CFLR Project(Name/Number): **Missouri Pine-Oak Woodland Restoration/CFLN20**
***National Forest(s)**:* *Mark Twain National Forest*

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

1. **Match and Leverage funds:**
   a. **FY12 Matching Funds Documentation**

Fund Source	Total Funds Expended in Fiscal Year 2012 ($)
CFLR Funds Expended[1]	534,965.96
Carryover funds expended [2] (please include a new row for each BLI)	
FS Matching Funds (please include a new row for each BLI)[3]	CFKV 24,721.09 CFLM 37,508.68 CFTM 62,730.59 CFVW 37,712.39 CFWF 85.19 CFHF 95,313.1 Total 258,071.04
Funds contributed through agreements[4]	20,000 Missouri Bird Conservation Initiative Grant to NWTF
Partner In-Kind Contributions[5]	9,661.00 (Central Hardwood Joint Ventures)
Service work accomplishment through goods-for services funding within a stewardship contract[6]	37,238.35

   b. Please provide a narrative or table describing leveraged funds in your landscape in FY2012 (one page maximum)

No leverage funds have been identified for FY 2012.

Approved by: */s/ William B. Nightingale*
WILLIAM B. NIGHTINGALE

[1] This amount should match the amount of CFLR/CFLN dollars obligated in the PAS report titled CFLR Job Code Listing and Expenditure Report – Detailed Analysis by Fiscal Year.
[2] This value should reflect the amount of carryover funds allocated to a project as indicated in the program direction, but does not necessarily need to be in the same BLIs as indicated in the program direction. These funds should total the matching funds obligated in the PAS report titled Listing and Expenditure Report – Detailed Analysis by Fiscal Year minus the below matching funds.
[3] This amount should match the amount of matching funds obligated in the PAS report titled CFLR Job Code Listing and Expenditure Report – Detailed Analysis by Fiscal Year minus the above carryover/HPRP funds.
[4] Please document any partner contributions to implementation and monitoring of the CFLR project through an agreement (this should only include funds that weren't already captured through the PAS job code structure for CFLR matching funds). Please list the partner organizations involved in the agreement.
[5] Total partner in-kind contributions for implementation and monitoring of a CFLR project. Please list the partner organizations that provided in-kind contributions. See "Annual Report instructions" for instructions on how to document in-kind contributions.
[6] This should be the amount in the "stewardship credits charged" column at the end of the fiscal year in the TSA report TSA90R-01.

Forest Supervisor

2. **Discuss how the CLFR project contributes to accomplishment of the performance measures in the 10-year Comprehensive Strategy Implementation Plan**[7], dated December 2006. Please comment on the cumulative contributions over the life of the project, if appropriate. This may also include a description of the fire year (fire activity that occurred in the project area) as a backdrop to your response (please limit answer to one page).

The Missouri Pine Woodland Restoration project addresses the 10-year strategy, as demonstrated by the following accomplishments:

- All wildfires within the CFLR boundary were controlled during initial attack in FY 12. There were no wildfires in the CFLR project area which required recovery plans or treatments. There are no areas on MTNF identified or designated for wildland fire use at this time.
- During spring fire season, there were 14 wildfires on the Eleven Point District and 4 wildfires on the Poplar Bluff District, which is similar to the annual average for these 2 units.
- A drought and an unusually severe summer weather pattern resulted in an unusual summer fire season. There were 23 wildfires on the Eleven Point District and 11 on the Poplar Bluff District from May 11 – August 28, 2012. Although none of these were lightning-caused, several were a direct result of the severe weather conditions (equipment use, downed powerlines, fireworks contacting extremely dry vegetation).
- A CWPP was completed for Shannon County in April 2012. It identified WUI as the zone of transition between unoccupied land and human development. All Shannon County communities were considered as being within WUI.
- The Mark Twain National Forest uses the HFRA WUI definition and federal register data on communities at risk. In FY 2012, fuels were reduced and FRCC improved on 13,570 acres treated by prescribed burning within WUI on National Forest System lands. Missouri communities-at-risk in the vicinity of these treatments include: Pine, Bardley, Handy, New Liberty, Wilderness, Fremont, & Eastwood. Four private landowners completed agreements with MTNF, with 695 acres of private lands included in this year's burn units to meet landowner objectives of better wildlife habitat and livestock forage, and to improve safety and efficiency of implementing the burn through better fireline placement.
- There were also 3,772 non-WUI acres treated by prescribed burning. All treated acres were identified as priority based on potential for restoration, year last treated, and ability to reach restoration objectives. Over 10,000 acres of National Park Service, Missouri Department of Conservation, Pioneer Forest, and The Nature Conservancy lands were treated with prescribed burning in 2012.
- 100% of treated acres moved toward desired conditions. Treatments are designed to restore fire-adapted ecosystems and facilitate fire suppression as described in the National Fire Plan. Although many of these areas have been treated more than once, none have achieved desired conditions yet.
- In 2012, a total of approximately $931,000 was invested by the Forest Service in all treatments within the project area--17,342 acres of fuels treatments (all prescribed fire) were accomplished at a cost of approximately $15/acre.
- Through timber sale contracts and a stewardship contract with the National Wild Turkey Federation, 4,175 ccf of sawtimber volume was sold. Residual volume of about 5-6 tons per acre remains on the ground in treatment areas. There are two local Fuels for Schools projects operational – Eminence Elementary and Mountain View Middle School, but neither school district has indicated a need for biomass volume from National Forest System lands.

