued. Other sources of funding to treat Perennial pepperweed within the region will include:

- NRCS funds for Private Landowners and Grazing Allottees (EQIP, WRP, WHIP)
- National Fish and Wildlife Foundation (NFWF) – Pulling Together and Five Star
- EPA Targeted Watersheds Grant
- Title II Secure Rural Schools Act (SRSA) Funds
- USFWS Partners for Fish and Wildlife

In addition to funding to treat perennial pepperweed, the HLV RCD will continue to pursue funds to maintain the Weed Coordinator position created with these funds. A Weed Coordinator for the region is an ongoing need in order to coordinate the activities and efforts of the various agencies and organizations within the region that treat noxious weeds on an annual basis.

g. Performance Measures

We will report quantities and/or values of the following performance measures:

Performance Measures for all Categories

i) Number of People Reached

Public outreach is a critical component to the success of this project. Efforts to reach landowners that have perennial pepperweed on their property and that are interested in participating in local work groups are a major component of the work plan.

In addition, the Honey Lake Valley RCD will provide updates on our website, <http://www.honeylakevalleyrcd.us> regarding project implementation and successes. The project will also be featured in our quarterly newsletter and press releases will be provided to the local paper.

ii) Dollar Value of Resources Leveraged for the Sierra Nevada

The whole intent of this project is to develop an Integrated Management Plan that is supported by the regional community and can be used to leverage additional funds for the treatment of Perennial pepperweed. The Honey Lake Valley RCD has a successful track record leveraging funds and we will leverage additional resources beyond those included in our budget.

iii) Number and Type of Jobs Created

One Weed Coordinator position will be established with this funding.

iv) Number of New, Improved or Preserved Economic Activities

This project will result in a Plan that will be used to improve the conditions of grazing land within the region and therefore will indirectly help to preserve ranching, which is currently suffering in the region.

b) Performance Measures Specific to Project Type

i) Number of Collaboratively Developed Plans and Assessments

This project will result in the development of three Integrated Management Plans for Perennial Pepperweed in the Lahontan Basins Region developed by the three different working groups (Doyle, Standish, and Susanville).

ii) Measurable Changes in Knowledge and Behavior

An evaluation form will be developed for this project that participants in field tours and working groups will be asked to fill out in order to evaluate the effectiveness of the project in the dissemination of knowledge regarding the treatment of perennial pepperweed and long-term planning regarding the treatment of the noxious weed within the region

h. Budget Narrative

Funding for this project will primarily be used to hire a full-time Weed Coordinator for one-year on a contractual basis at \$30/hour. This is a reasonable rate and will amount to \$62,400 of the total budget. Other grant funds will be used for outreach activities to landowners including travel costs (2000 miles @ \$0.55 mile = 1,100), office supplies for working group materials (\$1,182), and funds for publications, printing, and public outreach (\$3,500). In addition, an administrative fee of 10% (\$6,818) has been added to the budget for the direct administrative and fiscal management of the grant including the hiring of the Weed Coordinator, book keeping associated with grant funds, and development and submittal of progress reports.

Existing RCD funds for the operation of the Lassen County Special Weed Action Team (SWAT) and Watershed Coordinator funds as well as in-kind contributions from project partners including the U.C. Cooperative Extension and the County Ag Department will be used to develop demonstration projects to educate the community regarding effective treatment of perennial pepperweed. These matching and in-kind funds will have a dollar value of \$45,000. No SNC funds will be used for this portion of the workplan.