CFLR Project (Name/Number): Ozark Highlands Ecosystem Restoration/CFLR022

National Forest(s): Ozark-St. Francis National Forests

1. Match and Leveraged Funds:

a. FY19 Matching Funds Documentation

Fund Source – (CFLN/CFLR Funds Expended)	Total Funds Expended in Fiscal Year 2019
CFLN19	$1,523,568

This amount should match the amount of CFLR/CFLN dollars obligated in the FMMI CFLRP 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 2019
NFRR	$0

This value (aka “core funds” “in lieu of 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 2019
CMRD	$69,721
CMXF	$263,254
CWKV	$299,575
ER20	$59,590
ER21	$5,637
ER22	$979
NFHF	$195,934
NFTM	$329,244
NFVW	$42,604
NFW	$36,298

This amount should match the amount of matching funds in the FMMI CFLRP 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 – (Funds contributed through agreements)	Total Funds Expended in Fiscal Year 2019
NFXN – US Fish and Wildlife Service	$63,000

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 FMMI CFLRP 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 the WIT database.

Fund Source – (Partner In-Kind Contributions)	Total Funds Expended in Fiscal Year 2019
National Wild Turkey Federation & Arkansas Game and Fish Commission	$67,329.08
The Nature Conservancy	$50,000

Total partner in-kind contributions for implementation and monitoring of a CFLR project on NFS lands. 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 FY19)	Totals
Total revised non-monetary credit limit for contracts awarded in FY19	$869,982.28

Revised non-monetary credit limits 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. Information for contracts awarded prior to FY19 were captured in previous annual reports.

b. Please fill in the table describing leveraged funds in your landscape in FY2019. Leveraged funds refer to funds or in-kind services that help the project achieve proposed objectives but do not meet match qualifications. The Ozark- St. Francis National Forests, Ouachita National Forest, Natural Resources Conservation Service (NRCS) in Arkansas, and Arkansas Department of Agriculture – Forestry Division are currently working under a Joint Chiefs' Landscape Restoration Partnership. Other partners involved with this project include Arkansas Game and Fish Commission and The Nature Conservancy. The project landscape included the following Arkansas counties in the CFLR project landscape: Benton, Conway, Crawford, Franklin, Johnson, Madison, Newton, Pope, Searcy, Van Buren, and Washington. NRCS funded conservation practices in the amount of $1,516,094.

Description of item	Where activity/item is located or impacted area	Estimated total amount	Forest Service or Partner Funds?	Source of funds
Firebreak	private lands within CFLRP landscape	$412,585	Partner Funds	NRCS
Tree/shrub site prep	private lands within CFLRP landscape	$297,607	Partner Funds	NRCS

Description of item	Where activity/item is located or impacted area	Estimated total amount	Forest Service or Partner Funds?	Source of funds
Prescribed burning	private lands within CFLRP landscape	$215,973	Partner Funds	NRCS
Forest stand improvement	private lands within CFLRP landscape	$196,399	Partner Funds	NRCS
Tree/shrub establishment	private lands within CFLRP landscape	$149,065	Partner Funds	NRCS
Pond	private lands within CFLRP landscape	$59,263	Partner Funds	NRCS
Fence	private lands within CFLRP landscape	$73,957	Partner Funds	NRCS
Spring development	private lands within CFLRP landscape	$2,155	Partner Funds	NRCS
Silvopasture establishment	private lands within CFLRP landscape	$30,051	Partner Funds	NRCS
Diversion	private lands within CFLRP landscape	$354	Partner Funds	NRCS
Forage and biomass planting	private lands within CFLRP landscape	$39,522	Partner Funds	NRCS
Hedgerow planting	private lands within CFLRP landscape	$564	Partner Funds	NRCS

Description of item	Where activity/item is located or impacted area	Estimated total amount	Forest Service or Partner Funds?	Source of funds
Tree/shrub pruning	private lands within CFLRP landscape	$15,018	Partner Funds	NRCS
Livestock pipeline	private lands within CFLRP landscape	$890	Partner Funds	NRCS
Watering facility	private lands within CFLRP landscape	$1,164	Partner Funds	NRCS
Conservation cover	private lands within CFLRP landscape	$21,059	Partner Funds	NRCS
Heavy use area protection	private lands within CFLRP landscape	$478	Partner Funds	NRCS

(Optional) Additional narrative about leverage on the landscape if needed:

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***.

