

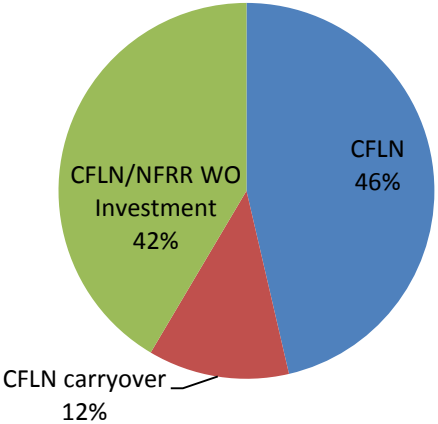
CFLR Project (Name/Number): Four-Forest Restoration Initiative (CFLR005)

National Forest(s): Apache-Sitgreaves, Coconino, Kaibab, Tonto

Responses to the prompts in this annual report should be typed directly into the template. Example information is included in red below. Please delete red text before submitting the final version.

1. Match and Leveraged Funds:

a. FY15 Matching Funds Documentation

| Fund Source – (CFLN/CFLR Funds Expended ¹) | Total Funds Expended in Fiscal Year 2015(\$) | | | | | | |
|--|---|--------|-------------|--------|----------|--------|-------------|
| <p style="text-align: center;">CFLN FUNDS FY 2015</p>  <p>The pie chart displays the distribution of CFLN funds for FY 2015. The largest portion is CFLN at 46%, followed by CFLN/NFRR WO Investment at 42%, and CFLN carryover at 12%.</p> | <table> <tr> <td>CFLN13</td> <td>\$501,809</td> </tr> <tr> <td>CFLN14</td> <td>\$23,461</td> </tr> <tr> <td>CFLN15</td> <td>\$2,005,408</td> </tr> </table> | CFLN13 | \$501,809 | CFLN14 | \$23,461 | CFLN15 | \$2,005,408 |
| CFLN13 | \$501,809 | | | | | | |
| CFLN14 | \$23,461 | | | | | | |
| CFLN15 | \$2,005,408 | | | | | | |
| <p>Fund Source – (Funds expended from Washington Office funds (in addition to CFLR/CFLN)² (please include a new row for each BLI))</p> | <p>Total Funds Expended in Fiscal Year 2015(\$)</p> | | | | | | |
| | <table> <tr> <td>NFRR</td> <td>\$1,794,506</td> </tr> </table> | NFRR | \$1,794,506 | | | | |
| NFRR | \$1,794,506 | | | | | | |

1 This amount should match the amount of CFLR/CFLN dollars obligated in the PAS expenditure report. Include prior year CFLN dollars expended in this Fiscal Year.

2 This value (aka carryover funds or WO unobligated funds) should reflect the amount expended of the allocated funds as indicated in the FY15 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) ³) | Total Funds Expended in Fiscal Year 2015(\$) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|------------|------|-----|------|-----|------|-----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|---|------|-------------|------|-----------|------|----------|------|----------|------|-------------|------|-----------|------|----------|------|-----------|------|----------|------|-------------|--------------|---------------------|
| <p style="text-align: center;">FY 15 Match Funds Distribution by BLI</p> <table border="1"> <caption>FY 15 Match Funds Distribution by BLI Data</caption> <thead> <tr> <th>BLI</th> <th>Percentage</th> </tr> </thead> <tbody> <tr><td>CMRD</td><td>23%</td></tr> <tr><td>WFHF</td><td>31%</td></tr> <tr><td>NFRR</td><td>39%</td></tr> <tr><td>CMTL</td><td>2%</td></tr> <tr><td>CWFS</td><td>0%</td></tr> <tr><td>CWKV</td><td>1%</td></tr> <tr><td>RTRT</td><td>3%</td></tr> <tr><td>RBRB</td><td>0%</td></tr> <tr><td>NFXN</td><td>1%</td></tr> <tr><td>SSSS</td><td>0%</td></tr> </tbody> </table> | BLI | Percentage | CMRD | 23% | WFHF | 31% | NFRR | 39% | CMTL | 2% | CWFS | 0% | CWKV | 1% | RTRT | 3% | RBRB | 0% | NFXN | 1% | SSSS | 0% | <table border="1"> <tbody> <tr><td>CMRD</td><td>\$3,423,433</td></tr> <tr><td>CMTL</td><td>\$222,945</td></tr> <tr><td>CWFS</td><td>\$52,700</td></tr> <tr><td>CWKV</td><td>\$54,257</td></tr> <tr><td>NFRR</td><td>\$5,674,933</td></tr> <tr><td>NFXN</td><td>\$168,566</td></tr> <tr><td>RBRB</td><td>\$25,703</td></tr> <tr><td>RTRT</td><td>\$429,023</td></tr> <tr><td>SSSS</td><td>\$50,045</td></tr> <tr><td>WFHF</td><td>\$4,611,946</td></tr> <tr><td>TOTAL</td><td>\$14,713,551</td></tr> </tbody> </table> | CMRD | \$3,423,433 | CMTL | \$222,945 | CWFS | \$52,700 | CWKV | \$54,257 | NFRR | \$5,674,933 | NFXN | \$168,566 | RBRB | \$25,703 | RTRT | \$429,023 | SSSS | \$50,045 | WFHF | \$4,611,946 | TOTAL | \$14,713,551 |
| BLI | Percentage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CMRD | 23% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WFHF | 31% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NFRR | 39% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CMTL | 2% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CWFS | 0% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CWKV | 1% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RTRT | 3% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RBRB | 0% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NFXN | 1% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SSSS | 0% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CMRD | \$3,423,433 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CMTL | \$222,945 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CWFS | \$52,700 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CWKV | \$54,257 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NFRR | \$5,674,933 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NFXN | \$168,566 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RBRB | \$25,703 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RTRT | \$429,023 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SSSS | \$50,045 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WFHF | \$4,611,946 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL | \$14,713,551 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Fund Source – (Funds contributed through agreements ⁴) | Total Funds Expended in Fiscal Year 2015(\$) | | | | | | | | | | | | |
|---|---|--|----------|--|---------|--|---------|--|----------|--|----------|--|---------|
| Are included in NFXN jobcodes above | | | | | | | | | | | | | |
| Fund Source – (Partner In-Kind Contributions ⁵) | Total Funds Expended in Fiscal Year 2015(\$) | | | | | | | | | | | | |
| Friends of Northern Arizona Forest and Arizona Wildlife Federation- aspen and wet meadow restoration Mottek Consulting-Multi-party monitoring board Arizona Game and Fish-Multi-party monitoring board Ecological restoration Institute-Multi-party monitoring board The Nature Conservancy-Multi-party monitoring board and tablet technology Salt River Project-Multi-party monitoring board | <table border="1"> <tbody> <tr><td></td><td>\$47,340</td></tr> <tr><td></td><td>\$6,000</td></tr> <tr><td></td><td>\$8,000</td></tr> <tr><td></td><td>\$20,000</td></tr> <tr><td></td><td>\$20,000</td></tr> <tr><td></td><td>\$8,000</td></tr> </tbody> </table> | | \$47,340 | | \$6,000 | | \$8,000 | | \$20,000 | | \$20,000 | | \$8,000 |
| | \$47,340 | | | | | | | | | | | | |
| | \$6,000 | | | | | | | | | | | | |
| | \$8,000 | | | | | | | | | | | | |
| | \$20,000 | | | | | | | | | | | | |
| | \$20,000 | | | | | | | | | | | | |
| | \$8,000 | | | | | | | | | | | | |

| Service work accomplishment through goods-for services funding within a stewardship contract | Totals |
|---|--------|
| For Contracts Awarded in FY15: | |
| Total amount of stewardship <u>credits charged</u> for contracts awarded in FY15 ⁶ | \$0 |

³ This amount should match the amount of matching funds obligated in the PAS expenditure report. These funds plus the Washington Office funds (unobligated funds) listed above should total the matching funds obligated in the PAS report.

