CFLR Project (Name/Number): Southwest Jemez Mountains CFLRP/CFLR006

National Forest(s): Santa Fe National Forest, and Valles Caldera National Preserve

Responses to the prompts on this annual report should be typed directly into this template, including narratives and tables. Example information included in red below. Please delete for final version submitted.

1. Match and Leveraged funds:

a. FY15 Matching Funds Documentation

Fund Source – (CFLN/CFLR Funds Expended1)	Total Funds Expended in Fiscal Year 2015($)
CFLN0615	$1,223,651
CFLN0613	$304,386
Total	**$1,528,037**

Fund Source – (Funds expended from Washington Office funds (in addition to CFLR/CFLN)2 (please include a new row for each BLI))	Total Funds Expended in Fiscal Year 2015($)
NFRR0615	$514,566

Fund Source – (FS Matching Funds (please include a new row for each BLI)3)	Total Funds Expended in Fiscal Year 2015($)
CMRD	$78,376
NFRR	$514,566
WFHF	$62,700
NFLM	$8,854
Total	**$664,496**

Fund Source – (Funds contributed through agreements4)	Total Funds Expended in Fiscal Year 2015($)
Service First Monitoring Agreement VCNP	$331,000

Fund Source – (Partner In-Kind Contributions[5])	Total Funds Expended in Fiscal Year 2015($) 2,335,3915 total $1,167,695 on SFNF lands
NM 319 Grant for riparian on San Antonio river State of New Mexico	$47,000 Collaborating Agency
Climate Reference NOAA Network Station	$24,000 Collaborating Agency
Wildlife herbivory impacts on Gambel oak stands USDA Forest Service	$10,000 Collaborating Agency
Dispersal in gray-headed juncos; breeding bird surveys. NPS/Volunteers	$19,774 Collaborating Agency

[1] This amount should match the amount of CFLR/CFLN dollars obligated in the PAS report titled CFLR Job Code Listing and Expenditure Report – Detailed Analysis by Fiscal Year. Include prior year CFLN dollars expended in this Fiscal Year.
[2] This value (aka carryover funds or WO unobligated funds) should reflect the amount of carryover funds allocated to a project as indicated in the FY15 program direction, but does not necessarily need to be in the same BLIs or budget fiscal year as indicated in the program direction.
[3] This amount should match the amount of matching funds obligated in the PAS report. These funds plus the Washington Office funds (unobligated funds) listed above should total the matching funds obligated in the PAS report.
[4] Please document any partner contributions to implementation and monitoring of the CFLR project through an income funds agreement (this should only include funds that weren't already captured through the PAS job code structure for CFLR matching funds). Please list the partner organizations involved in the agreement.
[5] Total partner in-kind contributions for implementation and monitoring of a CFLR project. Approximately half of these contributions are Forest Service specific as half the monitoring is done of the USFS. Partner contributions for Fish, Wildlife, Watershed work can be found in WIT database. Please list the partner organizations that provided in-kind contributions. See "Annual Report instructions" for instructions on how to document in-kind contributions.

Fund Source – (Partner In-Kind Contributions[5])	**Total Funds Expended in Fiscal Year 2015($) 2,335,3915 total $1,167,695 on SFNF lands**
Air Quality Monitoring at Valle Grande HQ weather station. DOE, Jemez Pueblo	$10,000 Collaborating Agency
ARCBURN: Fire impacts on archaeological resources. BLM/JFSP	$3,622 Collaborating Agency
Seismic monitoring of Valles Caldera using the Los Alamos Seismic Network (LASN) DOE/LANL	$330,000 Collaborating Agency
Forest insect pest inventory USFS	$1,500 Collaborating Agency
Beneficial and pest insect biodiversity survey USDA SEL/SI	$269,815 Collaborating Agency
The Effects of Wildfire and Prescribed Burning on Forest-Dwelling Bats and Their Prey Texas Tech University	$54,000 Student
Documentary filming of science projects for TV KOB TV, Albuquerque	$4,800 TV Station
Monitoring wildlife and habitats in the VCNP and Jemez Mountains. Texas Tech University	$34,000 University
Water Resources Course: Watershed assessment UNM	$5,000 University
Black carbon from wildfires: impacts on forest watersheds. NSF EPSCoR	$11,000 University/Agency
Critical Zone Observatory NSF, Univ. Arizona, UNM Program	$870,000 University/Agency
Fire impacts on nutrient cycling in streams NSF/UNM	$10,000 University/Agency
Studies on Gunnison′s Prairie Dog on the VCNP. Univ. Maryland	$35,300 University/Agency
Watershed disturbance/restoration on hydrology Bur. Reclamation/UNM	$46,080 University/Agency
Long-term vulnerability and resilience of coupled human-natural ecosystems to fire regime and climate changes at an ancient Wildland Urban Interface NSF	$499,500 University/Agency
Inventory of Fungi and Lichens Volunteer	$50,000 Volunteer
TOTAL (FY2015):	**$2,335,391**

Fund Source – (Service work accomplishment through goods-for services funding within a stewardship contract6)	**Total Funds Expended in Fiscal Year 2015($)**
N/A	N/A

b. Please provide a narrative or table describing leveraged funds in your landscape in FY2015 (one page maximum). Leveraged funds refer to funds or in-kind services that help the project achieve proposed objectives but that do not meet match qualifications. Examples include, but are not limited to: investments within landscape on non-NFS lands, investments in restoration equipment, worker training for implementation and monitoring, and purchase of equipment for wood processing that will use restoration by-products from CFLR projects. See "Instructions" document for additional information.

