CFLR Project (Name/Number): CFLR004

National Forest(s): **Arapaho & Roosevelt and Pike & San Isabel National Forests**

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

1. Match and Leverage funds:

a. FY14 Matching Funds Documentation

Fund Source – (CFLR Funds Expended[1])	Total Funds Expended in Fiscal Year 2014($)
CFLN	$1,937,324

Fund Source – (Carryover funds expended (Carryover to in addition to CFLR/CFLN)[2] (please include a new row for each BLI))	Total Funds Expended in Fiscal Year 2014($)
NFVW	$567,200
NFWF	$108,500
WFHF	$925,600
Total	**$1,601,300**

Fund Source – (FS Matching Funds (please include a new row for each BLI)[3])	Total Funds Expended in Fiscal Year 2014($)
CMRD	$56,583
NFTM	$383,410
NFVW	$256,934
NFWF	$78,481
RTRT	$166,641
WFHF	$718,202
Total	**$1,660,251**

Fund Source – (Funds contributed through agreements[4])	Total Funds Expended in Fiscal Year 2014($)
NFXN – Denver Water-PSICC	$1,537,689
NFXN – Denver Water-ARP	$819,305
NFXN – Arbor Day Foundation	$103,267
CWFS – Colorado Springs Utilities	$232,736
Total	**$2,692,997**

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

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

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

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

Fund Source – (Partner In-Kind Contributions[5])	Total Funds Expended in Fiscal Year 2014($)
Colorado Forest Restoration Institute	$23,500
Front Range Roundtable Members (CFLR monitoring team and UMC)	$25,400
Rocky Mountain Tree-Ring Research	$13,000
Total	**$61,900**

Fund Source – (Service work accomplishment through goods-for services funding within a stewardship contract[6])	Total Funds Expended in Fiscal Year 2013($)
Phantom 2	$5,657
Long John	$12,588
Crystal Creek	$5,803
Ponderosa	$2,436
Big Elk	$2,372
Fish Creek	$9,662
Messenger Gulch	$5,994
Harris Park 2	$11,175
Creedmore	$2,298
Magic Sky 1	$1,289
Total	**$59,274**

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

The following table provides information on funds that were used by partners to accomplish hazardous fuels reduction and restoration activities on non-National Forest System lands (private land, State and local government land) within the Colorado Front Range CFLR project area. These treatments are an important component of accomplishing goals of the landscape level changes envisioned with this CFLR project. The funds and treatment acres presented in the table are not the total treatments, but only represent the large efforts where data is available for this annual report.

Organization	Dollars Used	Acres Treated
Coalition for the Upper South Platte	$ 1,318,415	959
Denver Water	$ 73,250	187
Colorado State Forest Service (Woodland Park Area only)	$ 2,251,691	7,982
Colorado Springs Utilities – Forest Restoration	~$48,000	0
USDA- NRCS	$1,082,966	1,400
Waldo Recovery Group (Post Fire Rehabilitation/Restoration)	$6,003,000	See separate table for accomplishments

Approved by (Forest Supervisor):____***/s/ Erin Connelly*** _____ Date: ***November 14, 2014***

Approved by (Forest Supervisor):____***/s/ Glenn Casamassa***_____

[5] Total partner in-kind contributions for implementation and monitoring of a CFLR project. Please list the partner organizations that provided in-kind contributions. See "Annual Report instructions" for instructions on how to document in-kind contributions.
[6] This should be the amount in the "stewardship credits charged" column at the end of the fiscal year in the TSA report TSA90R-01.

2. **Discuss how the CLFR project contributes to accomplishment of the wildland fire goals in the *10-Year Comprehensive Strategy Implementation Plan*, dated December 2006**. In a narrative format, describe the progress to date on restoring a more fire-adapted ecosystem, as identified in the project's desired conditions. This may also include a description of the current fire year (fire activity that occurred in the project area) as a backdrop to your response (please limit answer to one page).

The 2014 wildfire season was unusually wet. The Front Range experienced extremely heavy rains in September of 2013, followed by heavy snowpack and above normal spring rains. Both forests had above normal precipitation during the summer months and monsoon season however, both Forests continued to have wildfires in 2014. The PSICC had 30 human-caused and 34 natural ignition wildfires for a total of 36 acres burned. Reported fires on the Arapaho and Roosevelt totaled less than half of an average season with only 35 fires totaling only 12.1 acres. In 2014, human caused fires made up the bulk of the activity with 26 fires on 5.5 acres. The remaining eight fires on 6.6 acres being lightening caused. Only four of these fire required initial attack beyond the first operational period. All were contained by the end of the next shift. Only 10 of these fires occurred within the CFLR project boundary totaling approximately 4.5 acres. There was no opportunity to contribute to the wildland fire restoration goals during the 2014 fire season. A closer to normal season for both forests would produce about 120 wildfires each or a total of 240 wildfires.

In 2014, wildfires along Colorado's Front Range did not demonstrate large fire growth potential. The development of a neutral to weak La Nina pattern led to numerous Pacific hurricanes off Mexico pushing moisture into the Southwest and Colorado, contributing to fewer and less intense fire season. The weather pattern for 2015 may be changing back to a neutral or weak El Nino. It is too early to know what changes may occur in the 2015 fire season.

This cycle of extreme dry conditions followed by extreme wet conditions has occurred along Colorado's Front Range for decades as demonstrated by 2012, 2013, and 2014 fire seasons.

