CFLR Project (Name/Number): Burney-Hat Creek Basins Project/ 14

National Forest(s): Lassen National Forest

1. Match and Leveraged Funds:

a. FY17 Matching Funds Documentation

Fund Source – (CFLN/CFLR Funds Expended)	Total Funds Expended in Fiscal Year 2017
CFLN1417	$623,752

This amount should match the amount of CFLR/CFLN dollars obligated in the PAS expenditure report. Include prior year CFLN dollars expended in this Fiscal Year.

Fund Source – (Funds expended from Washington Office funds (in addition to CFLR/CFLN) (please include a new row for each BLI))	Total Funds Expended in Fiscal Year 2017
CFBD1413	$204,637

This value (aka carryover funds or WO unobligated funds) should reflect the amount expended of the allocated funds as indicated in the program direction, but does not necessarily need to be in the same BLIs or budget fiscal year as indicated in the program direction.

Fund Source – (FS Matching Funds (please include a new row for each BLI)	Total Funds Expended in Fiscal Year 2017
CFTM1417	$16,944
CFVW1417	$24,197
CFHF1417	$127,702

This amount should match the amount of matching funds obligated in the gPAS expenditure report, minus the Washington Office funds listed in the box above and any partner funds contributed through agreements (such as NFEX, SPEX, WFEX, CMEX, and CWFS) listed on next page.

Unofficial Match	Total Funds Expended in FY 2017
CWKV	$107,239
WFPR	$179,665
RTRT	$212,302
NFVW	$28,957
NFTM	$17,981

The “unofficial match” line items above would have been matching dollars had we used CFLR matching codes

Fund Source – (Funds contributed through agreements)	Total Funds Expended in Fiscal Year 2017
University of Nevada Reno	$12,608
Pit River Tribe – Water Monitoring	$2,913
Sierra Institute for Community and Environment	$26,401
Sno-Riders, Inc.	$7,494
Northern California SAF – Forestry Institute for Teachers	$35,252
Forestry Educators Inc. – Shasta Forestry Challenge	$10,000

Please document any partner contributions to implementation and monitoring of the CFLR project through an income funds agreement (this should include partner funds captured through the gPAS job reports such as NFEX, SPEX, WFEX, CMEX, and CWFS). Please list the partner organizations involved in the agreement. Partner contributions for Fish, Wildlife, Watershed work can be found in WIT database.

Fund Source – (Partner In-Kind Contributions)	Total Funds Expended in Fiscal Year 2017
United States Geological Survey	$37,000
Pacific Crest Trail Association	$24,852
Washington State University	$7,200
Central Valley Water Quality Control Board	$2,115

Total partner in-kind contributions for implementation and monitoring of a CFLR project. Please list the partner organizations that provided in-kind contributions.

Service work accomplishment through goods-for services funding within a stewardship contract (for contracts awarded in FY17)	Totals
Total revised non-monetary credit limit for contracts awarded in FY17	$N/A

Revised non-monetary credit limits for contracts awarded prior to FY17 were captured in previous reports. This should be the amount in contract's "Progress Report for Stewardship Credits, Integrated Resources Contracts or Agreements" in cell J46, the "Revised Non-Monetary Credit Limit," as of September 30. Additional information on the Progress Reports is available in CFLR Annual Report Instructions document.

b. Please provide a narrative or table describing leveraged funds in your landscape in FY2017.

The goal of the Burney-Hat Creek Community Forest and Watershed Group is to improve social, environmental, and economic conditions in the Burney and Hat Creek watersheds. These two watersheds include all of the land that drains into Burney Creek and Hat Creek, totaling 364,250 acres. Fifty-eight percent of this land is in the Lassen National Forest. Another 29 percent is owned by large private forestland owners, and 4 percent by large ranches. The communities of Burney, Johnson Park, Hat Creek, Cassel, and Old Station lie within these two watersheds. Local communities suffer from high unemployment and face high risk of wildfire in many surrounding forests. There is a recognized need for a coordinated public-private effort to address these and other concerns. The goal of the project is to develop a plan to integrate sustainable natural resource management with socioeconomic development across the two-watershed project area.

As of 2015, the total population of Shasta County was 178,942. In the period 2010 – 2016, personal income, and employment including forestry have been trending upward. The unemployment rate in Shasta County in the same period between 2010 and 2016 has gone from 16.8% to 6.9% a change of -9.9%.

Of this population, 18% are living in poverty – an increase of 1.5% since 2009; 10 % receive public assistance – an increase of 3.0% since 2009; and 34.1% of the population from 16 to 64 years did not work – an increase of 3% since 2009. The Burney Hat Creek Basins Collaborative Forest Landscape Restoration (CFLR) project invests in our local communities by advancing sustainable landscape management through ecological restoration work.

Ecological restoration work is important to sustain the health, diversity, and productivity of the forest and grasslands across the project area on public, private, and tribal lands. On a watershed scale, this work will help retain and restore ecologically resilient landscapes with:

- sustainable populations of wildlife, fisheries, and their habitat,
- functioning and restored watersheds and water quality,
- protected cultural resources,
- appropriate recreation opportunities,
- jobs for diverse community members, and
- economic benefits in our local communities.

This planning effort not only aims to meet the group's goals, but also the objectives of the 10-Year Comprehensive Strategy Implementation Plan.

The following projects are not covered elsewhere in the report. Projects completed this year that support overall project goals with leveraged funds include the following:

Lassen National Forest - Two insect studies continued on the Forest within the project area in cooperation with Forest Health Protection (FHP) Northeastern California Shared Service Area ($8,000), including:

- Red turpentine beetle semiochemical trapping assay in association with the University of Wisconsin, Regions 4 and 5 FHP, University of Nevada, Arizona and others;
- Evaluation of Stem-injected Emamectin Benzoate and Propiconazole for Protecting Ponderosa Pines from Western Pine Beetle in California in association with the Southern Research Station and Region 5 FHP.

Lassen Volcanic National Park - USFS personnel collaborated with Lassen Volcanic NP fire management staff to complete unit prep and marking on 400 acres in the Northwest Gateway II treatment area. This treatment area is in the midst of the acquisition process and will be contracted in spring 2018. This work's NPS funding was credited in FY16. Additionally, the park completed prep work on three units of the Northwest Gateway I for prescribed fire. However, given a lack of appropriate fire weather, the prescribed burn was put off for future years.

Lassen Volcanic NP treated a net 115 acres of weeds within the boundary of the CFLR ($15,000). This included treatment of cheatgrass (*Bromus tectorum*), bull thistle (*Cirsium vulgare*), Himalayan blackberry (*Rubus armeniacus*), and mullein (*Verbascum thapsus*). Funding was provided by the California Exotic Plant Management Team, a regional NPS division.

Lassen Volcanic NP in collaboration with the Klamath Monitoring Network, the Upper Columbia Plateau Monitoring Network, and Oregon State University initiated a bat acoustic study in the Northwest Gateway II treatment area. The work included deployment of bat acoustic detectors for 5 days over a two week period. It included 30 locations and involved 10 staff ($15,000).