The SWJM CFLRP project has created an outstanding opportunity for other state and federal agencies, universities, and non-governmental organizations to participate in monitoring activities and train students for careers in resource management. As shown in the table above, our project has leveraged over $2,335,391 in FY2015 – these funds come from grants and agency programs that contribute information useful to the adaptive management strategy of our CFLRP. Most recently, the Valles Caldera National Preserve was transitioned by Congress to the National Park Service in mid-FY15, and the Preserve was able to successfully obtain $883,000 in implementation/monitoring funds

6 This should be the amount in the "stewardship credits charged" column at the end of the fiscal year in the TSA report TSA90R-01.

in FY15 from the Department of Interior – these funds are replacing the former USDA CFLRP implementation funds. The Preserve continues to participate as an active member of the Collaborative, assuming a lead role in the monitoring program and data sharing among participants. Other projects contributing leveraged funds include the University of Arizona's Critical Zone Observatory, which monitors the effects of fires on soil chemistry, carbon sequestration, and snow water sublimation rates with varying forest stand structures; the USDA's Systematic Entomology Laboratory monitoring pest and beneficial insect assemblages; and the University of New Mexico's Civil Engineering Department's monitoring of hydrologic responses to forest thinning and burning.

2a. Discuss how the CLFR project contributes to accomplishment of the wildland fire goals in the 10-Year Comprehensive Strategy Implementation Plan and describe the progress to date on restoring a more fire-adapted ecosystem, as identified in the project's desired conditions. This may also include a description of the current fire year (fire activity that occurred in the project area) as a backdrop to your response (please limit answer to one page).

The Southwest Jemez Mountains project addresses the 10-year strategy, as demonstrated by these accomplishments:

One hundred percent of the acres treated are within a Wildland-Urban Interface area.

Treatments are governed by the goal of reducing fire intensities that conform to the National Fire Management Plan by reducing hazardous fuels.

Treatments are also designed to restore fire-adapted ecosystems.

The Lead Partners' selection of acres treated was guided by the priority areas identified in the CWPPs.

Fuel loads on a total of 2,499 acres were reduced by thinning and prescribed/managed fire this fiscal year.

All treatments are located near forest communities.

All mechanical treatments and prescribed fire treatments were within priority areas (CWPP)

Thinning prescriptions were aimed at moving towards conditions that could be maintained by fire.

Opportunities to use prescribed fire (or management of unplanned ignitions) as well as the success of fire management is increased by our activities.

All of above activities are aimed at making natural systems more resilient to future climate trends as well as climate events.

The SWJM CFLRP project partnered with Jemez Pueblo and T.C. Company through a Collaborative Forest Restoration Program (CFRP) grant to remove and utilize small diameter trees from 784 acres thinned in 2011. The CFRP grant supported the creation of the Walatowa Timber Industries, LLC, a joint venture between T.C. Company and Jemez Pueblo Development Corporation. The goals of the Walatowa Timber Industries, LLC (WTI) are to create economic development in the Pueblo of Jemez and the surrounding community while restoring the landscapes that contain Jemez Pueblo ancestral lands. Establishing this viable point of utilization is critical to achieving the goals of the CFLR and the 10-year strategy within the SWJM. The VCNP and USFS has contracted thinning with Walatowa Timber Industries to thin units to provide local jobs and wood to the local community including the Jemez Pueblo.

We continue to address post-fire impacts within the Las Conchas and Thompson Ridge fire footprint to reduce damage to natural and cultural resour

2b. In no more than two pages (large landscapes or very active fire seasons may need more space), describe

other relevant fire management activities within the project area (hazardous fuel treatments will be documented in Question #6):

It was an uneventful year for unplanned ignitions within the southwest Jemez landscape. One attempt was made to manage a natural ignition within the project; building on the success of 8,000 acres total of managed fire we have utilized the project area. This fire was deemed unfeasible to implement due to archeological concerns in the planning area and was kept under 10 acres. No significant suppression activities took place in the 2015 fire season, as it was the wettest year in recorded history in the Jemez Mountains. The eight month period from January through August ranked as the 3rd wettest year on record. Average annual precipitation is 16.2 inches for the Jemez Mountains region. Data is not yet available for 2015, but monthly totals for January 2015 to October 2015 have exceeded previous year's amounts. Source (http://www.srh.noaa.gov/abq/?n=drought).

3. What assumptions were used in generating the numbers and/or percentages you plugged into the TREAT tool? Information about Treatment for Restoration Economic Analysis Tool inputs and assumptions available here. http://www.fs.fed.us/restoration/documents/cflrp/R-CAT/TREATUserGuide10112011.pdf.

FY 2015 Jobs Created/Maintained (FY15 CFLR/CFLN/ WO carryover funding):

Type of projects	Direct part and full-time jobs	Total part and full-time jobs	Direct Labor Income	Total Labor Income[7]
Commercial Forest Product Activities	59	101	$2,293,324	$3,121,390
Other Project Activities	51	63	$2,018,454	$2,453,676
TOTALS:	**110**	**164**	**$4,311,778**	**$5,575,066**

FY 2015 Jobs Created/Maintained (FY15 CFLR/CFLN/ WO carryover and matching funding):

Type of projects	Direct part and full-time jobs	Total part and full-time jobs	Direct Labor Income	Total Labor Income[8]
Commercial Forest Product Activities	74	126	$2,899,665	$3,944,361
Other Project Activities	49	79	$2,003,313	$2,465,017
TOTALS:	**123**	**205**	**$4,902,978**	**$6,409,378**

Describe other community benefits achieved and the methods used to gather information about these benefits. How has CFLR and related activities benefitted your community from a social and/or economic standpoint? (Please limit answer to two pages).

In addition to the data reported in the TREAT model, the Forest Guild also collects data directly from project partners via wood-utilization and restoration and monitoring surveys. The surveys were designed to capture in-kind partner contributions and indirect employment made possible by the CFLR. Surveys were distributed to project partners at the end of FY2015 (9.30.15) and are still being collected.