High Park and Hewlett Fire Updates

You may recall from last year's report that the record-setting drought and historically low snowpack in 2012 set the stage for the Hewlett and High Park Fires on the Canyon Lakes Ranger District. The High Park Fire was ignited by lightning on private land June 9, 2012, and burned 87,284 acres (over 42,000 of National Forest System lands (NFS)) destroying 264 homes and killing one individual at her residence. The fire was contained June 30 of that year. The High Park Fire burned into and around the Hewlett Fire, which burned 7,685 acres in May 2012. Both fires were in the area of the Cache la Poudre River and with both impacting watersheds for the Colorado Front Range.

Since the fires, much work has been occurring on both private and public lands. Larimer County, Natural Resource Conservation Service (NRCS), and water providers have been working closely with private landowners to implement much needed restoration work adjacent to NFS lands. To summarize the work that has occurred on NFS land, almost 6,600 acres of aerial applied mulch, 16 miles of trail stabilization and 8 miles of road stabilization. Hazardous tree removal has also occurred along trails. Noxious weed treatment has begun under a Participating Agreement with Larimer County. Extensive restoration work with partners such as the High Park Restoration Coalition, the City of Greeley, the City of Fort Collins and the Arapaho Roosevelt Pawnee Foundation has occurred within both burn areas. Multiple research projects are on-going within the burn areas looking at: Soils (carbon movement, sediment transport), Mulching Effectiveness, Water Quality, Mountain Pine Beetle Effects, and Vegetation/Fire Effects. A Forest Service team is analyzing reforestation opportunities for Ponderosa pine within the High Park Fire burn area, considering reforestation on 130-1,500 acres.

In spring 2014, specialists from the Arapaho and Roosevelt National Forests reviewed the burned area and determined that no additional USFS BAER mulching was needed. However, the City of Greeley was interested in continuing to mulch using their residual NRCS Emergency Watershed Protection funds and the District Ranger authorized them to mulch another 307 acres on USFS lands.

The Forest also authorized expenditure of High Park BAER funds in 2014 for some Level 3 monitoring being conducted by Rocky Mountain Research Station. This monitoring effort will continue in 2015. No other High Park BAER work will occur in 2015.

Waldo Canyon Fire Update:

Even with the significant rainfall events during the fall of 2013 and 2014, the work completed on the Waldo Fire was able to dissipate the energy, capture the debris flows and minimize the flooding impact to adjacent communities.

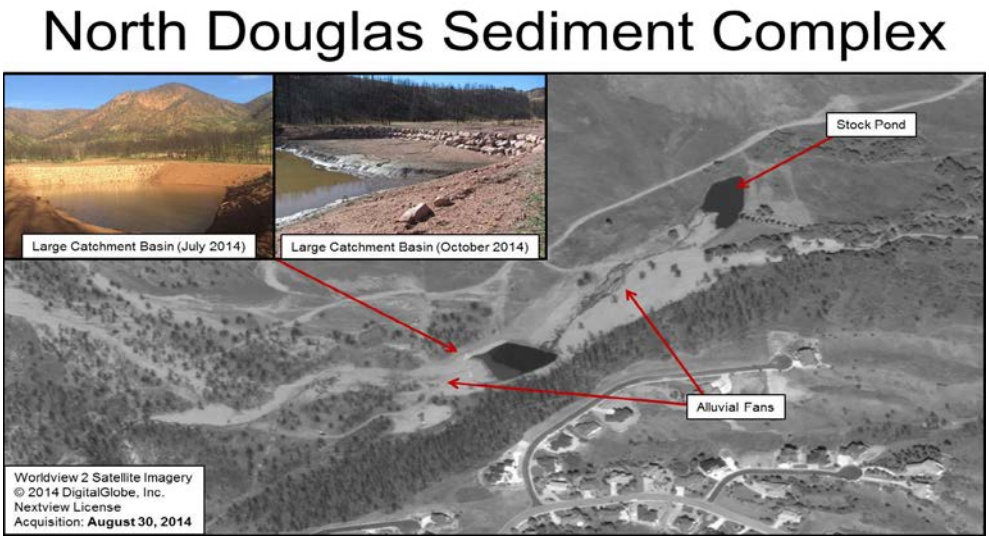
The Waldo Recovery Group continued its mission to address post fire flooding following the Waldo Canyon. This group includes more than 35 partners from Federal, State, and local governments, to local and national non-profits and private landowners. To date, this group has expended more than $32 Million on public and private lands to assess the flooding risks and mitigate the impacts of flooding.

Treatments in 2014 include restoration and rehabilitation treatments on public and private lands to reduce the sediment loads coming from the burn scar:

- Installation of a large box culvert on Highway 24 to keep debris flow off the highway,
- Installation of 8 sediment detention basins installed to capture sediment and restore the natural floodplain within the drainage bottom,
- Channel stabilization (5,400 feet or 4.3 acres), and
- Hillslope treatments (131 acres) designed to stop headcuts in side drainages and capture sediment from steep hillsides.

Work continued to protect private land:

Below is Satellite Imagery of treatments on North Douglas Creek just west of Colorado Springs (see the subdivision to the southeast).



Below are pictures 2014 of flooding in Waldo Canyon during a 0.75 inch storm over an hour. Pictures are taken every 10 minutes from the beginning of the rain even and show the increase in flow. The largest positive impact is the flows are mostly water and carry very little debris. Watch the leaning tree.