Lassen Volcanic NP initiated a collaboration with the NASA DEVELOP program in summer and fall 2017. The summer project work involved remote sensing analysis using NASA Earth Observation data to assess fuel loadings across the Reading Fire scar in the upper Hat Creek watershed, as well as analyzing remote sensing data to create finer grained mortality maps. This resulted the SAVETREE application that was created by the NASA staff in Google Earth Engine. The application utilizes Landsat imagery to understand mortality events from 1984 to the present. In the fall, project work expanded to include the entirety of the Lassen National Forest in the SAVETREE application, which is in the midst of a software release process. Additionally, the fall term expanded their research to include the entirety of the Reading Fire footprint to examine the vegetation changes post-fire on both USFS and NPS land. The fall term also included an analysis of the Badger Planning Unit using available LiDAR to examine stand conditions and fuel loading. Both terms were funded by the NASA DEVELOP program ($80,000).

California Department of Forestry and Fire (CAL FIRE) - Treated approximately 40 acres on the Burney Community Fuelbreak Phase III ($31,174).

The California Department of Forestry and Fire Protection (CAL FIRE), in cooperation with private landowners, is implementing a 135 acre shaded fuelbreak west of the community of Burney, CA. The Burney Community Fuelbreak Phase III is approximately 3 miles long, approximately 300' wide fuels reduction project on mixed conifer timberlands managed for timber production. Fuels reduction will focus on increasing understory discontinuity, and removal of ladder fuel. Activities covered by this project utilize hand crews to reduce fuels, and is not intended to cover or limit the landowner management activities.

Burney Community Fuelbreak Phase III runs west and north on Goose Valley Road and Hwy 299E from the 2015 Burney Community Fuelbreak along Jack Rabbit Flat Road. Project fuels reduction and vegetation treatments consist of the reduction and/or rearrangement of vertical and horizontal fuels through the methods of hand cutting, cut/haul offsite, cut/pile/chip, cut/pile/burn, and lop and scatter. Timber understory varies from 2-10' tall deerbrush, manzanita, small conifers, oaks, and other brush species. Timber stand age varies greatly as a result of fire history in the area, and timber overstory ranges from approximately 60 year old mixed conifer forests, to 4 year old pine plantations.

Historically area fires are typically driven by southwest winds. This shaded fuelbreak will provide a critical fuels reduction southwest of the communities of Burney, and Johnson Park. Project implementation is planned for 2017.

Fall River Resource Conservation District - implemented the Hat Creek Enhancement Project ($315,000) a "pond & plug" restoration project on a private ranch in 2017. This project treated a 4000' reach of Hat Creek that had been channelizing in the past. Ponds were excavated to obtain fill material to fill the incised channel and divert flow into historic remnant channels. The restored hydrologic function now allows flood flow access to a functioning flood plain, while enhancing aquatic and wetland habitat. Water fowl numbers have increased dramatically following completion. Funding for the project included: Wildlife Conservation Board Prop 1 Stream Flow Enhancement Program, US Fish and Wildlife Service Partners Program, and cost share by the ranch ownership.

Photo 1: Hat Creek Enhancement Project Photo by Pete Johnson

Fruit Growers Supply Company (FGS) - continued reforesting the Eiler Fire footprint area by planting 2,058,000 seedlings on approximately 5,500 acres ($1,705,940). FGS Coast to date on the Eiler Fire reforestation - $5,003,054, road improvements - $216,000. FGS have approximately 3,000 acres left to plant which should be completed spring 2018.

FGS has completed the Black THP and is now completing sawlog and biomass on the Town THP both projects are in the Four Corners area on lands adjacent to the Crossroads project on Forest Service land within the project boundary.

Additionally FGS surfaced approximately 2 miles of road ($30,000) within the area of the 2009 Goose Fire a lightning fire that burned on both FGS and USFS lands.

Great Shasta Rail Trail (GSRT) - began planning for three trailheads, one located at the Burney/Black Ranch Road depot site. A Volunteer engineer is doing the site surveys and a Volunteer architect will then prepare conceptual designs of the new trailheads. Completed field archeological surveys of all road crossings, existing trail barriers and critical drainage ditches for future sign installation and maintenance work. Completed engineering inspection reports and cost estimates for future restoration of 4 major bridges near and south of Dusty CG at the Highway 89 overpass, Lake Britton ("Stand by Me" movie) trestle, Burney Creek trestle, and Goose Valley Creek trestle. Volunteers inspected the trail and brush out culverts to maintain proper function during rain events. The team of 13 volunteers cleared culverts and brushed portions of the trail, ($36,475) logging a more than 1,500 hours and 500 vehicle miles. Purchased a variety of trail signs that will be installed in spring 2018.

McArthur Burney Falls State Park - completed hazard tree removal, fuels reduction, and forest health projects ($45,000). This included curtain burning, pile burning, material sent to cogeneration power plant, firewood donation to local nonprofits as well as public collection.

Photo 2- Cache 22 Photo by Pacific Crest Trail Association

Pacific Crest Trail Association - volunteers completed maintenance on 12.7 miles, logout on 117 miles, and rehabilitation on 665 feet of the Pacific Crest Trail logging 1029.5 volunteer hours through the Hat Creek District and the project area ($24,852). This work included building and installing a platform for a 550 gallon potable water tank and assisting with the rebuilding of a corral.

Pacific Gas and Electric - continues to remove drought-stricken trees and fuel from their infrastructure, where tree mortality continues from the drought (No Cost Estimate).

Sierra Institute for the Community and the Environment - Rural Community Development Initiative (RCDI) program ($43,000). RCDI helps community-based development organizations, federally recognized Indian tribes and other groups promote economic development in low-income, rural communities. RCDI grants are not provided directly to businesses or individuals. Instead, awards are provided to public or non-profit intermediaries that are locally-based and skilled in business development and job creation. The Sierra Institute was awarded a grant to help build the capacity of low income rural communities and to advance wood utilization through demonstration and developing lessons learned through partner work involved in the network.

Sierra Cascade all Lands Enhancement (SCALE) ($50,000) The Sierra Institute's *Sierra to California All-Lands Enhancement* (SCALE) project is the mechanism for collaboration among collaborative groups working on landscape-scale forest restoration and federal and state agencies, and advancing community improvement across rural California. This project developed out of Sierra Institute's work with Collaborative Forest Restoration Projects and work at the intersection of forest management and rural community well-being. By promoting successful collaboration at the community-level, the SCALE project promotes work on the ground that restores forest resilience, supports local economies, and builds strong communities.

Barrett Award ($5,000) – The forests and grasslands that comprise the nation's 193-million-acre National Forest System provide a diverse array of goods and services, including wood products, fish and wildlife habitat, clean air and water, and recreational opportunities. In 2017 Sierra Institute was awarded the Barrett Award through the National Forest Foundation for business development. Sierra Institute is advancing local business development and sharing lessons learned with others. This award recognizes that durable solutions for public resources require a strong market-based foundation in order to succeed and provide lasting benefits for society.

