CFLR Project (Name/Number): Grandfather Restoration Project / 019

National Forest(s): National Forests in North Carolina, Pisgah National Forest

1. Match and Leveraged funds:

a. FY16 Matching Funds Documentation

Fund Source – (CFLN/CFLR Funds Expended)	Total Funds Expended in Fiscal Year 2016($)
CFLN16	$214,538
CFLN13	$3,673

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 2016($)
NFVW	$203,000
Total	**$421,211**

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 2016($)
CMRD	$30,475
CMTL	$39,768
CWKV	$15,438
NFLM	$9,403
NFVW	$33,437
NFWF	$60,785
RTRT	$126,823
SPFH	$12,657
Total	**$328,786**

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 in the box below

Fund Source – (Partner In-Kind Contributions)	Total Funds Expended in Fiscal Year 2016($)
McDowell County	$168,000
North Carolina Wildlife Resources Commission	$82,092
Wild South	$48,580
Friends of Mountain To Sea Trail	$32,532
Southern Appalachian Wilderness Stewards	$18,178
The Nature Conservancy	$17,576
North Carolina Forest Service	$10,000
Western Carolina University	$4,823
The Wilderness Society	$3,036
Friends of Linville Gorge	$2,628
MountainTrue	$1,617
Consortium of Appalachian Fire Managers and Scientists	$923
Total	**$389,985**

b. Please provide a narrative or table describing leveraged funds in your landscape in FY2016 (one page maximum). Leveraged funds refer to funds or in-kind services that help the project achieve proposed objectives but 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, research conducted that helps project achieve proposed objectives, and purchase of equipment for wood processing that will use restoration by-products from CFLR projects. See "Instructions" document for additional information.

Description of item	Where activity/item is located or impacted area	Estimated total amount	Forest Service or Partner Funds?	Source of funds
Prescribed burns for fuel reduction and restoration	543 acres of State Park land within CFLR landscape	$20,000	Partner Funds	NC State Parks NC Forest Service
Herbicide for invasive species treatments in Wilson Creek priority area	0.25 acres of Private Property within CFLR landscape	$100	Forest Service Funds	CFLN

The North Carolina Forest Service and North Carolina State Parks conducted 3 prescribed burns totaling 543 acres at Lake James State Park, part of the CFLR landscape. Under authority provided from a Wyden agreement, the Forest Service provided herbicide to a private landowner within with Wilson Creek priority landscape for NNIS treatment of Japanese Knotweed.

Additional partner in-kind contributions have been on FS lands within the project area and are tracked alongside agency funded accomplishment.

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*. This may also include a brief 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). ***Where existing fuel treatments within the landscape are tested by wildfire, please include a summary and reference the fuel treatment effectiveness report.***

FY2016 was a less active fire season than average. Fall of 2015 and early winter of 2016 were wetter than usual, with few fires. The first fire in 2016 did not occur until the middle of March, which is unusually late for the onset of the late winter / spring fire season. The weather dried out quickly in March, leading to an active

spring wildfire season that ended in early May. In FY2016 there were 12 wildfires within the project area for a total of 1,074 acres. All but 1 of the wildfires were human caused. Of the human caused wildfires, the majority had a point of ignition on state jurisdiction before entering federal lands. All human caused fires were suppressed.

The largest of the human caused fires was the North Peak Fire at 670 acres. The North Peak Fire was a suspected arson fire that started within a prescribed burn unit on North Carolina Wildlife Resource Commission land. The unit was burned in the previous year. Due to the severe fire weather, the fire spread from the point of ignition. The area surrounding the fire had a long history of burning under the CFLR project as well as managed wildfire due to its proximity to the Bald Knob Fire area that burned in FY2015. These existing fire lines allowed firefighters to more easily contain the fire and minimize risk and resource damage associated with the construction of new fire lines.

Upper Creek Fire

The Upper Creek fire was the only lightning caused fire in FY2016. The fire started within the boundary of the Brown Mountain Off Highway Vehicle Area and was managed for resource benefit. Brown Mountain has some of the best examples of the District's Shortleaf Pine Forests. This area is much dryer, well drained and rockier soils than much of the surrounding forest. The area is also along a band of higher lightning activity, with fire dependent and fire adapted ecosystems. As an OHV area there were also many barriers to the fire's spread. Trails coupled with creeks and roads provided a great opportunity for a fire to provide resource benefit with minimal line construction and investment. Values in the area are predominantly limited to cultural values. The area contains high density of prehistoric sites that are not at risk from the fire itself, rather have higher potential of damage with suppression activities. Managing the fire for resource benefit allowed the district to minimize costs and risk, while reducing fuels and improving the condition of fire adapted forests. The total fire size was 169 acres.

