

Sierra Nevada Conservancy-Final 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: Lassen County Fire Safe Council, Inc.

Project title: South Ash Valley Watershed Restoration Project

SNC Reference Number: SNC 399 **Submittal Date:** 12/31/12

Report Preparer: Thomas W. Esgate **Phone #:** 530-310-0146

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:** All project work was completed 8/8/12. 385.71 acres were restored with SNC funds.
- B. Deliverables or Outcomes completed during this Reporting Period or Milestones Achieved:** 385.71 acres of sagebrush steppe/montane meadow watershed were restored through a biomass utilization process that provided fuel for renewable energy production. SNC funds were used solely for on the ground treatments. Our administrative and vegetative monitoring costs were funded through a US Forest Service/Lassen County Resource Advisory Committee grant. Hydrological monitoring is being conducted in conjunction with a second ongoing SNC grant.
- C. Challenges or Opportunities Encountered:** The SNC component of our project is part of an overall 5,500 acre treatment area consisting of BLM managed public land and private land operated by Ash Valley Ranch. At the close of 2012 approximately 1,500 acres, including the SNC treatments, were completed through the help of our partners. We have several pending applications for assistance that we hope will help us complete the project. Other partners have included the US Fish and Wildlife Service, US Department of Agriculture, Natural Resources Conservation Service and Forest Service, Sand County Foundation, California Deer Association, Calfire Intermountain Camp Conservation Crews, Susanville Indian Rancheria and the Lassen County Resource Advisory Committee. The overall project has been, and continues to be, implemented in partnership with the Pit Resource Conservation District and the private landowner through a cooperative agreement. Our diverse partnership has been the basis for our continued success in implementing the project.

The metrics of monitoring are a bit of a challenge in that our past experience has been that the restoration aspects with regard to the vegetation and hydrology are minimal directly after treatment. We are providing data as of the end of the grant term and we will continue to provide SNC with follow-up monitoring results in conjunction with our other projects that are being implemented within the overall project area.

D. Unanticipated Successes Achieved: The California Deer Association is a new partner we encountered in late 2011 while developing our SNC/Kramer Ranch Forest and Meadow Restoration project. They expressed an interest in helping us with the public land component of the project and they have provided \$25,000 for hand treatments.

The private landowner's assistance in monitoring the project also helped him qualify for a 5 year/\$200,000 NRCS Conservation Stewardship Program (CSP) contract. The funds the ranch receives from the CSP contract will allow it to implement additional conservation and restoration efforts.

E. Compare Actual Costs to Budgeted Costs:

PROJECT BUDGET CATEGORIES	Budgeted SNC Dollars	Actual Dollars
Mechanical Treatments	\$134,062	\$134,062
Hand Crew Treatments	\$8,000	\$8,000
GRAND TOTAL	\$142,062	\$142,062

Explanation: We requested \$250,000 from SNC in our application and \$142,062 was awarded. Hand treatments were implemented as a follow-up to mechanical treatments and were used as primary treatments in sensitive areas.

F. Do you have information to report on the project-specific Performance Measures for your project? Yes, provided in the Final Report section of this document and in attachments to this report.

G. Were there any other relevant materials produced under the terms of this Agreement that are not a part of the budgeted deliverables? Yes, two soil moisture/vegetative monitoring reports. One was used for a component of the private landowner's NRCS Conservation Stewardship Program contract activities and the other was developed as part of a US Forest Service/Lassen County Resource Advisory Committee monitoring project (Our SNC project site is one component of the overall monitoring area). **If so, please attach copies.** Attached

H. Next Steps: We are seeking additional funds from partners to help us complete the project and also to continue our hydrological and vegetation monitoring work.

Please Complete this Section for FINAL Report ONLY

Capacity-Building Results and Collaboration and Cooperation with Stakeholders:

Description of Project Accomplishments:

1. Most Significant Accomplishment

The project's most significant accomplishments will not be fully evident until 2-5 years out when grasses, forbs and shrubs begin to be re-established as a result of the removal of invasive western juniper. Our experience in implementing these projects shows that there is an ample native seed stock that will begin to germinate grasses and forbs the year following treatment. The shrub community takes a bit longer and regeneration will become measureable in about the 5th year.

Changes in hydrological function become apparent almost immediately after juniper are removed from spring areas and seeps. The first indication of change occurs when equipment used in treatment needs to avoid previously dry areas that become moist as a result of the removal.