Rural Business Development Grant $10,000) –This program involves a competitive grant designed to support targeted technical assistance, training, and other activities associated with wood product development and utilization for the purpose of developing or expanding small and emerging private businesses in rural forested communities.

Photo 3- Fall River Advanced Biology Class Photo by Lauren Bridgeman

Spring Rivers Foundation - continued the youth initiative educational programs, including the Fall River High School Advanced Biology Field Ecology Unit field trips and the summer internship, as well as reintroduction activities and project monitoring for the Rock Creek Meadow Restoration project, which is on Pacific Gas and Electric watershed lands ($40,000). The Spring Rivers Outdoor Education Program provided the annual fall field trips to Crystal Lake, Baum Lake, and Hat Creek for all 4th, 5th, and 6th grade students at Burney and Fall River Elementary Schools ($10,000).

2. Please tell us about the CFLR **project's progress to date in restoring a more fire-adapted ecosystem as described in the project proposal**, and **how it has contributed to the wildland fire goals in the *10-Year Comprehensive Strategy Implementation Plan***.

The Burney-Hat Creek Basins Project contributed to the goals laid out in the 10-Year Comprehensive Strategy Implementation Plan. The Burney-Hat Creek Community Forest and Watershed Group (BHCCFWG) partnered with private land owners and the Fall River Resource Conservation District (RCD) to successfully support accomplishments on private lands in an all-lands approach that adds to the fire resiliency of national Forest Service lands. Additionally, Fruit Growers Supply completed the projects identified above in the leveraged funds section.

Goal 1 of the Implementation Plan is to improve fire prevention and suppression. The implementation outcomes are the elimination of loss of life and firefighter injuries and the reduction of wildfire damage to communities and the environment. Goal 4 is the promotion of community assistance, and the implementation outcome is the increased capacity to prevent losses from wildland fire and realize economic benefits resulting from treatments and services.

The Hat Creek Ranger District continues to be staffed with 6 engines (Type III), one 10-person hand crew, two wet patrols that perform prevention work, and two lookouts within the CFLR project area: Burney Mountain and West Prospect. All fire suppression resources respond inside the Project area. There are several prevention efforts that take place within the CFLR boundary: Smokey Bear appearances at the Burney Basin Day parade, at the Hat Creek Volunteer fire department BBQ, and local preschools. The prevention group every year brings the Shasta County fire trailer to the Inter-Mountain fair to educate children about house fires. This fall the Hat Creek District fire department started teaching the Basic wildland fire class to interested students at both Fall River and Burney High Schools. The hope is that by taking this class more of the local students will be competitive for jobs during the temporary fire hire.

The CFLR project area did not experience any large fires, but this year experienced an unusual mid-September lightning storm. This resulted in 10 starts across the project area. The Devil fire which was in Devils Rock Garden, was put into monitor status, since it was surround by rock. The table below lists the fires suppressed in the project area.

Fire Type	**Number**	**Size (Approximate Acres)**
Lighting	7	.10 (A)
Lighting	3	.25 (B)
Man-caused	2	.10

Two local fire safe councils continue to partner with the Burney-Hat Creek Community Forest and Watershed Collaborative to plan and accomplish project work in at-risk Wildland Urban Interface (WUI) areas. Treatments to reduce fire risk around the communities of Old Station, Burney and Johnson Park have continued. These projects currently involve hand thinning, piling, and burning of piles to reduce fuels. The burn plan for the Old Station area, approved in fall of 2016, includes underburning treated areas. Due to the wet fall no underburning took place inside the CFLR area. In the spring an attempt was made to underburn in Old Station, but, due to smoke across the highway the underburn was stopped.

Hand piles and machine piles constructed under the following projects, were burned during the fall of 2016: Ashpan, Reading Fire salvage, Eiler Fire Area, Summit Lake, Old Station, Four Corners, and Burney Springs Mountain area.

Currently, the District is working on the following projects for fuels management in the CFLR area: underburning in the CFLR area under the Eastside Underburn Project; old Station WUI underburn, and continued burning of hand and machine piles as stated.

Plum NEPA planning.

All burning is weather dependent.

Goal 2 of the Implementation Plan is to reduce hazardous fuels, and the implementation outcome is the reduction of wildfire risk to communities and the environment.

A total of 2,374 (underburn acres and burning of piles) acres of hazardous fuels were treated on national Forest Service lands within the project area during FY17. The following table displays the treatment types and acres treated.

Treatment Type	Acres
Broadcast Burning	590 acres
Machine Pile	884 acres
Burning of Piles	1784 acres
Mastication	1194 acres

The Hat Creek District Fire Management group contributed $179,665.00 dollars' worth of labor to the CFLR project area that is not included in the match code. This work completed inside the CFLR boundary by the fire crews includes: opening and maintaining trails within the Thousand Lakes Wilderness and Pharms trail; felling hazard trees in the campgrounds; processing firewood for the public; hand thinning and piling within the Old Station WUI and South Station project boundaries; removing hazard trees that fell across roads; assisted with campground maintenance; evaluated roads for damage following the rain on snow event during this past winter and snow survey.

The district purchased a portable saw mill. Some of the hazard trees were milled into lumber that was used for various district projects, including lumber to repair fences, projects in the campgrounds and to repair a shed at the Hat Creek Work Center.

The fire crews during the summer also supported fires in the western United States, including responding to the fires in the Sonoma and Napa counties.

3. **What assumptions were used in generating the numbers and/or percentages you plugged into the TREAT tool**?

FY 2017 Jobs Supported/Maintained (FY17 CFLR/CFLN/ WO carryover funding):

FY 2017 Jobs Supported/Maintained	Jobs (Full and Part-Time) (Direct)	Jobs (Full and Part-Time) (Total)	Labor Income (Direct)	Labor Income (Total)
Timber harvesting component	90	114	4,879,432	7,325,434
Forest and watershed restoration component	0	0	0	0
Mill processing component	28	100	1,718,340	3,347,131
Implementation and monitoring	7	8	51,951	64,480
Other Project Activities	26	32	518,898	863,750
TOTALS:	**151**	**255**	**7,168,622**	**11,600,795**

FY 2017 Jobs Supported/Maintained (FY16 CFLR/CFLN/ WO carryover and matching funding):

FY 2017 Jobs Supported/Maintained	Jobs (Full and Part-Time) (Direct)	Jobs (Full and Part-Time) (Total)	Labor Income (Direct)	Labor Income (Total)
Timber harvesting component	90	114	4,879,432	7,325,434
Forest and watershed restoration component	0	0	0	0
Mill processing component	28	99	1,696,450	3,304,493
Implementation and monitoring	10	11	53,337	66,200
Other Project Activities	26	32	518,898	863,750
TOTALS:	**154**	**256**	**7,148,118**	**11,559,877**