During fiscal year (FY) 2019, we treated a total of 37,235 acres of the landscape in the CFLR project area with prescribed fire (an increase in 2,665 acres from FY18). Total acres of treatment in the Wildland Urban Interface (WUI) account for approximately 87.9 percent (37,767 acres) and approximately 12.1 percent (5,196 acres) were Non WUI. Two very small wildfires occurred in, or burned into areas having received fuels treatment activities in the CFLR project area totaling 0.6 acres. As activities continue and the footprint of treatment areas within the project boundaries increase, we anticipate seeing changed conditions resulting in wildfires having lower fire behavior characteristics and being more easily controlled. All of the hazardous fuels treatments including prescribed fire, mechanical, and chemical methods account for 42,963 acres of the landscape in FY 2019. All of the treatments are moving the project area towards desired conditions. The entire Ozark-St. Francis National Forests are considered to be within a fire-adapted ecosystem.

FY2019 Overview

FY19 Activity Description (Agency performance measures)	Acres
Number of acres treated by prescribed fire	37,235
Number of acres treated by mechanical thinning	3,668
Number of acres treated by chemical	2,060
Number of acres of natural ignitions that are allowed to burn under strategies that result in desired conditions	0
Number of acres treated to restore fire-adapted ecosystems which are maintained in desired condition	42,963*
Number of acres mitigated to reduce fire risk	42,963

*All of the project area is within a fire adapted ecosystem

Please provide a narrative overview of treatments completed in FY19, including data on whether your project has expanded the pace and/or scale of treatments over time, and if so, how you've accomplished that – what were the key enabling factors? ***For projects finishing their tenth year***, if you have any additional insights from your cumulative work over the course of the project please share those here as well.

- **How was this area prioritized for treatment?** What kinds of information, input, and/or analyses were used to prioritize? Please provide a summary or links to any quantitative analyses completed.
  - The Ozark Highlands CFLR project area was originally chosen because there was a combined effort between multiple agencies to restore the oak-hickory and oak-pine ecosystems as far back as 2002. These ecosystems had been reduced to closed canopy stands with an understory dominated by shrubs, poison ivy, and Virginia creeper. Pre-treatment stem densities average 300-1,000 stems per acre as opposed to the 38-76 stems per acre recorded in Government Land Office (GLO) records in the 1800's. Oak regeneration was lacking. Plant diversity had declined and wildlife habitat was degraded. The red oak borer and oak decline had affected over a million acres in the Ozarks since 2000; 48,000 acres in the CFLR project area. In some areas, tree canopy had been severely reduced or eliminated. This had greatly impacted sustainability of our oak-hickory and oak-pine ecosystems.
  - According to our vegetation monitoring results, which can be found below in this report, we are moving in the direction of our desired condition over much of the CFLR project area.
  - The key enabling factors were collaboration from our partners to achieve results and to monitor those results, as well as funding to increase capacity attained through this CFLR project and our Joint Chiefs' Landscape Restoration Partnership - Western Arkansas and SE Oklahoma Woodland Restoration Project.
- **Please tell us whether these treatments were in "high or very high wildfire hazard area"** from the "wildfire hazard potential map" (https://www.firelab.org/project/wildfire-hazard-potential)
  - Were the treatments in **proximity to a highly valued resource** like a community, a WUI area, communications site, campground, etc.?
  - Most of the CFLR project area is not within high or very high wildfire potential areas, however, there are very small patches of high wildfire areas spaced across the treatment areas but it's not very significant.
  - The Wedington Unit (Boston Mountain Ranger District) is considered the main public land in

northwest Arkansas and serves a population of over 350,000. This area is highly used for recreational activities such as hunting, horseback riding, bike riding, hiking, and nature viewing. The Wedington Unit has received multiple hazardous fuel reduction treatments during this CFLR project.

- **What have you learned** about the interaction between treatment prioritization, scale, and cost reduction? What
didn't work? Please provide data and further context here.
  - Vegetation monitoring has indicated that combined treatments for the CFLR project have been effective at shifting the vegetation communities and increase species diversity. Specifically, in areas where timber harvest or midstory removal is combined with multiple entries of prescribed fire, the treated vegetation community is meeting the project-scale objectives. Prescribed fire alone is slowly moving the vegetation conditions toward the desired condition, but it is not clear at this stage if multiple prescribed fire entries alone will completely return the stands to the desired condition or how long that may take. Data from our R8 bird surveys is clear that different species of migratory birds prefer different habitats throughout the year, thus, landscape scale treatments are important to support and create these mosaic habitat types.