There is inherent difficulty with TREAT and direct tracking as TREAT mixes part and full time jobs while the surveys track job type by labor expenses, which yields FTE. It is encouraging to see the increase in harvesting, processing, and other restoration and monitoring jobs outside the agencies. Monitoring and non-harvesting restoration efforts yield meaningful economic impacts, particularly in the local economies. Product removal is an important part of the project that should grow substantially when the Environmental Impact Statement (EIS) is signed. Already this sector is supporting important jobs and products in the landscape.

[7] Values obtained from Treatment for Restoration Economic Analysis Tool (TREAT) spreadsheet, "Impacts-Jobs and Income" tab. Spreadsheet and directions available at http://www.fs.fed.us/restoration/CFLR/submittingproposals.shtml#tools.
[8] Values obtained from Treatment for Restoration Economic Analysis Tool (TREAT) spreadsheet, "Impacts-Jobs and Income" tab. Spreadsheet and directions available at http://www.fs.fed.us/restoration/CFLR/submittingproposals.shtml#tools.

Do you have quantitative data on the socioeconomic impacts of the CFLR project activities in your community to share?

Yes, we would like to share data and information dealing with socioeconomic impacts and issues dealing with our communities. The following socioeconomic factors are written in both a perceived limiting socioeconomic perspective, and also as enhancements derived from the SW Jemez CFLRP's ability to implement restoration treatment actions:

Smoke regulations and public attitudes toward prescribed burning, Public attitudes towards cutting trees and use of chemical herbicides/pesticides, Prescribed burning regulations, weather limitations, and potential for escape fire, Private property within and adjacent to treatment areas, public concerns relating to opposition with desired land uses, such as recreation users, tourism /businesses that may be concerned during the limited times when public access is restricted in treatment areas.

Downstream water users from thinning and prescribed Rx areas have mentioned that they have had concerns. These stakeholders have primarily been Livestock grazers who have been concerned with their ability to change grazing regimes that may be needed to restore some areas, trout anglers, - where game trout may be eliminated? Recreation users have also been concerned that management activities will impact their experience and there are also people in a separate category that are primarily concerned about manipulation of the natural environment.

In addition, the following socioeconomic factors enhance our ability to implement restoration actions, and the public's support may be related to the following factors:

- Other state and county plans that support restoration (CWPP, statewide assessment, NM watershed priorities, Governor's restoration plan…)
- Community and scientific community supporters of forest restoration
- Local businesses, wood and biomass industry, rural economy, firewood users
- Public who understand the ecological, social, cultural improvements likely to result; especially if we highlight benefits to water supply, economies, and recreation
- Ranchers who see benefits to restoring ecosystems on their allotments
- Funding opportunities with Habitat Stamp Program, Respect the Rio, CFRP, Wild Turkey Federation, and others
- Innovations in collaborative restoration that has enhanced trust and common goals, and ability to complete more NEPA decisions without appeals/litigation
- Improving trend in public awareness of restoration needs and problems
- Established research-management partnerships and demonstrations of restoration success in this area (eg. CFRP and research projects)
- Increased congressional appropriations and government emphasis on restoration

Do you have examples of job training, youth engagement, community workshops, educational fire science panels, etc. to share?

Yes, there have been job training, youth engagement, community workshops, and educational fire panels. Specifically, the Santa Fe National Forest has built an internal timber marking crew that has continued to train Forest Service Seasonal employees. There have also been Forest Service teams that have had time on the ground as timber markers and timber cruisers. Additionally, numerous universities both from within New

Mexico, and out of state, have completed and surpassed the amount of visits that were anticipated. The previous Partnership Coordinator, Phyllis Ashmead, welcomed numerous student groups to venture to the project areas to

make observations and to gain knowledge of how the CFLR project will benefit their generation with long-term staged benefits to the forest and environments for generations to come. Community workshops have been undertaken as part of the NEPA process for several years. In terms of educational fire panels, these have been part-and-parcel of these community workshops. Prescribed fire and the benefits and impacts on the landscape and ecosystem have been common topics of workshops and community dialogue as this is one of the highest areas of concern, and therefore education, for citizens due to the very nature and fear of fire.

Has the CFLR project had a positive impact on local businesses (for example, local mills)?

Yes, the SW CFLRP has had a positive impact on local business, specifically the local mill called the "Walatowa Lumber Mill," that is located adjacent to the project area in the Jemez Pueblo tribal community. The owner of the mill, Terry Connelly, has been a big part of the SW Jemez Project and will be very busy in 2015 with mechanical treatment work. The Walatowa timber mill is a renowned partner and represents a truly successful win-win situation through increased and sustained contractual opportunities, an increase in local economic and workforce development impacts, and increased revenues through consistent production and supply demands of regional construction and wholesale outlets. The Regional Forester, the Deputy Regional Forester, and numerous high level Forest Service officers from the Regional Office (RO), have personally visited and toured the timber mill. Local Congressional representatives and various congressional staffers have also visited the Mill to learn about the numerous ways that it has benefitted the local community. More specifically, the following United States Government Officials have either personally visited the mill, or have had their various staffers visit the mill and meet the employees:

United States Senator Martin Heinrich

United States Senator Tom Udall

United States Representative from District 1, Michelle Lujan Grisham

United States Representative from District 3, Ben R. Lujan

Additionally, the employees of the mill are predominantly local tribal members from Jemez Pueblo, signifying a tremendous impact on local employment opportunities, and therefore a positive, critical economic impact for tribal families. There are a limited amount of local economic drivers for the remotely-located Jemez Pueblo, as there are no casinos present as is the case with many other tribal communities in the State of New Mexico. Timber products from the mill are used for many different types of applications and are utilized to assist in building many types and diverse scales of structures. Of significance to mention is the fact that the mill produces traditional Native American carved wood products such as vigas, which are rough-hewn roof timber or rafters, used in Puebloan adobe buildings around the southwestern United States. The mill also produces conventional wood products used for many different conventional construction applications. The mill produces wood used for constructing Forest Service Informational, and interpretive visitor Kiosks, to large scale building applications. On final note, the Walatowa mill is planning to harvest, treat, cut skid and deck 273 acres on the SFNF Los Griegos Unit. The Valles Caldera was awarded two separate contracts. One was the DOI Resilient Landscapes project, which is 758 acres and is for a DOI grant that is a straight-up competitive contract with the wood going to the Walatowa Mill. The second award was under the CFLRP funding in FY2015, and was a contract to Walatowa Mill to thin 1,302 acres on Banco Bonito. In FY2015 the Walatowa Mill finished 805 acres (since then, and the mill is still working on the balance for FY2016).

How have relationships built on the foundation of CFLR enhanced your ability or capacity to get work done on the ground? Relationships built on the foundations of our CFLR have created a community environment of both concern and support. Local residential communities, including neighborhoods, subdivisions, towns and pueblos have banned together in numerous ways to encourage the project. The public has a great ability to

Either assist or hinder a CFLR project such as ours because the project areas are surrounded and are in close proximity to people's homes and communities. Fortunately, local residents, municipalities and others mentioned

have been willing and often eager to learn about the project and many have assisted on the ground with actual physical volunteer assistance, while others have conducted meetings and spread the message of CFLRP and how it will benefit the community at large and the local environment for decades to come. We feel very fortunate for the community support and assistance that has been cultivated through our CFLR.

Perhaps most notable in terms of relationships built on the foundation of CFLR, is the informal Collaborative that has been integral to the success of the project prior to 2010 through the present. This is discussed in detail below in the document, but the web-link for more information is: http://www.fs.usda.gov/goto/sfe/swjm.

How have you seen impacts on recreation and other tourism opportunities in the area due in part to work through CFLRP?

Tourism impacts dealing with CFLR have changed from the CRLR project expectations and forecasts. Tourism has increased because of the project as interested members of the public are venturing into the Jemez Mountains in greater numbers than ever recorded. Tourism is up and is anticipated to grow every year by a projected 1.7%. The SW Jemez CFLR is located roughly 60 miles from the Albuquerque metropolitan area of close to 900,000 inhabitants according to the 2010 census.

What are the limiting factors to achieving or increasing community benefits?

The factors that limit achieving and increasing community benefits are tied to the amount of funding that the project will ultimately receive for years 2015 to 2019. Another significantly limiting factor directly tied to this projected funding cycle has been the process of finalizing the Final Environmental Impact Statement, (FEIS). Once signed by the Regional Forester, expected in late November, activities can progress according to the planned schedule. The delay of the original NEPA timeline has placed some pressure on the Forest Service to strive to settle aspects and the edits of the FIES. The FEIS was scheduled to be signed in August of 2015, and project implementation had been scheduled to have started in September. Now that the 45 Day FEIS objection day period has passed, the community is ready to move forward with the mechanical thinning and prescribed burning of the various project areas. We employ two types of mechanical treatments i.e. 1) thinning WITHOUT removal of forest products and 2) thinning WITH removal of forest products.

When we thin without removing products, we focus on the cutting non-merchantable sized trees (usually trees less than 6 inches in diameter at breast height (4 ½ feet from the ground measured on the uphill side of the tree)) and the work is predominantly implemented by forest workers with chainsaws. The bole (stem) of the tree along with the slash (limbs, needles and tops) is usually lopped (cut into smaller pieces) and scattered to <24 inches from the ground or piled into piles to be burned once it dries. Both methods (lopped and scattered or piling) make it more efficient and controllable to burn the material at a later date (generally 12 to 18 months).

When we thin with removal of forest products, we focus on cutting merchantable sized trees (usually trees greater than 6 inches in diameter at breast height (4 ½ feet from the ground measured on the uphill side of the tree)) and the work is implemented by highly skilled loggers using high-technology equipment specially designed for specific purposes, i.e. feller-buncher (which sever the tree from the stump and place it along the skid trail), harvester with processing head (to cut the limbs and top off the tree and cut the bole to a specified length) and skidder (grab several tree boles at one time with a grapple and drag them along the skidtrail to the landing). The slash (limbs, needles and tops) is usually crushed into smaller pieces <24 inches from the ground by the machines constantly running over it or piled into piles to be burned once it dries. At the “landing”, the boles (logs) are stacked in a neat and orderly pile called a deck. From the deck, the logs are loaded onto log trucks by a loader, or most often log trucks have a loader attached to them behind the cab so they can load the logs by themselves. In some cases, the decked logs at the landing are chipped into small wood chips by a powerful wood-chipper and blown directly into chip vans to be hauled out of the forest.

5. Based on your project monitoring plan, describe the multiparty monitoring process. What parties (who)

are involved in monitoring, and how? What is being monitored? Please briefly share key broad monitoring results and how results received to date are informing subsequent management activities (e.g. adaptive management), if at all. What are the current weaknesses or shortcomings of the monitoring process? (Please limit answer to two pages. Include a link to your monitoring plan if it is available).