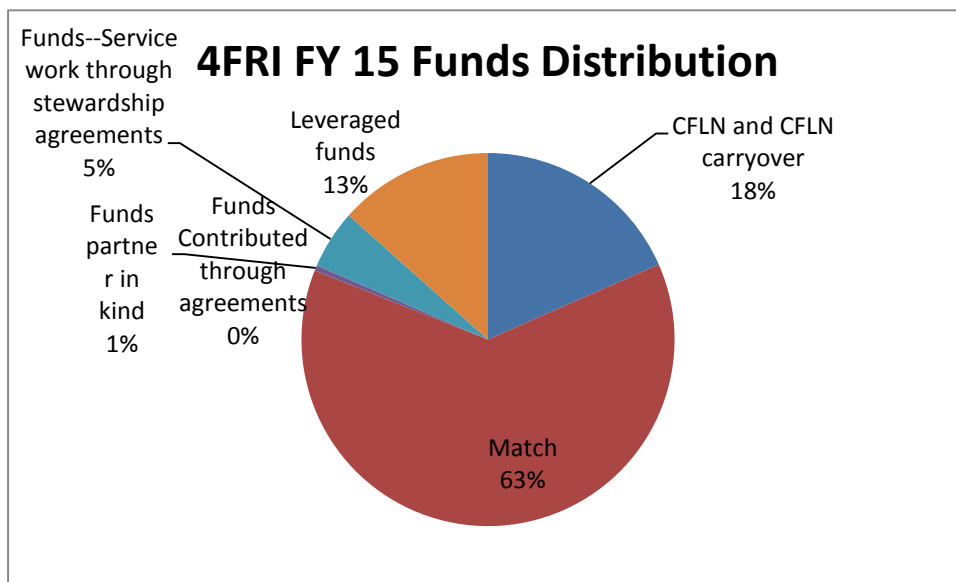
⁴ Please document any partner contributions to implementation and monitoring of the CFLR project through an income funds agreement (this should only include funds that weren't already captured through the PAS job code structure for CFLR matching funds). Please list the partner organizations involved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

⁵ Total partner in-kind contributions for implementation and monitoring of a CFLR project. Partner contributions for Fish, Wildlife, Watershed work can be found in WIT database. Please list the partner organizations that provided 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.

| | |
|--|-----------------|
| Total <u>revised credit limit</u> for contracts awarded in FY15 ⁷ | \$1,356,570.00 |
| <u>For Contracts Awarded Prior to FY15:</u> | |
| Total amount of stewardship <u>credits charged</u> in FY15 ⁸ | \$ 1,195,042.31 |
| Total <u>revised credit limit</u> for open and closed contracts awarded and previously reported prior to FY15 ⁹ | \$10,137,255.29 |

TOTAL FUNDS FY 15



b. Please provide a narrative or table describing leveraged funds in your landscape in FY2015 (one page maximum). Leveraged funds refer to funds or in-kind services that help the project achieve proposed objectives but do not meet match qualifications. Examples include but are not limited to: investments within landscape on non-NFS lands, investments in restoration equipment, worker training for implementation and monitoring, and purchase of equipment for wood processing that will use restoration by-products from CFLR projects. See “Instructions” document for additional information.

⁷ This should be the amount in contract’s “Progress Report for Stewardship Contracts, Integrated Resources Contracts or Agreements” in cell J46, the “Revised Credit Limit,” as of September 30. Additional information on the Progress Reports is available in CFLR Annual Report Instructions document.

⁸ This should be the amount in the “stewardship credits charged” column at the end of the fiscal year in the TSA report TSA90R-01.

⁹ This should be the amount in each contract’s “Progress Report for Stewardship Contracts, Integrated Resources Contracts or Agreements” in cell J46, the “Revised Credit Limit.” For open contracts, this should be as of September 30. For closed contracts, this should be at the time of contract closure.

| Description of item | Where activity/item is located or impacted area | Estimated total amount | Forest Service or Partner Funds? | Source of funds |
|--|---|------------------------|----------------------------------|---|
| USFS-Perform NEPA and NFMA on forest restoration projects on the 4 Forests to be able to implement future restoration work in the Initiative boundary on approximately 2,200,000 acres | 4FRI EIS NEPA ROD, (Coconino/Kaibab NF's), Flagstaff Watershed Protection Project NEPA Turkey Barney Pasture Forest Health NEPA, CC Cragin Fuels Reduction NFMA (Coconino NF), Rim Country EIS NFMA (Coconino, Tonto, A-s NF's) Larson Forest Restoration NEPA, Upper Rocky Arroyo NEPA, Escudilla West NFMA, Wallow West Rx burn NEPA, (A-S NF), Bill Williams Mountain planning (Kaibab NF) | \$1,943,376 | NFRR and WFHF bli | appropriated NFRR and WFHF |
| Arizona State Forestry-Mechanical thinning | Az State Trust 400 acres | \$135,000 | partner | Az State |
| Arizona State Forestry-Hand Thinning | Az State Trust Land 30 acres | \$15,000 | FS grant to partner | WFHF Grant |
| Arizona State Forestry-Mechanical thinning | Az State Trust Land 390 acres | 130,000 | FS grant to partner | WFHF grant snd AZ State \$15,000 (State est.) |
| Arizona State Forestry-Hand Thinning | Az State Trust Land 70 acres | \$20,000 | FS grant to partner | WFHF grant snd AZ State \$7,500 (State est.) |
| Arizona State Forestry-Mechanical thinning | Az State Trust Land 90 acres | \$30,000 | partner | Az State |
| Arizona State Forestry-Hand Thinning | Private 35 acres | \$17,500 | FS grant to partner | WFHF Grant |
| Arizona State Forestry-Hand Thinning | Private 55 acres | \$27,000 | partner | \$3,000 (approx) |
| Arizona State Forestry-Hand Thinning | Private land 2 acres | \$4,000 | partner | Private |
| Arizona State Forestry-Hand Thinning | State Trust 15 acres | \$5,000 | partner | Az State |
| Arizona State Forestry-Hand Thinning | State Trust land 95 acres | \$60,000 | partner | Az State |
| Arizona State Forestry-Hand Thinning | State Trust land 20 acres | \$22,000 | partner | Az State |
| City of Flagstaff Fire Department-Thinning, Rx Fire, Debris disposal, public outreach, planning and monitoring | Within City and FWPP area | \$600,000 | partner | City General Funds,grand snd bond funds - 50-50 split |
| Stakeholder Group participation in planning processes-see list of stakeholders in section 13 of this report | 1st and 2nd large EIS area and FWPP | \$142,250 | partner | in kind |
| TOTAL | | \$3,151,126 | | |

(Optional) Additional narrative about leverage on the landscape if needed: Additional leverage funds were expended by manufacturing facilities that are not included in this report due to lack of data. The investments by Good Earth Power, Novo Star and Newpac Fibre are not represented in these figures.