Please provide visuals if available, including maps of the landscape and hazardous fuels treatments completed, before and after photos, and/or graphics from fire regime restoration analysis completed locally. You may copy and paste these below or provide a link to a website with these visuals.

Figure 1 Zing Pre RX Burn

Figure 2 Zing Post RX Burn

Figure 3 Falling Water Post RX Burn

Figure 4 Pine-Oak Restored Woodland

Figure 5 Feral Hog T Si

Figure 6 Feral Hog Damage

Expenditures

Category	**$**
FY2019 Wildfire Preparedness[1]	$479,358
FY2019 Wildfire Suppression[2]	$4,750 within CFLR
The cost of managing fires for resource benefit if appropriate (i.e. full suppression versus managing)	$0
FY2019 Hazardous Fuels Treatment Costs (CFLN)	$272,235
FY2019 Hazardous Fuels Treatment Costs (other BLIs)	$424,538

How may the treatments that were implemented contribute to reducing fire costs? If you have seen a reduction in fire suppression costs over time, please include that here. ***For projects finishing their tenth year***, if you have any additional insights from your cumulative work over the course of the project please share those here as well.

All the treatments implemented within the CFLR project area are designed to create more open woodland desired conditions, thereby, reducing fire suppression costs by reducing fuel loading through thinning, prescribed fire, and other chemical and mechanical means.

Have there been any assessments or reports conducted within your CFLRP landscape that provide information on cost reduction, cost avoidance, and/or other cost related data as it relates to fuels treatment and fires? If so, please summarize or provide links here:

1 Include base salaries, training, and resource costs borne by the unit(s) that sponsors the CFLRP project. If costs are directly applicable to the project landscape, describe full costs. If costs are borne at the unit level(s), describe what proportions of the costs apply to the project landscape. This may be as simple as Total Costs X (Landscape Acres/Unit Acres).

2 Include emergency fire suppression and BAER within the project landscape. Describe acres of fires contained and not contained by initial attack. Describe acres of resource benefits achieved by unplanned ignitions within the landscape. Where existing fuel treatments within the landscape are tested by wildfire, summary and reference the fuel treatment effectiveness report.

No reports have been conducted within the CFLR project area landscape on cost reduction, cost avoidance, and/or other cost related data as it relates to fuel treatment and fires. There have been vegetation surveys conducted within the CFLR project area which conveys approximate fuel loading and fuel modeling could also be derived from this data. Please see the link in the report below for the vegetation monitoring data.

When a wildfire interacts with a previously treated area within the CFLR boundary:

If additional assessments have been completed since the FY2018 CFLRP annual report on fires within the CFLRP area, please note that and provide responses to the questions below. ***For projects finishing their tenth year****, if you have any additional insights from your cumulative work over the course of the project please share those here as well.*

Each unit is required to complete and submit a standard fuels treatment effectiveness monitoring (FTEM) entry in the FTEM database (see FSM 5140) when a wildfire occurs within or enters into a fuel treatment area. **For fuel treatment areas within the CFLR boundary, please copy/paste that entry here and respond to the following supplemental questions. Note that the intent of these questions is to understand progress as well as identify challenges and what didn't work as expected to promote learning and adaptation.**

- *Please describe if/how partners or community members engaged in the planning or implementation of the relevant fuels treatment.*
- *Did treatments include coordinated efforts on other federal, tribal, state, private, etc. lands within or adjacent to the CFLR landscape?*
- *What resource values were you and your partners concerned with protecting or enhancing? Did the treatments help to address these value concerns?*
- *Did the treatments do what you expected them to do? Did they have the intended effect on fire behavior or outcomes? Please include a brief description.*
- *What is your key takeaway from this event – what would you have done differently? What elements will you continue to apply in the future?*
- *What didn't work as expected, and why? What was learned?*
- *Please include the costs of the treatments listed in the fuels treatment effectiveness report: how much CFLR/CFLN was spent? How much in other BLI's were spent? If cost estimates are not available, please note and briefly explain.*

When a wildfire occurs within the CFLR landscape on an area planned for treatment but not yet treated:

- Please include:
  - *Acres impacted and severity of impact*
    - *Total of 0.6 acres of low severity occurred in FY 2019.*
  - *Brief description of the planned treatment for the area*
    - *Some mechanical thinning and prescribed fire is planned.*
  - *Summary of next steps – will the project implement treatments elsewhere? Will they complete an assessment?*
    - *Yes. Vegetation assessments at monitoring plots will continue.*
  - *Description of collaborative involvement in determining next steps.*
    - *TNC is highly involved in project implementation and monitoring.*

Please include acres of fires contained and not contained by initial attack and acres of resource benefits achieved by unplanned ignitions within the landscape, and costs.