Throughout the life of the CFLR project, the district has become skilled at identifying fires to manage for resource benefit. Under direction of the District Ranger, and with support of the Supervisor’s Office, the entire fire staff has developed a skilled understanding of identifying and assessing risk and benefit of wildfires, allowing firefighters to fall back to existing and natural barriers. The one limitation that exists is the abundance of private property within the larger CFLR boundary. While the North Carolina Forest Service appreciates the

strategy of managing fires through less direct, confine and contain strategies on US Forest Service lands, their regulations require to fully suppression of fires on state jurisdiction lands.

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 – Restoration documents CFLRP TREAT User Guide 2015 1005.pdf.

The numbers below were derived from actual expenditures with estimates of percent of contracted and force account work. An estimate of 60% contracted and 40% force account labor was used for both tables.

FY 2016 Jobs Created/Maintained (FY16 CFLR/CFLN/ WO carryover funding):

FY 2016 Jobs Created/Maintained	Jobs (Full and Part-Time) (Direct)	Jobs (full and Part-Time) (Total)	Labor Income (Direct)	Labor Income (Total)
Timber harvesting component	0	0	0	0
Forest and watershed restoration component	3	3	$29,955	$42,160
Mill processing component	0	0	0	0
Implementation and monitoring	10	10	$109,709	$125,232
Other Project Activities	0	0	0	0
TOTALS:	**13**	**14**	**$139,664**	**$167,393**

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.

FY 2016 Jobs Created/Maintained (FY16 CFLR/CFLN/ WO carryover **and matching funding**):

FY 2016 Jobs Created/Maintained	Jobs (Full and Part-Time) (Direct)	Jobs (Full and Part-Time) (Total)	Labor Income (Direct)	Labor Income (Total)
Timber harvesting component	0	0	0	0
Forest and watershed restoration component	5	5	$43,669	$63,623
Mill processing component	0	0	0	0
Implementation and monitoring	12	13	$195,345	$222,986
Other Project Activities	0	0	$1,760	$2,476
TOTALS:	**17**	**19**	**$240,775**	**$289,085**

4. **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). *If you have one story you could tell a member of Congress or other key stakeholder about the benefits in the community the project has helped achieve, what would it be?*

Bridge over Catawba River

Improved access to recreation areas leads to better user experiences across the district. Outdoor recreation is a huge draw for tourists, and tourism is a leading industry in surrounding towns and growing throughout Western NC. A key focal area for improving access and trail conditions in FY2016 is the Catawba Falls trail. This site is part of the Pisgah National Forest Valuing Outdoor Experiences Demonstration Area (VOEDA), a national initiative to invest in sustainable recreation. The district is working in collaboration with our community partners to leverage demonstration area outcomes at Catawba Falls to enhance the outdoor recreation experience and impacts to the local economy. In early FY2016, McDowell County received a grant through the North Carolina Recreation and Trail program for construction of a trail bridge over the Catawba River. The $250,000 VOEDA funding received in FY2016 was used to improve Catawba Falls Trail and install an additional foot trail bridge to access Lower Catawba Falls.

In addition to making the trail more sustainable to avoid resource damage to the headwaters of the Catawba River, the Catawba Falls project has major economic and public safety implications. Every month, McDowell County Emergency Management responds to at least one critical rescue at the site from the public seeking access to the upper falls. They estimate each rescue costs between $5,000 and $13,000, depending on the need for helicopter transport (which is often the case). Only a couple of weeks after completing the foot trail bridge, a visitor was injured at the site. EMS was able to drive emergency equipment on newly built trails to rescue the injured visitor saving valuable time and resources that would have been spent on helicopter transport.

