CFLR Project (Name/Number): *Shortleaf Bluestem Community/018*

National Forest(s): Ouachita

1. Match and Leveraged Funds:

a. FY18 Matching Funds Documentation

Fund Source – (CFLN/CFLR Funds Expended)	Total Funds Expended in Fiscal Year 2018
CFLN17	$125,481
CFLN18	$716,199

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 2018
NFHF18	$459,544
NFTM18	$307,37
NFWF18	$663,473

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 2018
CWKV17	$283,834
E2R017	$16,578
E2R517	$7,944
E2R717	$15,086
CMRD18	$297,431
NFHF18	$469,026
NFTM18	$516,323
NFVW18	$173,956
NFWF18	$76,667

*Although not set up in the WORKPLAN system as a matching code, the Forest expended approximately $2,600 in salvage funds (SSSS) toward maintenance of forest health within the CFLRP project area in FY 2018.

This amount should match the amount of matching funds obligated 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 2018
N/A	$0

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, and Watershed work can be found in WIT database.

Fund Source – (Partner In-Kind Contributions)	Total Funds Expended in Fiscal Year 2018
Arkansas State University (wild turkey monitoring)	$19,544
Arkansas Game and Fish Commission (wild turkey, quail)	2,876
The Nature Conservancy	$17,120
Natural Resources Conservation Service – Arkansas (EQIP in-kind – staff time within JCLRP linked to CFLRP)	$1,200
Natural Resources Conservation Service – Oklahoma (EQIP in-kind – staff time within JCLRP linked to CFLRP)	$300
Oklahoma Forestry Services (prescribed burning, salvage, agreement administration)	$1,200
Choctaw Nation	$2,000
Oklahoma Department of Wildlife Conservation (cooperative prescribed burning, RCW work)	$5,300
Southern Research Station (soft mast manuscript review, collaboration)	$1,986
U.S. Fish and Wildlife Service – Wichita Mountains, OK (prescribed burning in-kind)	$600

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 FY18)	Totals
Total revised non-monetary credit limit for contracts awarded in FY18	$*

*Not picked up in this fiscal year, the Forest had $69,679 awarded in FY 2017 under the Black Fork Stewardship Project, but we failed to report it.

Revised non-monetary credit limits for contracts awarded prior to FY18 were captured in previous reports (FY16 and FY15). This should be the amount in contract's "Progress Report for Stewardship Credits, Integrated Resources Contracts or Agreements" in cell J46, the "Revised Non-Monetary Credit Limit," as of September 30. Additional information on the Progress Reports is available in CFLR Annual Report Instructions document.

b. Please fill in the table describing leveraged funds in your landscape in FY2018. Leveraged funds refer to funds or in-kind services that help the project achieve proposed objectives but do not meet match qualifications.

Description of item	Where activity/item is located or impacted area	Estimated total amount	Forest Service or Partner Funds?	Source of funds
NRCS – Arkansas: Oklahoma/Arkansas Woodland Restoration (OAWR) Project	**Pine – Bluestem EQIP funding going to landowners within 10 miles of the CFLRP treatment areas in Ouachita Counties, including technical assistance also.**	**$922,096**	**Partner Funds**	**NRCS – AR in EQIP and TA funds.**
NRCS – Oklahoma: Oklahoma/Arkansas Woodland Restoration (OAWR) Project	**Pine – Bluestem EQIP funding going to landowners within 10 miles of the CFLRP treatment areas, including technical assistance also.**	**$199,477**	**Partner Funds**	**NRCS – OK in EQIP and TA funds.**
NEPA Planning – Includes inventories for heritage, biological, roads, and forest stand conditions (CSE); analysis and documentation; GIS support; support services and fuels	**Cold Springs – Poteau Ranger District: Dogwood, Mill Creek, Hole in the Ground, Jack Creek, Farm Bill #3, Clearfork Farm Bill, East Newman, and Farm Bill #4.** **Jessieville-Winona-Fourche Ranger District: South Fourche Valley, Maple Springs Prescribed Burn, Cedar Creek Prescribed Burn, Compartments 441-442 Prescribed Burn.** **Choctaw-Kiamichi-Tiak Ranger District: Pine Mtn Farm Bill DM, Harvey Mtn East Prescribed Burn DM, Golden Br. Prescribed Burn DM.** **Caddo-Womble RD: Kates Creek.**	**$583,795**	**Forest Service**	**NFTM, NFVW, NFHF, NFWF, and CWK2.**
Red-cockaded woodpecker habitat improvement and preparation for translocation	**McCurtain County Wilderness (MCMA) in Oklahoma**	**$4,450**	**Partner Funds**	**State of OK ODWC funding**

Joint Chief's Landscape Restoration Partnership

The Joint Chief's Landscape Restoration Partnership (JCLRP) has funded a three-year grant for the Ouachita and Ozark – St. Francis National Forests along with the NRCS in both Arkansas and Oklahoma. In FY 2018 the amount of EQIP funding given out in Arkansas to landowners within or in close proximity to the CFLRP project area along with the technical assistance (TA) totaled $922,096. A breakdown of the amounts for each NRCS practice in Arkansas in 2018 are shown in the nearby table (right).

The NRCS in Oklahoma also provided EQIP dollars and TA in FY 2018, totaling $199,417.

Planning on the Forest for projects within the *Shortleaf Bluestem Community* project area continued in 2018, totaling nearly $584,000 in estimated spending on inventories, heritage surveys, biological field visits, and other costs to determine the current conditions of watersheds and the NEPA work to bring about a decision.