- Include expenses in wildfire preparedness and suppression, where relevant
    - Approximately 0.6 acres were contained through initial attack costing $4,750 in suppression costs. These incidents occurred on two separate wildfires consisting of 0.5 acres and 0.1 acres each.
- Include summary of BAER requests and authorized levels within the project landscape, where relevant

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.

For the TREAT analysis, assumptions had to be made for direct full and part-time jobs directly supported.

FY 2019 Jobs Supported/Maintained (FY19 CFLR/CFLN/ WO funding):

FY 2019 Jobs Supported/Maintained	Jobs (Full and Part-Time) (Direct)	Jobs (Full and Part-Time) (Total)	Labor Income (Direct)	Labor Income (Total)
Timber harvesting component	20	25	1,153,342	1,395,663
Forest and watershed restoration component	7	9	142,010	219,189
Mill processing component	31	59	1,968,864	3,395,143
Implementation and monitoring	24	28	619,451	757,599
Other Project Activities	0	0	0	0
TOTALS:	**81**	**120**	**$3,883,668**	**$5,767,594**

FY 2019 Jobs Supported/Maintained (FY19 CFLR/CFLN/ WO and matching funding):

FY 2019 Jobs Supported/Maintained	Jobs (Full and Part-Time) (Direct)	Jobs (Full and Part-Time) (Total)	Labor Income (Direct)	Labor Income (Total)
Timber harvesting component	20	25	1,153,342	1,395,663
Forest and watershed restoration component	11	15	272,903	413,848
Mill processing component	31	59	1,968,864	3,395,143
Implementation and monitoring	40	50	1,651,609	2,019,947
Other Project Activities	0	0	0	0
TOTALS:	**102**	**148**	**$5,046,718**	**$7,224,601**

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).

The results of our economic analysis completed by the University of Arkansas at Monticello reported that commercial timber production used in support of restoration activities provided for 50 percent of the CFLR project's benefits. Local contractors, collaborators, and partners with physical addresses within the Ozark Highlands Region were found to spend a significantly greater percentage of their project expenditures within

the Ozark Highlands Region than those outside of the region. The CFLR project contributes to the community in several ways. Some of the contracts are directly awarded to local contractors. Large and small purchases were made throughout the CFLR community area. The economic report can be found here: https://usdagcc.sharepoint.com/sites/fs-fm-cflrp/Monitoring%20Documents/Forms/AllItems.aspx?viewid=00000000%2D0000%2D0000%2D0000%2D000000000000 &id=%2Fsites%2Ffs%2Dfm%2Dcflrp%2FMonitoring%20Documents%2FOzark%20Highlands

Indicator	**Brief Description of Impacts, Successes, and Challenges**	**Links to reports or other published materials (if available)**
Sustained jobs in the Ozark Highlands	Local direct spending and timber produced from the Ozark Highlands Region sustained 139 jobs in 2014.	See link in description above
Sustained jobs nationally	The Ozark Highlands CFLR Project supported 245 jobs nationally with an annual average employee compensation of $42,584 which is 87% of the national average.	See link in description above
Local and national benefit-cost ratio	Every $1 spent locally returned $1.1 in the local economy in 2014. Every $1 invested in the CFLR project created $2.1 in the national economy in 2014.	See link in description above
Relationship building/collaborative work	The Ozark Ouachita Highlands Collaborative was formed consisting of 12 organizations and state and federal agencies all working to support forest and woodland restoration. The collaborative continues to grow and assist the two national forests (Ozark and Ouachita) with their CFLR projects.	N/A

5. Based on your project monitoring plan, **describe the multiparty monitoring process. You may simply reference your ecological indicator reports here if they adequately represent your multiparty monitoring process**. If further information is needed, please answer the questions below.

Multiparty monitoring was accomplished through grants and agreements with Arkansas Game and Fish Commission (AGFC), Arkansas Wildlife Federation (AWF), National Wild Turkey Federation (NWTF), The University of Arkansas (U of A), Arkansas Tech University (ATU), and The Nature Conservancy (TNC). Established Forest Service protocol is being used to conduct all monitoring and evaluation of the CFLR project area. Site preparation activities within the CFLR project area are having a positive effect on the overall forest health of the area, by re-establishing new growth in forest stands in place of aging and overstocked stands. Timber harvest continues to have an overall positive effect on the local economy, by providing sources of employment and revenue to the local workforce.