The monitoring program for the Southwest Jemez Mountains CFLRP project is coordinated through the Valles Caldera National Preserve's Science and Resource Stewardship Division (VALL) and the Santa Fe National Forest (SFNF). The Nature Conservancy (TNC) functions as a neutral party, compiling the monitoring data sets and holding an annual "all hands" meeting of collaborators to evaluate the project's accomplishments, past and future. In addition to the VALL, SFNF, and TNC, our collaborators include Jemez Pueblo, Bandelier National Monument (National Park Service), the US Geological Survey's Jemez Mountain Field Station and the USGS Fish & Wildlife Coop Unit at New Mexico State University, Hawks Aloft, the USDA Systematic Entomology Laboratory/Smithsonian Institution (SEL/SI), WildEarth Guardians, the Forest Guild, the New Mexico Environment Department, Los Amigos de Valles Caldera, Trout Unlimited, New Mexico Trout, the Albuquerque Wildlife Federation, the New Mexico Wildlife Federation, New Mexico Department of Game and Fish, the US Fish & Wildlife Service, the Desert Research Institute (DRI), the National Oceanic and Atmospheric Administration (NOAA), the Natural Resource Conservation Service (NRCS), University of New Mexico, New Mexico Tech, Highlands University, Texas Tech University and the University of Arizona.

Our monitoring observations fall under 3 categories: The first is forest biomass (fuel) reduction through thinning operations and prescribed fire. Prescriptions have been developed to remove most white fir, and leave different age classes of aspen, Douglas fir and Ponderosa pine, as well as large logs that provide habitat for the endangered Jemez Mountains Salamander. Monitoring for responses of vegetation, large mammals, birds, and pest/beneficial insects to thinning and burning operations is underway, with control and treatment areas established and sampled before and after treatments. Results of vegetation monitoring indicate steady increases in grasses and herbaceous wildflower species. Large mammals (elk, deer, bear and cougar) are using restored areas; elk in particular are using burned forested sites that have new herbaceous vegetation. Bird communities appear to show little response to thinning thus far, although large areas were in managed burns in 2015, and the 2016 samples may show more pronounced changes. Insect assemblages in post-burned forests are showing changes in species, moving from those that inhabit forest-floor litter to meadow-grassland species (concomitant with increasing herbaceous vegetation after fire).

The second ecological monitoring effort has been in riparian areas that were restored with woody shrubs and trees by our collaborators with WildEarth Guardians. Survival of plants was initially low during the drought of 2011, but subsequent replanting efforts in 2012-2015 have high survivorship.

The third major monitoring effort dealt with the Las Conchas wildfire (summer, 2011), which burned ~30,000 acres of the project area, and the Thompson Ridge wildfire in 2013 that burned ~25,000 acres on the Valles Caldera National Preserve. Monitoring sites were established in burned and unburned grasslands, forests and streams, including many from before the fire. Monitoring results indicate that grassland vegetation recovered in <8 weeks for total cover, litter and bare ground, but that individual species exhibited significant increases/decreases in cover and height. Grassland pest insects (grasshoppers) were significantly reduced post-fire, but have recovered through 2015; some other species of pest/beneficial grassland insects did not decline in burned sites. Grassland birds generally were less abundant, with fewer species in burned grasslands 1 year after the fire; some species (crows, sparrows) increased after the fire. Prairie dog populations in grasslands did not decline following the fire. Forest understory vegetation and forest-floor litter were significantly reduced by the fire, with concomitant increases in bare ground; however, by the end of 2015, herbaceous ground cover exceeded 80% in Ponderosa pine forests and over 95% in mixed-conifer stands that had suffered high-severity burns in 2011. Aspen sprouts were up to 5 m tall by September 2015 in some areas, but had been heavily browsed by elk and cattle in other areas. Forest birds remained abundant in both burned and unburned stands of Ponderosa pine and mixed-conifer. Small mammals were generally unaffected by fire in the short term, as they sheltered underground during the fire; tree squirrels were killed by the fire; by 2014, meadow mice (voles) had become common as the vegetation developed into a montane

meadow. Most forest invertebrates exhibited little impact from the fire, and were recovering quickly through 2015; moths were the exception, with significantly reduced species numbers and abundances. Flash floods in streams caused reductions of trout by 95%; however, native non-game fish survived in good populations. Ammonia concentrations likely caused the fish kills (streamwater ammonia was 2-3 times above the concentration needed for killing trout).

By 2015, trout populations had recovered, and native fish species had declined back to pre-flood levels. Aquatic invertebrate assemblages survived the floods, and although reduced somewhat in species diversity and abundance, were found to be largely intact in 2015. Water quality continues to suffer from high turbidity during and after spring snowmelt and summer thunderstorms in 2015.

Below is a hyperlink to the Section 13- Monitoring and Adaptive Management Proposal, further titled "Southwest Jemez Mountains Collaborative Forest Landscape Restoration Strategy Proposal for Funding"

http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd478829.pdf

6. FY 2015 accomplishments (just Forest Service accomplishments)

Performance Measure	Unit of measure	Total Units Accomplished[9]	Total Treatment Cost ($)	Type of Funds (CFLR, Specific FS BLI, Partner Match)[10]
Acres treated annually to sustain or restore watershed function and resilience WTRSHD-RSTR-ANN	Acres	11,301.8	$1,528,037	CFLN0615
Acres of forest vegetation established FOR-VEG-EST	Acres	N/A	N/A	N/A
Acres of forest vegetation improved FOR-VEG-IMP	Acres	0	N/A	N/A
Manage noxious weeds and invasive plants INVPLT-NXWD-FED-AC	Acres	311	$3,000	CFLN0615
Highest priority acres treated for invasive terrestrial and aquatic species on NFS lands INVSPE-TERR-FED-AC	Acres	N/A	N/A	N/A
Acres of water or soil resources protected, maintained or improved to achieve desired watershed conditions. S&W-RSRC-IMP	Acres	2,39911	$161,700	CFLN0615
Acres of lake habitat restored or enhanced HBT-ENH-LAK	Acres	N/A	N/A	N/A
Miles of stream habitat restored or enhanced HBT-ENH-STRM	Miles	0	N/A	N/A
Acres of terrestrial habitat restored or enhanced HBT-ENH-TERR	Acres	733.811	$161,700	CFLN0615
Acres of rangeland vegetation improved RG-VEG-IMP	Acres	7,893	$80,0000	CFLN0615

[9] Units accomplished should match the accomplishments recorded in the Databases of Record.