4. Describe other community benefits achieved and the methods used to gather information about these benefits.

Indicator	Brief Description of Impacts, Successes, and Challenges	Links to reports or other published materials (if available)
Project partnership Composition	The Burney-Hat Creek Community Forest and Watershed Group is a very diverse group with over 35 stakeholders representing a whole range of interests. Through this group, opportunities for achieving the triple bottom line of sustainable success exists. The group has a vision that involves not just improving the landscape, but outcomes for communities and people…on public and private lands.	N/A
Relationship building/collaborative work	Relationship building within the collaborative is another key to success. The Burney-Hat Creek Community Forest and Watershed Group believes in collaboration, trusts the process of working together, and is committed to sustaining the Basins Project into the future. The group understands that it is working on a landscape that is unique, with only 58 percent of the land managed by the Forest Service. The group believes that it is generally "'finding its stride" as it identifies new projects with a vision toward large landscape restoration and management. During the tenure of the Burney Hat Creek project relationships have led to outcomes not originally anticipated including a master stewardship agreement with the Pit River Tribe, developing projects using the Good Neighbor Authority, and working on joint projects with the Lassen Volcanic National Park and the McArthur Burney Falls Memorial State Park.	N/A

Indicator	**Brief Description of Impacts, Successes, and Challenges**	**Links to reports or other published materials (if available)**
Cross-institutional Agreements.	Lassen Volcanic NP initiated a collaboration with the NASA DEVELOP program in summer and fall 2017. The summer project work involved remote sensing analysis using NASA Earth Observation data to assess fuel loadings across the Reading Fire on both Forest and Park Service lands in the upper Hat Creek watershed, as well as analyzing remote sensing data to create finer grained mortality maps. This included an analysis of the Badger Planning area on the Forest using available LiDAR to examine stand conditions and fuel loading.	N/A

Indicator	Brief Description of Impacts, Successes, and Challenges	Links to reports or other published materials (if available)
Economic dependency/sectors impacted/expanding market development	A forest biomass-to-power project and two biogas projects were recently approved for grants by the California Energy Commission, via its Electric Program Investment Charge program. The Fall River Resource Conservation District's 2.8-MW Burney-Hat Creek Bioenergy Project is a proposed, modular biomass energy plant in Shasta County that will utilize material from CAL FIRE-designated high-hazard zones. Via a gasification technology, will produce electricity, heat and biochar. West Biofuels and Hat Creek Construction & Materials have partnered to develop the 3MW gasification facility, consistent with SB 1122's BioMAT program to convert biomass residue from sustainable forest management into renewable electricity. The facility, located outside of Burney, California, will utilize approximately 22,000 bone dry ton of wood residue annually, diverting feedstock away from open pile burning. The facility will be collocated with Hat Creek Construction & Materials and is scheduled for operation in 2018.	N/A
Job training opportunities	In cooperation with both Burney and Fall River High Schools, the Forest Service is teaching wildland firefighter classes this winter at both high schools to prepare students for upcoming job opportunities. These classes are focused on meeting basic firefighter qualifications and resume skill building.	N/A

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.**

In 2017, the Burney-Hat Creek Basins multiparty monitoring working group completed the Multiparty Monitoring Plan (MMP) for Ecological Resources. The MMP, which was developed by the working group over a three year period, identifies 14 broad ecological monitoring questions and 34 associated sub-questions. These questions were prioritized by the collaborative based on their ability to inform management, feasibility, use of defensible methods, and ability to meet national or project-level goals. The MMP will be updated and refined by the working group on an annual basis, as new information is gathered, projects are designed, and opportunities for partnerships arise.

To improve communication and increase our ability to utilize monitoring results more effectively, the working group also developed a series of monitoring "briefs", which were presented to the collaborative during our "five minutes for monitoring" sessions. These two-page documents provide a concise overview of the project purpose, key findings, and management recommendations.

Monitoring in 2017 was focused on addressing a subset of the key monitoring questions identified in the MMP. Monitoring was conducted by Lassen NF staff, researchers from the USFS Pacific Southwest Research Station (PSW) and Washington State University (WSU), interns from the Water Resources Institute of the California State University System, and the Pit River Tribe; their accomplishments, as well as those of other collaborators, are summarized below.

Data collected from these efforts continue to play a crucial role in both project design and assessment of treatment effectiveness.

Post-Fire Restoration: In 2014, the Eiler Fire burned over 33,000 acres within the Burney-Hat Creek Basins CFLRP project area. This presented an opportunity to monitor the effects of different post-fire restoration management activities (e.g. salvage logging, reforestation, etc.) on soil erosion, fuel loads, understory species, and tree seedling survival and growth. In 2017, Lassen NF ecologists collaborated with PSW researchers to complete experimental treatments (i.e. removal of trees burned by the Eiler Fire and planting) and collect the first year of data within 11 permanent plots. The purpose of this project is to assess the effect of different salvage and reforestation strategies on ground fuels, understory species, and the survival and growth of planted and naturally occurring seedlings.

In an effort to understand the effect of salvage logging on soil erosion potential, Lassen NF soil scientists continued their collaboration with the Forest Service Remote Sensing Applications Center (RSAC) to collect and analyze data from logged and unlogged (e.g. leave islands) units in the Eiler Fire. In addition to collecting a second year of data in 2017, LNF staff and RSAC also analyzed over 300 photographs to determine the percent cover of bare soil, vegetation, woody debris, and rock. A comparison of salvaged and unlogged units found that post-fire logging can initially reduce plant cover, but can also increase the cover of woody debris. An important management implication that resulted from this work was that in areas where other ground cover variables (i.e. rock) are sparse, managers should consider leaving some trees in the units to provide additional soil cover after salvage logging and reduce the potential for soil erosion.

In 2017, the third year of post-fire monitoring occurred at Burney Meadow to assess the effect of the 2014 Eiler Fire on the bunchgrass/bitterbrush vegetation mosaic and the establishment of lodgepole pine. Preliminary

analyses suggest that fire results in shifts in species composition, including losses in bitterbrush cover and increases in annual forb cover, but that these shifts may be short-lived. Data collected this year (three years post-fire) suggest that bitterbrush cover is starting to rebound in burned plots. Monitoring of lodgepole response in Burney Meadow documented a post-fire flush of lodgepole seedlings one year post-fire, particularly in plots that burned at high severity; however only half of those seedlings survived into 2017. When post-fire seedling establishment was balanced against fire-induced mortality of mature lodgepole trees and seedling mortality, there was no net gain in lodgepole trees within the meadow complex.

Meadow Restoration: The Big Lake Meadow Restoration Project provides an excellent opportunity to determine how meadow restoration treatments, such as thinning and pond obliteration, affect wetland-associated plant species, meadow water availability, and important aquatic dependent species like the southern long-toed salamander (*Ambystoma macrodactylum sigillatum*). In 2017, pre-treatment hydrologic data were collected using 12 soil moisture meters and 4 piezometers, which were distributed throughout the Big Lake project. In addition, the second year of pre-treatment vegetation data were also collected from 12 plots, situated in close proximity to the hydrologic monitoring stations.