2a. Discuss how the CLFR project contributes to accomplishment of the wildland fire goals in the 10-Year Comprehensive Strategy Implementation Plan and 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 4FRI project has begun large-scale implementation with the issuance of 26 Task Orders in the 4FRI Phase 1 Stewardship Contract, totaling 55,211 acres. 5,142 acres have been harvested to date. This 4FRI Phase 1 Stewardship Contract is in addition to the current timber program of work that includes 21 active timber sales covering about 27,433 acres. This combined effort to implement mechanical thinning treatments is moving these portions of the landscape toward desired conditions and the goals outlined in the 10-year strategy.

Mechanical treatments meet the 10-year comprehensive strategy by achieving these objectives:

- Treatments meet the goal of reducing fire intensities and conform to the National Fire Management Plan by reducing hazardous fuels.
- Treatments are designed to restore fire-adapted ecosystems by restoring the structure, pattern, and composition of ponderosa pine forests.

Including the specific projects discussed above, other treatments implemented in Fiscal Year 2015 within the 4FRI area that address the 10-year strategy include:

- Fuels reduction treatments with prescribed burning and mechanical thinning on approximately 59,600 acres, of which approximately 60% are in Wildland Urban Interface.
- Prescribed fire treatments designed to reduce fire intensities conform to the National Fire Management Plan by reducing hazardous fuels.

2b. 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 will be documented in Question #6):

Fire Preparedness (WFPR)

The following table summarizes the costs for wildfire preparedness in the 4FRI project area. The total expenditures in WFPR were prorated by the relative area of the 4FRI project in relationship to the total forest acreage. The table displays, by forest, the total expenditures in WFPR for FY 2015, the percent of the forest covered by these expenditures, and the 4FRI expenditures allocated to WFPR. Approximately \$11.5 million of wildfire preparedness funds were spent in FY 2015 in the 4FRI footprint.

| FOREST | WFPR total | % of Forest | 4FRI expenditures WFPR |
|-------------------|---------------------|--------------------|-------------------------------|
| Apache-Sitgreaves | \$5,443,830 | 0.8 | \$4,355,064 |
| Coconino | \$4,860,598 | 0.8 | \$3,888,478 |
| Kaibab | \$3,710,801 | 0.5 | \$1,855,401 |
| Tonto | \$5,578,457 | 0.25 | \$1,394,614 |
| TOTAL | \$19,593,686 | | \$11,493,557 |

Fire Suppression (WFSU)

The 4FRI project area had an active wildland fire year in 2015. The table below summarizes fire activity over 100 acres in the 4FRI area as reported in the Wildland Fire Decision Support System (WFDSS). There were 52,785 acres of wildfires over 100 acres in size within the 4FRI footprint. All of these acres constituted wildfires managed for resource benefits. No large fires were in full suppression.

| Forest | Managed Wildfire Fire Project Name | Size | Type |
|--------------|------------------------------------|---------------|---------------------------|
| A-S | Alder | 2,500 | wildfire-resource benefit |
| A-S | Turkey | 1,300 | wildfire-resource benefit |
| Coconino | Rebel | 1,800 | wildfire-resource benefit |
| Coconino | Fox | 1,080 | wildfire-resource benefit |
| Coconino | Echo | 1,955 | wildfire-resource benefit |
| Coconino | Horse Tank | 3,603 | wildfire-resource benefit |
| Coconino | General | 2,692 | wildfire-resource benefit |
| Coconino | Camillo | 23,885 | wildfire-resource benefit |
| Kaibab | Springs | 7,111 | wildfire-resource benefit |
| Kaibab | Rock | 2,497 | wildfire-resource benefit |
| Kaibab | Jar Complex | 4,362 | wildfire-resource benefit |
| TOTAL | | 52,785 | |

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

Information about Treatment for Restoration Economic Analysis Tool inputs and assumptions available here – <http://www.fs.fed.us/restoration/documents/cflrp/R-CAT/TREATUserGuide10112011.pdf>.

CFLR/CFLN

- 1) Total CFLR funding in Table 1 includes appropriated CFLN plus carryover from final expenditure report.
- 2) % contract in Table 1 is 30% from contracts let using CFLN and CFLN carryover--\$1.30 million of the \$4.33 million
- 3) % of contracting split in Table 2 in CFLR is based on the percentage of the 85% that went to contracts out of the funds (\$1.3 million), not out of the total (\$4.3 million)
- 4) Volume in Table 3 is from BIO-NRG and TMBR VOL HARVEST performance measure for 4FRI from final PAS report. Conversion of Green Tons in BIO-NRG to Dry Tons used 50% moisture content.
- 5) % manufacturing in Table 4 split takes the bulk of the product to energy. In this project, energy is comprised of cogeneration as well as wood pellets. A large portion of the biomass is going to products such as soil amendments, decorative bark, and horse bedding that are not categorized as products in TREAT and are actually manufactured outside of the project area in Maricopa County, resulting in a percentage less than 100%.

FULL PROJECT

- 1) Total project funding in Table 5 is from final funding report and includes CFLN plus carryover
- 2) % of contracting in Table 5 is the 40% (\$10.2 million of the \$25.4 million) that went to contracts

- 3) % of split in Table 6 is based on the percentage of the actual cost by BLI, assigned to the categories in the table.
- 4) Volume in Table 7 is from BIO-NRG and TMBR VOL HARVEST performance measure for 4FRI from final PAS report. Conversion of Green Tons in BIO-NRG to Dry Tons used 50% moisture content.
- 5) % manufacturing in Table 4 split takes the bulk of the product to energy. In this project, energy is comprised of cogeneration as well as wood pellets. A large portion of the biomass is going to products such as soil amendments, decorative bark, and horse bedding that is not categorized as products in TREAT and is actually manufactured outside of the project area in Maricopa County, resulting in a percentage less than 100%.

FY 2015 Jobs Created/Maintained (FY15 CFLR/CFLN/ WO carryover funding):

| Project Type | Jobs - Full and part-time | | Labor Income (2014 Dollars) | |
|--|---------------------------|------------|-----------------------------|---------------------|
| | Direct | Total | Direct | Total |
| Timber harvesting component | 125 | 186 | \$5,240,207 | \$6,135,628 |
| Forest and watershed restoration component | 9 | 11 | \$410,123 | \$464,746 |
| Mill processing component | 89 | 169 | \$2,672,710 | \$4,773,075 |
| Implementation and monitoring | 25 | 36 | \$2,043,236 | \$2,381,419 |
| Other project activities | 1 | 1 | \$23,951 | \$31,372 |
| TOTALS: | 249 | 403 | \$10,390,227 | \$13,786,862 |

FY 2015 Jobs Created/Maintained (FY15 CFLR/CFLN/ WO carryover and matching funding):

| Project Type | Jobs - Full and part-time | | Labor Income (2014 Dollars) | |
|--|---------------------------|---------------|-----------------------------|---------------------|
| | Direct | Total | Direct | Total |
| Timber harvesting component | 379 | 563 | \$15,879,459 | \$18,592,865 |
| Forest and watershed restoration component | 88 | 105 | \$3,336,746 | \$3,778,861 |
| Mill processing component | 596 | 1,090 | \$18,446,845 | \$33,450,682 |
| Implementation and monitoring | 336 | 392 | \$10,282,983 | \$11,984,953 |
| Other project activities | 1 | 1 | \$18,750 | \$24,560 |
| TOTALS: | 1,399 | 2,1151 | \$47,964,783 | \$67,833,111 |

4. Describe other community benefits achieved and the methods used to gather information about these benefits. How has CFLR and related activities benefitted your community from a social and/or economic standpoint? (Please limit answer to two pages).