[10] Please use a new line for each BLI or type of fund used. For example, you may have three lines with the same performance measure, but the type of funding might be two different BLIs and CFLR/CFLN.

[11] Not reported into the database of record PAS but accomplished on the ground

Performance Measure	Unit of measure	Total Units Accomplished[9]	Total Treatment Cost ($)	Type of Funds (CFLR, Specific FS BLI, Partner Match)[10]
Miles of high clearance system roads receiving maintenance RD-HC-MAIN	Miles	50	$100,000	CFLN0613
Miles of passenger car system roads receiving maintenance RD-PC-MAINT	Miles	50	$100,000	CFLN0613
Miles of road decommissioned RD-DECOM	Miles	0	N/A	N/A
Miles of passenger car system roads improved RD-PC-IMP	Miles	50	$100,000	CFLN0613
Miles of high clearance system road improved RD-HC-IMP	Miles	20	$60,000	CFLN0613
Number of stream crossings constructed or reconstructed to provide for aquatic organism passage STRM-CROS-MTG-STD	Number	0	N/A	N/A
Miles of system trail maintained to standard TL-MAINT-STD	Miles	0	N/A	N/A
Miles of system trail improved to standard TL-IMP-STD	Miles	0	N/A	N/A
Miles of property line marked/maintained to standard LND-BL-MRK-MAINT	Miles	5	$55,093	CFLN0615 $10,017 NFRR0615 $45,076
Acres of forestlands treated using timber sales TMBR-SALES-TRT-AC	Acres	273	$162,000	CFLN0613 $145,000 CFRR0615 $17,000
Volume of Timber Harvested TMBR-VOL-HVST	CCF	0	N/A	N/A
Volume of timber sold TMBR-VOL-SLD	CCF	3,582.7	$162,000	CFLN0613 $145,000 CFRR0615 $17,000
Green tons from small diameter and low value trees removed from NFS lands and made available for bio-energy production BIO-NRG	Green tons	10,748	N/A	N/A
Acres of hazardous fuels treated outside the wildland/urban interface (WUI) to reduce the risk of catastrophic wildland fire FP-FUELS-NON-WUI	Acre	N/A	N/A	N/A
Acres of wildland/urban interface (WUI) high priority hazardous fuels treated to reduce the risk of catastrophic wildland fire FP-FUELS-WUI	Acres	2,399	$161,700	CFLN0615
Number of priority acres treated annually for invasive species on Federal lands SP-INVSPE-FED-AC	Acres	0	0	0
Number of priority acres treated annually for native pests on Federal lands SP-NATIVE-FED-AC	Acres	0	0	0

7. FY 2015 accomplishment narrative – Summarize key accomplishments and evaluate project progress. (Please limit answer to three pages.)

Santa Fe National Forest:

The Santa Fe NF hired both a timber marking crew and an arch thinning crew in FY 2015 to build internal capacity in anticipation of the EIS being signed. On the mechanical thinning front we leave tree marked 4,000 acres adjacent to communities ahead of the EIS being signed for the stewardship contract with our internal crew. Our accomplishments below speak to the work we have done this year:

206 Jemez Pueblo ancestral sites proactively protected using hand thinning in San Juan canyon

Line prep for the 2,500 acre San Juan Canyon Rx burn was completed

4,000 acres of leave tree mechanical thinning acres marked. Two task orders cruised

Main haul artery on FR10 added new culverts, gravel to upgrade for timber haul

317 Jemez Springs WUI acres burned adjacent to the community

10 acre of riparian exclosures on San Antonio river

How have integrated project activities enhanced the resiliency of the forest and watershed landscape to stressors, including those that may be exacerbated by climate change, such as wildfire, drought, insects and disease?

The SW Jemez project will assist in preventing catastrophic damage from fires such as Cerro Grande and Los Conchas. The Cerro Grande Fire was a disastrous forest fire in New Mexico that occurred in May 2000. The fire started as a controlled burn, and became uncontrolled owing to high winds and drought conditions. Over 400

families in the town of Los Alamos, New Mexico, lost their homes in the resulting 48,000-acre fire. A number of structures at Los Alamos National Laboratory were also destroyed or damaged, although without loss or destruction of any of the special nuclear material housed there. Most importantly during this fire, there was no loss of people's life. The Las Conchas Fire was a wildfire in New Mexico in 2011. The fire started in Santa Fe National Forest and burned more than 150,000 acres, threatening Los Alamos National Laboratory and the town of Los Alamos. After five days of burning, it became the largest wildfire in New Mexico state history at the time. Maintaining drinking water for the rural low income communities of Ponderosa, Jemez Pueblo, and Jemez Springs is of utmost importance. Our landscape prescription burns have connected the dots across the landscape and protected these and other communities within a fifty mile radius.

How have activities within the CFLRP landscape informed subsequent work?

We have built upon our successes at a landscape level, from the 4,300 acre Pino managed wildfire last year to planning the 2,500 acre San Juan Canyon prescribed fire which fills in the gap between the Pino fire and the San Juan Rx fire. We are putting the pieces together on the landscape as a whole to make it more resilient to wildfire and disturbances.

What innovations are being implemented on the landscape (e.g. use of new technologies, partnerships, etc. that other efforts can learn from?)

