

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

National Forest(s): National Forests in North Carolina

Responses to the prompts on this annual report should be typed directly into this template, including narratives and tables.

1. Match and Leverage funds:

a. FY14 Matching Funds Documentation

Fund Source – (CFLR Funds Expended ¹)	Total Funds Expended in Fiscal Year 2014(\$)
CFLN1913	\$124,492
CFLN1914	\$284,608
TOTAL	\$409,100

Fund Source – (Carryover funds expended (Carryover to in addition to CFLR/CFLN) ² (please include a new row for each BLI))	Total Funds Expended in Fiscal Year 2014(\$)
NFWF	\$4,709

Fund Source – (FS Matching Funds (please include a new row for each BLI) ³)	Total Funds Expended in Fiscal Year 2014(\$)
CWFS	\$18,010
CWK2	\$6,628
CWKV	\$317
CMRD	\$11,517
CMTL	\$22,840
NFLM	\$8,200
NFTM	\$6,113
NFVW	\$82,838
NFWF	\$21,695
SPFH	\$6,246
WFHF	\$126,187
TOTAL	\$315,300

Fund Source – (Funds contributed through agreements ⁴)	Total Funds Expended in Fiscal Year 2014(\$)

¹ This amount should match the amount of CFLR/CFLN dollars obligated in the PAS report titled CFLR Job Code Listing and Expenditure Report – Detailed Analysis by Fiscal Year.

² This value should reflect the amount of carryover funds allocated to a project as indicated in the program direction, but does not necessarily need to be in the same BLIs as indicated in the program direction. These funds should total the matching funds obligated in the PAS report.

³ This amount should match the amount of matching funds obligated in the PAS report.

⁴ Please document any partner contributions to implementation and monitoring of the CFLR project through an agreement (this should only include funds that weren't already captured through the PAS job code structure for CFLR matching funds). Please list the partner organizations involved in the agreement.

Fund Source – (Partner In-Kind Contributions ⁵)	Total Funds Expended in Fiscal Year 2014(\$)
NC Wildlife Resources Commission	\$46,428
The Wilderness Society	\$30,885
NC Forest Service	\$10,000
Western North Carolina Alliance	\$4,290
The Nature Conservancy	\$3,912
Wild South	\$13,074
North Carolina Department of Transportation	\$412,446
TOTAL	\$521,035

Fund Source – (Service work accomplishment through goods-for-services funding within a stewardship contract ⁶)	Total Funds Expended in Fiscal Year 2014(\$)

b. Please provide a narrative or table describing leveraged funds in your landscape in FY2014 (one page maximum)

The NC Wildlife Resource Commission worked on improvement of early successional habitat by mowing fields for a total of 648 acres, treating 44 acres for invasive species, 13 different surveys for both terrestrial wildlife and monitoring of streams for fish habitat and species, stocking of 3,000 brown trout fingerlings, clearing of 1.5 miles of fire break, 3 acres of prescribed fire, and collection of data on 23 bears. Their estimate is \$46,428 worth of work being accomplished on the Grandfather Ranger District.

The Wilderness Society worked 672 hours on the Linville Gorge Fire Ecology study, 20 hours on project planning for shortleaf pine restoration, and 651 hours on trail relocation, improvement, and maintenance in the Linville Gorge Wilderness for a total of \$30,885 worth of work accomplished.

The NC Forest Service conducted prescribed burns on their lands bordering the Grandfather Ranger District and helped with our prescribed burning. Their estimate is \$10,000 worth of work accomplished.

Western NC Alliance spent 39 hours in project development for shortleaf pine restoration, 48 hours in vegetation monitoring at Crawley Branch prescribed fire unit, and 50 hours in invasive species monitoring at Wilson Creek for a total of \$4,290 worth of work accomplished.

The Nature Conservancy spent 26 hours assisting in prescribed burns, 40 hours on public outreach, recruiting, and media efforts, and 97 hours on project development for shortleaf pine restoration for a total of \$3,912 worth of work accomplished.

Wild South volunteers spent 600 hours removing, by hand, non-native invasive species within the Linville Gorge Wilderness for a total of \$13,074 worth of work accomplished.

North Carolina Department of Transportation provided funding for bridge replacement for the Catawba Falls recreation area for a total of \$412,446 worth of work accomplished.

Approved by (Forest Supervisor): _____

⁵ Total partner in-kind contributions for implementation and monitoring of a CFLR project. Please list the partner organizations that provided in-kind contributions. See “Annual Report instructions” for instructions on how to document in-kind contributions.