2. WOW Factor

The most significant WOW factor in our project is the dramatic change in the landscape that is documented in the monitoring photos we have provided. Often folks are shocked at the removal of what they perceive as a forest when in fact it is the beginning of a return to the site's historic ecological condition.

3. Design and Implementation

We followed, what were for us, pretty standard project design and implementation procedures. We have been implementing similar projects over the past 10 years. It is always preferable to get the cutting done in the winter when fuel moistures are high and the fire risk is reduced. Cutting on the SNC funded portion of our project began in November of 2011 and was completed in January of 2012. We also prefer to skid the cut material over snow covered frozen ground if conditions are favorable. This results in minimal soil and vegetation impact by the machinery. This did not work out for this project due to warmer conditions.

4. Indirect Impact

This project, as with many of our other projects, involves cross boundary treatments encompassing public land managed by the US Bureau of Land Management. We work closely with the agency staff and they have come to appreciate our work and in some cases they have adopted portions of our prescription in some of their r projects. Likewise we have worked with Calfire Intermountain Camp Crews to develop treatment prescriptions that they are now using on some of their other juniper removal projects.

5. Collaboration and Conflict Resolution

Our project was implemented through our partnership with the Pit Resource Conservation District (PRCD) and the Susanville Indian Rancheria, our Cooperative Sagebrush Steppe Restoration Initiative (CSSRI). SNC funds were granted to LCFSC and they were used solely for treatments. PRCD and our partnership received funds from other partners that funded our administrative needs, monitoring and additional treatments within the overall project area. Follow-up hand treatments and hand treatments in sensitive areas were conducted through the CSSRI cooperative agreement with Calfire Intermountain Camp Conservation crews. The CSSRI partnership has been implementing similar projects for the past decade and this led to a conflict free project implementation.

6. Capacity-Building

Project monitoring and administrative funds were allocated to CSSRI through the PRCD. Over the past decade our organization has relied on Lassen County/Title III funding from the Secure Rural Schools program to meet most of our administrative and capacity needs. Recent restrictions to the use of these funds have eliminated our ability to use them to support most restoration work. SNC and other partner funding have helped maintain the capacity of LCFSC and our CSSRI partnership to implement our watershed restoration projects. The landowner also received additional project implementation funds through another CSSRI program funded by NRCS, the Cooperative Conservation Partnership Initiative.

7. Challenges

Did the project face internal or external challenges? How were they addressed? Describe each challenge and any actions that you took to address it. Was there something that SNC did or could have done to assist you? Did you have to change any of your key objectives in response to conditions “on the ground”?

The only challenge we encountered during project implementation was a scarcity of water needed for road watering during a dry year. Most of the ranch ponds dried up and we had to use well water from ranch irrigation wells.

8. Photographs

Before and After Photos: We completed our work in August of 2012 and our after photos were taken shortly thereafter. This was in the dry period and therefore the results look pretty stark. We plan to take additional after photos in June of 2013 when things “green-up” and we will send copies of those to SNC as well.

9. Post Grant Plans

What are the post-grant plans for the project if it does not conclude with the grant? Include a description of the following (if applicable):

(1) Changes in operations or scope; No changes in operation or scope; LCFSC and our partners are seeking funds to complete treatments within the overall 5,500 acre project area.

(2) *Replication or use of findings*; LCFSC will continue to use and improve our treatment prescriptions and share them with our various partners and other interested parties throughout the western United States.

(3) *Names of other organizations you expect to involve*; Sierra Nevada Conservancy, California Department of Water Resources, USDA Natural Resources Conservation Service, US Forest Service, US Bureau of Land Management, US Fish and Wildlife Service, California Deer Association, Calfire Intermountain Camp Conservation Crews, Honey Lake Power, Ash Valley Ranch, Pit Resource Conservation District.

(4) *Plans to support the project financially*; Ash Valley Ranch has entered into 20-year long term management agreement.

- a. Primary management activities consist of the implementation of adaptive management grazing prescriptions that will result in meeting sage grouse and other sagebrush obligate needs. Other management activities include the monitoring and treatment of any noxious weeds that may appear after the restoration activities are completed.
- b. The private landowner cooperator will perform the management. The Lassen County Agricultural Commissioner will assist with noxious weed monitoring and treatment.
- c. Ongoing management will be funded through the private landowner's year in and year out cow calf cattle operation. The private landowner is an active participant in numerous conservation programs and receives high marks for being a progressive and conservation minded producer.