We have a Tribal Forest Protection Act (TFPA) within the CFRLP project area. The Jemez Pueblo submitted a 1,700 acre forest thinning project proposal adjacent to Trust land, and it was accepted by the Regional Forester. We are also working on pioneering proactive cultural site protection on archaeological sites within the project area versus the usual flag and avoid cultural sites we had done in the past. So far we have protected 1000 ancestral Jemez Pueblo

sites within the project area. We also are working with the Arc Burn project to assess the impacts of both prescribed and wildfires on archaeological resources.

Are there new or different partners engaged at the table in new ways?

New Mexico Wilderness Alliance and Albuquerque Wildlife Federation are the newest partners and are excited to participate and volunteer. NM Trout has begun the process of adopting a stream in the project area for protection as well.

What projects are members of your community most excited about? New infrastructure for utilization of restoration byproducts? Enhanced habitat for a particular plant or animal species? Improved access to recreation sites?

The Community in and around the project area are most enthusiastic and interested in seeing the benefits revolving around the fuels reduction work in the WUI, and the protection of their homes and property in these communities at risk. We have been thinning and burning around their homes for years and they finally have become very appreciative of our efforts and want the mechanical thinning to occur sooner versus later.

How has the CFLR project resulted in less controversy over management of the landscape?

In some ways being able to showcase the restoration projects to the general public at large has resulted in a little less controversy overall. We still have some folks who don't think we should be conducting these restoration activities at all, but that is a minor factor in context of the overall project. Having only received two objections to this project's EIS suggests that collaboration does indeed work, since in the past a project of this scale would have received at least 5 or 6 Appeals or new Objections.

8. Describe the total acres treated in the course of the CFLR project (cumulative footprint acres; not a cumulative total of performance accomplishments). What was the total number of acres treated?[11] 31,466

Fiscal Year	**Total number of acres treated (treatment footprint)**
FY15	31,466 acres
FY10, FY11, FY12, FY13, FY14, and FY15 (as applicable- projects selected in FY2012 may will not have data for FY10 and FY11; projects that were HPRP projects in FY12, please include one number for FY12 and one number for FY13 (same as above))	FY10 – 2,189 acres FY11 – 9,817 acres FY12 – 1,702 acres FY13 – 9,531 acres FY14 – 5,728 acres FY15 – 2,499 acres

Please briefly describe how you arrived at the total number of footprint acres: what approach did you use to calculate the footprint? We used GIS to determine footprint, which doesn't exactly match since some activities were not reported in FACTS due to the Valles Caldera not having access to this database. The treatment acres are the combined Valles Caldera and Santa Fe NF acres to date.

9. Describe any reasons that the FY 2015 annual report does not reflect your project proposal, previously reported planned accomplishments, or work plan. Did you face any unexpected challenges this year that caused you to change what was outlined in your proposal? (Please limit answer to two pages).

When the 2014 National Defense Authorization Act transferred the Valles Caldera National Preserve (VCNP) to the National Park Service (NPS), the Preserve was no longer eligible to receive Forest Service funds as part of the

[11] This metric is separate from the annual performance measurement reporting as recorded in the databases of record. Please see the instructions document for further clarification.

National Forest System. Direction for the Collaborative Forest Landscape Restoration Program (CFLRP) states, "However, circumstances occur beyond the control of the collaborative group (e.g. wildfire, or new policy from the local government that impacts implementation schedule) that may necessitate alterations to a project." With the transfer of the VCNP to the NPS, the Santa Fe National Forest's Southwest Jemez Mountains CFLRP project area has been reduced from the original 209,477 acres to 123,146 acres.

The revised project proposal is still an All Lands Approach to ecosystem management and includes the Jemez Pueblo and the 12 watersheds in the original proposal. The Valles Caldera is still part of the Collaborative and will continue to provide monitoring for the project. The Santa Fe NF will continue to work collaboratively with the VCNP but cannot provide funding for implementation. The SWJM project is still a viable landscape project with 38,500 acres of prescribed fire and 10,838 acres of mechanical thinning funded through CFLN dollars which expire in 2019, with option years through 2024 for an additional 14,600 acres of mechanical thinning and 38,500 acres of prescribed fire. These option years include task orders and burn blocks ready to implement pending additional funding, either through allocated monies or outside partner funds.

10. Planned FY 2017 Accomplishments[12] (Just Santa Fe NF projections)

Performance Measure Code[13]	**Unit of measure**	**Planned Accomplishment**	**Amount ($)**
Acres treated annually to sustain or restore watershed function and resilience WTRSHD-RSTR-ANN	Acres	28,580	n/a
Acres of forest vegetation established FOR-VEG-EST	N/A	N/A	N/A
Acres of forest vegetation improved FOR-VEG-IMP	N/A	N/A	N/A
Manage noxious weeds and invasive plants INVPLT-NXWD-FED-AC	Acre	80	$80,000
Highest priority acres treated for invasive terrestrial and aquatic species on NFS lands INVSPE-TERR-FED-AC	N/A	N/A	N/A
Acres of water or soil resources protected, maintained or improved to achieve desired watershed conditions. S&W-RSRC-IMP	Acres	10,000	$700,000
Acres of lake habitat restored or enhanced HBT-ENH-LAK	N/A	N/A	N/A
Miles of stream habitat restored or enhanced HBT-ENH-STRM	Miles	3	$180,000
Acres of terrestrial habitat restored or enhanced HBT-ENH-TERR	Acres	10,000	$1,625,000
Acres of rangeland vegetation improved RG-VEG-IMP	Acres	6,000	$600,000
Miles of high clearance system roads receiving maintenance RD-HC-MAIN	Miles	50	$100,000
Miles of passenger car system roads receiving maintenance RD-PC-MAINT	Miles	80	$240,000
Miles of road decommissioned RD-DECOM	Miles	8	$80,000
Miles of passenger car system roads improved RD-PC-IMP	Miles	50	$150,000
Miles of high clearance system road improved RD-HC-IMP	Miles	25	$50,000
Number of stream crossings constructed or reconstructed to provide for aquatic organism passage STRM-CROS-MTG-STD	N/A	N/A	N/A

[12] Please note that planned accomplishments are aggregated across the projects to determine the proposed goals for the programs out year budget justification. These numbers should reflect what is in the CFLRP work plan, with deviations described in question 12.