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

2. Discuss how the CLFR project contributes to accomplishment of the wildland fire goals in the 10-Year

Comprehensive Strategy Implementation Plan, dated December 2006. In a narrative format, describe the progress to date on restoring a more fire-adapted ecosystem, as identified in the project’s desired conditions. This may also include a description of the current fire year (fire activity that occurred in the project area) as a backdrop to your response (please limit answer to one page).

Fire activity in 2014 was average to high with 22 fires and an average size of 4 acres. In November of FY14, there was a large fire at Table Rock in the Linville Gorge Wilderness area. We had the Southern Area Type 2 Incident Management Team on the Table Rock Fire for 7 operational periods. The fire was contained at 2,579 acres. In April of FY14, we had a 550 acre wildfire at Brown Mountain which was managed for resource benefit.

This year we were able to accomplish 3,439 WUI acres of prescribed burning. Due to the Table Rock fire, as well as dry conditions in the fall, we were unable to carry out prescribed burns in the fall season. While we were ready to burn whenever conditions arose, cold air from the polar vortex combining with moist air led to above average snowfall. With snow on the ground through large portions of the winter, we were unable to get the conditions for prescribed burns that we had hoped for in the winter. The spring burning season dried out faster than normal, and although we had all resources and lines prepped on an additional 2,000 acre burn, we were unable to implement due to dry conditions. Never the less, we were close to meeting our goal for acreage.

Overall, we are making good progress toward restoring more fire adapted ecosystems. Monitoring from our vegetation monitoring plots within prescribed burn units indicates an 80% reduction in shrub cover the second growing season after the burn, moving us toward the goal of transitioning from a shrub understory fuel model to a grass/forb understory fuel model. In addition, wildlife monitoring data has shown a beneficial effect of our prescribed burns on wildlife.

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

The numbers below were derived from actual expenditures with estimations on percent of contracted and force account work. Table 1 used 43% and 57% respectively and Table 2 used 58% and 42% respectively.

FY 2014 Jobs Created/Maintained (FY14 CFLR/CFLN/ Carryover funding only):

Type of projects	Direct part and full-time jobs	Total part and full-time jobs	Direct Labor Income	Total Labor Income
Commercial Forest Product Activities	5.7	10.6	\$324,661	\$527,575
Other Project Activities	8.5	10.5	\$183,291	\$250,268
TOTALS:	14.2	21.1	\$507,952	\$777,843

FY 2014 Jobs Created/Maintained (FY14 CFLR/CFLN/ Carryover and matching funding):

Type of projects	Direct part and full-time jobs	Total part and full-time jobs	Direct Labor Income	Total Labor Income
Commercial Forest Product Activities	5.7	10.6	\$324,661	\$527,575
Other Project Activities	10.3	13.0	\$227,080	\$315,868
TOTALS:	16.0	23.6	\$551,742	\$843,443

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

(Please limit answer to two pages).

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. Outreach efforts have targeted local landowners with property along Wilson Creek to educate them the negative effects of invasives and how to treat the species on their properties. In addition, using Wyden agreements we have been able to provide assistance for large property owners in treating the species. Getting private landowners involved in this effort is critical to treating Japanese knotweed in Wilson Creek.

Because our project area has such a large percentage of WUI, all prescribed fire treatments in 2014 were in the WUI and benefited local communities through fuel reductions and education of the beneficial effects of fire.

Community benefits were also achieved by involving volunteers and interns from local high schools and community colleges. In addition, tours of the restoration projects for local university groups helped communities learn about the benefits of forest restoration. All of these community efforts lead to shared values in forest restoration and build on a community's sense of stewardship.

5. Describe the multiparty monitoring, evaluation, and accountability process (please limit answer to two pages).

The Grandfather Project Collaborative has formed a monitoring committee that is open to all participants in the collaborative. The regular representatives on the committee include USFS, Western North Carolina Alliance, Wild South, The Wilderness Society, The Nature Conservancy, Forest Stewards, Southern Research Station, NC Forest Service and the NC Wildlife Resources Commission. 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.

In April 2014, the collaborative enacted a monitoring plan, outlining monitoring goals, monitoring questions, indicators of success, methodologies, and priorities. For example, one monitoring goal is to assess the effectiveness of management activities. A monitoring question is how many times must a site be burned on short intervals to trigger an ecological change toward fire-adapted maintenance. The indicator for that question looks at acres restored from a shrub-dominant understory fuel model to a grass/herb dominant understory fuel model. The monitoring plan also lays out who will collect and analyze the data. Splitting these duties between the USFS and the collaborative members ensures a multi-party monitoring effort.