William Kehler, Emergency Services Director for McDowell County, describes the partnership's success:

> *The construction of the Catawba Falls Bridge and the bridge across Chestnut Branch has provided critical emergency access for emergency personnel… These efforts have been recognized by the last couple of emergency extractions… Typical response would have taken numerous hours, but the actions taken cut the response time in half and with the additional actions will greatly decrease the response time. The work of the US Forest Service at Catawba Falls has improved safety for both visitors to the falls and emergency personnel.*

Linville Gorge Volunteers

In FY2016, the Grandfather CFLR focused on improving relationships with volunteer groups and better informing recreation users. The district has a large volunteer base, and a lot of local communities have a passion for helping improve the forest. In the past, we have struggled to manage such a large and diverse pool of volunteers. We've made strides in improving relationships with hiking, biking and equestrian trail users. Interest in the Linville Gorge Wilderness Area stands out as an example of improved relationships. Where there was a disconnection and distrust, there is now a sense of one team and mutual support. In FY2015 Wild South recruited one of these Wilderness partners to act as volunteer coordinator for Linville Gorge. This support has drastically improved this relationship, including regular communication, improved agency support, providing materials and supplies for trail work to volunteers. This has led to a change in the general attitudes in the community to the Forest Service and has allowed us to better guide the work, track the progress of our volunteers and work together to accomplish more. The benefit to the landscape is appreciated by both the Forest Service and the local communities. This year, the district also partnered with the Southern Appalachian Wilderness Stewards to host 2 wilderness rangers in Linville Gorge who worked on visitor education, trail and campsite restoration, and solitude monitoring. The one-on-one contact with visitors helped to build an educated user community and instill wilderness and leave no trace ethics in users.

In April 2016, the district brought on a local veteran through the VetsWork AmeriCorps internship to assist with the CFLR program. The VetsWork program provides federal internship opportunities to veterans who are transitioning out of the military to give them experience with civilian employment. Our VetWorks intern has been working on volunteer coordination, outreach and communication, and improved internal documentation. This has been a great partnership to provide experiences for local veterans and accomplish meaningful work under the CFLRP.

All prescribed fire treatments in FY2016 were in the WUI and benefited local communities through fuel reduction as well as continued education and outreach of the beneficial effects of fire. Communication efforts with local media and community groups have allowed for a higher degree of awareness in the community of fire risks and benefits. Efforts to establish a Fire Adapted Community within McDowell County are underway.

Multiple landowners have been involved in our invasive species treatment efforts along Wilson Creek. The area, which is a high-priority area for invasive treatment within the CFLR, has a large infestation of Japanese knotweed. Several landowners are working with the Forest Service to treat on their properties. Treatment of knotweed on private property not only works toward the project goal, but helps increase the value of that individual's property.

Contracted service work associated with the project is advertised to local vendors first, and then expanded beyond the local community only when a local vendor is not found. Because of this focus, over 90% of project work is completed through local vendors. The increased funding through the CFLR and related activities has allowed for more local contracts and created a positive economic benefit for the local community.

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 Grandfather Restoration Project Collaborative has a monitoring committee that is open to all participants in the collaborative. The collaborative at large has prioritized monitoring efforts to include forest restoration (focusing on restoration of fire regimes), invasive species treatments, fish and wildlife habitat, watershed, roads, and trails, and social and economic impacts. The collaborative continues to follow the monitoring plan enacted in April 2014 when planning monitoring activities.

The following monitoring efforts are in place through FY2018:

(1) In FY2015, an agreement was established with Western Carolina University to monitor fire effects on vegetation. This agreement will use the vegetation monitoring methodology developed by the Southern Blue Ridge Fire Learning Network (SBRFLN) to monitor fire effects on vegetation. This methodology consists of installing .1 acre permanent plots that record all woody vegetation over 4" dbh, measuring sapling density in a nested sapling plot, recording percent cover of shrubs and herbs, and measuring fuels along three transects. The agreement will also provide analysis of data to allow for adaptive management in prescribed fire implementation.
(2) In FY2015, an agreement was established with MountainTrue, a local non-profit organization, to monitor invasive plant species occurrence and treatment effectiveness. The agreement will focus on high priority areas identified as part of the CFLR. This agreement will provide survey assistance in identifying new treatment areas as well as look at the effectiveness of existing treatments. Monitoring efforts will allow specialists to test a variety of treatment methods to determine the most effective way to treat invasive plant species.
(3) FY2016 funds will cover vegetation monitoring through a challenge cost share agreement with TNC in the next project area planned for vegetation management under the CFLR.