The Four Forest Restoration Initiative (4FRI) achieved a number of community benefits over the last year. The forest products industry within the 4FRI project area continues to provide employment opportunities across the 4FRI landscape. In addition to community job creation, restoration treatments have reduced the risk of stand-replacing fire on nearly 300,000 acres in the last six years. Methods to gather information about benefits are displayed in the TREAT data above, as well as in Forest Service reporting accomplishments.

Anticipating growth in the private sector of wood harvesting and processing, the Ecological Restoration Institute (ERI) convened several meetings with multiple partners associated with industry, education, and forest management. This allowed those seeking employees/workers to network with the necessary state workforce training incentives, community colleges, and economic development programs, and to develop an improved system of communication and the ability to develop a training program focused specifically on wood industry needs. This network helped increase awareness through workforce training programs for the specific needs of the wood industry, such as sawyers, multiple-control heavy equipment operators, hydraulic specialists, millwrights, lumber graders, and other specialized positions.

Partners engaged in this effort include Northern Arizona University (ERI, School of Forestry, School of Business), Coconino County, Coconino and Northland Pioneer Community Colleges, Arizona State Forestry, the Nature Conservancy, as well as multiple private businesses such as Wirta Logging, Newpac Fiber, and Campbell Global.

A partnership between the National Forest Foundation and Salt River Project, the Northern Arizona Forest Fund (NAFF) provides an opportunity for Arizona businesses and residents to invest in watershed improvement projects on national forest lands in the Salt and Verde River watersheds. In its first year of operation, the NAFF has garnered over \$1.5 million in investments and built partnerships with entities such as the cities of Phoenix and Scottsdale, Freeport McMoRan Inc., PepsiCo, Pink Jeep Tours, Empire Southwest Caterpillar, Crescent Crown Distributing, SanTan Brewing Co., and Rocky Mountain Elk Foundation. During FY15, the NAFF completed implementation of its first two projects – the Upper Beaver Creek Forest Health Project and Oak Creek Erosion Control Project. Both projects were located on the Coconino National Forest. The Upper Beaver Creek Forest Health Project included prescribed burning activities on 3,740 acres of ponderosa pine forest in the Upper Beaver Creek watershed on the Mogollon Rim Ranger District of the Coconino National Forest. These activities removed ground fuels, raised the crown heights of larger trees, and reduced the number of small-diameter trees. This work has helped improve forest resilience to uncharacteristic wildfires, thus restoring forest health and protecting rural communities and important infrastructure like the Discovery Telescope, the Happy Jack Ranger Station, and Western Power Authority transmission lines.

4FRI has also provided numerous public education/outreach opportunities, including the following:

- 1) the Forest Service and 4FRI Stakeholder Group presented a hands-on presentation of forest restoration at the Flagstaff Festival of Science and Flagstaff Earth Day,
- 2) presentations were made to a Coconino Community College class on 4FRI and restoration ecology; to Arizona Game and Fish and Trout Unlimited on the statewide fisheries program to the Coconino County Board of Supervisors, Tusayan Town Council, Williams City Council, Flagstaff City Council, the 4FRI Stakeholder Group, and a public open house on the 1st 4FRI FEIS; with the Nature Conservancy (TNC) to the City of Flagstaff and Arizona State Forestry on tablet technology designed to increase timber layout marking efficiency and reduce implementation costs; to the CLE Wildfire Seminar sponsored by Arizona State University and Salt River Project; to report on 4FRI activities at monthly meetings of the 4FRI Stakeholder Group and the Natural Resource Working Group (NRWG).
- 3) As requested by the Council of Environmental Quality and Forest Service Region 5 planners, the 4FRI team shared information and gave interviews on lessons learned on landscape level NEPA analysis; gave implementation updates and sponsored field trips for Senator Jeff Flake and his staff and for Representative Ann Kirkpatrick staffers; created and distributed a monthly 4FRI update summarizing progress on planning and implementation (on 4FRI website at [4FRI monthly reports](#)); gave presentations to the state meeting of Trout Unlimited; led a field trip to observe 4FRI implementation as part of the Salt River Project Board and Council Tour.
- 4) The 4FRI Stakeholder Group visited and presented information on 4FRI to national leaders in Washington D.C.
- 5) The 4FRI Stakeholder Group held monthly stakeholders meetings open to the public.

5. Based on your project monitoring plan, **describe the multiparty monitoring process. What parties (who) are involved in monitoring, and how? What is being monitored? Please briefly share key broad monitoring results and how results received to date are informing subsequent management activities (e.g. adaptive management), if at all.**

What are the current weaknesses or shortcomings of the monitoring process? (Please limit answer to two pages. Include a link to your monitoring plan if it is available).

Multiparty Monitoring Process:

The Multiparty Monitoring Board (MPMB) has collaborated with the Forest Service to design and implement data collection activities based on high priority stakeholder monitoring questions. Meetings are held on a monthly basis to develop study designs, review ongoing data collection efforts, and assess information needs. Recently, the MPMB developed a plan that will implement a long term strategic approach to data collection that will answer ecological and socioeconomic questions at landscape scales. They have also engaged a pool of subject matter experts who are available to review and consult on monitoring design and data analysis. A variety of stakeholders are active participants in the MPMB particularly in the development of monitoring question and study design. These include the Ecological Restoration Institute at Northern Arizona University, the Center for Biological Diversity, The Nature Conservancy, Arizona Department of Game and Fish, Campbell Global, Mottek Consulting, the Salt River Project, the Greater Flagstaff Forest Partnership, and others listed below.

Ongoing Monitoring:

Data collection has begun on a number of fronts. The following monitoring projects will provide information on the short term and long term effects of some restoration activities.

- Songbird occupancy bird data is being collected in partnership with the Bird Conservancy of the Rockies across the treatment landscape. When complete, it will help identify the effects of landscape restoration on bird communities. This data will also leverage existing regional and national songbird data to separate treatment effects from climate driven changes to bird populations.
- Northern Goshawk occupancy data is also being collected in partnership with the Bird Conservancy of the Rockies across the restoration landscape. Similar to the songbird monitoring, this data would help describe the effects of changes in vegetation, created by restoration treatments, on occupancy and possibly on reproductive success.
- Mexican Spotted Owl occupancy and reproduction monitoring is occurring as part of a broader region-wide effort lead by U.S. Fish and Wildlife. Initial baseline monitoring of protected activity centers is underway and should ultimately improve our understanding of the effects of restoration on MSO populations. The design will explore the differences between paired mechanical and prescribed fire treatments and treatments that only use prescribed fire. This data will be aggregated with identical studies that are occurring throughout the state to increase the size of the dataset and the predictive power.
- Landscape pattern analysis of remote sensing imagery is being conducted in partnership with Northern Arizona University to describe the pattern and distribution of canopy cover across the restoration landscape. Once treatments are underway, we will be able to measure residual canopy cover and describe the heterogeneity that is being created through restoration.
- Permanent field plots have been installed in partnership with The Nature Conservancy across a number of treatment areas. These plots will evaluate changes in vegetation composition and structure that occur as a result of restoration treatments. Tree structure, surface vegetation cover, and fuel components are quantified

to not only describe residual vegetation structure, but also to model the effects of fire on the landscape. Information about changing forest use by specialist wildlife species is also being collected. These plots are designed to be compatible with ongoing forest plan monitoring across multiple national forests. The effect will be to create a dataset that is more cost efficient and capable of answering questions that go beyond the scope of this restoration project.