Work by the Oklahoma Department of Wildlife Conservation (ODWC), including maintenance and habitat work for the RCW, totaled $4,450 in FY 2018.

NRCS-AR EQIP Practice Disbursements –
OK/AR Woodland Restoration Project
(Joint Chief's Landscape Restoration Partnership)

Fiscal Year 2018

Practice	**Obligation**
Tree/Shrub Site Preparation	$270,366
Firebreak	$192,222
Tree/Shrub Establishment	$97,931
Forest Stand Improvement	$90,448
Prescribed Burning	$86,051
Stream Crossing	$25,176
Fence	$9,507
Silvopasture Establishment	$8,897
Conservation Cover	$7,500
Pond	$4,288
Riparian Herbaceous Cover	$2,450
Livestock Pipeline	$2,272
Hedgerow Planting	$1,691
Heavy Use Area Protection	$1,312
Diversion	$1,114
Watering Facility	$598
N/A	**$801,823**
TA dollars	**$120,273**

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***.

FY2018 Overview

FY18 Activity Description (Agency performance measures)	Acres
Number of acres treated by prescribed fire	58,603
Number of acres treated by mechanical thinning	4,905
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	58,603
Number of acres mitigated to reduce fire risk	0

Please provide a narrative overview of treatments completed in FY18:

The Forest burned 58,603 acres within the CFLRP boundaries, the second-highest total since the inception of the CFLRP on the Ouachita in 2012. However, the total burned across the entire Forest was 137,352 acres, with the high priority CFLRP burning making up only 43% of the total. Of this total, 48,179 acres were in the wildland urban interface, or WUI, and 10,424 were non-WUI. 4,905 acres were treated by mechanical means, mostly timber sales.

The Forest has accomplished 53% of the proposed burning levels over the past seven years, burning 350,402 out of 655,000 acres.

While most of these treatments were not in the high or very high wildfire hazard area as depicted on the wildfire hazard potential map, the continued regular burning of these areas prevents woody sprouts from growing unchecked into the midstory of the stand. When this happens, it makes the next prescribed burn more risky to overstory mortality and more difficult to reach prescribed burn objectives including the top-killing of most hardwood sprouts.

Throughout the time the Forest has planned and implemented CFLRP prescribed burns, we've learned that short-term planning for burn execution must involve ground level burn area assessments with a quick response by the entire Forest (and even the Region) to support the burning of the prioritized landscape. In doing so, the highest priority areas that are ready to burn, based on site conditions, get the proper attention as the highest priority on the Forest.

Expenditures

Category	**$**
FY2018 Wildfire Preparedness[1]	*N/A

[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),

Category	**$**
FY2018 Wildfire Suppression[2]	* N/A
The cost of managing fires for resource benefit if appropriate (i.e. full suppression versus managing)	* N/A
FY2018 Hazardous Fuels Treatment Costs (CFLN)	* N/A
FY2018 Hazardous Fuels Treatment Costs (other BLIs)	* N/A

*****It is difficult to measure CFLRP cost, wildfire preparedness and wildfire suppression costs across a landscape or Forest. This Forest's fuel types have a natural fire return interval of 4-6 years. If our CFLRP annual target is 100,000 acres of prescribed burning and in every given year the condition class moves, going from 1-3 in 6 years, it is difficult to calculate the cost difference of CFLRP land and the year treated versus the severity of the fire/cost associated with wildfire.

*Of the 1.8 million acres of NFS land on the Ouachita, approximately 130,000 acres are treated annually by prescribed fire. That is 7% and calculated over our fire return interval of 6 years, 43% of the Forest is treated. This 43% treated is misrepresented due to areas that naturally don't hold fire or may not be attainable. For example, river, lakes, and stream areas would decrease the overall burnable acres while increasing the % burned over a natural interval. Based on the previous statement, assume 70% or 1.2 million acres can burn bringing our % treated over 6 years to 65%. This inevitably has a significant impact to the large fire potential due to hazardous fuels from either human or natural ignition.

*If the funding for CFLRP is diminished, our treated acres will be reduced to half, leaving us to fight the uphill battle the rest of the Forests are facing with large wildfires.

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.

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.**

Fuel treatments in the CFLRP project area

Fuel treatments in the CFLRP project area included prescribed burning along with mechanical treatments that add up as integrated accomplishments under key point 6. Most mechanical treatments were accomplished using timber sales. To the best of our knowledge, no entries were made in the FTEM database, so no information can be discussed that is relevant to that entry.

- ***Please describe if/how partners or community members engaged in the planning or implementation of the relevant fuels treatment.*** Partners are engaged in the planning and implementation of prescribed burning through participating agreements for implementation and monitoring. Agreements with TNC, Oklahoma Forestry Services (OFS), Arkansas Forestry Commission (AFC), National Park Service – Buffalo River, Choctaw Nation, U.S. Fish and Wildlife Service – Wichita Mountains, and the BLM continue to supplement our work force executing prescribed burns. TNC is our major partner in monitoring vegetation in the CFLRP project area. In addition, the Oklahoma Department of Wildlife Conservation (ODWC) is a significant partner is carrying out fuels treatment on the McCurtain County Wilderness Area (MCMA) that is surrounded by National Forest System lands within the CFLRP boundaries in Oklahoma. This year the Choctaw – Kiamichi – Tiak (CKT) District in close coordination with ODWC executed an approximate 6,800 acre burn, with most of the acres located within the MCMA. The Choctaw Nation has been under a participating agreement for several years to provide dozer services for completing fire line construction and re-construction. As a leveraged activity, the Forest has agreements with the Cherokee Nation and other tribes for heritage surveys for project areas that include fuel treatments within the CFLRP boundaries.