As a reminder, Colorado's Front Range has had six significant wildfires during the last three years:

Year	Wildfire Name	Wildfire Statistics
2012	High Park Fire	Acreage Burned: 87,284 Homes Destroyed: 259 Deaths: 1 Total Suppression Cost: $39.2M
2012	Waldo Canyon Fire	Acreage Burned: 18,247 Homes Destroyed: 347 Deaths: 2 Total Suppression Cost: $125M+
2012	Hewlett Fire	Acreage Burned: 7,685 Homes Destroyed: 0 Deaths: 0 Total Suppression Cost: $2.9M
2012	Lower North Fork Fir	Acreage Burned: 4,140 Homes Destroyed: 27 Deaths: 3 Total Suppression Cost: $11M
2013	Black Forest Fire	Acreage Burned: 14,280 Homes Destroyed: 486 Deaths: 2 Total Suppression Cost: $9.3M
2014	Royal Gorge Fire	Acreage Burned: 3,218 Homes Destroyed: 0 (but Structures were destroyed and a portion of the Royal Gorge Bridge) Deaths: 0 Total Suppression Cost: $?

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

The expenditure amounts were based upon Forest Service financial records, agreement documents, partner reports and estimates of in kind contribution based upon attendance records. The percentage used on contracts was based upon contract costs. The monitoring percentages were based upon agreements, contracts or workplan amounts. The contract funding distributions was based upon contract records. The volume estimates were based upon contract and

cruise estimates. The products distribution was based upon comparison of saw log and biomass estimates in contract and cruise estimates.

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

Type of projects	Direct part and full-time jobs	Total part and full-time jobs	Direct Labor Income	Total Labor Income[7]
Commercial Forest Product Activities	**75.9**	**112**	**$2,830,652**	**$4,916,993**
Other Project Activities	**2.7**	**4.2**	**$143,948**	**$211,490**
TOTALS:	**78.6**	**116.2**	**$2,974,600**	**$5,128,482**

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

Type of projects	Direct part and full-time jobs	Total part and full-time jobs	Direct Labor Income	Total Labor Income[8]
Commercial Forest Product Activities	**154.8**	**228.6**	**$5,775,456**	**$10,032,276**
Other Project Activities	**2.9**	**4.4**	**$152,253**	**$223,691**
TOTALS:	**157.7**	**233.0**	**$5,927,709**	**$10,255,967**

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

The following information is from the draft economic monitoring assessment of the Colorado Front Range CFLR project (FR-CFLRP) for 2013-2014 generated by the Colorado Forest Restoration Institute. This project-level assessment identifies the local economic contributions and summarizes the wood utilization associated with FR-CFLRP task orders.

Economic Contributions

A detailed analysis of the contract-level economic contributions in calendar year 2013 was carried out to identify the extent economic goals were met. It should be noted that the economic impact estimates in this analysis contrast with the estimates reported in the FY2013 CFLRP Annual Report (USFS 2014) due to differences in methodologies and data assumptions.

The FR-CFLRP contractor accomplished work on six task orders in calendar year 2013. Three task orders associated with the FR-CFLRP were initiated in 2013, with one of these task orders fulfilled and two partially completed by the year's end. An additional three task orders initiated in 2012 were completed in 2013. The economic effects of these restoration activities were identified using IMPLAN® (IMpact analysis for PLANing), a regional economic impact analysis system commonly used by the USFS to model pertinent operational expenditure and labor information that was obtained from the contractor. This analysis estimated the restoration activities contributed approximately $243,067 in labor income and $463,942 in value-added (i.e. Gross Domestic Product or GDP) contributions to the local economy in 2013. These contributions to the local economy were stimulated by the contractors' operation expenditures as well as labor income.

Additionally, a total of 11 full- and part-time jobs were estimated to have resulted from this restoration work. Jobs reported in IMPLAN are annual averages of both full and part time total wage and salary employees, as well as self-employed jobs. All company employees reside within Colorado and are able to commute to work. The FR-CFLRP contractor subcontracted with seven other companies to assist with manual forest management operations, road clearing, and some mechanical operations. Three of the subcontractors are based in Colorado. The others are based out

[7] *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.*

[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.*

of California, Florida, Montana, and Oregon. The FR-CFLRP contractor was responsible for 44 percent of the total number of hours billed, with most mechanical work being completed by the contractor and a majority of the manual work completed by subcontractors.

Wood Utilization

A total of 1,810 acres were treated under the FR-CFLRP in 2013, with 717 acres treated on the Pike and San Isabel National Forests (PSI) and 1,093 acres treated on the Arapaho and Roosevelt National Forests (AR). The majority (66 percent) of the material was removed on the PSI through mechanical treatments and 34 percent was completed through manual treatments. In contrast, 23 percent of the treatments on the AR were completed mechanically and 77 percent were completed through manual treatments. The material harvested manually was not available for value-added uses, whereas 99 percent of the materials in the mechanized units were.

All of the value-added materials removed from these forests through the Colorado Front Range CFLR project were purchased by three Colorado businesses. Two businesses purchased materials from the PSI contract work, and another business purchased materials coming from both the PSI and the AR. These businesses were located within or adjacent to the counties where work was completed – Fremont, Pueblo, and Weld Counties. Estimates of the types of products developed from these materials were provided by the contractor; all of the biomass material was sold as saw-timber and is assumed to have been processed into dimensional lumber, a high value product.

Collaboration

Collaboration is a key component of the Front Range Roundtable. A baseline measure of collaboration was established through key informant interviews conducted by the Colorado Forest Restoration Institute in the 2011 monitoring report. Additional interviews with key informants will be conducted every 3-5 years to track the challenges, achievements, and lessons learned associated with the FR-CFLRP collaborative process.