Preliminary Data:

The vast majority of the monitoring information collected at this point describes the current condition. As the implementation of restoration treatments progresses, we will return to describe and document the changed condition. Some of the monitoring data will reveal important short-term changes in components such as tree structure, forest composition, diameter distribution, and canopy cover. Some of this data may be available as soon as next summer. Other components of the monitoring data will require time to mature and provide relevant information such as the response of the herbaceous layer in restored forests and the effect of changes in forest structure on MSO reproduction.

Our preliminary data on forest vegetation supports our understanding that mid-sized trees are overrepresented across the landscape while large trees and small trees are generally underrepresented. Forest canopy is far more continuous than historically occurred and forest pattern is less aggregated and heterogeneous than desired. In MSO protected activity centers designated for restoration, initial surveys indicate that occupancy is inconsistent. This is likely a reflection of the quality of the habitat. We hope that after restoration treatments are complete, the quality of the habitat will improve and the protected activity center will be more consistently occupied.

Weaknesses:

Our monitoring process is vibrant and provides additional confidence to a highly engaged stakeholder group. However, the greatest shortcoming of this process is that it takes time to collect and properly interpret the data. There is a genuine and reasonable desire to swiftly integrate new information into an adaptive management framework, but the most important questions are frequently those that cannot be quickly answered. So we collect both short-term and longer term-data and combine it with the best available science to inform our decisions and adapt our approaches to management.

Monitoring Plan: https://fs.usda.gov/Internet/FSE_DOCUMENTS/stelprd3836490.pdf

6. FY 2015 accomplishments

| Performance Measure | Unit of measure | Total Units Accomplished ¹⁰ | Total Treatment Cost (\$) | Type of Funds (CFLR, Specific FS BLI, Partner Match) ¹¹ |
|---|-----------------|--|---------------------------|--|
| Acres treated annually to sustain or restore watershed function and resilience WTRSHD-RSTR-ANN | Acres | 129,963 | \$17,846,317 | CFLN 60,044 \$5,185,336 |
| | | | | CFLR 3,324 \$329,520 |
| | | | | CMRD 5 \$50,000 |
| | | | | CWFS 1,131 \$120,319 |
| | | | | NFRR 39,472 \$7,354,099 |
| | | | | NFXN 2,106 \$397,715 |

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.

| Performance Measure | Unit of measure | Total Units Accomplished ¹⁰ | Total Treatment Cost (\$) | Type of Funds (CFLR, Specific FS BLI, Partner Match) ¹¹ |
|---|-----------------|--|---------------------------|--|
| | | | | NONE 12,478 \$2,793,761 PTNR 3,890 \$773,667 WFHF 7,513 \$841,900 |
| Acres of forest vegetation established FOR-VEG-EST | Acres | 15,011.2 | \$3,317,475 ¹² | CFLN 9.0 \$1,989 NFRR 3.9 \$862 NFXN 1,600.4 \$353,693 RTRT 13,397.6 \$2,960,865 SRS2 0.3 \$66 |
| Acres of forest vegetation improved FOR-VEG-IMP | Acres | 21,402 | \$4,280,560 ¹³ | CFLN 4,603.2 \$920,640 CFLR 19 \$3,800 CWFS 194 \$38,800 NFRR 15,283 \$3,056,600 NONE 879 \$175,800 PTNR 19 \$3,800 RTRT 46 \$9,200 SPFH 28 \$5,600 WFHF 137.6 \$27,520 WFPR 194 \$38,800 |
| Manage noxious weeds and invasive plants INVPLT-NXWD-FED-AC | Acre | 597.9 | \$134,528 ¹⁴ | CFLN 1.7 \$383 CFLR 279.2 \$62,820 NFRR 317 \$71,325 |
| Highest priority acres treated for invasive terrestrial and aquatic species on NFS lands INVSPE-TERR-FED-AC | Acres | 0 | \$0 | |
| Acres of water or soil resources protected, maintained or improved to achieve desired watershed conditions. S&W-RSRC-IMP | Acres | 28,186.4 | \$3,440,551 | CFLN 10,606 \$479,520 CFLR 3,026 \$262,900 CMRD 6.1 \$258,581 NFRR 8,629.3 \$1,609,000 WFHF 5,919 \$830,550 |
| Acres of lake habitat restored or enhanced HBT-ENH-LAK | Acres | 8.8 | \$123,000 | CMRD 5.1 \$50,000 NFRR 3.7 \$73,000 |
| Miles of stream habitat restored or enhanced HBT-ENH-STRM | Miles | 3.3 | \$215,581 | CMRD 2.6 \$208,581 NFRR 0.7 \$2,000 |
| Acres of terrestrial habitat restored or enhanced HBT-ENH-TERR | Acres | 53,023.7 | \$4,401,635 | CFLN 16,844 \$722,709 NFRR 5,230.7 \$1,290,250 WFHF 5,919 \$830,550 WFSU 25,030 \$1,558,126 |
| Acres of rangeland vegetation improved RG-VEG-IMP | Acres | 30,237 | \$2,630,619 ¹⁵ | CFLN 15,685 \$1,364,595 CWFS 937 \$81,519 NFRR 4,626 \$402,462 |

¹² Average cost of \$221/acre

¹³ Average cost of \$200/acre

¹⁴ Average cost of \$225/acre

¹⁵ Average cost of \$87/acre

| Performance Measure | Unit of measure | Total Units Accomplished ¹⁰ | Total Treatment Cost (\$) | Type of Funds (CFLR, Specific FS BLI, Partner Match) ¹¹ |
|--|-----------------|--|---------------------------|--|
| | | | | NFXN 506 \$44,022 NONE 1,903 \$165,561 PTNR 1,341 \$116,667 RBRB 15 \$1,305 WFHF 2,932 \$255,084 WFSU 2,292 \$199,404 |
| Miles of high clearance system roads receiving maintenance RD-HC-MAIN | Miles | 334.8 | \$128,890 ¹⁶ | CMRD 324.98 \$125,117 NFRR 9.8 \$3,773 |
| Miles of passenger car system roads receiving maintenance RD-PC-MAINT | Miles | 855.7 | \$4,278,500 ¹⁷ | CMRD 855.7 \$4,278,500 |
| Miles of road decommissioned RD-DECOM | Miles | 3 | \$2,973 ¹⁸ | CMRD 3 \$2,973 |
| Miles of passenger car system roads improved RD-PC-IMP | Miles | 74.8 | \$1,569,750 ¹⁹ | CMRD 65.75 \$1,380,750 NFRR 9 \$189,000 |
| Miles of high clearance system road improved RD-HC-IMP | Miles | 114.7 | \$114,680 ²⁰ | CMRD 106.18 \$106,180 NFRR 8.5 \$8,500 |
| Number of stream crossings constructed or reconstructed to provide for aquatic organism passage STRM-CROS-MTG-STD | Number | 0 | \$0 | |
| Miles of system trail maintained to standard TL-MAINT-STD | Miles | 159.7 | \$494,949 | CMTL 115.0 \$356,500 PTNR 44.7 \$138,449 |
| Miles of system trail improved to standard TL-IMP-STD | Miles | 7.7 | \$87,010 | NONE 4.7 \$53,110 PTNR 3.0 \$33,900 |
| Miles of property line marked/maintained to standard LND-BL-MRK-MAINT | Miles | 13 | \$79,821 | CFLN 13.0 \$79,821 |
| Acres of forestlands treated using timber sales TMBR-SALES-TRT-AC | Acres | 13,672 | \$4,128,600 ²¹ | CFLN 2,330 \$699,000 NFRR 1,564 \$469,200 NONE 7,414 \$2,224,200 PTNR 2,001 \$600,300 WFHF 453 \$135,900 |
| Volume of Timber Harvested | CCF | 78,034.1 | | |