- ***Did treatments include coordinated efforts on other federal, tribal, state, private, etc. lands within or adjacent to the CFLR landscape?*** In addition to state land burned in Oklahoma under the management of the ODWC, private lands are also burned using agreements authorized under the Stevens Act. These agreements allow for the efficient fuels reduction of private lands and, in many cases, reduces ground – disturbing control line blading or plowing.

- ***What resource values were you and your partners concerned with protecting or enhancing? Did the treatments help to address these value concerns?*** A significant portion of the *Shortleaf Bluestem Community* project is within the Habitat Management Area (HMA) for the Endangered (under the Endangered Species Act) red-cockaded woodpecker (RCW). There are two HMA's on the Ouachita, one in Arkansas south of Waldron and one in Oklahoma near Hochatown. Both commercial and non-commercial thinning along with prescribed burning is needed to maintain an open canopy with few woody saplings in midstory and increased herbaceous species in the understory with woody stems being continually top-killed. These treatments, including the accomplishments in 2018, continue to gradually increase the active territories and breeding attempts by the RCW over time.

  Two American Burying Beetle (ABB) Conservation Areas (ABBAs) have been established on the Forest and are included in the *Shortleaf Bluestem Community* project. There is one ABBA in Arkansas and one in Oklahoma, and the habitat thought to be good for the ABB is similar to that of the RCW. As with the

RCW HMA's, prescribed burning along with thinning, both commercial and non-commercial, is necessary to provide good habitat for the Endangered beetle. Fuels treatments like those mentioned continue to provide the best know habitat conditions for the ABB, although monitoring results are mixed.

Over the last decade or so, there has been a marked increase in construction of summer rental cabins on private lands intermingled with National Forest Service lands in the vicinity of Hochatown, Oklahoma. The combination of thinning and prescribed burning within this WUI complex has helped to reduce fuels in the vicinity of structures that have been built. The district is planning to implement a decision to intensively reduce fuels in the future, including the treatments mentioned as well as permanent fire breaks, which will also reduce the risk of catastrophic wildfire in the area.

The treatments being implemented in this CFLRP project, including commercial thinning, non-commercial thinning (midstory reduction, pre-commercial thinning, release), has promoted better habitat for bobwhite quail and wild turkey, both demand hunting species that are in decline in Arkansas and southeastern Oklahoma. Well – known "hot spots" for the bobwhite include the RCW HMA near Waldron, Oklahoma, that continues to attract hunters for these species as well as white-tailed deer, providing this rural community with added economic benefits related to this dispersed recreation attraction.

- ***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.*** Yes, the prescribed burning provides the top-killing of woody stems across the burn area and perpetuates the restored pine – bluestem community or provides an incremental improvement in the area as it transitions to a fully restored condition. The other two treatments, commercial thinning and non-commercial thinning, create a short-term challenge for implementing prescribed burning due to the temporary increase in forest floor fuels. In addition, sometimes timber purchasers essentially "lock up" the area in terms of prescribed burning because they wait until the latter part of the contract life to finish the harvesting and burning cannot proceed until the payment units with painted trees are completely harvested. Specific to FY 2018, treatments had the intended effect on any fuels. One area in Oklahoma was burned too hot and had to be salvaged later in the year.

- ***What is your key takeaway from this event – what would you have done differently? What elements will you continue to apply in the future?*** As stated in other places in this document, the prescribed burning preparation and logistical support needs to change in order for the Forest to successfully treat this pine – bluestem landscape if about 320,000 acres. We need to recognize when and where burn units are coming within parameters and then react aggressively to provide personnel, equipment (including engines, dozers and helicopters) to get the high priority work on this landscape completed.

- ***What didn't work as expected, and why? What was learned?*** As stated above, a part of one of the prescribed burns from last year heated up and killed trees on about 175 acres in Oklahoma. This was burned using a helicopter and a plastic sphere dispenser, and one lesson learned was simply patience. In hindsight, the width of the lit (with plastic spheres from the helicopter) lines was too wide in this part of the burn block and the fire gained too much momentum too fast and ended up killing trees instead of top-killing the understory and midstory.

- ***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.*** As stated above, to our knowledge, a fuels treatment effectiveness report was not produced this year. However, since most treatments and/or activities are either direct fuel treatments or integrated (key point 6) fuel treatments, most of the funding spent in CFLN as well other BLI's that contributed toward the direct CFLRP funding will be costs of fuels treatments. In addition, most of the matching treatments are also fuels related actions. Approximately $3,278,630 out of the total direct and matching funds for FY 2018 of $4,128,919 are estimated to be implementation of fuels reduction treatments, either directly or integrated (key point 6). This calculates out to a 79% rate for the overall project costs that dedicated to fuels treatments.

- Please include:
  - *Acres impacted and severity of impact:* As a total, the Ouachita National Forest had 103 wildfires that burned 4,653 acres, or an average of 45 acres per wildfire. There was little to no overstory kill from these wildfires, and most did not top-kill the midstory component of the stand.
  - *Brief description of the planned treatment for the area:* In all cases, the treatment will be the same as an unburned stand: commercial timber sale of thinning, midstory reduction treatment, and then three prescribed burns over the next decade or so. In some cases, wildfires can act to reduce the prescribed burning treatments necessary for full restoration to a pine – bluestem community from three to two, although because of the time needed for commercial thinning contracts and midstory reduction treatments, this is usually not the case.
  - *Summary of next steps – will the project implement treatments elsewhere? Will they complete an assessment?* As stated above, the full pine – bluestem restoration treatment process will continue.
  - *Description of collaborative involvement in determining next steps.* Our collaborators are well aware of the burn pattern and intensity across the CFLRP project area and the conditions this past year. No specific meetings or discussions are necessary based on the FY 2018 wildfires other than the planned collaboration meetings sponsored by TNC annually.