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

A subgroup of Front Range Roundtable (FRR), the Monitoring Working Group (MWG) was tasked with the creation of a CFLRP monitoring plan. The Monitoring Plan was successfully developed in June 2011. The CFLRP Monitoring Plan is the result of intense multiple stakeholder learning and deliberations by the Front Range Roundtable Monitoring Working Group. The multiple stakeholder group consisted of members of both the Pike and San Isabel and Arapaho and Roosevelt National Forests, USFS Region 2, Colorado State Forest Service, US Fish and Wildlife Service, Colorado Department of Wildlife, Natural Resource Conservation Service, The Nature Conservancy, The Wilderness Society, Colorado Wild, Rocky Mountain Research Station, University of Colorado, Colorado Forest Restoration Institute, Tree Ring Laboratory, Boulder County and the City of Boulder, and many other stakeholders.

Ecological Monitoring Program

The monitoring plan outlines a comprehensive ecological monitoring program to assess success of CFLRP treatments for a minimum of 15 years after project implementation, and to guide future treatments through an adaptive management framework. Monitoring results will be used both to evaluate the rate and extent of achievement of individual project goals, and to incorporate data into analyses of cumulative effects at the landscape level. The monitoring protocols are designed to address specific Desired Conditions. Desired Conditions are expressed in broad, general terms, with achievement occurring at the end of the 10-year period. The group established Desired Ecological Conditions, based on the original CFLRP proposal, and which determined the group's choice of variables to measure and protocols to use. They are: establish a complex mosaic of forest density, size and age (at stand scales); establish a more favorable species composition favoring ponderosa pine over other conifers; establish a more characteristic fire regime; increase coverage of native understory plant communities; increase the occurrence of

wildlife species that would be expected in a restored lower montane forest; establish a complex mosaic of forest density, size and age (at landscape scale).

The monitoring plan outlines a series of specific measurements that will be done in individual plots, largely based on existing Common Stand Exam (CSE) protocols that are part of standard inventory procedures. However, during the collaborative process to get to this point, we identified several gaps in trying to translate individual plot data to the landscape scale. For example, our first Desired Condition is to "establish a complex mosaic of forest density, size, and age". The monitoring working group felt strongly that this Desired Condition should include some sort of spatial metric to define and assess that mosaic condition beyond simple averages and distributions of the identified monitoring variables as measured in the plots. In 2014, a spatial methodology was tested and a peer reviewed paper published. Using this methodology, spatial heterogeneity has improved over the course of CFLRP project implementation but there is still room for improvement.

The fourth year of collecting monitoring data was completed in 2014. This year included both pre- and post-treatment monitoring data. During the winter of 2013-2014 data was be analyzed to determine if treatments are moving target areas toward desired conditions. In the spring of 2014, members from the collaborative and assessed the data against the specific metrics and desired condition statements in the monitoring plan to determine if the treatments were moving towards desired conditions. As a result of that meeting, a report was produced that highlights accomplishments and ecological monitoring results for Front Range forest restoration treatments carried out under the CFLRP through 2013. It draws on previous monitoring reports produced by the Landscape Restoration (LR) team of the Front Range Roundtable to provide a cumulative view of treatment effects through the life of the Front Range CFLRP to date. Forest structural metrics such as tree density and fuels are the focus of this report, based on data available as part of the Forest Service's Common Stand Exam. Tree density, tree sizes, tree species composition, surface fuels, and fire behavior are the emphases of this report.

While data presented in earlier reports is not included here, the discussion of the data is intended to be somewhat cumulative to provide a sense of general trends observed through the life of the CFLRP. Eventually, the Landscape Restoration team envisions an integrated ecological monitoring report that incorporates information from various facets of the program, including monitoring efforts that are beginning to come to fruition

An adaptive management tool has been developed and is being documented to facilitate changes if desired trends are not being achieved. Now that monitoring results are becoming available the group will have the opportunity beginning in 2015 to apply the adaptive management tool if necessary.

Wildlife Monitoring Program

In 2010-2011, members of the Science and Monitoring team (SM Team, later known as Landscape Restoration (LR) Team) of the Front Range Roundtable conducted a preliminary assessment of possible monitoring options for wildlife species that might be affected by the treatments done in the CFLR Project Area. Representatives from the US Fish and Wildlife Service (FWS), the Colorado Division of Wildlife (CDOW, now Colorado Parks and Wildlife), US Geological Survey (USGS) and the US Forest Service (FS) discussed the list of species known to occur in Front Range lower-montane ponderosa pine forests. Based on their professional opinions, experience, and searches of the relevant scientific literature, the group made informal predictions of the potential effects of the restoration treatments on each species (or "guild" of species with similar habitat requirements) and discussed the possible costs, benefits, feasibility, and rationale for monitoring each species.

In the summers of 2011-13, funding from the Southern Rockies Landscape Conservation Cooperative (SRLCC) was granted to a sub-team of the SM Team to implement a more general wildlife use survey protocol on a subset of the Common Stand Exam plots being established pre- and post-treatment on CFLR units to monitor changes in over-story and fuels. These wildlife sign surveys included: nests, burrows, scat, and feeding sign from five "guilds" or groups of species with similar habitat requirements (birds, tree squirrels, small mammals, large mammals, and ungulates). Pitfall traps were also used to monitor occurrence of ground-dwelling insects. In 2011, pre-treatment data were collected on a total of 50 plots on five treatment units (including control plots in adjacent areas not planned to be treated); then post-treatment data were collected one year after treatment, in 2012 or 2013. Preliminary analyses indicate that 90-100% of all plots had wildlife sign (from at least one guild) pre-treatment, but a year after the treatments, this value dropped to 75% for treated plots and remained at 90+% for untreated plots. Sign left by individual guilds did not show significant changes in abundance post-treatment, but the timeframe may still be too short for trends to become apparent. Future surveys in years five, seven, and 10, as well as correlation of wildlife use data with data from other monitoring efforts, are needed to discern detectable trends over time and evaluate progress toward desired conditions for wildlife habitat at this project-level scale. Analysis is in progress for the data from the SRLCC study, and a final report and manuscript are being developed.