In 2017, LNF partnered with researchers from PSW and WSU to initiate a monitoring project that focuses on understanding how forest thinning influences terrestrial habitat use and movement patterns of the southern long-toed salamander. Very little is known about the habitat requirements of this particular species, which is currently being considered as a Forest Species of Conservation Concern in the upcoming forest plan revision. In 2017, a monitoring plan was developed and pre-treatment baseline monitoring initiated. This included installation and monitoring of 94 pitfall traps in the forest around Big Lake, as well as aquatic visual encounter surveys and area-constrained searches for salamanders. In addition, LNF staff and partners identified 18 control and treatment units that will be implemented in the fall of 2018.

Hydrologic Resources: In 2017, researchers from the University of Nevada, Reno analyzed data collected over a four-year period at a monitoring site situated in the southwestern portion of the Basins CFLR Project area. Treatments at this site were implemented in 2011 and ranged from no treatment in a spotted owl home range core area (HRCA), to radial thinning with retention islands, to near-complete overstory removal in a group selection. Continuous hydrologic monitoring has occurred at this site since late 2013, and includes wireless-linked hydrologic monitoring stations measuring air temperature, humidity, solar radiation, wind speed, soil moisture and soil temperature as well as tree sap flux measurements. Results from this monitoring effort suggest that thinning treatments can preserve soil moisture longer into the summer (as compared to unthinned forest), thereby improving drought resilience and reducing tree mortality.

The Water Resources Institute (WRI) of the California State University System provided two interns for the 2017 field season to assist with monitoring of hydrologic resources in the CFLRP project area. These interns worked closely with LNF hydrology staff, as well as the Central Valley Water Board, on a project investigating the impact of livestock use on water quality. Water quality samples were collected prior to the 2017 grazing season at three sites, situated both upstream (n=2) and downstream (n=1) of a high cattle use area within the CFLRP project area; sampling will also occur at the end of the grazing season in FY18. In 2017, LNF staff and WRI interns collected hydrologic data in the two Lost Creeks, Hat Creek, Big Spring, Twin Ponds, and Coyote Spring. LNF staff also collaborated with the Pit River Tribe to conduct baseline (i.e. Streamscape) surveys of Hat Creek.

Baseline surveys: Baseline (i.e. pre-treatment) data in the Burney-Hat Creek Basins CFLRP is used in project planning, as well as the development of management recommendations. These data are also essential for

assessing the effectiveness of treatments at meeting the desired conditions and evaluating the impact of management actions on ecological resources.

In 2017, over 170 stand exams were established within the Crossroads project area to collect baseline data that included: tree species, size, status (live or dead), age, and defect; stand density; overstory and understory cover; and surface fuel loadings. These plots will be used to track changes in forest structure and composition in response to restoration treatments. Baseline surveys were also conducted for noxious weeds and threatened, endangered, and sensitive plants on approximately 450 acres within the Crossroads project area. Approximately 115 acres were also surveyed for the Survey and Mange lichen species *Dendriscocaulon intricatulum*.

Wildlife: In 2016 Hat Creek Ranger District wildlife biologists collected baseline data for long-term wildlife monitoring and project planning, with an emphasis on the Big Lake, Crossroads, Sluicebox, and Plum habitat areas. Future follow-up surveys will monitor nest sites for all reproductive pairs located, and monitoring will continue for all post project PACs located within ¼ mile of all projects within the CFLR area.

Big Lake Camera Surveys and follow up monitoring of goshawk PACs (400 acres); setting up of amphibian trapping monitoring stations

There were detections of 2 juveniles and one adult goshawk just southeast of the Lost Pond PAC; and a detection of a single goshawk at the Red Lake PAC. No results at camera stations. Results of first year salamander monitoring stations are pending.

Crossroads: There were approximately 2700 acres of northern spotted owl, goshawk and furbearer habitat surveyed for baseline data.

Detections included fisher, (incidental) one goshawk (incidental) but northern spotted owls were not noted. Lassen National Forest biologists continue to monitor the dispersal of barred owl populations into areas within and outside of NSO critical habitat as well as within areas occupied by the California spotted owl (CASO) in the CFLR area.

Plum goshawk PAC monitoring and camera surveys.

Five PACs were monitored this year. One nest site was located at the Mountain Home PAC, with incidental sightings at two other PACs within the Plum Project area.

Five carnivore monitoring sites were set up; no sensitive species were noted. With the advent of wolves into California, this area is directly between the ranges of two wolf packs, so detections are possible.

Whittington Year 2 baseline surveys; approximately 3,000 acres of northern spotted owl and goshawk habitat.

Detections included 3 California spotted owl nest sites and two incidental sightings, 2 goshawk nest sites and 3 incidental sightings.

Sluicebox – 1500 acres surveyed for goshawks and owls

A pair of barred owls were noted within the Grayback GPAC during goshawk surveys. This pair will be placed within the barred owl regional data bank as new sightings. A northern goshawk nest was located at spotted owl PAC SHA 0011 (HC10) and 4 incidental detections of goshawks were noted within the project area, overall. No California spotted owls were located.

Bats

One permanent monitoring bat cell was established on the Hat Creek Rim within the CFLR area. This site will be monitored once yearly. Linda Angerer (regional bat coordinator) is continuing bat surveys within CFLR areas; Lost Creek (2nd year), and Big Springs (2nd year) were surveyed this year. Over the course of four nights, 12 species were netted. This effort was part of the annual Regional Bat Training hosted yearly by the Hat Creek Ranger District. As bats can fly several miles to forage total acres is not available; approximately 3 acres was monitored at Big Spring and maybe two miles of stream habitat at Lost Creek.

6. FY 2017 accomplishments*

Performance Measure	Unit of measure	Total Units Accomplished	Total Treatment Cost ($) *(Contract Costs)*
Acres of forest vegetation established FOR-VEG-EST	Acres	3,462	$465,839.80
Acres of forest vegetation improved FOR-VEG-IMP	Acres	485	$68,145.00
Manage noxious weeds and invasive plants INVPLT-NXWD-FED-AC	Acre	17	Work completed by Forest Weed Crew.
Highest priority acres treated for invasive terrestrial and aquatic species on NFS lands INVSPE-TERR-FED-AC	Acres	N/A	N/A
Acres of water or soil resources protected, maintained or improved to achieve desired watershed conditions. S&W-RSRC-IMP	Acres	2,902	Note: These acres are integrated targets, this year was no direct cost associated with this accomplishment.
Acres of lake habitat restored or enhanced HBT-ENH-LAK	Acres	N/A	N/A
Miles of stream habitat restored or enhanced HBT-ENH-STRM	Miles	N/A	N/A
Acres of terrestrial habitat restored or enhanced HBT-ENH-TERR	Acres	2,902	Note: These acres are integrated targets, this year was no direct cost associated with this accomplishment.
Acres of rangeland vegetation improved RG-VEG-IMP	Acres	11,585	Work Completed by Range Permittee's and the Pacific Crest Trail Association (PCTA)
Miles of high clearance system roads receiving maintenance RD-HC-MAIN	Miles	N/A	N/A