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. See above for the statistics on wildfires across the whole Forest. All fires were contained by initial attack this year. No BAER assessments were completed.

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

- ❖ Counties for the impact area were revised from the original list sent out, including two Oklahoma counties and one more in Arkansas, to reflect counties where important new and existing partners are headquartered.
- ❖ This year, the way Enterprise Group work orders were listed was changed. In the past, we had counted TEAMS employees as Force Account in the TREAT inputs since they are U.S. Forest Service employees. This year we changed that to count it as a non-local contract since the employees essentially act as non-local contractors or detailers. In addition, since the new work order established with $840,350 was largely unused, none was counted in this year's TREAT. This made a considerable difference in the

TREAT inputs. In FY 2019, it is likely the total $840,350 will be counted as an input, possibly causing a display of funding that exceeds the total allocated.

FY 2018 Jobs Supported/Maintained (FY18 CFLR/CFLN/ WO carryover funding):

FY 2018 Jobs Supported/Maintained	Jobs (Full and Part-Time) (Direct)	Jobs (Full and Part-Time) (Total)	Labor Income (Direct)	Labor Income (Total)
Timber harvesting component	28	40	$1,638,179	$2,214,465
Forest and watershed restoration component	8	9	$118,461	$202,846
Mill processing component	36	93	$2,348,582	$5,602,893
Implementation and monitoring	8	11	$462,533	$573,848
Other Project Activities	0	0	0	0
TOTALS:	**79**	**153**	**$4,567,755**	**$8,594,052**

FY 2018 Jobs Supported/Maintained (FY18 CFLR/CFLN/ WO carryover and matching funding):

FY 2018 Jobs Supported/Maintained	Jobs (Full and Part-Time) (Direct)	Jobs (Full and Part-Time) (Total)	Labor Income (Direct)	Labor Income (Total)
Timber harvesting component	68	97	$3,995,524	$5,401,084
Forest and watershed restoration component	9	11	$151,268	$252,249
Mill processing component	88	230	$5,815,963	$13,914,123
Implementation and monitoring	29	39	$1,681,051	$2,085,622
Other Project Activities	0	0	0	0
TOTALS:	**194**	**377**	**$11,643,805**	**$21,653,078**

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).

Indicator	Brief Description of Impacts, Successes, and Challenges	Links to reports or other published materials (if available)
Regulatory compliance	Prescribed burning is an integral part of the restoration and maintenance of a shortleaf pine – bluestem grass community. In 2016, it was noted that some of our landscape burns were not complying with the voluntary smoke management guidelines in Arkansas, which, under our own regulations, are mandatory for us. This effectively limited most of our burns (depending on fuel type(s) and category day) to approximately 1,200 acre prescribed burn units daily. In 2018, the Ouachita collaborated with the Arkansas Forestry Commission and clarified the voluntary smoke management guidelines on emission rates versus total emissions, thereby allowing larger burns on a request basis. This sets up the possibility of reaching 100,000 acres of burning in the CFLRP project area for the first time ever.	N/A
% Locally retained contracts	Over the life of the *Shortleaf Bluestem Community* CFLR project, use of local contractors have increased gradually. The Multiple Award Task Order Contract (MATOC) used for timber sale preparation was re-advertised and a local contractor was picked up as part of the pool of contractors used on timber sales. Increased amounts of funding have been going to the Oklahoma Forestry Services and a local U. S. Fish and Wildlife Service work unit. Matching funds have been used for road contracts for maintenance and emergency repairs, and all contractors in the engineering MATOC are local.	N/A
Relationship building/collaborative work	FY 2018 saw continued growth in collaboration, adding an agreement with the U.S. Fish and Wildlife Service – Wichita Mountains for prescribed burning support on the project area in Oklahoma. Collaboration and accomplishments with the Oklahoma Department of Wildlife Conservation (ODWC) were especially strong. A 6,800 acre prescribed burn was completed in 2018, mostly on the McCurtain County Wilderness (MCWA), a land area owned by the State of Oklahoma and completely surrounded by the CFLR project area. Overlapping into FY 2019 was the translocation of five pairs of red-cockaded woodpeckers from Louisiana into the MCWA and the CFLR project area, with four pair placed into inserts in the MCWA and one pair on Forest Service land.	N/A

Indicator	Brief Description of Impacts, Successes, and Challenges	Links to reports or other published materials (if available)
Tribal connections	The Ouachita National Forest has had two Joint Chief's Landscape Restoration Partnership grants in play for the last five years (ended in FY 2018) as well as the *Shortleaf Bluestem Community* CFLRP project. Connections with tribes have improved over this time, maintaining needed agreements as well as increasing the training is some areas: ▪ The Choctaw Nation continues to be actively used under a participating agreement for fire line preparation and this year for mechanical fuels management on a reverting pasture using a track loader and attached grinder/masticator. ▪ Though not funded directly or even matched out of CFLRP, the accelerated restoration of this project combined with vacancies on the Forest have led to increased heritage training and participating agreements with the Cherokee and Choctaw Nations and the United Band of the Keetowah for completing heritage surveys for timber sales, midstory reduction and prescribed burns. The Forest has made use of Enterprise Group Work Orders for professional archeologists to supervise the technical surveying by the tribes, allowing for preparation and approval of numerous surveys across the Forest.	N/A