¹⁶ Average cost of \$385/mile¹⁷ Average cost of \$5,000/mile¹⁸ Average cost of \$991/mile¹⁹ Average cost of \$21,000/mile²⁰ Average cost of \$1,000/mile²¹ Average cost of \$300/acre

| Performance Measure | Unit of measure | Total Units Accomplished ¹⁰ | Total Treatment Cost (\$) | Type of Funds (CFLR, Specific FS BLI, Partner Match) ¹¹ |
|--|-----------------|--|---------------------------|--|
| TMBR-VOL-HVST | | | | |
| Volume of timber sold TMBR-VOL-SLD | CCF | 257,882.5 | | CFLR 88,470.7 NFTM 168,627.3 SSSS 784.5 |
| Green tons from small diameter and low value trees removed from NFS lands and made available for bio-energy production BIO-NRG | Green tons | 96,810.8 | | NONE 96,810.8 |
| Acres of hazardous fuels treated outside the wildland/urban interface (WUI) to reduce the risk of catastrophic wildland fire FP-FUELS-NON-WUI | Acre | 23,709 | \$2,370,900 ²² | CFLN 9,965 \$996,500 NFRR 3,814 \$381,400 NONE 2,282 \$228,200 PTNR 529 \$52,900 RTRT 22.5 \$2,250 SPFH 17.5 \$1,750 WFHF 7,060 \$706,000 WFPR 19 \$1,900 |
| Acres of wildland/urban interface (WUI) high priority hazardous fuels treated to reduce the risk of catastrophic wildland fire FP-FUELS-WUI | Acres | 35,893.8 | \$4,280,560 ²³ | CFLN 4,603.2 \$920,640 CFLR 19 \$3,800 CWFS 194 \$38,800 NFRR 15,283 \$3,056,600 NONE 879 \$175,800 PTNR 19 \$3,800 RTRT 46 \$9,200 SPFH 28 \$5,600 WFHF 137.6 \$27,520 WFPR 194 \$38,800 |
| Number of priority acres treated annually for invasive species on Federal lands SP-INVSP-FED-AC | Acres | 0 | \$0 | |
| Number of priority acres treated annually for native pests on Federal lands SP-NATIVE-FED-AC | Acres | 0 | \$0 | |

7. **FY 2015 accomplishment narrative** – Summarize key accomplishments and evaluate project progress. (Please limit answer to three pages.)

NEPA

The relationships built on the foundation of CFLR allowed for the successful completion of the largest site-specific NEPA analysis (Four-Forest Restoration Initiative EIS, Coconino and Kaibab National Forests), in addition to clearing the way for an unprecedented ability to get work done on the ground. The collaborative effort by 4FRI stakeholders and the Forest Service has cleared the implementation of mechanical treatments and prescribed burning on 430,261 acres (including

²² Average cost per acre of \$100/acre

²³ Average cost per acre of \$200/acre

restoration of aspen on 1,471 acres and restoration of 56,123 acres of grassland); prescribed burning alone on 155,849 acres; construction of approximately 520 miles of temporary roads for access, to be decommissioned when treatments are completed; reconstruction of up to 40 miles of existing, open roads that have resource and safety concerns, and relocating or rehabilitating about 10 miles in stream bottoms; decommissioning of 726 miles of both unauthorized routes and existing system roads on the Coconino National Forest, and 134 miles of unauthorized roads on the Kaibab National Forest; restoration of 74 springs; and restoration of 39 miles of ephemeral stream channels. To date, there have been no legal challenges to the project; primarily due to the participation in the NEPA process and the legitimacy provided to the decision from the 4FRI Collaborative. Multiple 4FRI stakeholders have mentioned that the Collaborative's input and participation in the NEPA planning and objection processes were their highlight of the year.

In addition to the 1st 4FRI EIS, the decision for the Larson Forest Restoration Project decision on the Apache-Sitgreaves National Forests was signed on August 13, 2015. The project authorizes about 25,000 acres of mechanical restoration treatments with prescribed burning and an additional 4,900 acres of prescribed fire alone. Other restoration activities approved by this decision include road work and riparian restoration. This analysis will not only prompt the restoration of these acres, but help sustain our industry partners on the eastern side of the initiative area.

The 4FRI Stakeholder Group became larger and more robust with the formal signing of the 4FRI charter by the Natural Resource Working Group (NRWG), a long-term collaborative entity for the Apache-Sitgreaves National Forests. As landscape-scale planning efforts move east with the 2nd 4FRI Rim Country EIS, the local knowledge brought by NRWG members is expected to pay dividends to the collaborative effort across the landscape. This addition of the NRWG to the 4FRI Stakeholder Group was highlighted by stakeholders as one of the highlights for the Initiative this year.

Phase 1 4FRI Stewardship Contract

The 4FRI Phase 1 Stewardship Contract is a 10-year contract designed to restore forest structure, pattern, and composition through mechanical thinning. The contract is currently held by Good Earth Power AZ LLC (GEP). GEP has spent the bulk of 2015 establishing markets for products, as well as upgrading the Lumberjack Sawmill located on the east side of the contract area. Therefore most of the activity has been on the east side of the initiative (Apache-Sitgreaves and Tonto National Forests). GEP has also located a small side scrag mill in Williams on the west-side of the initiative that is beginning operations. Biomass from completed task orders is being trucked to markets in the Phoenix, Arizona metropolitan area.

The 4FRI Phase 1 Stewardship Contract has begun large-scale implementation with the issuance of 26 Task Orders covering 55,211 acres, of which 5,142 acres have been harvested to date.

Regular Timber Sale Program

The 4FRI Phase 1 Stewardship Contract is in addition to the ongoing timber program of work that currently consists of 21 active timber sales/stewardship contracts covering 27,433 acres. The regular timber program utilizes multiple contract mechanisms to achieve on-the-ground objectives, including stewardship contracts and regular timber sales. The majority of the acres treated in FY 15 were completed by existing industry outside of the 4FRI Phase 1 Stewardship Contract. The 4FRI Collaborative noted that the work outside of the 4FRI Phase 1 Contract was one of their highlights of the year. The following two actions are a major reason why the in-woods work was able to occur---primarily, increased mill capacity to take the wood to a manufacturing facility; in this case, two new facilities.