R8 Bird Surveys were revisited in June by ranger district personnel consisting of 49 total plots with 20 of them being within the CFLR project area. We are seeing some changes in species, but the monitoring program is still ongoing.

Ginseng monitoring is conducted annually by Forest Service personnel to assess population trends at given point locations.

Anabat surveys were conducted by Forest Service personnel to monitor bat populations over time. Anabat surveys and mist net surveys were conducted for Indiana bat by Forest Service, US Fish and Wildlife Service, and Arkansas State University personnel.

Christmas bird counts were done in early January with approximately five (5) groups consisting of ATU students and faculty volunteers, and Forest Service personnel conducting a one (1) day survey to assess population trends.

Monitoring consisted of game camera placement in key CFLR treatment areas by our partner AGFC. Cameras monitored wildlife habitat utilization in some of the treatment areas. The US Geological Survey Cooperative Fish and Wildlife Research Unit monitored effects of prescribed burning treatments to movement and nesting of female Eastern wild turkeys in the CFLR project area. The monitoring was completed August of 2014. The U of A has been monitoring effects of prescribed burning and wildlife stand improvement (WSI) treatments to wasps and dead and down old growth fossil chinquapin forests. Other monitoring activities have included vegetative photo points before and after WSI treatments through force account. The U of A has been evaluating colonization of macro invertebrates of area streams within the CFLR project area through habitat improvements such as addition of large woody debris. Photo points have indicated vegetative recovery of some of the areas in the Mill Creek Off Highway Vehicle trail area where watershed improvement fencing was constructed three (3) years ago. Aquatic monitoring by AGFC over time after several dredging treatments of Shores Lake will be able to evaluate change to fisheries in the lake.

Bearcat Bird Surveys were conducted by AWF and ATU consisting of 19 plots revisited in June of 2019. We are seeing some increases in early successional species.

In 2015, we collected plant community monitoring data from 63 permanent macroplots on the Big Piney and Pleasant Hill Ranger Districts in the Ozark-St. Francis National Forests. These data, along with data from 64 macroplots sampled in 2014 were included in the 2017 plant community monitoring report which can be found here: https://usdagcc.sharepoint.com/sites/fs-fm-cflrp/Monitoring%20Documents/Forms/AllItems.aspx?viewid=00000000%2D0000%2D0000%2D0000%2D000000000000 &id=%2Fsites%2Ffs%2Dfm%2Dcflrp%2FMonitoring%20Documents%2FOzark%20Highlands. Preliminary results of the plant community monitoring report shows that by 2014-2015 live tree cover (basal area) was reduced by 23 percent since the baseline (from 106 ft2/acre to 82 ft2/acre, on average). Within the tree layer, overstory (8"+ diameter at breast height (dbh) was less affected overall, decreasing from 83 ft2/acre to 72 ft2/acre (13 percent reduction), whereas midstory cover was reduced by 57 percent. This change represents a shift towards desired tree layer structure. Shrub density was still much higher than desired in 2014-2015 and increased significantly since 2007-2009, from an average of 1,095 stems/acre to

1,721 stems/acre (57 percent increase). These results represent changes for the national forests as a whole. Future analyses will assess progress towards desired community composition within the national forests.

6. FY 2019 Agency performance measure accomplishments:

Performance Measure	Unit of measure	Total Units Accomplished	Total Treatment Cost ($) *(Contract Costs)*
Acres of forest vegetation established FOR-VEG-EST	Acres	198	
Acres of forest vegetation improved FOR-VEG-IMP	Acres	2,149	$145,065
Manage noxious weeds and invasive plants INVPLT-NXWD-FED-AC	Acre	1,798	N/A
Highest priority acres treated for invasive terrestrial and aquatic species on NFS lands INVSPE-TERR-FED-AC	Acres	34,000	N/A
Acres of water or soil resources protected, maintained or improved to achieve desired watershed conditions. S&W- RSRC-IMP	Acres	12,259	N/A
Acres of lake habitat restored or enhanced HBT-ENH-LAK	Acres	161	N/A
Miles of stream habitat restored or enhanced HBT-ENH-STRM	Miles	39	N/A
Acres of terrestrial habitat restored or enhanced HBT-ENH-TERR	Acres	87,393	$62,586
Acres of rangeland vegetation improved RG-VEG-IMP	Acres	1,631	N/A
Miles of high clearance system roads receiving maintenance RD-HC-MAIN	Miles	100	N/A
Miles of passenger car system roads receiving maintenance RD-PC-MAINT	Miles	76	N/A
Number of stream crossings constructed or reconstructed to provide for aquatic organism passage STRM-CROS-MTG-STD	Number	1	$204,629
Miles of system trail maintained to standard TL-MAINT-STD	Miles	144	N/A
Miles of system trail improved to standard TL-IMP-STD	Miles	1	N/A
Acres of forestlands treated using timber sales TMBR-SALES-TRT-AC	Acres	2,117	N/A
Volume of Timber Harvested TMBR-VOL-HVST	CCF	21,791.42	N/A
Volume of timber sold TMBR-VOL-SLD	CCF	43,193.67	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	492	N/A