The monitoring committee has implemented vegetation monitoring methodology developed by the Southern Blue Ridge Fire Learning Network to monitor fire effects and silvicultural 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. In 2014, 36 vegetation monitoring plots were installed at Crawly Branch prescribed burn and Rockhouse Creek Prescribed burn. Monitoring plots were surveyed for pre-burn conditions by USFS and Western North Carolina Alliance. Data from previously installed vegetation plots at the Lake James prescribed burn were analyzed through the Southern Blue Ridge Fire Learning network, showing a large reduction on shrub cover following the burn.

The monitoring committee designed and implemented a wildlife monitoring study using 25 trail cameras purchased through the CFLR. Working with the USFS, Wildlife Resources Commission, The Nature Conservancy, and researchers

from North Carolina State University, a state-of-the-art wildlife camera study was used to determine whether wildlife is benefiting from prescribed fire. Using 50 camera points, 25 within the burned area at Dobson Knob prescribed burn unit, and 25 in an adjacent un-burned control unit, we were able to track wildlife use. An Americorps intern at the Western North Carolina Alliance analyzed the data and provided results showing that more animals use the burn units (both more in numbers and higher diversity of species). In addition, burn units had lower predator to prey ratios.

The monitoring committee used an additional wildlife camera to monitor vegetation regrowth at the Clinchfield Railroad prescribed burn. By setting the camera to take a picture once every day, we were able to determine the rate of vegetation regrowth after dormant season burns.

The monitoring committee, working with the USFS ecologist, contracted Western North Carolina Alliance to monitor the effectiveness of invasive species treatments in the Wilson Creek Drainage. Surveys were conducted along roads and streams, with an additional survey specifically targeting Japanese knotweed. Results show mixed effectiveness of treatments depending on target species. This data will allow an adaptive management approach for invasive species removal to ensure maximum treatment effectiveness.

6. FY 2014 accomplishments

Performance Measure	Unit of measure	Total Units Accomplished ⁷	Total Treatment Cost (\$)	Type of Funds (CFLR, Specific FS BLI, Partner Match) ⁸
Acres of forest vegetation established FOR-VEG-EST	Acres	44	\$64,119	CWKV CWK2 CFLN
Acres of forest vegetation improved FOR-VEG-IMP	Acres	339	\$81,852	NFVW CWKV SPFH CFLN
Acres of lake habitat restored or enhanced HBT-ENH-LAK	Acres	1	\$6,000	CWFS
Miles of stream habitat restored or enhanced HBT-ENH-STRM	Miles	2.5	\$29,328	CFLN CWFS NFVW Partner
Acres of terrestrial habitat restored or enhanced HBT-ENH-TERR	Acres	5345	\$237,318	CFLN NFWF Partner
Acres of forestlands treated using timber sales TMBR-SALES-TRT-AC	Acres	80	\$97,734	CFLN
Volume of Timber Harvested TMBR-VOL-HVST	CCF	2806.3		
Acres of wildland/urban interface (WUI) high priority hazardous fuels treated to reduce the risk of catastrophic wildland fire FP-FUELS-WUI	Acres	3439	\$153,660	CFLN WFHF Partner

Additional Accomplishments not listed in PAS

Performance Measure	Unit of measure	Total Units Accomplished ⁹	Total Treatment Cost (\$)	Type of Funds (CFLR, Specific FS BLI, Partner Match) ¹⁰
Highest priority acres treated for invasive terrestrial and aquatic species on NFS lands INVSPE-TERR-FED-AC	Acres	135.6	\$36,500	CFLN NFVW Partner *Reported in FACTS as CFLN + match
Acres of water or soil resources protected,	Acres	2	\$23,369	CFLN

⁷ Units accomplished should match the accomplishments recorded in the Databases of Record.

⁸ Please use a new line for each BLI or type of fund used. For example, you may have three lines with the same performance measure, but the type of funding might be two different BLIs and CFLR/CFLN.

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

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

Performance Measure	Unit of measure	Total Units Accomplished ⁹	Total Treatment Cost (\$)	Type of Funds (CFLR, Specific FS BLI, Partner Match) ¹⁰
maintained or improved to achieve desired watershed conditions. S&W-RSRC-IMP				NFVW
Miles of high clearance system roads receiving maintenance RD-HC-MAIN	Miles	6	\$52,898	CMRD CFLN
Miles of passenger car system roads receiving maintenance RD-PC-MAINT	Miles	83		
Miles of system trail maintained to standard TL-MAINT-STD	Miles	51	\$63,343	CFLN CMTL Partner
Miles of system trail improved to standard TL-IMP-STD	Miles	1	\$1,261	Partner
Miles of property line marked/maintained to standard LND-BL-MRK-MAINT	Miles	11	\$17,361	CFLN NFLM

*Note: numbers not appearing in PAS were due to reporting errors where the CFLR-identifier was not included in the database of record. The one exception is invasive species, where the accomplishments were reported correctly in FACTS but did not show up in PAS.