5. Based on your project monitoring plan, **describe the multiparty monitoring process.**

The Nature Conservancy Vegetation Monitoring

In 2018 The Nature Conservancy analyzed CFLRP plant community monitoring data that were collected during the summers of 2015 and 2016 (1st repeat of data collection). The results were summarized in a report that was submitted to the Forest Service. The report compared baseline and current conditions to the desired future conditions for the project area. The report incorporated a floristic quality assessment (FQA), the first analysis of this type in the State of Arkansas. This was made possible through work that the Forest Service, TNC, and other conservation partners in Arkansas conducted in 2016 and 2017 to assign coefficients of conservatism to the flora of the pine-bluestem ecosystem. The report examined the effects of management activities, dating back to 2007, on the composition and structure of the pine-bluestem community. In the spring of 2018, TNC presented the monitoring results at the CFLRP partner meeting and at the annual USFS-AGFC Cooperative Meeting in Russellville, Arkansas. In June, TNC led an effort to collect new data for the third

monitoring effort (2nd repeat, 50 plots in Arkansas). The remaining 50 plots in Oklahoma are scheduled to be monitored in the summer of 2019.

The analysis of 2015-2016 plant community monitoring data found that while the forest structure (tree density and basal area) had not changed on a landscape scale since baseline, it had changed for some covertypes and topographic positions. Overstory basal area remained higher than desired but was significantly lower on ridgetops and pine plantations compared to baseline, which moved those habitats closer to the desired ecological condition. Midstory stem density and basal area also declined in the ridgetop community and were near the desired conditions, but overall the midstory remained more dense than desired. Five percent of the landscape remained in early seral stage, which met the forest objective.

TNC and Forest Service take herbaceous plant plot measurements for TNC/USFS multiparty vegetation monitoring in June, 2018 on the Poteau Ranger District.

Ground layer diversity and cover had increased on a landscape scale. Total species richness and average ground layer and herbaceous layer species richness per macroplot increased in all topographic positions and covertypes. Average Floristic Quality Index (FQI) per macroplot also increased between monitoring events. By the first re-measure, ridgetops and pine plantations had met the desired condition for ground layer and herbaceous layer species richness per macroplot. Non-native species frequency increased between years, with most of this change occurring in the pine plantation covertype.

Macroplots that had been burned or were burned and thinned over the previous eight years met many of the desired ecological conditions, while untreated or thinned-only macroplots did not. Ground and herbaceous layer species richness, total ground layer cover and floristic quality (as measured by FQI), were greater in burned plots compared to unburned plots. The composition and structure of the midstory tree layer was in or near the desired condition in burned plots. The effect of thinning alone, without fire, was a dense midstory composed of less-desirable species. Overstory structure was closer to the desired condition in burned plots than in unburned plots. Thinned-only plots met the desired conditions for overstory structure

and were nearing the desired overstory species composition. However, given the increased midstory growth in those areas, it is unlikely that the overstory structure will remain in the desired condition without further management (e.g., burning). Invasive species were more likely to be present in plots that had been burned or burned and thinned than in untreated or thinned-only plots. Greater focus on invasive species control in areas under active fire management is therefore warranted. Overall, these results clearly demonstrate that fire, either alone or in conjunction with thinning can help managers reach the desired ecological conditions in the pine-bluestem community, if non-native species are controlled. While the desired conditions have been met in areas managed with fire, the larger, landscape-scale desired conditions have not yet resulted, presumably because prescribed fire has not been implemented at effective frequencies and spatial scales.

Forest service employees take diameter and shrub plot measurements in June, 2018 on CFLRP in Arkansas.

University of Arkansas at Monticello Economic Monitoring and Analysis

In order to finish off the funding in an agreement that has already produced site-specific economic data, the university did some work on the different categories of labor and their benefit to the local economy. Comparisons were made between permanent local employees, temporary local employees, and non-local employees, detailers, Enterprise Group employees and contractors. This work was completed in August, however we have not received a final report on the outcomes.

6. FY 2018 Agency performance measure accomplishments:

Performance Measure	Unit of measure	Total Units Accomplished	Total Treatment Cost ($) *(Only Contract Costs Listed)*
Acres of forest vegetation established	Acres	1,014[1]	$99,704[1]