Performance Measure	Unit of measure	Total Units Accomplished	Total Treatment Cost ($) *(Contract Costs)*
Acres of hazardous fuels treated outside the wildland/urban interface (WUI) to reduce the risk of catastrophic wildland fire FP-FUELS-NON-WUI	Acre	5,196	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	37,767	N/A
Acres mitigated FP-FUELS-ALL-MIT-NFS	Acres	42,963	N/A
Please also include the acres of prescribed fire accomplished	Acres	37,235	N/A

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

7. FY 2019 accomplishment narrative – Summarize key accomplishments and evaluate project progress *not already described elsewhere* in this report. ***For projects finishing their tenth year***, if you have any additional insights from your cumulative work over the course of the project please share those here as well. (Please limit answer to three pages.)

Timber management: On the Ozark-St. Francis National Forests timber is cut to balance ecosystems and restore watersheds. Historical records show that most of the Ozark-St. Francis National Forests was in oak/pine woodlands and pine/bluestem savannahs. Timber harvest combined with prescribed burning helps to maintain these ecosystems. These treatments also help maintain early successional forest habitats and stimulate understory growth of wildflowers and native grasses that produce habitat for pollinators. Timber was harvested through sale contracts, stewardship contracts, and stewardship agreements. Approximately 43,193 CCF of timber volume was sold in the CFLR project in FY19. The use of MATOC timber marking contracts funded by CFLN was a large contributing factor to this accomplishment.

Prescribed Burning: Prescribed burning improves the overall condition of the national forest for species that need a grass understory. We do all of our prescribed burning not just for fuel reduction but also to improve wildlife habitat conditions. Prescribed burning is completed utilizing hand crews and aerial ignition to accomplish burning on a landscape level. Burns are done with a mosaic pattern of different intensities throughout areas of the burn. Some of these burns are used to establish and maintain native grass fields. These native grass fields are important habitat for some wildlife species. Prescribed burning helps create woodland conditions across the landscape. These conditions are important in the fire adapted ecosystems in the Ozark Highlands Region to restore our native flowering plants that are utilized by native pollinators. Prescribed burning also creates and maintains foraging areas for threatened and endangered bat species, such as, the Indiana, gray, and northern long-eared bats.

Non-Native Invasive Species Control: The problem of increased feral hog populations has become very noticeable in the national forests. Feral hogs eat and kill native plants, predate ground nesting bird eggs including turkeys, compete for habitat with native mammal species, destroy riparian areas, increase sediment and erosion rates into area streams, and can spread diseases to domestic swine and humans. Forest Service personnel in cooperation with AGFC and the Animal and Plant Health Inspection Service (APHIS) have a program for trapping and removing feral hogs on National Forest System lands. Blood samples are routinely taken from trapped hogs and sent to APHIS to test for diseases. Game cameras are set up to detect presence and time of feral hogs in areas. It is expected that there are still large populations in the national forest, but this CFLR project helps to control the population. The feral hog problem will continue to exist. However, cooperative projects and new technology will help maintain control of this invasive species. Approximately 446 feral hogs were removed from the CFLR project area in FY 2019. One hog technician was hired in partnership with the AGFC to cover the Wedington Management Unit. Without this partnership we would have not been able to remove as many feral hogs as we did. Several new traps with more advanced live feed camera systems were used this year. With this enhanced capability we are able to more accurately monitor hogs in the traps, ensuring a higher likelihood of capturing complete sounders.

Non-native invasive plant species treated in FY 2019 include kudzu, fescue, privet, sericea lespedeza, thistle, princess tree, and tree of heaven. Treatments had the intended outcome of controlling the known infestations. Most of the work performed to date is on roadsides and fields. However, the seed bank takes years to be depleted and further treatments are needed.