In November of 2012, a second effort at developing a broader-scale wildlife monitoring plan was launched and the Wildlife Working Team (WWT) was formed as a sub-team of the LR Team. The WWT is made up of biologists and ecologists from the US Forest Service, Colorado Parks and Wildlife (formally CDOW), and US Geological Survey (USGS). Several members of the WWT are also members of the LR team so communication between teams is frequent and updates are provided to ensure transparency and solicit feedback.

The team started their work by assessing the approximately 300 species that could occur within the lower montane CFLRP landscape-level footprint and would meet the needs of the Forest Service and CFLR monitoring programs. Through discussions about likelihood of occurrence and influence of CFLR projects on each species, the list was filtered to 145 species of potential interest. The team then assigned "scores" to each species within the categories of "Ecologically Important" "Politically Prudent" and "Socially and/or Economically Important" and applied specific criteria to further refine the list to 64 species which had high scores in one or more of these categories. From those 64 species, we considered stressors, life histories, sampling approaches, standard monitoring protocols, and other factors to evaluate which species (or groups of similar species) could be monitored to generate the most useful information about the effects of the CFLRP on wildlife habitat. The final result was a list of 12 candidate species/ groups including bats, songbirds/woodpeckers, selected raptors and owls, tree squirrels, and carabid beetles.

The team then determined and defined Tier 1 and Tier 2 species monitoring. Tier 1 species include songbirds/woodpeckers, tree squirrels, and the Northern Goshawk. For these species, monitoring will be accomplished using CFLR funds and will likely occur on a rotational basis (not every species every year) based on priority and funding. For the Tier 2 species/groups - bats and carabid beetles - monitoring will be conducted based on the availability of interested partners and supplemental funding opportunities.

In 2014, the WWT initiated monitoring of select Tier 1 species (songbirds and tree squirrels) by procuring a 5 year agreement between the Forest Service and Rocky Mountain Bird Observatory (RMBO) and developing a spatially balanced sampling approach to estimate density and occupancy rates across the CFLR landscape (defined to include both CFLR treatment projects and untreated areas). In May 2014, the first field season was implemented and songbirds and pine squirrels were monitored by RMBO using protocols from the Integrated Monitoring of Bird

Conservation Regions (IMBCR). A total of 120 sample units (1800+ avian points) were surveyed across the CFLRP landscape in treated and untreated areas and data analysis will occur in the Winter/Spring of 2015.

From August-October 2014, the WWT also monitored Abert's squirrels using remote camera stations at approximately 40 locations across the CFLRP landscape; data analysis will occur in the winter/spring of 2015.

Finally, the WWT developed a draft protocol for conducting Abert's squirrel feeding sign surveys and field tested it for future use by RMBO; the goal is to incorporate feeding sign surveys into the IMBCR point surveys. In addition, the next steps for the WWT are to:

- Complete the Final Report/Wildlife Monitoring Plan. The Report will contain the process, methodologies, and recommendations for implementation of the recently initiated Monitoring Plan as well as rationale for species selection.
- Continue working with the LR Team to ensure that the Wildlife Monitoring Plan is implemented in a way that is complementary to other CFLR efforts.
- Identify funding and implementation opportunities for monitoring Tier 2 species. Develop presentations to inform potential internal and external partners and encourage their involvement.
- Manage and analyze the data collected such that it contributes to the assessment of progress toward desired conditions and implementation of the adaptive management cycle for the Front Range CFLR.

A subgroup has also been pulled together to develop understory monitoring protocols to assess the effect of forest restoration treatments on desired understory conditions. An initial presentation of this monitoring protocol was presented in the spring of 2014. Additional work is happening to refine the monitoring protocol based on feedback received during that meeting.

Social and Economic Monitoring Program

In 2014 personnel with the CFRI and Forest Service gathered data from 2013 on the Economic impact of the Colorado Front Range CFLR project as part of an agreement with the Forest Service. A draft report has been prepared and data from that report are the basis for information presented above in Item 4.

Upper Monument Creek:

To support CFLRP implementation into the future, an additional project area, Upper Monument Creek was identified and initial planning conversations took place in Fiscal Year 2012. The Nature Conservancy convened the Upper Monument Creek collaborative group. Over the course of the winter of 2012 through the fall of 2013, a subset of the MWG worked collaboratively to outline the Upper Monument project area, identify treatment types and locations, define Desired Conditions for the vegetation types encountered with in the project area, recommend design criteria, and provide other management recommendations. The final report from the collaborative was delivered to the District Ranger in January 2014. The report and management recommendations were provided to the Forest Service staff to flesh out in a NEPA process. Public involvement/scoping was initiated in April 2014. The Forest Service Interdisciplinary Team is completing field work, preparing specialist reports and responding to public involvement. A Draft EIS is expected in the spring of 2015. Once the NEPA Decision is issued, MWG intends to continue to provide input to the Forest/Ranger District as project implementation occurs. The information determined through the collaborative process will help inform desired conditions throughout the rest of the CLFPR project.

Future Steps

Collection of data will continue in the summer of 2015 with the collection of Tier 1 information from CSE plots by the Forest Service. In addition, collection of wildlife data will continue into its second year. Understory data may be collected in 2015, depending on approval by the MWG.

Landscape-scale assessment of whether restoration objectives are being met is an important question to the group. Various options to monitor at a landscape scale will continue to be evaluated to determine a desired course of action.

The Monitoring Plan is rooted in the need to use adaptive management as a tool to reduce uncertainty over time through a structured, iterative process. Through adaptive management, the ensuing data will allow the FRR and the USFS to reduce uncertainty using the monitoring information.