The Vaagen Brothers' hew saw that was previously located in Eager, Arizona has been moved and is currently co-located with the Novo Power cogeneration plant outside of Snowflake, Arizona on the eastern side of the initiative. This consolidation has created a new entity called Novo Star, adding additional value to the Novo Power site with more diverse manufacturing capability. Novo Star is taking material from national forest, state and private land projects. With the addition of the sawmill at the cogeneration plant, Novo Star has added 22 additional jobs to the existing 38 employees that work in the Novo Power cogeneration plant, now totaling 60 direct hires at the plant. The economic effects of the 38 direct employees at Novo Power are summarized as follows:

- >100 jobs created indirectly
- >100 local suppliers
- >\$14M spent in local economy annually
- >210k MW's of renewable power generated annually
- >200k bone dry ton of biomass burned annually
- >15k acres treated annually for biomass removal.²⁴

New manufacturing facilities have also been completed on the west side of the initiative area with the addition of Newpac Fibre LLC. The mill cuts 16' logs from a 6" top to a 20" butt. The mill is currently cutting between 45-60mbf/shift and has 100mbf/shift full capacity. It processes between 700-1300 logs/shift. There are currently 22 full time employees at the mill. Newpac has taken in over 40,000 tons of logs in its first year. This has enabled over 1,600 acres of forest restoration. With the addition of Newpac Fibre, there is increased mill capacity to treat up to 6,000 acres per year that was not in the manufacturing equation in 2014.

A third effort to increase the pace and scale of restoration by increasing manufacturing capacity is the White Mountain Apache Timber Company (WMATCO) exchanging logs with local industry in the White Mountains. This is a landmark change by the White Mountain Apache Tribe to collaborate with private industry and loggers off of the reservation and has provided employment and material to local mills.

The wood products industry is helping the Forest Service increase the pace and scale of restoration efforts and increase outputs for the following performance measures: 1) Acres treated annually to sustain or restore watershed function and resilience (WTRSHD-RSTR-ANN), 2) Acres of forest vegetation improved (FOR-VEG-IMP) and acres of water or soil resources protected, 3) Volume of Timber Harvested (TMBR-VOL-HVST), 4) Volume of timber sold (TMBR-VOL-SLD), 5) Green tons from small diameter and low value trees removed from NFS lands and made available for bio-energy production (BIO-NRG), 6) Acres of hazardous fuels treated outside the wildland/urban interface (WUI) to reduce the risk of catastrophic wildland fire (FP-FUELS-NON-WUI), and 7) Acres of wildland urban interface (WUI) high priority hazardous fuels treated to reduce the risk of catastrophic wildland fire (FP-FUELS-WUI).

Other Restoration Work within the 4FRI Project Area

In addition to this work, the remaining restoration work to date in the 4FRI project area has been primarily accomplished as part of the normal programs of work on the four forests, utilizing appropriated funds identified as matching funds as well as grants and agreements. This work is designed to produce outputs for all of the other performance measures that are listed in Table 6 above. This includes about 3 miles of road decommissioning, about 1,380 miles of road maintenance

²⁴ Source: Novo Power presentation at Salt River Projects *Healthy Forest, Vibrant Economy* conference, October 7-8, 2015, Scottsdale, Arizona and is available online at: <http://www.srpnet.com/water/forest/pdfx/2015conf/Worsley.pdf>

and improvement, 168 miles of trail maintenance and improvements, about 600 acres of noxious weeds treatments, about 28,186 acres of soil and water improvement treatments, and about 53,023 acres of terrestrial habitat work.

Some of this work was accomplished by volunteers. The following is an example of the diverse volunteer work that occurred within the initiative boundary in FY 15.

“This year we spent quite a bit of time on the Mogollon Rim District, working with the District Hydrologist on repairing or building new wet meadow enclosure fences. We developed a “flap” system to allow debris associated with higher water flows to escape from the enclosure and not cause major damage, as previous designs were want to do. By protecting these meadows, we also facilitated the plant of Bebb’s Willow seedlings, a plant that had become increasingly scarce due to browsing and drier conditions. Working with District botanists, we assisted with the construction of log worm fences in an area that had seen a significant amount of OHV damage and subsequent spread of invasive leafy spurge. The construction of these new fences has proven to be very effective in reducing new damage and when coupled with weed-warrior projects to remove the spurge, this important diverse area near Broillier Park may be on the road to recovery. Working with several NGO wildlife groups, the Arizona Game and Fish Department and CNF wildlife staff, we assisted with an ongoing fence modification project to enhance wildlife corridors, primarily benefiting pronghorns on the Flagstaff Ranger District. By removing pasture or allotment fences no longer needed, by removing the bottom strand of barbed wire on those fences still required and replacing it with smooth wire, set at 18-20”s, we’ve been able to make a significant improvement in pronghorn movements as documented by data from GPS collars as well as field observations. In addition to the maintenance of our existing inventory of approximately 60 aspen enclosures on the Flagstaff RD, many in the Hart Prairie area, we also built 4 new enclosures as well as a third aspen propagation enclosure in our search to identify more browse resistant clones. Tom Mackin AWF/FONAF member and 4FRI stakeholder”

Technology Highlights

The Nature Conservancy, working with U.S. Forest Service and private sector harvesters, is developing new technology that minimizes the need to mark trees, decreases costs, streamlines contracting, and improves the efficiency of harvesters in the field. The technology, a combination of computer tablets, spatial software, and remotely-sensed data, is being integrated into a prototype of a “Digital Restoration Guide” (DRG).

To increase the pace and scale of restoration, the Forest Service is implementing a Description by Prescription process (DxP). Prescriptions are provided to the operator in a written guide. With DRG, restoration units can now be digitally marked. Marking crews use tablets to designate spatially where tree clumps and groups should be placed, and generally how the structure in those areas should look. These data are uploaded to an in-cab tablet which the operator uses to assist with decisions regarding placement and structure of clumps or groups of trees and interspace. Results from initial field testing with personnel from the Coconino National Forest are encouraging. In a comparison between marking with paint and using the DRG, efficiency improved from marking 8 acres/day to 40-60 acres/day using the DRG, and layout costs decreased from \$40 per acre to \$16.

Other Initiative Highlights

The 4FRI Stakeholder Group noted that two policy changes were also highlighted in FY 2015. First, The Arizona Department of Transportation has entered into a pilot study to look at allowing increased gross vehicle weights in the eastern portion of the initiative. The pilot allows vehicles to haul up to 90,000 pounds (rather than the current 80,000-pound restriction) and will reduce the number of truck round trips needed for restoration work.

Coconino County revised special uses and conditions that are designed to simplify temporary use permits for the use and establishment of Forest Materials Storage and Value-Added facilities.

The work of the Multi-party Monitoring Board and the increase in outside funding for restoration work through the creation of the Northern Arizona Forest Fund that are both discussed above are also highlights for the initiative. Total leveraged funds are \$ 3,151,126 million dollars in FY 15.

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?²⁵

| Fiscal Year | Total number of acres treated (treatment footprint) |
|---|--|
| Total in FY15 | 386,511 |
| FY10, FY11, FY12, FY13, FY14, and FY15 (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)) | FY10 – 75,255 FY11 – 57,684 FY12 – 37,079 FY13 – 46,655 FY14 – 84,841 FY15 – 84,997 |

Please briefly describe how you arrived at the total number of footprint acres: what approach did you use to calculate the footprint?