7. FY 2014 accomplishment narrative – Summarize key accomplishments and evaluate project progress. (Please limit answer to three pages.)

One of the primary goals for the Grandfather Restoration Project is to restore and maintain fire adapted/dependent ecosystems. We were able to make progress toward that goal with prescribed burns on 3,439 acres, even in a snowy year. While prescribed burning is traditionally carried out in the dormant season, we were able to complete the district’s first growing season burn in June. We were also able to manage a lightning-caused wildfire for resource benefit. Fire-related vegetation monitoring plots were installed on new burn units.

Invasive species treatments totaled at 136 acres in our highest priority landscapes, including treatment of Japanese knotweed in Wilson Creek, hand-pulling Paulownia in Linville Gorge, and treatment of a variety of invasive species in the Catawba River Floodplain. Hemlock treatments took place for both Eastern and Carolina hemlock.

The Roses Creek and Miller Mountain timber sales took place this year, producing 2,806 ccf of volume from harvests on 80 acres. The Roses Creek sites underwent additional timber stand improvement work, which over the project area totaled 338 acres of vegetation established and improved. The Roses Creek project area is now ready for restoration to shortleaf pine in 2015.

Armstrong Creek riparian restoration project restored 1.5 miles of streams through restoring natural flows and planting of native riparian vegetation. Simpson Creek restoration project restored 2 acres of watershed health and worked toward the installation of aquatic organism passages.

Habitat restoration was accomplished on 5,345 acres through prescribed burning and creation and maintenance of wildlife openings. Wildlife monitoring was accomplished through the use of 50 wildlife camera points.

Road maintenance totaled 89 miles, and landline maintenance totaled 11 miles, to support restoration work. 52 miles of trail maintenance and improvement was accomplished, with partners efforts contributing to the majority of trail work.

Partners in the collaborative have been engaged throughout the process. Here are some highlights of accomplishments they have been able to help with in FY 2015:

- Wild South - Hosted workdays for volunteers for NNIS removal in the Linville Gorge Wilderness.
- Western NC Alliance – Played a lead role in monitoring fire effects on vegetation and the effectiveness of invasive species treatments. Organized shortleaf pine restoration planning fieldtrips.
- NC Wildlife Resources Commission- Accomplished 648 acres of wildlife opening maintenance across the district. Collaborated on a prescribed burn on FS and WRC lands.
- NC Forest Service- provided several crews who helped with construction of fire line as well as implementation of prescribed burns.
- The Nature Conservancy – Provided outreach assistance to educate the public on the benefits of fire. Helped implement prescribed burns. They continue to provide support through the Fire Learning Network.
- The Wilderness Society – Led work on trail relocation, improvement, and maintenance in the Linville Gorge Wilderness

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

Fiscal Year	Total number of acres treated (treatment footprint)
FY14	5,947
FY10, FY11, FY12, FY13 and FY14 (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))	18,097

9. In no more than two pages (large landscapes or very active fire seasons may need more space), describe other relevant fire management activities within the project area (hazardous fuel treatments are already documented in Question #6):

Fire activity in 2014 was average to high with 22 fires and an average size of 4 acres.

In November of FY14, there was a large fire at Table Rock in the Linville Gorge Wilderness area. The NFsNC Type 3 Incident Management Team was on the Table Rock Fire in the Linville Gorge Wilderness area for 3 operational periods and the Southern Area Type 2 Incident Management Team for 7 operational periods. The fire started on November 12

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

and was contained on November 22, 2013 at 2,579 acres. The suppression costs for this fire was \$1,977,670 and a BAER Request submitted for \$7,522 to treat invasive species outside the wilderness.

In April of FY14 there was a lightning-strike caused fire at Brown Mountain. Due to the remote location of the fire and the frequent fire history of the site, we were able to manage the fire for resource benefit. The fire started on April 3 and was contained on April 21 at 550 acres.