While monitoring data are presented here in the context of desired conditions, there is a need to better define how the collaborative collectively determines whether progress toward desired conditions is being achieved.

Establishing a template or standard reporting method should also be considered by the FR-CFLRP. Determining how best to present the data so that it is interpretable by a wide audience is important

6. **FY 2014 accomplishments**

Performance Measure	Unit of measure	Total Units Accomplished (10)	Total Treatment Cost ($)	Type of Funds (CFLR, Specific FS BLI, Partner Match)[9]
Acres treated annually to sustain or restore watershed function and resilience WTRSHD-RSTR-ANN	Acres			
Acres of forest vegetation established FOR-VEG-EST	Acres	1,199	$166,641	RTRT
			$103,267	NFXN – Arbor Day Foundation
Acres of forest vegetation improved FOR-VEG-IMP	Acres	5,414	$1,224,264	CFLN
			$536,275	NFXN
			$536,192	NFVW
			$186,981	NFWF
			$103,376	WFHF
				See FP-FUELS-WUI
				See FP-FUELS-Non-WUI
Manage noxious weeds and invasive plants INVPLT-NXWD-FED-AC	Acre	476.9	$112,613	NFVW
Highest priority acres treated for invasive terrestrial and aquatic species on NFS lands INVSPE-TERR-FED-AC	Acres			
Acres of water or soil resources protected, maintained or improved to achieve desired watershed conditions. S&W-RSRC-IMP	Acres	881	$90,019	NFVW
				See FOR-VEG-IMP
Acres of lake habitat restored or enhanced HBT-ENH-LAK	Acres			
Miles of stream habitat restored or enhanced HBT-ENH-STRM	Miles	4.49		See S&W-RSRC-IMP
				See RD-Decom
Acres of terrestrial habitat restored or enhanced HBT-ENH-TERR	Acres	4,163.3		See FOR-VEG-IMP
				See FP-FUELS-WUI
Acres of rangeland vegetation improved RG-VEG-IMP	Acres			
Miles of high clearance system roads receiving	Miles	68.8	$25,162	CMRD

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

Performance Measure	Unit of measure	Total Units Accomplished [10]	Total Treatment Cost ($)	Type of Funds (CFLR, Specific FS BLI, Partner Match)[9]
maintenance RD-HC-MAIN				
Miles of passenger car system roads receiving maintenance RD-PC-MAINT	Miles	242.6	$31,421	CMRD
Miles of road decommissioned RD-DECOM	Miles	7.3	$85,310	NFVW
Miles of passenger car system roads improved RD-PC-IMP	Miles			
Miles of high clearance system road improved RD-HC-IMP	Miles	7.8 (0 reported in PAS)		See RD-HC-MAIN
Number of stream crossings constructed or reconstructed to provide for aquatic organism passage STRM-CROS-MTG-STD	Number			
Miles of system trail maintained to standard TL-MAINT-STD	Miles			
Miles of system trail improved to standard TL-IMP-STD	Miles			
Miles of property line marked/maintained to standard LND-BL-MRK-MAINT	Miles			
Acres of forestlands treated using timber sales TMBR-SALES-TRT-AC	Acres			
Volume of Timber Harvested TMBR-VOL-HVST	CCF	7252.4		See TMBR-VOL-SLD
Volume of timber sold TMBR-VOL-SLD	CCF	8,000 (5,141 reported in PAS)	$383,410	NFTM
Green tons from small diameter and low value trees removed from NFS lands and made available for bio-energy production BIO-NRG	Green tons			
Acres of hazardous fuels treated outside the wildland/urban interface (WUI) to reduce the risk of catastrophic wildland fire FP-FUELS-NON-WUI	Acres	969	$8,751	WFHF

Performance Measure	Unit of measure	Total Units Accomplished (10)	Total Treatment Cost ($)	Type of Funds (CFLR, Specific FS BLI, Partner Match)[9]
Acres of wildland/urban interface (WUI) high priority hazardous fuels treated to reduce the risk of catastrophic wildland fire FP-FUELS-WUI	Acres	6530.1	$1,820,719	NFXN – Denver Water
			$1,531,675	WFHF
			$713,060	CFLN
			$232,736	Colorado Springs Utilities
				See FOR-VEG-IMP
Number of priority acres treated annually for invasive species on Federal lands SP-INVSPE-FED-AC	Acres			
Number of priority acres treated annually for native pests on Federal lands SP-NATIVE-FED-AC	Acres			

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

2014 was a very successful year for the Colorado Front Range CFLR project. Use of the Front Range Long-term Stewardship contract as a primary means of accomplishing CFLR projects continued. Task orders focused on restoration of the lower montane ecosystem, hazardous fuels reduction and forest health improvement on over 5,000 acres. These treatments are consistent with the goals of the Colorado Front Range CFLR project. Progress to date has been what was anticipated in the project proposal. The areas treated were completed in conjunction with the Woodland Park Healthy Forest Initiative, and in central Boulder County and northern Larimer County near the community of Redfeather Lakes. All treatments are located in the Wildland Urban Interface.