During July, 2016 fire-effects were monitored at 2 burn units within the Grandfather CFLR – the Lake James and Wilson Creek burn units. The Lake James burn unit is a demonstration burn unit for the

Southern Blue Ridge Fire Learning Network (SBRFLN), and has now been burned twice, first in March 2011 and again in January 2015. Post burn monitoring occurred during the summers of the second growing season following each burn, and all 20 plots were resampled in July 2016. The Wilson Creek burn unit has been burned multiple times over the past 2 decades and at face value appears to be approaching a desired condition where fire return intervals could become longer. The purpose for sampling in these two sites was to document the characteristics of areas where restoration appears to have been successful, and to quantify those results using SNRFLN protocols.

Wilson Creek Prescribed Burn

Data from both units were gathered and compiled to review the progress toward these improved conditions. Findings indicated that the Wilson Creek unit tended to have a denser over story than was found at Lake James. While the ericaceous shrub layer at Lake James was dominated by mountain laurel, the Pine Oak Heath ecozone in Wilson Creek contained areas with both mountain laurel and rhododendron. Where it existed, the rhododendron was much taller than the mountain laurel. The average litter thickness in the areas sampled at Wilson Creek is similar to what has been achieved at Lake James. The average duff thickness at Wilson Creek is thicker than that at Lake James.

The primary goals of prescribed burning are to maintain and restore fire adapted forest communities, and also to manage fuels in order to both reduce the chances of catastrophic wildfires and promote the regeneration of fire adapted species. It is widely accepted that it will take multiple fires to achieve these goals; however, the initial first steps appear to be significantly changing the fuel loading and structure by reducing the overstory, removing the heavy mountain laurel understory, and a reduction in litter and duff thickness. Results from the monitoring activities are allowing fire managers to prioritize future burns on these units and determine the desired fire return interval. Based on these finding, we can determine that while the Wilson Creek and Lake James units have significantly reduced fuel loading and structure, they have not been reduced to the point where a shorter fire return interval will be successful in controlling ericaceous shrub growth.

6. **FY 2016 accomplishments**.

Performance Measure	Unit of measure	Total Units Accomplished	Total Treatment Cost ($)	Type of Funds (CFLR, Specific FS BLI, Partner Match)
Acres of forest vegetation improved FOR-VEG-IMP	Acres	559	$75,000	RTRT NFVW CWKV
Highest priority acres treated for invasive terrestrial and aquatic species on NFS lands INVSPE-TERR-FED-AC	Acres	26.4	$80,000	SPFH CFLN
Acres of water or soil resources protected, maintained or improved to achieve desired watershed conditions. S&W-RSRC-IMP	Acres	7.6	$75,000	NFVW CFLN
Acres of lake habitat restored or enhanced HBT-ENH-LAK	Acres	0.56	$15,000	PTNR NFWF CWFS
Miles of stream habitat restored or enhanced HBT-ENH-STRM	Miles	1.43	$90,000	NFWF NFVW CFLN
Acres of terrestrial habitat restored or enhanced HBT-ENH-TERR	Acres	4,220	$140,000	WFSU WFHF CFLN
Miles of system trail maintained to standard TL-MAINT-STD	Miles	116.71	$50,000	PTNR FDDS CMXN CFLN
Miles of system trail improved to standard TL-IMP-STD	Miles	1.29	$45,000	CWFS CMTL CFLN
Miles of property line marked/maintained to standard LND-BL-MRK-MAINT	Miles	12	$20,000	CFLN
Volume of timber sold TMBR-VOL-SLD	CCF	5,219	$50,000	NFTM
Acres of wildland/urban interface (WUI) high priority hazardous	Acres	4,063	$150,000	WFPR WFHF RTRT NFVW

Performance Measure	Unit of measure	Total Units Accomplished	Total Treatment Cost ($)	Type of Funds (CFLR, Specific FS BLI, Partner Match)
fuels treated to reduce the risk of catastrophic wildland fire FP-FUELS-WUI				CWKV

Units accomplished should match the accomplishments recorded in the Databases of Record. Please include the type of Funds (CFLR, Specific FS BLI, Partner Match) if you have accurate information that is readily available. Please report each BLI on a separate line within a given performance measures' "Type of Funds" box

Accomplishment reported but not showing in PAS CFLR report:

Performance Measure	Unit of measure	Total Units Accomplished[1]	Total Treatment Cost ($)	Type of Funds (CFLR, Specific FS BLI, Partner Match)[2]
Manage noxious weeds and invasive plants INVPLT-NXWD-FED-AC	Acres	239.5	$60,000	NFVW CFLN
Miles of passenger car system roads receiving maintenance RD-PC-MAINT	Miles	117	$45,000	CMRD CFLN
Miles of road decommissioned RD-DECOM	Miles	9.1	$21,000	CFLN

7. **FY 2016 accomplishment narrative** – Summarize key accomplishments and evaluate project progress not already described elsewhere in this report. (Please limit answer to three pages.)