Performance Measure	Unit of measure	Total Units Accomplished	Total Treatment Cost ($) *(Only Contract Costs Listed)*
FOR-VEG-EST			
Acres of forest vegetation improved FOR-VEG-IMP	Acres	976	$82,783
Manage noxious weeds and invasive plants INVPLT-NXWD-FED-AC	Acre	43.5	$8,700
Highest priority acres treated for invasive terrestrial and aquatic species on NFS lands INVSPE-TERR-FED-AC	Acres	0	N/A
Acres of water or soil resources protected, maintained or improved to achieve desired watershed conditions. S&W-RSRC-IMP	Acres	0[2]	0[2]
Acres of lake habitat restored or enhanced HBT-ENH-LAK	Acres	15.7	N/A – No Contract Cost
Miles of stream habitat restored or enhanced HBT-ENH-STRM	Miles	0[3]	N/A
Acres of terrestrial habitat restored or enhanced HBT-ENH-TERR	Acres	94,867	$79,213
Acres of rangeland vegetation improved RG-VEG-IMP	Acres	0	N/A
Miles of high clearance system roads receiving maintenance RD-HC-MAIN	Miles	15.0	$8,161
Miles of passenger car system roads receiving maintenance RD-PC-MAINT	Miles	429.2	$233,412
Miles of road decommissioned RD-DECOM	Miles	0	N/A
Miles of passenger car system roads improved RD-PC-IMP	Miles	0	N/A
Miles of high clearance system road improved RD-HC-IMP	Miles	0	N/A
Road Storage *While this isn't tracked in the USFS Agency database, please provide road storage miles completed if this work is in support of your CFLRP restoration strategy for tracking at the program level.*	Miles	0	N/A
Number of stream crossings constructed or reconstructed to provide for aquatic organism passage STRM-CROS-MTG-STD	Number	0[3]	N/A
Miles of system trail maintained to standard TL-MAINT-STD	Miles	0	N/A
Miles of system trail improved to standard TL-IMP-STD	Miles	0	N/A
Miles of property line marked/maintained to standard LND-BL-MRK-MAINT	Miles	0	N/A

Performance Measure	Unit of measure	Total Units Accomplished	Total Treatment Cost ($) *(Only Contract Costs Listed)*
Acres of forestlands treated using timber sales TMBR-SALES-TRT-AC	Acres	6,429	No service contracts
Volume of Timber Harvested TMBR-VOL-HVST	CCF	75,492	No service contracts
Volume of timber sold TMBR-VOL-SLD	CCF	71,801[4]	$66,083[6]
Green tons from small diameter and low value trees removed from NFS lands and made available for bio-energy production BIO-NRG	Green tons	4,385[5]	See TMBR-VOL-SLD
Acres of hazardous fuels treated outside the wildland/urban interface (WUI) to reduce the risk of catastrophic wildland fire FP-FUELS-NON-WUI	Acre	13,257	See prescribed fire accomplished (below)
Acres of wildland/urban interface (WUI) high priority hazardous fuels treated to reduce the risk of catastrophic wildland fire FP-FUELS-WUI	Acres	50,275	See prescribed fire accomplished (below)
Acres mitigated FP-FUELS-ALL-MIT-NFS	Acres	0	N/A
Please also include the acres of prescribed fire accomplished	Acres	58,603	$150,000
Number of priority acres treated annually for invasive species on Federal lands SP-INVSPE-FED-AC	Acres	0	N/A
Number of priority acres treated annually for native pests on Federal lands SP-NATIVE-FED-AC	Acres	0	N/A

[1] Due to spatial data linkage problems, the total amount in FACTS is incorrect. The real total was 1,397 acres for a total contracted amount of $137,364.

[2] The total amount for this accomplishment was reported correctly under the JCLRP initiative but was incorrectly left out of the CFLRP initiative. The correct accomplishment for FY 2018 was 121 acres, including an $804,305 multi-financed stream crossing project and a $24,000 pre-commercial thinning project.

[3] Approximately 0.5 mile of HBT-ENH STRM and 1 STRM-CROS-MTG-STD was accomplished but not reported in the late-year commitment of funding for the Buffalo Creek crossing, which will improve habitat and passage for the Threatened leopard darter in addition to providing dependable access for timber, fuels, and wildlife projects.

[4] The accurate volume within the CFLRP project area is 27,401 ccf. Three large sale areas in FY 2018 were straddling the CFLRP boundary, and due to TIM's inability to dissect sales by payment unit, the inflated sale volume of 71,801 ccf includes several payment units that are located outside the CFLRP project area.

[5] For the same reasons given above in footnote 4, the green tons of payment units actually within the CFLRP boundaries is 1,620 tons made available for bio-energy production.

[6] Excludes $840,350 spent on an Enterprise Group (TEAMS) Work Order for timber sale preparation because none of this amount was used in FY 2018. This is consistent with inputs into the TREAT model for FY 2018.

7. FY 2018 accomplishment narrative

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

The main three main treatments our proposal planned was commercial (timber sales) and non-commercial thinning (mid-story reduction, pre-commercial thinning and release). The table below summarizes the current accomplishments to date, from the inception of the project in 2012 to the present.

Treatment	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	**Cum. Total**	**Proposed Accomp. Through 2018**	**% of Proposed Accomp. To present**
Prescribed Burning (Acres)	44,805	54,461	43,532	25,678	71,033	52,290	58,603	**350,402**	655,000	**53%**
Non-commercial thinning (ac) (WSI, TSI)	3,660	7,021	5,416	4,947	1,707	2,715	1,324	**26,790**	34,000	**79%**
Volume of timber sales sold (ccf)	69,206	71,700	79,828	55,237	59,153	64,117	27,401	**426,642**	276,805	**154%**
Timber harvest (ac): Accomp. - Complete -	5,066 160	4,673 2,465	8,801 4,195	4,456 3,137	5,870 3,521	5,294 3,182	2,458 6,429	**36,618** **23,089**	40,000 40,000	**92%** **58%**

Prescribed burning continues to be a challenge. In FY 2018, Fire Management Officers and District Rangers were faced with restrictions that reduced the number of available burn days and the amount of area that could be burned in any one day:

- Smoke management guidelines in Arkansas continued to reduce the area that could be burned on a given category day due to fuel and apparent tonnage restrictions on a daily basis. The average burn size was effectively limited to 1,200 acres per day for a given air shed. Despite this difficulty, the Poteau – Cold Springs Ranger District burned a district – best 42,000 acres, with about a third of the acreage located outside the CFLRP project area. To date, the project has recorded 350,402 acres burned, or about 53% of the 655,000 proposed through FY 2018.
- Non-commercial thinning, including mid-story reduction (wildlife stand improvement treatment), pre-commercial thinning and release (timber stand improvement treatments) have accomplished 26,790

acres, or 79% of the expected accomplishment proposed. The relatively low numbers in 2016-2018 may be attributed to the reluctance of land managers to "open up" stands with mid-story reduction treatments when stands are not getting prescribe burned on rotation. If burning is not initiated promptly, stands treated with mid-story reduction will become extremely brushy over a 4-6 year period and cannot be effectively top-killed using reasonable prescribed burning parameters to limit overstory mortality. This results in a second, much more expensive mid-story reduction treatment due to the substantial increase in woody stems to treat.

- Timber treatments, including thinning as well as some regeneration and salvage efforts, are at 154% of the Year 7 proposed volume awarded levels, and have long-since exceeded the lifetime proposal targets. Timber harvest acres that are shown accomplished as each timber sale is awarded are at 92%, displaying an apparent over-estimate in volume per acre that was calculated for the initial proposal in 2011. The completed sale acres, recorded in the FACTS database much like the accomplished acres, is at 58%, and is to be expected since this accomplishment is at the prerogative of the timber purchaser and sometimes payment units take 2-5 years or more to cut out.

Of these three tasks, the prescribed burning is the most troublesome because it eventually affects the implementation of non-commercial mid-story reduction treatments as well as the maintenance of restored pine – bluestem communities into the future. In 2019, the Forest has made CFLRP treatments high priority, and will be working with District Rangers and FMO's to execute prescribed burns in order of priority so hopefully CFLRP burns will get completed at a higher frequency than in previous years. Also, the Arkansas Forestry Commission has clarified the voluntary smoke management guidelines, focusing on the rate of fuel tonnage release over time and direct communication with the AFC during planning and execution of burns to provide potential permission for continued operations in a given air shed based on rates of fuels being burned throughout the area. The Forest will also be regularly evaluating where and when potential burn blocks can be burned and the resources needed to do so instead of each district being on their own to implement burns.

8. **The WO (EDW) will use spatial data provided in the databases of record to estimate a treatment footprint for your review and verification**. The EDW estimate is way off, so we have used our own estimate as documented below.

Fiscal Year	Footprint of Acres Treated (without counting an acre of treatment on the land in more than one treatment category)
FY 2018	873 acres
Estimated Cumulative Footprint of Acres (2010 or 2012 through 2018)	232,639 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?

In FY 2017, the Ouachita calculated the footprint using local databases of record. Total acres treated in FY 18 for the CFLRP was 41,058 acres. Acres which overlapped treatments from previous years were subtracted from the total. The results showed that the footprint for FY 18 was 873 acres.

9. **Describe any reasons that the FY 2018 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).

The accomplishment narrative given in #7 gives reasons and responses applicable to this question. In a nutshell, difficulties center around prescribed burning, the task that is most important for finishing the advanced restoration treatments to get the forest community to a fully restored pine –bluestem composition and also for future maintenance of this restored system.

As described above, despite the Forest total of 137,354 acres burned, only 58,603 were within the *Shortleaf Bluestem Community* CFLRP project area. Although priorities have always been tilted toward CFLRP acres (even prior to the 2012 CFLRP grant award), the accomplishments in this area have not reached the 100,000 acre level yet. Current staff on the Forest are once again setting CFLRP burning as a high priority, and the attempt will be made to plan burning using a two- step process: 1) identify burn areas that are ready and safe for burning under the parameters in the given burn plan, and 2) providing resources to get the burns implemented. This will differ from the past, at least to some extent, in terms of identification priority areas ready to burn even if resources are not immediately and locally available, and also providing short-term planning at the Forest level to make high priority burn areas a focus.

Another challenge this year was budgeting. Funding for the *Shortleaf Bluestem Community* project was about 60% funded with CFLN allocations and the rest came from funding out of NFTM, NFWF and NFHF, so there was four sources for the direct CFLRP funds. The matching funds were similar to previous years, however the complexity of work planning and implementation using funds in numerous "buckets" became very difficult. Mid-way through the fiscal year there was labeling changes that made it even more complicated. Despite all of this, the Ouachita managed to spend out right at 100% for each of the BLI's including CFLN, NFTM and NFWF, including both CFLRP funding as well as funding for normal Forest operations. The only exception was NFHF, which was spent to the 95% level with the rest taken for fire use towards the end of the FY.

10. **Planned FY 2019 Accomplishments**: The only expected difference in what we submitted for FY 2019 is the road decommissioning, of which none is planned, so the accomplishment will be zero.

11. **Planned accomplishment narrative and justification <u>if</u> planned FY 2019 accomplishments and/or funding differs from CFLRP project work plan** (no more than 1 page): As already discussed in the FY 2017 report, timber volume sold accomplishments are expected to be less, however the project has already greatly exceeded the amount of volume awarded for the project life, so there will be no negative impact from this difference. Funding requested remains the same to reflect increased shifting to administration of timber sales, including Designation by Prescription (DxP) sales (increased inspections and oversight) as well as weight scale sales, which, in some cases, are one in the same with DxP sales.

Members

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.