Performance Measure	Unit of measure	Total Units Accomplished	Total Treatment Cost ($) *(Contract Costs)*
Miles of passenger car system roads receiving maintenance RD-PC-MAINT	Miles	N/A	N/A
Miles of road decommissioned RD-DECOM	Miles	N/A	N/A
Miles of passenger car system roads improved RD-PC-IMP	Miles	N/A	N/A
Miles of high clearance system road improved RD-HC-IMP	Miles	N/A	N/A
Number of stream crossings constructed or reconstructed to provide for aquatic organism passage STRM-CROS-MTG-STD	Number	N/A	N/A
Miles of system trail maintained to standard TL-MAINT-STD	Miles	90	Completed by the PCTA
Miles of system trail improved to standard TL-IMP-STD	Miles	3	Completed by the PCTA
Miles of property line marked/maintained to standard LND-BL-MRK-MAINT	Miles	N/A	N/A
Acres of forestlands treated using timber sales TMBR-SALES-TRT-AC	Acres	N/A	N/A
Volume of Timber Harvested TMBR-VOL-HVST	CCF	N/A	N/A
Volume of timber sold TMBR-VOL-SLD	CCF	N/A	N/A
Green tons from small diameter and low value trees removed from NFS lands and made available for bio-energy production BIO-NRG	Green tons	28	19,819 Green Tons removed from timber sales
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
Acres of wildland/urban interface (WUI) high priority hazardous fuels treated to reduce the risk of catastrophic wildland fire FP-FUELS-WUI	Acres	N/A	N/A
Number of priority acres treated annually for invasive species on Federal lands SP-INVSPE-FED-AC	Acres	N/A	N/A
Number of priority acres treated annually for native pests on Federal lands SP-NATIVE-FED-AC	Acres	N/A	N/A
Acres mitigated FP-FUELS-ALL-MIT-NFS *(note: this performance measure will not show up in the WO gPAS reports – please use your own records)*	Acres	N/A	N/A
Please also include the acres of prescribed fire accomplished *(note: this performance measure will not show up in the WO gPAS reports – please use your own records)*	Acres	3,258	Completed Force Acct. $179,665

* Table only includes acres currently reported in gPAS. Actual accomplishments are reflected in the accomplishment narrative.

7. FY 2017 accomplishment narrative

This year's accomplishments continued to have a heavy focus on planning, and baseline monitoring. Currently, the Plum Project planning is moving forward, and with the exception of baseline monitoring the Crossroads Project has been put on a temporary hold mainly as a result of a greatly reduced district workforce (staffing is currently less than 25 percent of full staffing). A recent public meeting for the Plum Project indicated broad public support of the project. We believe this is a result of early collaboration on the project. Collaborative input contributed to the formulation of the project boundaries, the proposed action, purpose and need. The footprint of the project is approximately 18,225 acres, and a NEPA decision is expected in the fall of 2018 or early 2019.

The Plum Restoration Project proposes management activities to achieve the goals outlined in the CFLRP for the Plum area. The purpose of the proposed Plum Restoration Project is to retain and restore ecological resilience of National Forest System (NFS) lands within the project area.

The proposed Plum Project is intended to: Increase the heterogeneity and reduce the density of forested stands to modify wildland fire behavior and reduce insect mortality; increase stand and landscape level resistance and resilience to the above described disturbance events; reduce fuel loading; restore and regenerate aspen stands; restore riparian, grassland, meadow, and sage areas; improve habitat quality for wildlife including regenerating decadent brushfields to improve winter deer range, enhancing habitat for pronghorn, restoring wetlands to increase waterfowl production and provide habitat for fall migrants, and enhancing nesting habitat for sand hill cranes.

Improve hydrological function and connectivity; to restore degraded wetland and riparian systems to improve their hydrologic and habitat function and ability to hold water longer into the summer.

Improve and further refine the transportation system to provide an efficient transportation system for safe public access and travel, and for the economical and efficient management of National Forest System lands.

Implement site-specific treatments that are cost effective and contribute to community stability.

We have again started to analyze the Badger Project area that was put on hold because of the potential for unacceptably high cumulative watershed effects following the Reading fire (which burned 11,840 acres of the project area in 2012). This will be another opportunity to expand the effects of a working collaborative. We will be making a greater effort to not just inform the Lassen Volcanic National Park of our project, but to jointly develop the project area and work across boundaries to design a project that completes needed restoration and provides resilience for both the Park and Forest. We have completed similar planning efforts in the past (Cabin and Deep Red Project), but work was only completed on National Forest Land. This will be the first effort that works across the Park and Forest boundaries with a joint team and planned actions on both Forest and National Park lands.

Monitoring continued to be a key accomplishment with good progress working toward further multiparty monitoring as we continue to reach out to other state and federal agencies, NGOs, the Pit River Tribe, and universities.

Four timber sales were administered on 280 acres within the Burney Hat Creek Basin Project area in FY17. This included one timber sale that is close to completing the harvest of salvage material from the Eiler Fire, and

three timber sales harvesting within the North 49 Forest Health Recovery Project. These four sales produced a combined 15,686 CCF of Saw Timber and 7,768 CCF of Non-Saw that processed as 19,819 green tons of fuel for bio energy. All of the products were harvested, hauled, and processed locally in Shasta County and contributed positively to the local economic condition.

Service contracts were awarded on 4022 acres for reforestation and release. Reforestation activities continued within the Eiler and Reading fire perimeters and timber sales associated with the North 49 EIS (2323 acres). Release activities occurred on plantations within the Reading Fire Project and North 49 Forest Health Recovery Project. Matching CFLR funds for these activities included appropriated, reforestation, and Knutson-Vandenberg trust funds. Additionally, plantation stocking surveys were also completed on 2,652 acres.

Force account work within the project area included: Forest Service engineering crews completed upgrading culverts and resurfacing the West Prospect and the 26 roads which were damaged during the Reading and Eiler Fires and subsequent restoration activities. They also completed piling of 30 acres of hazardous fuels and site prep in the Eiler Fire area.

Hat Creek District fire/fuels crews completed 590 acres of underburning within the Eastside Project, and burnt 2,668 acres of hand and machine piles across the CFLR project area. Additionally, they completed maintenance of trails in Thousand Lakes Wilderness, hazard tree reduction in the campgrounds, clearing downed road trees, and provided road reconnaissance following a large rain on snow event.

Our forest botany crews completed 17 acres of noxious and invasive weed removal. Nonnative, invasive plant species continue to pose a significant threat to native biodiversity.

Since the project area is part of the Lower Pit River Watershed, which feeds Shasta Lake, the largest and arguably most important reservoir in California, maintaining water quality is of significant importance. Projects are specifically designed to ensure that this vital resource is protected. Towards this end, 2902 acres of the watershed were improved through integrated resource project activities.