[13] Please include all relevant planned accomplishments, assuming that funding specified in the CFLRP project proposal for FY 2017 is available. Use actual planned funding if quantity is less than specified in CFLRP project work plan.

Performance Measure Code[13]	Unit of measure	Planned Accomplishment	Amount ($)
Miles of system trail maintained to standard TL-MAINT-STD	Miles	2	$10,000
Miles of system trail improved to standard TL-IMP-STD	Miles	1	$5,000
Miles of property line marked/maintained to standard LND-BL-MRK-MAINT	Miles	5	$80,000
Acres of forestlands treated using timber sales TMBR-SALES-TRT-AC	Acres	2500	$1,625,000
Volume of Timber Harvested TMBR-VOL-HVST	CCF	225,000	$1,625,000
Volume of timber sold TMBR-VOL-SLD	CCF	225,000	$1,625,000
Green tons from small diameter and low value trees removed from NFS lands and made available for bio-energy production BIO-NRG	Green tons	69,750	N/A
Acres of hazardous fuels treated outside the wildland/urban interface (WUI) to reduce the risk of catastrophic wildland fire FP-FUELS-NON-WUI	N/A	N/A	N/A
Acres of wildland/urban interface (WUI) high priority hazardous fuels treated to reduce the risk of catastrophic wildland fire FP-FUELS-WUI	Acres	10,000	$600,000
Number of priority acres treated annually for invasive species on Federal lands SP-INVSPE-FED-AC	N/A	N/A	N/A
Number of priority acres treated annually for native pests on Federal lands SP-NATIVE-FED-AC	N/A	N/A	N/A

11. Planned FY 2017 accomplishment narrative (no more than 1 page).

The project will be in the second year of full implementation by this point and the full suite of restoration activities will be occurring on the landscape. The activity fuels from 2016 mechanical thinning will be treated this year and large scale prescription burns such as San Juan Canyon will be accomplished this year. This will be the full scale of restoration which we are prepping for and we expect our accomplishments to reflect this work.

12. Describe and provide narrative justification if planned FY 2016/17 accomplishments and/or funding differs from CFLRP project work plan (no more than 1 page):

No, these planned accomplishments do not differ from the project work plan.

13. Please include an up to date list of the members of your collaborative (name and affiliation, if there is one). If the information is available online, you can simply include the hyperlink here. If you have engaged new collaborative members this year, please provide a brief description of their engagement. YES. The following hyperlink will explain in detail information regarding our SW Jemez CFLR Collaborative. http://www.fs.usda.gov/detail/santafe/landmanagement/projects/?cid=stelprd3826817

14. How has your project increased support from partners in terms of in-kind contributions and funding? (No more than ½ page):

Have you brought on a partnership coordinator or worked more closely with a regional partnership coordinator?

The Santa Fe National Forest, Jemez Ranger District filled a long-term temporary promotion or detail opportunity to an individual that began in May of 2015. This position is an (NTE - 5 years) GS-0101/0401-11 CFLRP Partnership Coordinator position. This position is the third Partnership Coordinator that has worked on the Southwest Jemez CFLRP. The first person to fill this position was Phyllis Ashmead, of Region 5 who served this position from 2010 to 2013. Ann Janik, from Region 2, was a detailer for four months in 2013 to 2014. Currently, Jarrett Garcia

(johnjgarcia@fs.fed.us), has been the Partnership Coordinator since May 18, 2015.

The Santa Fe NF was also awarded $81K through the Rio Grande Water Fund/Nature Conservancy for meadow restoration in the priority watershed of San Antonio which should occur in 2016 after a presentation from our partnership coordinator.

Have you conducted outreach events in the community to bring in volunteers for project implementation or monitoring?

Yes, the League of Women Voters, City of Los Alamos, Monthly meetings with community members at the Jemez Springs Community Center/library have been held. For the Santa Fe National Forest Centennial Celebration in June of 2015, a CFLRP booth was set up for the public to acquire information about the project. In July of 2015, an informational community outreach booth was set up at a local "farmers market" which averages over 1,000 attendees per week in downtown Albuquerque, the largest metro area directly adjacent to the CFLRP Project Area. There have been numerous volunteer events that the Valles Caldera National park has undertaken in 2015.

Have you formed new or enhanced relationships with local schools or universities?

Yes, the University of New Mexico (UNM), in conjunction with EPSCoR (Experimental Program to Stimulate Competitive Research); UNM in conjunction with the NSF (National Science Foundation); UNM in conjunction with the Bureau of Reclamation (BOR); New Mexico State University (NMSU), NMSU in conjunction with the NSF; Texas Tech University; University of Maryland; and finally, the University of Arizona (U of A), and U of A in conjunction with the NSF.

15. Media recap. Please share with us any hyperlinks to videos, newspaper articles, press releases, scholarly works, and photos of your project in the media that you have available.

YES. The following hyperlink will explain in detail information regarding videos and press releases.

http://www.fs.usda.gov/goto/sfe/swjm.

http://kunm.org/post/more-fire-could-benefit-forest

Signatures:

Recommended by (Project Coordinator): /S/ Jeremy Marshall

Approved by (Forest Supervisor(s))[14]: /S/Joseph S. Norrell, Deputy Forest Supervisor

(OPTIONAL) Reviewed by (collaborative chair or representative): _____

[14] If your project includes more than one National Forest, please include an additional line for each Forest Supervisor signature.