Lake Habitat Restoration: The purpose of this project is to improve aquatic and recreational habitat at the 80 acre Shores Lake through sediment removal. The lake has an estimated silt deposition of 4-6 feet in depth, with an estimated 136,000 cubic yards of silty clay with course sand and some pebbles silt deposition. The lake has several extremely shallow areas with several silt islands that are now inaccessible to boaters, swimmers, fisherman, which also creates poor aquatic habitat. The swim beach area and cove with the fishing launch pad are very shallow and almost dry. The dammed area of the lake still has good depth. The project was funded over multiple years utilizing CFLR funding. A short term authorization permit from Arkansas Department of Environmental Quality (ADEQ) was received for the project work. The silt sand material will be recycled for road and camp pad projects once it is completely dry. Although the project will take over five
(5) years to complete, it is expected that the recreational and fisheries habitat in the lake will be positively impacted by this project. Over 30 years of sediment inflow from the surrounding mountains has built up. Through the CFLR Program, this lake will be able to maintain its prized fisheries and recreational values.

Wildlife Habitat Improvement: AGFC and the NWTF worked to maintain early successional habitat in wildlife openings and fields in the White Rock & Wedington Wildlife Management Areas. The national forest has less than 5 percent of this type of habitat and the Boston Mountain Ranger District has less than 2 percent of this type of critical wildlife habitat. All liming, fertilizing, disking and seeding work was completed either by Forest Service and AGFC personnel or through contracts. The AGFC funded fertilizer, lime, and a portion of the seed. The Forest Service funded the seed, a brush hogging contract, and a hydro-axe contract. Some of the openings or fields needed hydro-axing or brush hogging due to woody encroachment. The NWTF provided cooperator

signs and some gates through the Arkansas State Superfund Program. The areas provide early successional habitat for a variety of wildlife species, such as: deer, turkey, quail, bear, bats, neotropical migratory birds, and small game. These areas also provide native pollinator habitat. These areas provide key open habitat in overall closed canopy forest conditions.

Open woodlands create habitat diversity in an overcrowded, closed canopy forest. This will enhance wildlife species diversity as well. The objective will be to eventually reach an open, oak-woodland condition with a park like setting, as called for in the Ozark-St. Francis National Forests Revised Land and Resource Management Plan. These areas are the main public land in northwest Arkansas and serve a population of over 350,000. The area is highly used for recreational activities such as hunting, horseback riding, bike riding, hiking, and nature viewing. The WSI project received its first entry treatment and will continue to be carried out utilizing different tools-through stewardship contracts and regular contracts. All trees less than 10 inch dbh will be cut with chainsaws, except preferred wildlife trees, such as: serviceberry, dogwood, black cherry. The preferred leave trees will be white oak, hickory and red oak. Following mechanical treatments, trees will be left down and the area will be burned in two to three years. Through stewardship contracting, the Wedington Unit will be receiving much needed watershed, forest health, and wildlife habitat improvement treatments in exchange of goods for services. This allows funding to stay within the CFLR project area to accomplish more work on the ground. We anticipate an increase in wildlife use and availability of habitat, especially for early successional species. Opportunities such as nature viewing, hiking, horseback riding, hunting, etc. will also increase as the CFLR area has more open habitat. Before mechanical treatment, the fire regime condition class was III and after treatment it will be moved toward a class II. Following a second entry of prescribed burning, it will be in a class I and maintained in that condition. It is expected that different species of wildlife will increase use of the area (deer, turkey, neotropical migratory birds). It is expected that open woodland conditions will increase wildlife species diversity through time as there is very little of this type of habitat in the area.

Aquatic Organism Passage: In FY 2019 we awarded a large contract to obliterate an old concrete crossing slab that was impeding the flow of aquatic organisms. This passage on Range Hollow creek of the Boston Mountain Ranger District was made possible by a combination of CFLN funds and matching funds contributed by the USFWS. This project has been in progress for years but required a large amount of funding and a very complex design. The replacement will consist of a more ecologically friendly bottomless low-water bridge improving the Lee Creek watershed which is a source of drinking water for the City of Fort Smith.

Woodland Restoration: Past forest management practices have resulted in overstocked stands, altered species composition, and increase in canopy closure in areas that support fire tolerant habitat such as woodlands. These changes have affected resiliency of the national forest and have caused a decline in species richness and diversity. The desired condition is an open, oak-woodland condition with a park-like setting, as called for in the Ozark-St. Francis National Forests Revised Land and Resource Management Plan. Woodland restoration was accomplished by prescribing WSI treatments. The work included cutting all trees less than 10 inch dbh, except trees preferred for wildlife such as serviceberry, dogwood, and black cherry. The preferred leave trees were white oak, hickory, and red oak. Trees were left on site to be burned in two to three years.