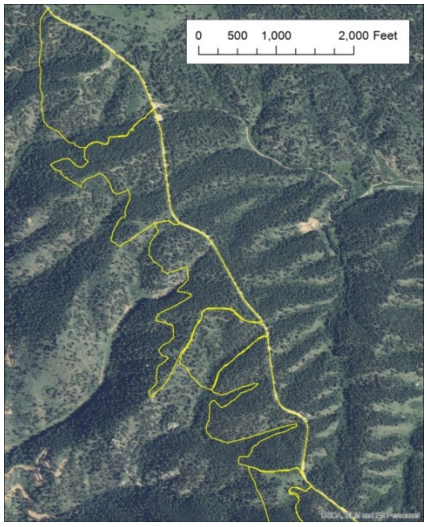
Matching treatments accomplished in 2014 as part of the Colorado Front Range CFLR through partnerships include almost 1,200 acres of reforestation as well as an additional 3,000 acres of forest restoration/hazardous fuels reduction treatments funded by partners in the CFLR project area. The combined contribution of partnership funds in FY14 to fund treatments on NFS lands is almost $2.6 million. Partners provided approximately 50 percent of the total project matching funds.

The Front Range CFLRP monitoring group has identified increasing heterogeneity at various scales as a key restoration goal. One of the silvicultural practices that has been proposed to meet this goal is the retention of clumps of trees, ranging from 2 to 20 trees per clump, with interlocking crowns as much as is practical. In order to efficiently meet this goal both forests are experimenting with various implementation methods.

The Pike National Forest implemented Crystal Creek and Catamount projects that included the creation of more and larger openings. Crystal Creek project area is depicted below outlined in the red oval. Openings were created on approximately 20% of the total mechanized treatment area and range in size from two to three acres. The focus of both projects was to remove Douglas-fir and spruce, stimulate aspen regeneration, and regenerate ponderosa pine.

Crystal Creek Project area on Pikes Peak. Colorado Springs Utilities reservoir located adjacent to treatment area.

Below is Pre- and post-treatment (NAIP) comparison, aerial imagery analysis of Catamount project. Post-treatment photos were taken approximately one year after implementation.



The Arapaho and Roosevelt National Forests continued to award and implement CFLR projects in 2014 awarding over 1700 acres of restoration focused treatments within the CFLR project area. Implementations in the lower montane continues to develop new approaches to designing group, individual and open stand restoration. There are still challenges with applying these treatments in complex stand conditions. Using designation by prescription or description has increased the time needed for administration.

A monitoring trip in July, 2014 visited several implemented and planned project areas. One area that was highly controversial during implementation had recovered from the impacts of the logging operation and received support from the monitoring group at the site. Suggestions for more grouping of residual trees and more variable distance between groups were discussed for future treatments. A planned treatment area with trees designated for removal generated a lot of discussion about the stand that would remain after implementation. A key point of this stop on

the field trip was to discuss the balance between pure restoration objectives with fuels reduction and social concerns.

Clump in left center

Untreated to left; clump to left

Several clumps with varying number of trees

Adaptive Management

Restoration goals, measurable objectives, and adaptive management protocol continue to be refined on the Pike National Forest through the Upper Monument Creek Restoration Initiative Project (UMCRI). For this project a collaborative working group, hosted by the Nature Conservancy, is engaging a broad range of stakeholders to develop science based forest restoration and management recommendations for a 67,000 acre project area west of Colorado Springs, Colorado. Participants include Forest Service managers and representatives from a local water provider, the forest products industry, state forestry and wildlife professionals, the Wilderness Society, the Colorado Forest Restoration Initiative, and the Coalition for the Upper South Platte. Many of these participants are also members of the CFLRP monitoring group. This project is intended to restore and maintain forest structures across land ownerships through the strategic placement of treatments that reduce the risk of uncharacteristically large, severe fires, result in increased community and watershed protection. These treatments would also create forest conditions that are resilient in the face of anticipated climate changes.

A major focus of the UMCRI collaborative group has been to develop a framework for stakeholder engagement, learning, and adaptive management throughout the life of the project. This framework would achieve objectives such as informing and cultivating social acceptance for forest management, ongoing education and outreach, and the incorporation of science as a basis for defining restoration reference conditions, prescription development, and project design. Key recommendations for an adaptive management framework include:

- Analyzing the full range of treatment options that will provide the flexibility for revisions to silvicultural practices and implementation methods based on monitoring results, new science and technology, and new collaborative agreements and partnership.
- A conservative approach with initial treatments to allow for monitoring and collaboration to assess treatments as soon as possible in the life of the project.
- The identification of trigger points that will guide management decisions and also identify when new environmental analysis may be necessary.

The collaborative group hopes that the development and implementation of an adaptive management framework will also result in increased efficiencies during the NEPA process and project implementation whiling moving the landscape towards desired conditions.

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?[10]

Fiscal Year	Total number of acres treated (treatment footprint)
FY14	2,638
FY10, FY11, FY12, FY13 and FY14 (as applicable- projects selected in FY2012 may will not have data for FY10 and FY11; projects that were HPRP projects in FY12, please include one number for FY12 and one number for FY13 (same as above))	13,969

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):

There were no large fires that occurred within or adjacent to the CFLRP boundary in 2014.

Since the selection of the Colorado Front Range CFLR proposal, the following significant wildfires have burned within the project boundary:

Year	Month	Fire Name	Cause	Size (Acres)	Homes Destroyed	Civilian Fatalities
2010	September	Fourmile Canyon	Human	6,181	168	0
2010	September	Reservoir Road	Human	754	2	0
2012	March	Lower North Fork	Human	4,140	23	3
2012	May	Hewlett	Human	7,685	0	0
2012	June	High Park	Lighting	87,284	259	1
2012	June	Springer	Human	1,100	0	0
2012	June	Woodland Heights	Power Lines	27	22	0
2012	June	Waldo Canyon	Human	15,364	346	2
2013	June	Black Forest*	Human	14,280	486	2
2013	June	Royal Gorge*	Unconfirmed	3,216	0	0
GRAND TOTAL				**140,031**	**1,306**	**8**

*adjacent to CFLR project area

Both the Pike and San Isabel National Forests and Arapaho and Roosevelt National Forests maintain robust fire preparedness organizations. In FY2012, the two Forests expended approximately $2,450,000 in WFPR funds within the boundaries of the Colorado Front Range CFLR project area to be prepared to respond to wildfire ignitions.