In addition, the private landowner recently entered into a Conservation Stewardship Program contract with NRCS that will provide additional resources to support their conservation activities on the ranch, including the SNC funded restoration area.

(5) *Communication plans?*

We will continue to showcase our project with agency partners and the public thorough field tours, public presentations and on our website and those of our partners.

10. Post Grant Contact

Who can be contacted a few years from now to follow up on the project? Please provide name and contact information.

Tom Esgate
C/O Lassen County Fire Safe Council, Inc.
PO Box 816
Susanville, California 96130
530-310-0146
twesgate@sbcglobal.net

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

1. Resources Leveraged in the Sierra Nevada:

The purpose of this performance Measure is to measure the additional resources generated as a result of SNC investment. The total value is based on matching funds provided by external, number of volunteer hours, and the value of major in-kind contributions made to a project. Additional information can be found on the SNC website in the following location:

In addition to the SNC funds provided to treat 385.71 acres, other partners provided funds for treating an additional 640 acres within the overall project area since the SNC grant was awarded.

The SNC investment has leveraged the following resources since project award:

A. Landowner in-kind contributions (dozer work)	\$10,000
B. Lassen County RAC (monitoring & admin.)	\$25,000
C. Calfire Conservation Crews (Hand crew, 97 days x \$1,308.92)	\$126,965
D. California Deer Association (Hand crew cash payments)	\$25,000
E. NRCS funded treatments	<u>\$136,507</u>
Total Leveraged Cash and in-kind contributions	\$323,472

- F. Biomass fuel (SNC funded portion)/3,234,000 kilowatts of renewable energy
- G. Biomass fuel (NRCS funded portion)/5,986,000 kilowatts of renewable energy

2. Number and Diversity of People Reached:

The purpose of this performance measure is to measure progress of information-sharing and education efforts and inclusiveness of other project efforts such as plan development. Additional information can be found on the SNC website in the following location:

Our project is part of a suite of Tier 1 projects identified in the Pit Watershed Alliance's Integrated Regional Watershed Management planning effort. As part of this endeavor our project has attained regional importance in the effort to restore millions of acres of watershed that have deteriorated due to the recent expansion of western juniper into sagebrush steppe and eastside forests. Agencies including the US Forest Service, Bureau of Land Management, Natural Resources Conservation Service, US Fish and Wildlife Service and Calfire have visited our project site and have showed a keen interest in adopting our prescriptions and methods for restoration treatments.

Our ongoing monitoring efforts, which have been aided by the University of California, Cooperative Extension, are providing all of our partners and the public with important information about the value of watershed restoration projects that focus on the removal of western juniper.

3. Number and Type of Jobs Created:

The purpose of this performance measures is to measure economic benefits to the Sierra Nevada Region by tracking the full-time equivalent jobs created by SNC-funded activities. Additional information can be found on the SNC website in the following location:

During our project term 18 full time equivalent jobs in the forest products industry were created through SNC funded activities. The employment occurred over approximately two months/8 weeks per job position: 3 timbco operators; 4 skidder operators; 2 chipper operators; 1 side rod (foreman); 2 water truck drivers; 6 semi-truck drivers.

We are not counting Calfire Conservation Crew positions, which consist primarily of incarcerated individuals, in our employment calculations.

4. Number and Value of New, Improved or Preserved Economic Activities

The purpose of this performance measures is to measure economic benefits to the Sierra Nevada Region by tracking the full-time equivalent jobs created by SNC-funded activities. Additional information can be found on the SNC website in the following location:

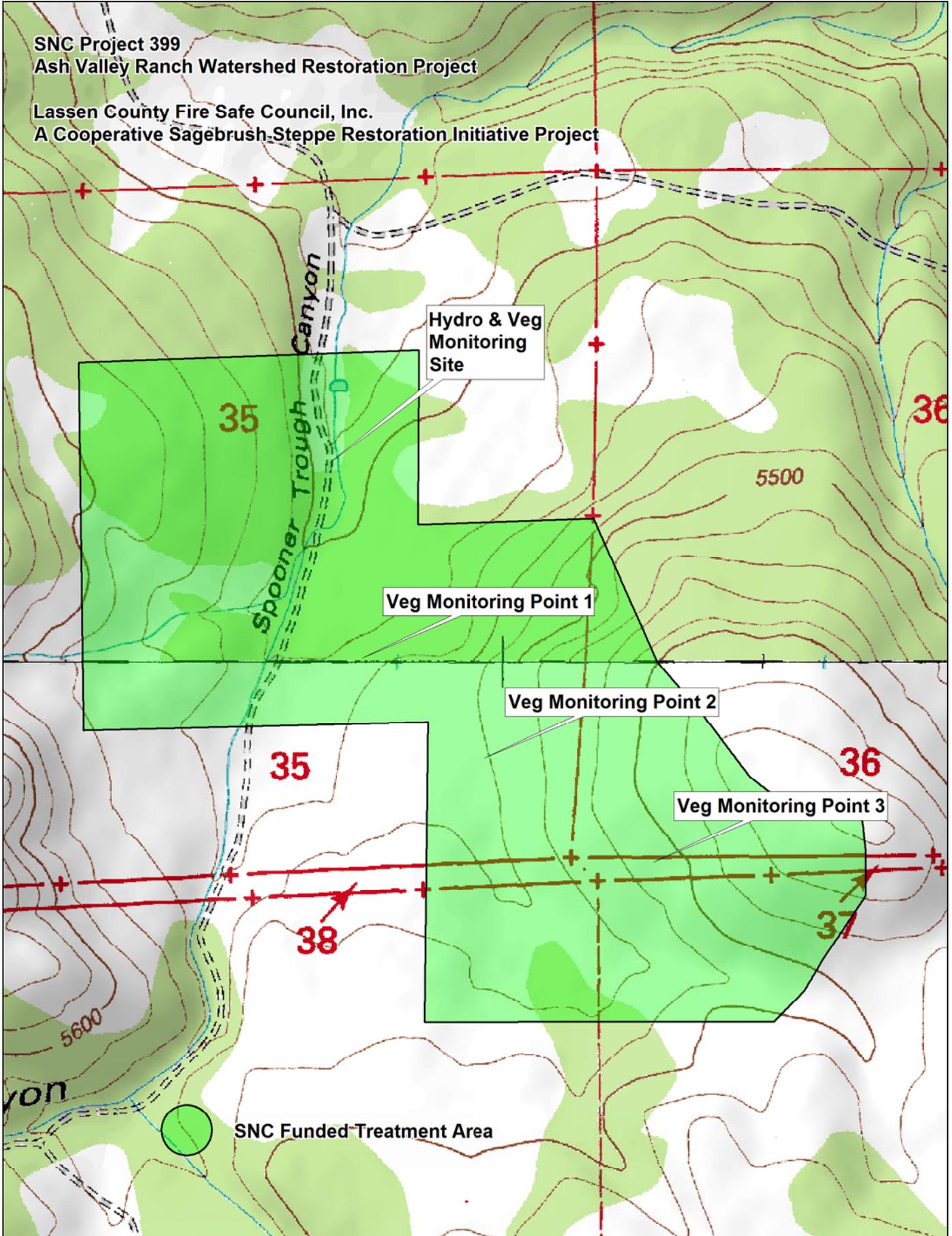
With the decline of federal restoration investment in the National Forest and BLM managed public land the forest products industry has been in a state of severe depression. The SNC investment in restoration projects that employ those who work in the forest helps maintain local jobs and produces needed fuel for local renewable energy/biomass fueled electrical generating facilities.

5. Kilowatts of Renewable Energy Production Capacity Maintained or Created

The Kilowatts of Renewable Energy Production Capacity maintained or created is based on the California Energy Commission's (CEC's) standards for renewable energy eligibility and includes energy generation capacity from biomass, wind, solar, small hydroelectric and other qualifying sources.

All of the material removed in conjunction our restoration treatments was delivered to a biomass utilization/electrical generation facility where it was used to produce approximately 3,234,000 kilowatts of renewable energy from the SNC funded portion of the project and 5,986,000 kilowatts from the NRCS funded portion of the project.