Habitat Restoration: 0.56 acre of lake habitat enhanced, 1.43 miles of stream habitat enhanced, 4,220 acres of terrestrial habitat enhanced

- Terrestrial habitat was restored through a variety of management, including maintenance of wildlife openings, prescribed fire, and vegetation improvement projects.
- Stream and lake habitat was restored at 3 sites through the removal of fish barriers and the installation of in-stream features benefiting aquatic organisms.

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

[2] Please include the type of Funds (CFLR, Specific FS BLI, Partner Match) if you have accurate information that is readily available. Please report each BLI on a separate line within a given performance measures' "Type of Funds" box. .

- The North Carolina Wildlife Resources Commission supported wildlife activities across the district, including stocking of 4,000 native trout, mowing of 500 acres of wildlife openings, and 7 habitat surveys.

Invasive Species Treatments: 239.5 acres of nonnative invasive plant treatments, 26.4 acres of hemlock wooly adelgid treatments

- Invasive species were treated with herbicide in the Catawba River Floodplain and along Wilson Creek. Invasive species were mechanically treated outside the Wilderness around Table Rock.
- Hemlock wooly adelgid (HWA) treatments were continued for Carolina and eastern hemlock across the district.
- Southern Appalachian Wilderness Stewards surveyed invasive species in Linville Gorge.
- Wild South inventoried hemlocks needing treatment in Linville Gorge.
- MountainTrue surveys invasive species in multiple locations on the district.

Watershed Restoration: 7.6 acres of watershed improved, 9.1 miles of non-system roads decommissioned

- Stream and watershed restoration was conducted at Bee Rock Creek, Thorps Creek, and Upper Creek that included naturalization of stream channels, erosion control, and restoration of streamside zones.
- Law enforcement identified 9.1 miles of non-system roads and multiple trails that were decommissioned by placing boulders at entry points, reducing erosion into sensitive watersheds.

Bee Rock Creek Project

Trail Restoration: 1.29 miles of trails improved, 117 miles of trails maintained

- Major trail features were installed on the Catawba Falls trail to improve sustainability and access.
- Through USFS labor, contracts, and volunteers, over 100 miles of trails were maintained. This work included work completed through agreements with Wild South and the Southern Area Wilderness Stewards in Linville Gorge.
- Wild South and its volunteers worked over 4,400 hours on trail maintenance and mapping in Linville Gorge.
- The Friends of the Mountain to Sea Trail volunteers worked over 2,700 hours on trail maintenance for the Mountain to Sea Trail.
- Friends of Linville Gorge volunteers worked 386 hours on trail maintenance in Linville Gorge Wilderness.
- The Southern Area Wilderness Stewards worked over 400 hours on trail maintenance within Harpers Creek Wilderness Study Area and Linville Gorge Wilderness.

Prescribed Fire: 4,063 acres of fuels treated

- The Roses Mountain Prescribed burn was the only unit burned this year. This was the first ever burn at the unit, which was the first unit to be burned under the new Grandfather Restoration Burns project. The ecosystem in this unit is highly fire-adapted, and was a top-ranking area to prioritize burns under the project.
- The Upper Creek Fire was managed through a confine and contain strategy.
- The Nature Conservancy provided support for fire implementation as well as education and outreach with the creation of a "Fire Learning Trail" of interpretive signs and accompanying social media.
- The North Carolina Forest Service and the North Carolina Wildlife Resource Commission provided support for prescribed fire implementation.

Roses Creek Prescribed Burn

Timber and Silviculture: 559 acres of forest vegetation improved, 5,219 CCF of timber sold

- Vegetation improvement focused on removing white pine, tulip poplar and red maple and retaining oaks and yellow pines.
- Timber harvested in FY2015 at shortleaf pine restoration sites on the Roses Creek Project was sold.
- Partners, including MountainTrue and The Nature Conservancy, provided support for identification of future project sites to be implemented under the new Farm Bill CE authority for Southern Pine Beetle recovery.