[7] The 10-year Comprehensive Strategy was developed in response to the Conference Report for the Fiscal Year 2001, Interior, and Related Agencies Appropriations Act (Public Law 106-291).

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

FY 2012 Jobs Created/Maintained (FY12 CFLR/CFLN/HPRP/Carryover funding only):

Type of projects	Direct part and full-time jobs	Total part and full-time jobs	Direct Labor Income	Total Labor Income[8]
Commercial Forest Product Activities	-	-	$0	$0
Other Project Activities	3.1	4.9	$109,234	$171,587
TOTALS:	3.1	4.9	$109,234	$171,587

FY 2012 Jobs Created/Maintained (FY12 CFLR/CFLN/HPRP/Carryover and matching funding):

Type of projects	Direct part and full-time jobs	Total part and full-time jobs	Direct Labor Income	Total Labor Income[9]
Commercial Forest Product Activities	18.0	34.5	$687,691	$1,617,749
Other Project Activities	1.0	1.4	$33,754	$46,188
TOTALS:	19.1	35.9	$721,446	$1,663,937

4. **Describe other community benefits achieved and the methods used to gather information about these benefits** (Please limit answer to two pages).

At this time in the project "other community benefits" have not been identified. The Forest will be working on ways to identify and quantify this information as the project progresses.

5. **Describe the multiparty monitoring, evaluation, and accountability process** (please limit answer to two pages).
   The multiparty monitoring for the Missouri Pine-Oak Woodland Restoration Project is a collaborative effort lead by Central Hardwood Joint Ventures (CHJV), and includes participation from the American Bird Conservancy, The Nature Conservancy, The National Wild Turkey Federation, Forest Service Northern Research Station, Missouri Department of Conservation, and Department of Natural Resources.

The Mark Twain National Forest as well as the Ozark-St. Francis National Forest and Ouachita National Forests are working with the Interior Highlands Shortleaf Pine Initiative to develop desired conditions for pine-bluestem and pine-oak systems communities in Arkansas, Oklahoma, and Missouri. This group is comprised of State and Federal land management agencies as well as non-governmental organizations such as the National Bobwhite Conservation Initiative, National Wild Turkey Federation, and American Bird Conservancy.

Vegetation and ecological conditions will be monitored by over 151 permanent vegetative monitoring plots designed to The Missouri Nature Conservancy protocol. These plots are designed to monitor ecological indicator by measuring changes in floristic quality, canopy structure and density and fuel loading in response to restoration activities.

[8] *Values obtained from Treatment for Restoration Economic Analysis Tool (TREAT) spreadsheet, "Impacts-Jobs and Income" tab. Spreadsheet and directions available at http://www.fs.fed.us/restoration/CFLR/submittingproposals.shtml#tools.*
[9] *Values obtained from Treatment for Restoration Economic Analysis Tool (TREAT) spreadsheet, "Impacts-Jobs and Income" tab. Spreadsheet and directions available at http://www.fs.fed.us/restoration/CFLR/submittingproposals.shtml#tools.*

In addition, the Forest has invested for several years in the establishment in a grid inventory for all vegetation management projects. The CFLRP project area consists of 981 plots where data has been collected. These plots are similar to FIA plots and include tree data, scorch height by tree, canopy closure percent and fuels data. The grid inventory gives us the baseline tree and fuel data for the Landscape from which we can now monitor the treatment effects across the CFLR project area.