During 2014 there were 99 fires totaling 55 acres. No fires escaped initial attack within the CFLRP boundary over the course of FY14, with all the fires burning 3.6 acres or less.

10. **Describe any reasons that the FY 2014 annual report does not reflect your project proposal, previously reported planned accomplishments, or work plan.** Did you face any unexpected challenges this year that caused you to change what was outlined in your proposal? (please limit answer to two pages)

[10] 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.

The FY 2014 annual report does generally reflect the project proposal. The major differences are that we were able to accomplish more acres than projected due to lower average contract costs and increased partner matching contributions. The lower cost was a result of less costly treatments being implemented this year rather than a reduction in treatment costs. The continued partner matching contributions were significant in FY13. This work is anticipated to continue into the future, but to a much smaller extent as future funding is uncertain. Meeting the overall matching requirements may be a challenge as we get into future years and partnership contributions reduce.

Currently, we are counting several projects and activities as matching that were not anticipated in the original Colorado Front Range CFLR proposal. Waldo Restoration occurred on a large scale in FY13 and again in FY14but to a much smaller scale. This project is in partnership with the Waldo Recovery Group, a large body of federal, state, and local governments, and national/local non-profits and landowners. This partnership has restored more than 2,000 acres of severely burned land on public and private land within the Waldo Canyon burn scar.

Because of the wet year, both forests had difficulty in achieving matching noxious weed treatments. Using herbicides during wet periods is ineffective. Both forests anticipate being able to complete additional noxious weed treatments in 2015. However, the total acres treated in 2015 may not account for all the acres that were not treated for noxious weeds in 2014.

11. **Planned FY 2016 Accomplishments**

Performance Measure Code[11]	**Unit of measure**	**Planned Accomplishment**	**Amount ($)**
Acres treated annually to sustain or restore watershed function and resilience WTRSHD-RSTR-ANN	Acres		
Acres of forest vegetation established FOR-VEG-EST	Acres	1,000	$500,000
Acres of forest vegetation improved FOR-VEG-IMP	Acres	2,200	$3,200,000
Manage noxious weeds and invasive plants INVPLT-NXWD-FED-AC	Acre	1,500	$300,000
Highest priority acres treated for invasive terrestrial and aquatic species on NFS lands INVSPE-TERR-FED-AC	Acres		
Acres of water or soil resources protected, maintained or improved to achieve desired watershed conditions. S&W-RSRC-IMP	Acres		
Acres of lake habitat restored or enhanced HBT-ENH-LAK	Acres		

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

Performance Measure Code[11]	Unit of measure	Planned Accomplishment	Amount ($)
Miles of stream habitat restored or enhanced HBT-ENH-STRM	Miles		
Acres of terrestrial habitat restored or enhanced HBT-ENH-TERR	Acres		
Acres of rangeland vegetation improved RG-VEG-IMP	Acres		
Miles of high clearance system roads receiving maintenance RD-HC-MAIN	Miles		
Miles of passenger car system roads receiving maintenance RD-PC-MAINT	Miles		
Miles of road decommissioned RD-DECOM	Miles		
Miles of passenger car system roads improved RD-PC-IMP	Miles		
Miles of high clearance system road improved RD-HC-IMP	Miles		
Number of stream crossings constructed or reconstructed to provide for aquatic organism passage STRM-CROS-MTG-STD	Number		
Miles of system trail maintained to standard TL-MAINT-STD	Miles		
Miles of system trail improved to standard TL-IMP-STD	Miles		
Miles of property line marked/maintained to standard LND-BL-MRK-MAINT	Miles		
Acres of forestlands treated using timber sales TMBR-SALES-TRT-AC	Acres		
Volume of Timber Harvested TMBR-VOL-HVST	CCF		
Volume of timber sold TMBR-VOL-SLD	CCF	5,000	Integrated with forest veg improved and hazardous fuels reduction
Green tons from small diameter and low value trees removed from NFS lands and made available for bio-energy production BIO-NRG	Green tons		

Performance Measure Code[11]	Unit of measure	Planned Accomplishment	Amount ($)
Acres of hazardous fuels treated outside the wildland/urban interface (WUI) to reduce the risk of catastrophic wildland fire FP-FUELS-NON-WUI	Acre		
Acres of wildland/urban interface (WUI) high priority hazardous fuels treated to reduce the risk of catastrophic wildland fire FP-FUELS-WUI	Acres	3,400	$4,000,000
Number of priority acres treated annually for invasive species on Federal lands SP-INVSPE-FED-AC	Acres		
Number of priority acres treated annually for native pests on Federal lands SP-NATIVE-FED-AC	Acres		

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

The planned FY 2016 accomplishments are based upon full proposal funding. FY 2016 accomplishment will continue to emphasize restoration treatments in the ponderosa pine ecosystem and hazardous fuels reduction in WUI. Partners have agreed to fund noxious weed treatments associated with their projects so both forests will continue to accomplish noxious weed treatments within the CFLR project. In addition, Waldo Restoration activities will slow down in 2016 as a result of reduced BAER and EWP/EQP funding from USDA.

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

The FY 2015/16 estimated accomplishments generally do not differ from the project proposal. The accomplishments include noxious weed treatment, watershed improvement and wildlife habitat improvement that were addressed but not specified in the proposal.

As stated in previous annual reports, it is likely that partner contributions to matching funds are not sustainable over the long term. This may result in challenges in the future.