10. Describe any reasons that the FY 2014 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 2014 were underreported in the databases of record due to some confusion on how to report CFLR accomplishments and match. Unfortunately, this means that some of the excellent work done in the CFLR went unreported. In particular, watershed restoration, aquatic organism passages, hemlock woolly adelgid treatments, roads, trails, and landlines were not tagged correctly as CFLR accomplishments and match and do not show up in this report. We will put measures in place to ensure this confusion is corrected for future reporting.
- Accomplishments for 2014 weighed more heavily toward timber harvest than previously reported planned accomplishments due to the Miller Mountain and Roses Creek timber sales being a priority in 2014.

11. Planned FY 2016 Accomplishments

Performance Measure Code ¹²	Unit of measure	Planned Accomplishment	Amount (\$)
Acres treated annually to sustain or restore watershed function and resilience WTRSHD-RSTR-ANN	Acres	10	\$50,000
Acres of forest vegetation established FOR-VEG-EST	Acres		
Acres of forest vegetation improved FOR-VEG-IMP	Acres	120	\$26,000
Manage noxious weeds and invasive plants INVPLT-NXWD-FED-AC	Acre		
Highest priority acres treated for invasive terrestrial and aquatic species on NFS lands INVSPE-TERR-FED-AC	Acres	250	\$85,000
Acres of water or soil resources protected, maintained or improved to achieve desired watershed conditions. S&W-RSRC-IMP	Acres		
Acres of lake habitat restored or enhanced HBT-ENH-LAK	Acres		
Miles of stream habitat restored or enhanced HBT-ENH-STRM	Miles	1	\$10,000
Acres of terrestrial habitat restored or enhanced HBT-ENH-TERR	Acres	3200	\$144,000
Acres of rangeland vegetation improved RG-VEG-IMP	Acres		
Miles of high clearance system roads receiving maintenance RD-HC-MAIN	Miles	7.5	\$25,000
Miles of passenger car system roads receiving maintenance RD-PC-MAINT	Miles	22.5	
Miles of road decommissioned RD-DECOM	Miles		
Miles of passenger car system roads improved RD-PC-IMP	Miles	0.5	

¹² Please include all relevant planned accomplishments, assuming that funding specified in the CFLRP project proposal for FY 2016 is available. Use actual planned funding if quantity is less than specified in CFLRP project work plan, and justify deviation from project work plan in question 13 of this template.

Performance Measure Code ¹²	Unit of measure	Planned Accomplishment	Amount (\$)
Miles of high clearance system road improved RD-HC-IMP	Miles		
Number of stream crossings constructed or reconstructed to provide for aquatic organism passage STRM-CROS-MTG-STD	Number	2	\$50,000
Miles of system trail maintained to standard TL-MAINT-STD	Miles	7	\$85,000
Miles of system trail improved to standard TL-IMP-STD	Miles	3	
Miles of property line marked/maintained to standard LND-BL-MRK-MAINT	Miles	3	\$2,013
Acres of forestlands treated using timber sales TMBR-SALES-TRT-AC	Acres	280	\$135,000
Volume of Timber Harvested TMBR-VOL-HVST	CCF	2100	
Volume of timber sold TMBR-VOL-SLD	CCF		
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	5875	\$264,000
Number of priority acres treated annually for invasive species on Federal lands SP-INVSP-FED-AC	Acres		
Number of priority acres treated annually for native pests on Federal lands SP-NATIVE-FED-AC	Acres		

12. Planned FY 2016 accomplishment narrative (no more than 1 page):

In 2016 we plan to have NEPA authority for the Armstrong Project, a watershed restoration project incorporating timber stand improvement, timber harvest, prescribed burning, and watershed and stream restoration. 10 acres will be treated to restore watershed function and resilience. 2 stream crossing will be reconstructed to provide for aquatic organism passage. 1 mile of stream habitat will be restored. Forest vegetation improvements using crown touch release, vine control, and herbicide treatments will occur on 120 acres. 280 acres will be treated using timber sales, resulting in 2100 ccf of timber harvested.

We will continue to treat NNIS in the Wilson, Catawba, and Linville drainages in the amount of 250 acres. We will restore and enhance 3200 acres of wildlife habitat through mechanical and herbicide treatments, as well as prescribed fire. 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. 3 miles of property landlines will be marked to support project work. We will use prescribed fire to treat 5875 acres of fire adapted ecosystems using the fire prioritization model.

13. Describe and provide narrative justification if planned FY 2015/16 accomplishments and/or funding differs from CFLRP project work plan (no more than 1 page):

Funding for 2015/16 should match closely. Adjustments are expected to be made throughout the year as contracts are awarded and projects are implemented. This often produces a change in dollar amount for the project as planned. Changes are also expected for partner match throughout the year.