The Forest, The Northern Research Station, and CHJV will be correlating data from both the grid inventory and the vegetative plots to bird monitoring scheduled to begin in fiscal year 2013. Data will be stratified between treatment and non-treatment areas to determine changes in bird species and population in responses to restoration activities that result in significant changes in vegetative structure and composition.

6. **FY 2012 accomplishments**

Performance Measure	Unit of measure	Total Units Accomplished [10]	Total Treatment Cost ($)	Type of Funds (CFLR, Specific FS BLI, Partner Match)[11]
Acres of forest vegetation improved	Acres	5,920	$70.00/acre	CFVW – $17,951 CFKV – $13,536
Acres of terrestrial habitat restored or enhanced	Acres	20,174		
Miles of high clearance system roads receiving maintenance	Miles	2.0		Stewardship service contract
Miles of passenger car system roads receiving maintenance	Miles	3.3		Stewardship service contract
Miles of high clearance system roads improved	Miles	1.6		Stewardship service contract
Miles of property line marked/maintained to standard	Miles	33	$6,000/mile	CFLN – $160,716 CFLM - $40,031
Acres of forestlands treated using timber sales	Acres	256	$280/acre	CFTM- $73,332
Volume of timber sold (CCF)	CCF	4,174.5		CFTM, CFVW
Acres of hazardous fuels treated outside the wildland/urban interface (WUI) to reduce the risk of catastrophic wildland fire	Acre	3,772	$10.00 – 15.00/acre	CFHF20 – $115,211 CFLN20 - $56,173
Acres of wildland/urban interface (WUI) high priority hazardous fuels treated to reduce the risk of catastrophic wildland fire	Acres	13,570	$10.00 – 15.00/acre	CFHF20 – $115,211 CFLN20 - $56,173

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

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

7. **FY 2012 accomplishment narrative** (summarize key accomplishments and evaluate project progress) (please limit answer to three pages).

This initial year was successful in getting over 23,000 acres treated (prescribed fire, TSI and overstory treatments. This does not include improved habitat acres due to feral hog trapping). The Mark Twain completed a 17,000 acre landscape level burn that included several hundred acres of private land under Wyden Agreements. These private land burns were not funded by CFLR or matching funds. In addition, road maintenance and improvements were completed in the Cane Ridge Stewardship Proposal which allowed the National Wild Turkey Federation to start work on commercial harvest and understory treatments. Six timber sale contracts were awarded.

8. **Describe the total acres treated in the course of the CFLR project** (cumulative footprint acres; not a cumulative total of performance accomplishments). What was the total number of acres treated?[12]

Fiscal Year	Total number of acres treated (treatment footprint)
FY12	23,000
FY10, FY11, and FY12	23,000

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

In the CFLRP Project Area, we have been actively pursuing partnerships with private landowners to include portions of their private lands within our designed burn units. The Wyden Amendment provides us the authority to enter into a Participating Agreement with private landowners to incorporate their lands into our landscape prescribed burn units. Specifically, through the use of Participating Agreements, the Forest Service may cooperatively perform work related to the protection, restoration, and enhancement of fish and wildlife habitat and other natural resources. Burns on private lands are funded outside of CFLR or matching funds.

Currently, we have agreements with 7 private land partners encompassing approximately 1,100 acres to cooperatively prescribed burn their lands as part of our restoration efforts. In addition, we have pending verbal agreements with an additional 25 landowners, consisting of approximately 3,000 acres, which we plan to incorporate into our prescribed burning program in FY14. Also, collaboration with the Missouri Department of Conservation, The Nature Conservancy, and Pioneer Forest is ongoing for cooperative burning planned in FY14.