Public Outreach and Communication:

Although not captured in accomplishment reporting, communication is a critical piece of our CFLR project and progress in this area has been a major highlight of FY2016. While the Grandfather Restoration Collaborative has always had good common understanding of goals and an open line of communication, information shared with the public had been lacking in the early years of the project. This year in particular, we were able to take advantage of multiple opportunities to share the success stories and educate the public around restoration. These efforts were led both by the Forest Service and partners. Based on these efforts, the Grandfather CFLRP is recognized nationally for our success in communication.

Time Lapse Video

In early spring 2016, videos were released that highlighted multiple restoration stories. The "What Happens After the Burn?" video (what happens after the burn) used footage from a game camera that was set on a prescribed burn unit a week after a burn. The camera was set to take 1 picture every day, as well as take a picture each time wildlife set off the motion detector. After sorting through thousands of images, we were able to create a time lapse of the 6 months after the prescribed burn that showed the vegetation re-growing and the wildlife returning to the area. This video allowed us to clearly illustrate how prescribed fire benefits the forest. Notably, wildlife returned to the area within a few weeks, even before spring green-up. The video captured a wide range of species, from the more common turkeys and deer, to the elusive bobcat. This 2-minute video was a big hit on social media, where it was shared over 14,000 times by fire organizations around the world.

The video series on "What Does Restoration Look Like?" featured 2 videos highlighting CFLR projects. This video series was in response to the lack of public knowledge of what restoration really looks like on the ground, brought to the forefront of local interest due to the focus on forest restoration in the ongoing Nantahala and Pisgah Plan revision. The first video looked at shortleaf pine restoration and took place on the Roses Creek project site (Short leaf Pine vimeo). The 2-minute video features the project coordinator speaking to the camera against the backdrop of the recent timber harvest, with added pictures and video footage from the site prep burn, harvest operations, and shortleaf pine plantings. This video is very successful in illustrating that timber harvest for restoration is in this case is very different from a clear cut – trees are left in the over story and grasses and wildflowers are abundant. Following the release of the shortleaf pine video a group of stakeholders for the Forest Plan Revision toured the site. The second video in the "What does Restoration Look Like?" series highlighted hemlock preservation (What does restoration look like). This video educated the public on the invasive insect pest attacking the forest and how the CFLR is responding to the threat to this keystone species. The news release and hemlock video were featured in a local paper.

Fire Learning Trail

In addition to media communications, the district and partners developed a series of on-the-ground interpretive signs near Linville Gorge. Linville has a long history of fire - from the iconic wind-whipped table mountain pines gripping the cliffs at the edge of the gorge, to the characteristic clear views, fire has shaped Linville from the beginning. Partnering with The Nature Conservancy, The Fire Learning Network, and the Consortium of Appalachian Fire Managers and Scientists, the district installed a series of informational signs along Old NC 105 on the west rim of Linville Gorge to share with the public information about fire safety, fire history, fire ecology, and firefighting. Visitors starting at the Information Cabin at the north end of Old NC 105 can visit the signs by driving south along the Fire Learning Trail as they take in the sights of the area. The signs are accompanied by a series of pod casts featuring radio-style interviews with local fire managers that are available online (iTunes or download at Appalachian Fire the fire learning trail). The fire learning trail has educated countless local visitors, and has gained national attention. The model of the trail is now being replicated in multiple National Forests, National Parks, and State Parks.

8. ***Review the spatial information sent to you by the Washington Office after gPAS closes out on October 31***

- **If the 2016 footprint estimate is consistent and accurate**, please confirm and copy below.
- **If it does NOT appear accurate**, describe the total acres treated in the course of the CFLR project below (cumulative footprint acres; not a cumulative total of performance accomplishments)?[3]

Fiscal Year	Total number of acres treated (treatment footprint)
Total in FY16	34,065
FY10, FY11, FY12, FY13, FY14, FY15, and FY16 (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))	FY12 – 5,622 FY13 – 6,528 FY14 – 5,947 FY15 – 9,837 FY16 – 6,131

[4] Please note that planned accomplishments are aggregated across the projects to determine the proposed goals for the program's outyear budget justification. These numbers should reflect what is in the CFLRP work plan, with deviations described in question 11.

If you did not use the database estimate, please briefly describe how you arrived at the total number of footprint acres: what approach did you use to calculate the footprint?