Miles of Trail maintained or reconstructed: A major contract was awarded in FY 2019 to perform trails work

on the Buckhorn Trail systems. These trails are severely degraded with heavy trenching, exposed rocks, and washouts that are causing significant sedimentation to the streams as well as causing a danger to the public utilizing the trails.

8. The WO (EDW) will use spatial data provided in the databases of record to estimate a treatment footprint for your review and verification. This information will be posted here on the internal SharePoint site for verification *after the databases of record close October 31*.

- **If the estimate is consistent and accurate**, please confirm that below and skip this question.
- **If the gPAS spatial information 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).
  What was the total number of acres treated?

Fiscal Year	Footprint of Acres Treated (without counting an acre of treatment on the land in more than one treatment category)
FY 2019	106,465.70 acres
Estimated Cumulative Footprint of Acres (2010 or 2012 through 2019)	200,000 acres

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?

9. Describe any reasons that the FY 2019 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? ***For projects finishing their tenth year***, if you have any additional insights from your cumulative work over the course of the project please share those here as well. (Please limit answer to two pages).

No changes to the previously reported planned accomplishments has taken place.
Volume of timber harvested and acres treated using timber sales is a target we struggle to accomplish due to the length of timber sale contracts, many of these sales that we are selling now may not receive treatment for several years, putting them outside the lifetime of CFLR. Another challenge is the local softwood and hardwood markets. Prescribed fire is another target we struggle with depending on the weather conditions for the year. Some years have been good for prescribed fire conditions and other years have not.

10. *Project selected in 2012 and 2013 ONLY* - Planned FY 2020 Accomplishments

Performance Measure Code	**Unit of measure**	**Planned Accomplishment for 2020** (National Forest System)	***Planned Accomplishment on non-NFS lands within the CFLRP landscape[3]***
Acres of forest vegetation established FOR-VEG-EST	Acres	281	N/A
Acres of forest vegetation improved FOR-VEG-IMP	Acres	2,088	N/A
Manage noxious weeds and invasive plants INVPLT-NXWD-FED-AC	Acres	2,180	N/A
Highest priority acres treated for invasive terrestrial and aquatic species on NFS lands INVSPE-TERR-FED-AC	Acres	36,000	N/A
Acres of lake habitat restored or enhanced HBT-ENH-LAK	Acres	104	N/A
Acres of terrestrial habitat restored or enhanced HBT-ENH-TERR	Acres	250	N/A
Acres of water or soil resources protected, maintained or improved to achieve desired watershed conditions. S&W-RSRC-IMP	Acres	100	N/A
Miles of passenger car system roads receiving maintenance RD-PC-MAINT	Miles	94	N/A
Number of stream crossings constructed or reconstructed to provide for aquatic organism passage STRM-CROS-MTG-STD	Number	1	N/A
Miles of system trail maintained to standard TL-MAINT-STD	Miles	70	N/A
Volume of timber sold TMBR-VOL-SLD	CCF	40,000	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	Acres	5,000	N/A

Please include all relevant planned accomplishments, assuming that funding specified in the CFLRP project proposal for FY 2020 is available.

[3] As we shift to more emphasis on sharing results across all lands within the CFLRP projects – if relevant for your project area – please provide estimates for planned work on non-NFS lands within the CFLRP areas for work that generally corresponds with the Agency performance measure to the left and supports the CFLRP landscape strategy. Give your best estimate at this point; if it's unknown how much work will occur off NFS lands, simply state unknown.

11. *Project selected in 2012 and 2013 ONLY* - Planned accomplishment narrative and justification if planned FY 2020 accomplishments and/or funding differs from CFLRP project work plan (no more than 1 page):

No change from planned FY 2020 accomplishments or funding.

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.

New members have been invited to attend collaborative meetings and we have discussed the potential for partnering on the project but no official additions have been made at this time.

13. 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.

USDA and Arkansas Sign Shared Stewardship Agreement to Improve Health of Public and Private Lands

https://www.usda.gov/media/press-releases/2019/09/04/usda-and-arkansas-sign-shared-stewardship-agreement-improve-health

Signatures:

Recommended by (Project Coordinator(s)): Jessica Hausman

Approved by (Forest Supervisor(s)): Patti Tupi - Acting for Lori D. Wood

Draft reviewed by (collaborative chair or representative): McRae Hood