Cooperative burning reduces the footprint and environmental impacts of dozer lines. Instead of blading dozer lines around private lands, we integrate the private lands with Forest Service public lands. The use of private lands has allowed us to increase the size of our prescribed burn units and has permitted the use of existing roads, green pastures and stream beds as firelines. In FY12, we reduced approximately 10 miles of dozer lines by expanding our perimeters to county roads and other pre-existing geographic features. These perimeter lines are safer for firefighters because they are typically wider and are better maintained.

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

Our work within the CFLRP Project Area with private landowners has increased community support through our outreach to the private citizens living in and around the communities that lie within the project area. Communities like Handy have expressed their desire to work with us because the benefits are two-fold. Within the project area, we are not only working to restore natural communities and a more natural fire regime, but also are reducing the hazardous fuel conditions in and around the communities. Removing the fuels through prescribed fire when conditions are manageable alleviates the propensity for wildfires to burn out of control or cause containment issues, which could directly affect their lives and property.

Through partnering, our prescribed burn units have increased over the last few years to where they are truly becoming landscape size. There are numerous benefits to landscape scale burns. By burning large areas, some in excess of 5000 acres, we are treating more of the landscape in a single day than ever before. The implementation of a larger single burn, as compared to several smaller burns, will result in a single short-duration smoke column instead of several smoke events. Therefore, we reduce the number of burn days needed, which reduces smoke impacts to the surrounding area. By monitoring the weather closely, we are able to pick burn days with excellent dispersion indices and can get the smoke to lift out of the area where it can be dispersed in the atmosphere. Larger burns increases efficiency and are more cost effective. Landscape burns allow us to use a helicopter and ground personnel for one day, instead of several.

Fire has been absent on the landscape for many years. Our restoration efforts are an attempt to restore a more natural fire regime on as much of the landscape as we can affectively and safely manage. The restoration of small pockets will not rebuild the fragmented landscape. Our goal is to treat a contiguous landscape to revive species diversity. As we continue to apply fire to the CFLRP Project Area and manage the fuel loading, we can expect to see wildfire intensity lessen and severity be reduced on both private and public lands.

10. **Describe any reasons that the FY 2012 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)

Awarded proposal late in fiscal year and not all activities could be properly prepared for implementation.

11. **Planned FY 2014 Accomplishments**

Performance Measure Code[13]	Unit of measure	Planned Accomplishment	Amount ($)
Acres treated annually to sustain or restore watershed function and resilience	Acres	10,000	
Acres of forest vegetation established	Acres	20	Est. 2,000
Acres of forest vegetation improved	Acres	12,000	Est. 420,000
Miles of high clearance system roads receiving maintenance	Miles	8	Est. 24,000
Miles of road decommissioned	Miles	8	Est. 1,000
Miles of high clearance system road improved	Miles	2	Est. 10,000
Miles of property line marked/maintained to standard	Miles	20	Est. 120,000
Acres of forestlands treated using timber sales	Acres	300	
Volume of timber sold (CCF)	CCF	12,037	
Green tons from small diameter and low value trees removed from NFS lands and made available for bio-energy production	Green tons	70	
Acres of hazardous fuels treated outside the wildland/urban interface (WUI) to reduce the risk of catastrophic wildland fire	Acre	11,000	Est. 165,000
Acres of wildland/urban interface (WUI) high priority hazardous fuels treated to reduce the risk of catastrophic wildland fire	Acres	3,000	
Number of priority acres treated annually for invasive species on Federal lands	Acres	40	2,000

12. **Planned FY 2014 accomplishment narrative** (no more than 1 page):

The Forest plans on completing additional NEPA in 2014, 2016 and 2017 to authorize additional management activities within the CFLRP area. Current planned activities for FY 14 include the 850 acres of understory thinning, 16,000 acres of prescribed fire, 15000 CCF in timber volume. In addition, road maintenance and improvements will be completed.

13. **Describe and provide narrative justification if planned FY 2013/14 accomplishments and/or funding differs from CFLRP project work plan** (no more than 1 page):

At this time the Forest will be aligning planned accomplishments for FY 2013/14 with what was reported in the work plan.

[13] Please include all relevant planned accomplishments, assuming that funding specified in the CFLRP project proposal for FY 2014 is available. Use actual planned funding if quantity is less than specified in CFLRP project work plan, and justify deviation from project work plan in question 13 of this template.