The footprint area was calculated using the actual accomplishments for fuels treatments (FP-FUELS-WUI), invasive species (INVSPE-TERR-FED-AC), lake habitat (HBT-ENH-LAK), noxious weed treatments (INVPLT-NXWD-FED-AC) and forest vegetation improved (FOR-VEG-IMP). Terrestrial habitat accomplishments (HBT-ENH-TERR) overlapped areas for fuels treatments and forest vegetation established/improved, so only those acres recorded for maintenance of wildlife openings (157 acres) were counted.

Accomplishments recorded in units other than acres were converted to acres using the following methodology:

- Road maintenance (RD-PC/HC-MAINT-MI) impacts a 60ft wide corridor to include road work and brushing. Total road accomplishments were 117 miles, for an equivalent of 851 acres.
- Trail maintenance (TL-MAINT-STD) and improvement (TL-IMP-STD) takes place within a 16ft corridor. Total trail accomplishments were 118 miles, for an equivalent of 229 acres.
- Stream habitat enhanced (HBT-ENH-STRM) was estimated to impact a 30ft corridor (10ft stream channel and 20ft riparian area). Total stream accomplishments were 1.43 miles, for an equivalent of 5.2 acres.
- Landline accomplishments (LND-MAINT-STD) were not included, because there was no logical way to convert those 12 miles to acres.

9. **Describe any reasons that the FY 2016 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).

Accomplishments for FY2016 should match closely. Adjustments are made throughout the life of the project as priorities change and new areas of focus emerge. This often produces a change in accomplishments for the project as planned.

10. **Planned FY 2018 Accomplishments**[4]

In an effort to simplify reporting, we've reduced the number of performance measures we are asking you for here. However, the ones below are still needed for our annual budget request to Congress. In our justification to Congress for continued funding each year, we have to display planned accomplishments for the coming year.

[4] Please note that planned accomplishments are aggregated across the projects to determine the proposed goals for the program's outyear budget justification. These numbers should reflect what is in the CFLRP work plan, with deviations described in question 11.

Performance Measure Code	Unit of measure	Planned Accomplishment	Amount ($)
Acres of forest vegetation established FOR-VEG-EST	Acres		
Manage noxious weeds and invasive plants INVPLT-NXWD-FED-AC	Acre	200	$50,000
Miles of stream habitat restored or enhanced HBT-ENH-STRM	Miles	1	$50,000
Acres of terrestrial habitat restored or enhanced HBT-ENH-TERR	Acres	5,000	$100,000
Miles of road decommissioned RD-DECOM	Miles	4	$60,000
Miles of passenger car system roads improved RD-PC-IMP	Miles		
Miles of high clearance system road improved RD-HC-IMP	Miles		
Volume of timber sold TMBR-VOL-SLD	CCF	4,000	$50,000
Green tons from small diameter and low value trees removed from NFS lands and made available for bio-energy production BIO-NRG	Green tons		
Acres of hazardous fuels treated outside the wildland/urban interface (WUI) to reduce the risk of catastrophic wildland fire FP-FUELS-NON-WUI	Acre		
Acres of wildland/urban interface (WUI) high priority hazardous fuels treated to reduce the risk of catastrophic wildland fire FP-FUELS-WUI	Acres	5,000	$175,000

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.

11. **Planned accomplishment narrative and justification if planned FY 2017/18 accomplishments and/or funding differs from CFLRP project work plan** (no more than 1 page):

In FY2018 we plan to sell timber from the in-progress Farm Bill Project. The estimated timber sold is 4,000 CCF. We also plan to harvest timber from the Armstrong Creek EA (Bee Rock Timber Sale). We plan to enhance approximately 1 mile of stream habitat through the installation of an aquatic organism passage at Carroll Creek. We plan to decommission 4 miles of illegal roads through the placement of boulders, working with local law enforcement. We plan to prescribed burn an estimated 5,000 acres, which will also enhance terrestrial habitat.

In addition to the accomplishments listed in the table, we will continue to treat NNIS in the Wilson, Catawba, and Linville drainages in the amount of 200 acres. 25 acres will be treated for hemlock wooly adelgid. We will maintain 30 miles of road to reduce sedimentation into streams. 10 miles of trail will be maintained or improved to reduce soil movement in nearby streams. 6 miles of property landlines will be marked to support project work.

12. **Please include an up to date list of the members of your collaborative if it has changed from the list you submitted in the FY15 report** (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.