- AES Shady Point, LLC – Lundy Kiger
- American Bird Conservancy- Mike Parr, President
- Arkansas Chapter of the American Fisheries Society – Eric Brinkman, President,
- Arkansas Chapter of the Wildlife Society – Tom Risch, President
- Arkansas Forestry Association- President – David Cawein, Green Bay Packaging
- Arkansas Forestry Commission-Joe Fox, State Forester
- Arkansas Game and Fish Commission-Pat Fitts, Director
- Arkansas Natural Heritage Commission -Darrel Bowman, Interim Director
- Arkansas State University – Dr. Travis Marsico, Chair Department of Biological Science
- Arkansas Tech University – Dr. Chris Kellner, Professor of Wildlife Science
- Arkansas Wildlife Federation-Trey Buckner, President
- Audubon Arkansas – Gary Moody, Interim Executive Director
- Bureau of Land Management
- Central Arkansas Water –Raven Lawson, Watershed Protection Manager
- Central Hardwoods Joint Venture – Jane Fitzgerald, Coordinator
- Cherokee Nation, Bill John Baker, Tribal Leader
- Choctaw Nation, Chief Gary Batton
- Gulf Coastal Plains & Ozarks Landscape Conservation Cooperative - D. Todd Jones-Farrand, Science Coordinator
- Lower Mississippi Valley Joint Venture, Keith McNight, Coordinator
- Monarch Joint Venture - Wendy Caldwell, Program Coordinator
- Monarch Watch – Orely "Chip" Taylor, Director
- National Park Service- Mark Foust, Superintendent
- National Wild Turkey Federation-Jeremy Everitts, Regional Biologist
- Native Expeditions – Robin Gregory, Director
- Natural Resources Conservation Service, George Rheinhardt, NRCS State Forester,
- Natural Resources Conservation Service, Steven Glasgow, State Conservationist
- Oklahoma Forestry Services – George Geissler, State Forester
- Ozark Chinquapin Foundation, Stephen Bost, President
- Quail and Upland Wildlife Federation – Nick Prough, Chapter Development
- Scott County - James Forbes, County Judge
- Shortleaf Pine Initiative – Mike Black
- Steve Osborne – Individual
- Tall Timber Research, Inc. – William Palmer, Director of Research
- The Nature Conservancy AR – Scott Simon, Director
- US Fish and Wildlife Service-Melvin Tobin, Field Supervisor
- US Fish and Wildlife Service-Melvin Tobin, Field Supervisor
- US Forest Service Ouachita National Forest-Norm Wagoner, Forest Supervisor
- US Forest Service Ouachita National Forest-Cherie Hamilton, Forest Supervisor
- US Forest Service Northern Research Station – Frank Thompson, Project Leader

- US Forest Service Southern Research Station – Jim Guldin, Project Leader
- US Geological Survey- Scott Gain, Center Director
- University of Arkansas, Fayetteville – James Rankin, Vice Provost for Research & Innovation
- University of Arkansas, Cooperative Extension Service, Tamara Walkingstick
- University of Arkansas, Monticello – Matthew Pelkki, Ass Prof, School of Forest Resources
- University of Missouri, Dept. of Forestry, Michael C. Stambaughm

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.

A news release was sent to media on the International Fire Management Staff Exchange where nine participants of the program from Colombia, South America and Zambia, Africa toured the Ouachita National Forest's Pine-Bluestem restoration project on the Poteau-Cold Springs Ranger District near Waldron. The participants received an overview of the management practices and its effects on pine-bluestem.

The article was published in the Newton County Times located in Jasper, Arkansas.

John Strom, Forester on the Cold Springs-Poteau Ranger District, explains the use of prescribed burning within the pine - bluestem project area during the Nature Conservancy's International Fire Management Staff tour of the Ouachita National Forest, April 11.

USDA

News Release

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April 23, 2018
Release No.: 051-18

International visitors receive overview of management practices on the Ouachita and Ozark-St. Francis National Forests

Hot Springs, ARK. — The Nature Conservancy brought participants of their International Fire Management Staff Exchange to the Ouachita and Ozark-St. Francis National Forests April 11-12 to learn how the forests are managed in Arkansas.

The stated goal of the Nature Conservancy's exchange program is to assist their international fire management partners in the continued development of fire ecology, fire manager planning and specific skills associated with controlled burning and application in woodland and savanna ecosystems in Arkansas.

The nine participants of the program from Colombia, South America and Zambia, Africa toured the Ouachita National Forest's Pine-Bluestem restoration project on the Poteau-Cold Springs Ranger District near Waldron on April 11. The participants received an overview of the management practices and its effects on pine-bluestem. On April 12, the Ozark-St. Francis tour included a stop at a prescribed burned and mechanically treated (thinned and pruned) woodland site on the Big Piney Ranger District. During their visit, the participants were able to see how the National Forests and State agencies work together on forest management.

"They were able to see how a large conservation partnership can create systemic change on the Ouachita and Ozark National Forests from funding to increasing the fire management program," said McRee Anderson, The Nature Conservancy's Fire Restoration Project Director in Arkansas. "All of those components, the Forest Service can't do alone. This group coming here from Columbia and Zambia kind of work in their own silos, so being able to see how having formalize meetings and a multiagency partnership working towards conservation, specifically fire management shows the positive outcomes on both forests show and that partnerships are important."

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Photos and captions available at: https://www.cloudvault.usda.gov/index.php/s/SleZoDXr3OjM5AX

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Signatures:

Recommended by (Project Coordinator(s)): _____

Approved by (Forest Supervisor(s)): _____

Draft reviewed by (collaborative chair or representative): _____ The Nature Conservancy