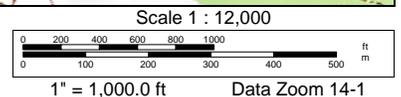
SNC Project 399
Ash Valley Ranch Watershed Restoration Project
Lassen County Fire Safe Council, Inc.
A Cooperative Sagebrush Steppe Restoration Initiative Project



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HYDRO MONITORING SITE PRE-TREATMENT





HYDRO MONITORING SITE PRE-TREATMENT





HYDRO MONITORING SITE POST-TREATMENT





HYDRO MONITORING SITE POST-TREATMENT





VEG MONITORING POINT 1 PRE & POST TREATMENT





VEG MONITORING POINT 2 PRE & POST TREATMENT





VEG MONITORING POINT 3 PRE & POST TREATMENT

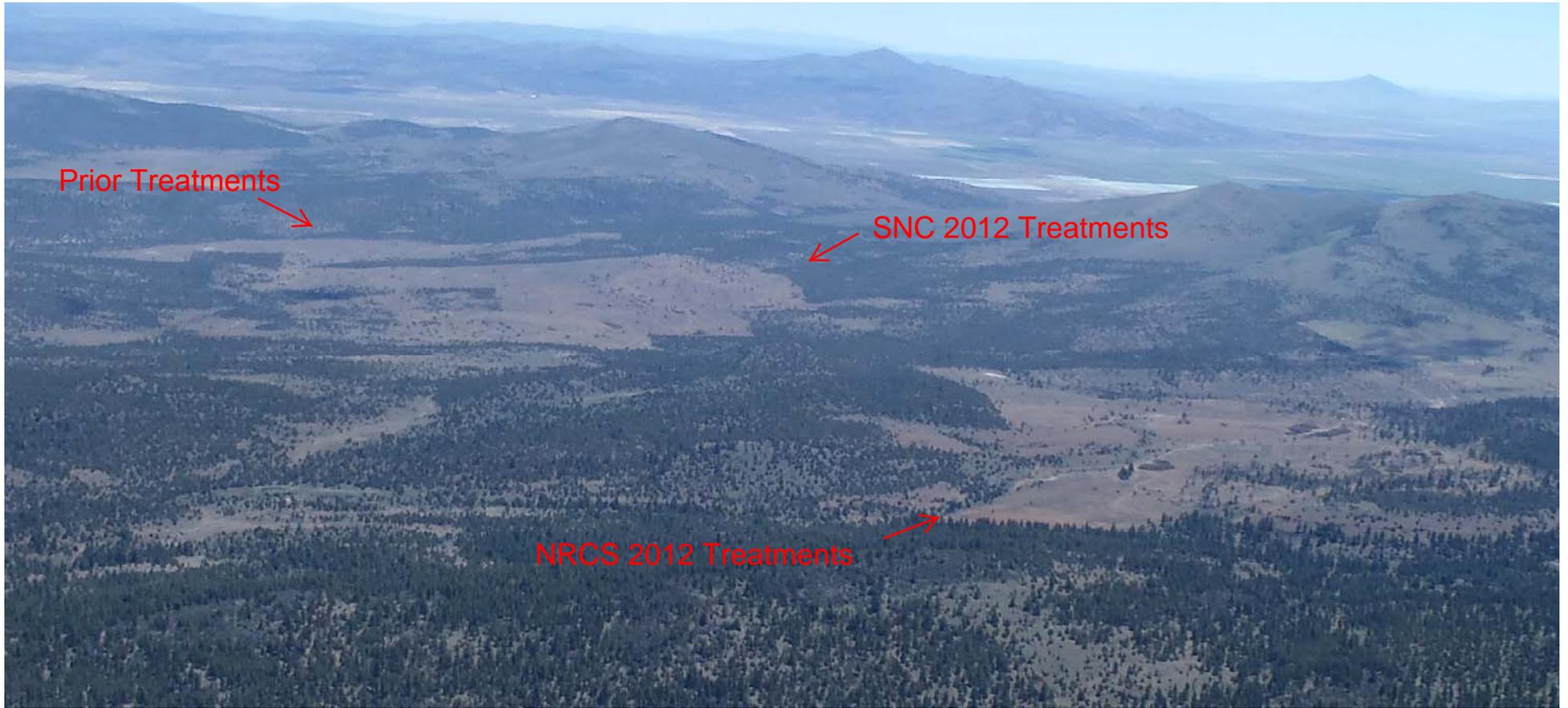




SNC Executive Officer Jim Branham with Project Director Tom Esgate at Site Visit



Contractor Decking Juniper for Biomass Processing



Aerial View of Project Area