The only new member for FY2016 is the Friends of the Mountains to Sea Trail. They are involved in trail work along the State Designated Mountains to Sea trail, which travels through the CFLRP landscape.

Collaborative Members
Appalachian Designs
Defenders of Wildlife
Fish and Wildlife Service
Foothills Land Conservancy
Forest Stewards
Grandfather Mountain Land Conservancy
Land of Sky Regional Council
Linville Gorge Area Volunteers
MountainTrue
National Forest Foundation
National Park Service
National Wild Turkey Foundation
NC Division of Water Quality
Friends of the Mountains to Sea Trail (*new member for FY2016*)
NC Forest Service
NC State Parks
NC Wildlife Resources Commission
North Carolina State University
Quality Deer Management
Southern Appalachian Wilderness Stewards
Southern Blue Ridge Fire Learning Network
Southern Research Station

The Nature Conservancy
The Wilderness Society
Trout Unlimited
Western Carolina University
Wild South

13.Did you project try anynew approaches to increasing partner match funding in FY2016 (both in-kind contributions and through agreements)? (no more than one page):

In FY2016 we were able to better account for volunteer hours for match. The district has a large volunteer base, and in the past has not been able to adequately track this. Due to the involvement of partner organization Wild South, we are much better able to track the hours in the Linville Gorge area. Additionally, we have put emphasis on using agreements with partner organizations where possible instead of contracts. For example, through an agreement with The Nature Conservancy, we were able to complete site surveys to gather information for a future project.

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.

Videos:

"What happens after the burn?" time-lapse: Time laps after the burn (viewed 14,000 times on social media)

"What Does Restoration Look Like?" video series:

- Shortleaf pine: Short leaf Pine vimeo
- Hemlock preservation: Hemlock preservation

Newspaper articles:

CALDWELL JOURNAL (Lenoir, NC) Gest Column, Fighting Fire with Fire, Prescribed fires slow wildfire spread: Caldwell Journal fighting fire with fire prescribed

HIGH COUNTRY PRESS (Boone, NC) Guest Column, What Does Restoration Look Like? Saving Hemlocks on the Grandfather Ranger District: HC press Restoration look like saving hemlocks

HIGH COUNTRY PRESS (Boone, NC), Fire Learning Trail Launches at Linville Gorge: HC press fire learning trail launches Linville gorge

CITIZEN TIMES (Asheville, NC), watching out over wild, picturesque Linville Gorge: citizen-times watching out over wild picturesque Linville gorge

CITIZEN TIMES (Asheville, NC), Prescribed burn set near Marion and Blue Ridge Parkway: citizen-times girls gone outdoors/2016/04/05/prescribed burn set near Marion and blue ridge parkway

NEWS HERALD (Morganton, NC), prescribed burn takes place at Lake James, Morganton news prescribed burn takes place at Lake James

Television:

WLOS (Asheville, NC) Prescribed burn planned for Grandfather Ranger District postponed, prescribed burn planned for grandfather ranger district

WMYA (Charlotte, NC) Grandfather Ranger District Plans Controlled Burn Today, archive grandfather ranger district plans control burn today 05-06-2016

Web articles:

USDA BLOG, Wildlife after Wildfire in Southern Appalachia, wildlife after wildfire in southern Appalachia

SOUTHERNWILDFIRE.NET (Cohesive Strategy), Success Stories: Creating a Fire Resilient Landscape in the Pisgah National Forest, southern wildfire success stories creating a fire resilient landscape in the Pisgah National Forest

GOBLUERIDGE.NET (High Country News Radio), Pisgah burn may lead to smoke reports, go Blue Ridge news Pisgah burn may lead to smoke reports

GRANDFATHER RESTORATION PROJECT BLOG, grandfather restoration project

- SAWS Restores Trails in Harper Creek
- Wild South and Linville Volunteers Tackle Babel Tower Trail
- Fire Learning Trail Launches
- What Does Restoration Look Like? Saving Hemlocks
- Rose's Mountain Prescribed Burn
- What Does Restoration Look Like? Shortleaf Pine at Roses Creek
- Wildlife and Prescribed Fire
- Simpson Creek Watershed Improvement Project
- Fighting Fire with Fire: Prescribed fires slow wildfire spread
- Partners Make Big Contributions in 2015

Signatures:

Recommended by (Project Coordinator(s)): _____

Approved by (Forest Supervisor(s))[14]: _____

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