In a joint effort between multiple livestock grazing permittees, the Pacific Crest Trail Association and the Forest Service, range and trail improvements were completed on the Hat Creek Rim within the Murken Lake and Proctor Creek grazing allotments. In an area jointly used by the range permittees and PCT recreationists, there has been an old water tank and corral facility for livestock watering adjacent to the trail. Nearby, a water cache, known as Cache 22, supplied water for hikers. The water cache had become quite an eye sore as a result of "trail angels" leaving water bottles of all sizes, sometimes folding chairs, etc. for use by hikers. This being one of the driest sections of the trail, the PCTA approached the Forest Service for help installing a water tank to take the place of the water cache. They had acquired a tank, but needed help placing it on FS lands.

Photo 4- Murken Corral Photo by KC Pasero

As the existing livestock water tank and corral were also in need of repair, we coordinated to upgrade the corral so equestrians using the PCT would have a place to keep their horses and have water for their stock.

In May of 2017, PCTA volunteers joined Forest Service employees to rebuild the corral facility and install the new water tank for PCT users. The 8-10 volunteers tore out old fence posts, dug holes and reset new posts, installed new gates, built a platform for the new tank and built a screen around it to help protect it from vandalism.

The new tank and trough replaced the old ones and provide water for livestock as well as horses. The water tank provided by the PCTA was located adjacent to the corral for human use. The improvements to the corral also made it more functional for use by the grazing permittees when gathering cattle from the Forest allotments.

Additionally, a cattle guard and division fence was placed nearby to help with control and distribution of the cattle that graze in the area.

Both of these projects benefited the 2 range allotments that surround them by improving water sources and controlling livestock distribution within and between the allotments.

8. **The WO will use spatial data provided in the databases of record close to estimate a treatment footprint for your review and verification**.

Fiscal Year	Footprint of Acres Treated (without counting an acre of treatment on the land in more than one treatment category)
FY 2017	3,568

Fiscal Year	Footprint of Acres Treated (without counting an acre of treatment on the land in more than one treatment category)
Estimated Cumulative Footprint of Acres (2010 or 2012 through 2017)	28,633

If you did not use the EDW estimate, please briefly describe how you arrived at the total number of footprint acres: what approach did you use to calculate the footprint? The EDW estimate utilizes 11,585 acres of range improvement, although the project that was completed with the Pacific Crest Trail Association does benefit the two adjacent range allotments. We believe it is more reasonable to show acres treated without utilizing the range improvement acres as described above in question 7.

9. **Describe any reasons that the FY 2017 annual report does not reflect your project proposal, previously reported planned accomplishments, or work plan.**

The Hat Creek Burney Basins Project has been completing projects using a variety of methods including timber sales, service contracts, and force account. Our first attempt at an Integrated Resource Service Contract was this year and included mechanical thinning and mastication, normally treatments that we have contracted separately. The contract yielded only one proposal and the contractor was unable to provide acquisitions with a DUNS number, so the project was not awarded. We are not certain why more proposals were not received as we reached out to our local contractor and manufacturing facilities.
The Sluice Box project was also scheduled to be contracted this year and was held back from sale as a result of an incomplete road engineering package.
Maintenance of projects are mainly completed thru prescribed fire. As a result of the lingering effects of the drought, limited prescription windows, adjacent contracts and air quality there is currently not enough burn days to maintain all the projects. Other maintenance is completed through our range management program.

10. **Planned FY 2019 Accomplishments**

(This table is NOT required for projects submitting updated lifetime goal proposals).

Performance Measure Code	Unit of measure	Work Plan 2019	Planned Accomplishment For 2019	Amount ($)
Acres of forest vegetation established FOR-VEG-EST	Acres	N/A	N/A	N/A
Manage noxious weeds and invasive plants INVPLT-NXWD-FED-AC	Acre	N/A	N/A	N/A

Performance Measure Code	Unit of measure	Work Plan 2019	Planned Accomplishment For 2019	Amount ($)
Miles of stream habitat restored or enhanced HBT-ENH-STRM	Miles	N/A	N/A	N/A
Acres of terrestrial habitat restored or enhanced HBT-ENH-TERR	Acres	N/A	N/A	N/A
Miles of road decommissioned RD-DECOM	Miles	N/A	N/A	N/A
Miles of passenger car system roads improved RD-PC-IMP	Miles	N/A	N/A	N/A
Miles of high clearance system road improved RD-HC-IMP	Miles	N/A	N/A	N/A
Volume of timber sold TMBR-VOL-SLD	CCF	N/A	N/A	N/A
Green tons from small diameter and low value trees removed from NFS lands and made available for bio-energy production BIO-NRG	Green tons	N/A	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	N/A	N/A	N/A

Please include all relevant planned accomplishments, assuming that funding specified in the CFLRP project proposal for FY 2019 is available. Use actual planned funding if quantity is less than specified in CFLRP project work plan.

11. **Planned accomplishment narrative and justification if planned FY 2018/19 accomplishments and/or funding differs from CFLRP project work plan**:

The Burney-Hat Creek Basins project has endured several challenges, including three large fires--the Reading Fire in 2012, the Eiler and Bald Fires in 2014, and a large windthrow event in 2015. These events dramatically altered the Hat Creek-Burney CFLR area in both scope and the ability of the agency to implement projects. The events delayed planned CFLR projects.

As our fire restoration efforts come to a close and barring any new large fires, all efforts will be focused on our remaining green forests that were included in our original proposal.

On our green landscapes, the Burney-Hat Creek Basins project continues to focus on restoration to increase resiliency of the landscape, reduce extreme fire risk, and improve forest health and diversity that sustains a variety of wildlife species, including the California Spotted Owl and northern goshawk. This includes improving degraded streams and meadows that have diminished capacity to buffer flood flows, produce clean water, and provide vital aquatic habitat to a diminished yet prized and economically-important fishery.

In 2019 we plan to contract the Whittington Forest Health Restoration Project, 49er from the North 49 Forest Health Recovery Project, and we remain confident that we will produce our first project from the Plum Ecosystem Restoration Project.

12. **Please include an up to date list of the members of your collaborative if it has changed from previous years**. 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.

Last	First	Affiliation	Email
Braugh	Andrew	N/A	drewbraugh@gmail.com
Buckley	Steven	NPS	Steve_Buckley@nps.gov
Burton	Lauren	Sierra Institute	lburton@sierrainstitute.us
Cesmat	Debra	USFS	debraacesmat@fs.fed.us
Clinton	Patti	USFS	patriciaclinton@fs.fed.us
Coppoletta	Michelle	USFS	mcoppoletta@fs.fed.us
Costello	Garrett	Fall River RCD	gcos01@gmail.com
Curtis	Don	Hat Creek Firesafe Council	dfcurtis530@yahoo.com
Dolan	M.	BLM	mdolan@blm.gov
Elmore	Darlene	N/A	madesi66@gmail.com
Feller	Peter	CAL FIRE	peter.Feller@fire.ca.gov
Fierro	Marissa	Pit River Tribe	marissa.fierro@pitrivertribe.org
Gemmill	Mickey	Pit River Tribe	resistanceresistance@outlook.com
Giacomini	Pam	N/A	pgiacomini@citlink.net
Graves	Melinda	NRCS	Melinda.Graves@ca.usda.gov>,
Greenwood	Keith	Sierra Pacific Industries	Kgreenwood@spi-ind.com
Hadley	Ryan	Sierra Pacific Industries	rhadley@spi-ind.com
Hathaway	Abe	Burney Fire Dept.	c17@burneyfireems.org
Hays	Dave	USFS	rdhays@fs.fed.us

Last	First	Affiliation	Email
Hoffman	Kristy	Sierra Nevada Conservancy	kristy.hoffman@sierranevada.ca.gov
Janine	Book	USFS	jbook@fs.fed.us
Johnson	Peter	Consultant	peterj.hatcreek@gmail.com
Joyce	Chantz	Stewardship Council	cjoyce@stewardshipcouncil.org
Kelly	Erin	Humboldt State University	eck107@humboldt.edu
Klimek	Mike	NPS	Mike_klimek@nps.gov
Kroschel	Dale	NRCS	Dale.Kroschel@ca.usda.gov
Kusel	Jonathan	Sierra Institute	jkusel@sierrainstitute.us
Ladd	Trish	McArthur-Burney Falls SP	trish.ladd@parks.ca.gov
Lindgren	Doug	Tubit Enterprises	tubitenterprises@gmail.com
Lofthus	Dean	Fruit Growers Supply Co.	Dean.Lofthus@fruitgrowers.com
Martin	Lori	McArthur-Burney Falls SP	lori.martin@parks.ca.gov
Mateljak	Jason	NPS	Jason_Mateljak@nps.gov
Mayer	Greg	USFS	gmayer@fs.fed.us
McCall	Dan	PG&E	DCMv@pge.com
Mizeur	Christopher	State Parks	Christopher.Mizeur@parks.ca.gov
Noel	Brian	CAL FIRE	brian.noel@fire.ca.gov
O'Brien	Chris	USFS	cjobrien@fs.fed.us
Oldson	Jeff	W.M. Beaty & Associates	JeffO@wmbeaty.com
Owen	John	Sierra Institute	jowen@sierrainstitute.us
Pierce	Don	PG&E	DEPj@pge.com
Puterbaugh	Patricia	Lassen Forest Preservation	pmputerbaugh@yahoo.com
Rodgers	Kyle	Sierra Institute	krodgers@sierrainstitute.us
Ross	Bruce	N/A	Bruce.Ross@asm.ca.gov
Rowe	Benjamin	CAL FIRE	benjamin.rowe@fire.ca.gov
Sloat	Todd	Fall River RCD	trsloat8@gmail.com
Sylvester	S.	BLM	ssylvester@blm.gov
Warshawer	Jason	PG&E	J7WS@pge.com
White	Charles	Pit River Tribe	administrator@pitrivertribe.org
Willmore	Skip	N/A	willmore@frontiernet.net
Wolfin	Feather	Pit River Tribe	doahiwolfin@yahoo.com
Wolfin	Gregory	Pit River Tribe	gwolfin@pitrivertribe.org

13. **Did you project try any new approaches to increasing partner match funding in FY2017**

With over 35 stakeholders from groups including (but not limited to): environmental, fire safe/services, fishing and recreational service, wood manufacturing, independent forest contractors, Forest Service and other federal and state agencies, local ranches, private industrial timberland managers, the Pit River Tribe, and wood-powered cogeneration facilities, the top goal of the Burney-Hat Creek Community Forest and Watershed Group is a "triple-bottom line" of sustainable success. The group has a vision that involves not just improving landscape, but outcomes for communities and people…on public and private land.

The Burney-Hat Creek Community Forest and Watershed Group believes in collaboration, trusts the process of working together, and is committed to sustaining the Basins Project into the future. The group understands that it is working on a landscape that is unique, with only 58 percent of the land managed by the Forest Service. In fact, one of the first projects the group tackled was stream and aspen restoration on private land. The group also believes that it is generally "'finding its stride" as it identifies new projects with a vision toward large landscape restoration and management. The group understands that support is necessary to achieving restoration results, and is currently seeking state as well as federal support to advance projects, and using unique authorities like Good Neighbor Authority. The group has briefly discussed expansion of its focus onto other lands and will do so as such areas are identified as key parts of is existing landscape restoration. Additional work will likely also include reviewing and commenting on the forest plan revision as that process unfolds.

The Forest Service and the Collaborative continue to reach out to other federal agencies and universities to support projects and learning opportunities within the Burney Hat Creek CFLR project area. In FY-17 we partnered with the Water Resources Institute (WRI) of the California State University System who provided two interns for hydrologic resources monitoring, the University of Nevada for snow monitoring, Washington State University for the Big Lake amphibian monitoring project and the Universities of Wisconsin, Arizona and Nevada for insect studies in association with Forest Health Protection.

We partnered with the U.S. Geological Survey and the Pit River Tribe in monitoring Hat Creek. Additionally we continue to support learning opportunities through the Forestry Institute for Teachers sponsored by the Society of American Foresters and the University of California Cooperative Extension, and the Shasta Forestry Challenge sponsored by Forestry Educators Inc.

Lassen Volcanic NP initiated a collaboration with the NASA DEVELOP program in summer and fall 2017. The summer project work involved remote sensing analysis using NASA Earth Observation data to assess fuel loadings across the Reading Fire scar in the upper Hat Creek watershed, as well as analyzing remote sensing data to create finer grained mortality maps. This resulted the SAVETREE application that was created by the NASA staff in Google Earth Engine. The application utilizes Landsat imagery to understand mortality events from 1984 to the present. In the fall, project work expanded to include the entirety of the Lassen National Forest in the SAVETREE application, which is in the midst of a software release process. Additionally, the fall term expanded their research to include the entirety of the Reading Fire footprint to examine the vegetation changes post-fire on both USFS and NPS land. The fall term also included an analysis of the Badger Planning Unit using available LiDAR to examine stand conditions and fuel loading. Both terms were funded by the NASA DEVELOP program

This year the Burney-Hat Creek Community Forest and Watershed Group and the Fall River Resource Conservation District has applied for California Proposition 1 dollars thru the Sierra Nevada Conservancy (SNC) to thin plantations within the North 49 project area in the Battle Creek watershed. If Prop 1 dollars are awarded to the group we plan to use the Good Neighbor Authority to complete the project. This grant program

is focused on forest health projects that result in multiple watershed benefits, consistent with the following purposes identified in Proposition 1.

14. 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. You are welcome to include links or to copy/paste.

University of Oregon Workforce Program

Pit River Country Bioenergy Cluster Project

Fall River Resource Conservation District Cluster Project

Bio Mass CEC approves Grants

You tube Shasta FC 2017

Signatures:

Recommended by (Project Coordinator(s)):_____

Approved by (Forest Supervisor(s)): _____

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

_____