The acreage is derived from the spatial and tabular FACTS fuels accomplishments across four forests from the geospatial interface application in ARCMAP©. The accomplishments for 2010 are direct from FY 2010 accomplishments that are in the database. The accomplishments include all of the spatial extent within the ponderosa pine. Not all accomplishments were tagged as CFLRP accomplishments in the data base, so this acreage amount more accurately displays the activities in the ponderosa pine type, and thus the 4FRI Initiative boundary, within the project area. Polygons not tagged with CFLRP are data entry errors. Each year after that is a GIS exercise of adding the next year’s accomplishments to the spatial extent, dissolving the solution, and then subtracting the previous year’s accomplishments to get the footprint acres for the actual year. This was repeated for each year to get footprint acres by fiscal year.

9. Describe any reasons that the FY 2015 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 following table displays the actual versus planned accomplishments for 4FRI as a whole. Implementation of the initiative is just beginning, with the first large-scale, 10-year stewardship contract awarded in FY 12 (4FRI Phase 1 Stewardship Contract), and with only about 5,000 acres treated of the 56,000 acres of task orders issued to date. The original proposal planned for the first contract to be awarded in FY2012, with task orders for 10,000 acres awarded in 2012. We are about two years behind on the basic schedule outlined in that proposal due to the lack of manufacturing capacity on the west side of the 4FRI footprint, which continues to present challenges for product removal. This lack of production of the 4FRI Phase 1 Contract is especially evident in the low output of BIO-NRG, and is different from what was planned in the 4FRI CFLRP work plan.

²⁵ 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.

Another challenge to planned accomplishments is the decreased capacity on the east side of 4FRI because of the 2012 Wallow Fire. There is a lack of NEPA-completed acres for contracts outside of the now-terminated White Mountain Stewardship Contract. Retaining accomplishments on the east side should ease in FY 16 as additional NEPA-ready acres become available with the Larson and Upper Rocky Arroyo Projects.

With that being said, most performance measures are actually higher than the expected output displayed in the CFLRP work plan for 4FRI. The acres of FP FUELS-ALL are at 99% of accomplishment, with more acres treated in the WUI and fewer acres treated outside the WUI than planned. The following table summarizes actual outputs for FY 15 compared to the FY 15 work plan expected outcomes.

| Performance measure | unit | 4FRI work plan 2015 | Actual accomplishment 2015 | % difference from work plan |
|--|-------------|----------------------------|-----------------------------------|------------------------------------|
| Acres treated annually to sustain or restore watershed function and resilience | Acres | 126,556 | 129,963 | 103% |
| Acres of forest vegetation established | Acres | 5,195 | 15,011 | 289% |
| Acres of forest vegetation improved | Acres | 15,375 | 36,414 | 237% |
| Manage noxious weeds and invasive plants | Acre | 4,015 | 598 | 15% |
| Highest priority acres treated for invasive terrestrial and aquatic species on NFS lands | Acres | 0 | 0 | 0% |
| Acres of water or soil resources protected, maintained or improved to achieve desired watershed conditions. | Acres | 16,419 | 24,277 | 148% |
| Acres of lake habitat restored or enhanced | Acres | 1 | 9 | 900% |
| Miles of stream habitat restored or enhanced | Miles | 2 | 3 | 150% |
| Acres of terrestrial habitat restored or enhanced | Acres | 66,040 | 36,813 | 56% |
| Acres of rangeland vegetation improved | Acres | 13,052 | 30,237 | 232% |
| Miles of high clearance system roads receiving maintenance | Miles | 394 | 335 | 85% |
| Miles of passenger car system roads receiving maintenance | Miles | 508 | 856 | 169% |
| Miles of road decommissioned | Miles | 17 | 3 | 18% |
| Miles of passenger car system roads improved | Miles | 41 | 75 | 183% |
| Miles of high clearance system road improved | Miles | 28 | 115 | 411% |
| Number of stream crossings constructed or reconstructed to provide for aquatic organism passage | Number | 0 | 0 | 0% |
| Miles of system trail maintained to standard | Miles | 167 | 160 | 96% |
| Miles of system trail improved to standard | Miles | 30 | 8 | 27% |
| Miles of property line marked/maintained to standard | Miles | 10 | 13 | 130% |
| Acres of forestlands treated using timber sales | Acres | 6,459 | 13,762 | 213% |
| Volume of timber sold (CCF) | CCF | 281,328 | 257,883 | 92% |
| Green tons from small diameter and low value trees removed from NFS lands and made available for bio-energy production | Green tons | 492,324 | 96,811 | 20% |

| Performance measure | unit | 4FRI work plan 2015 | Actual accomplishment 2015 | % difference from work plan |
|--|-------|---------------------|----------------------------|-----------------------------|
| Acres of hazardous fuels treated outside the wildland/urban interface (WUI) to reduce the risk of catastrophic wildland fire | Acre | 12,635 | 23,709 | 188% |
| Acres of wildland/urban interface (WUI) high priority hazardous fuels treated to reduce the risk of catastrophic wildland fire | Acres | 47,531 | 35,894 | 76% |
| Number of priority acres treated annually for invasive species on Federal lands | Acres | 0 | 0 | 0% |
| Number of priority acres treated annually for native pests on Federal lands | Acres | 200 | 0 | 0% |

10. Planned FY 2017 Accomplishments²⁶

| Performance Measure Code ²⁷ | Unit of measure | Planned Accomplishment | Amount (\$) |
|---|-----------------|------------------------|--------------|
| Acres treated annually to sustain or restore watershed function and resilience WTRSHD-RSTR-ANN | Acres | 138,029 | \$20,103,000 |
| Acres of forest vegetation established FOR-VEG-EST | Acres | 5,659 | \$283,000 |
| Acres of forest vegetation improved FOR-VEG-IMP | Acres | 16,765 | \$1,688,000 |
| Manage noxious weeds and invasive plants INVPLT-NXWD-FED-AC | Acre | 4,363 | \$979,000 |
| Highest priority acres treated for invasive terrestrial and aquatic species on NFS lands INVSPE-TERR-FED-AC | Acres | 0 | \$0 |
| Acres of water or soil resources protected, maintained or improved to achieve desired watershed conditions. S&W-RSRC-IMP | Acres | 17,926 | \$5,113,000 |
| Acres of lake habitat restored or enhanced HBT-ENH-LAK | Acres | 1 | \$8,000 |
| Miles of stream habitat restored or enhanced HBT-ENH-STRM | Miles | 2 | \$0 |

²⁶ Please note that planned accomplishments are aggregated across the projects to determine the proposed goals for the program's outyear budget justification. These numbers should reflect what is in the CFLRP work plan, with deviations described in question 12.

²⁷ Please include all relevant planned accomplishments, assuming that funding specified in the CFLRP project proposal for FY 2017 is available. Use actual planned funding if quantity is less than specified in CFLRP project work plan.

| Performance Measure Code²⁷ | Unit of measure | Planned Accomplishment | Amount (\$) |
|---|------------------------|-------------------------------|--------------------------|
| Acres of terrestrial habitat restored or enhanced HBT-ENH-TERR | Acres | 72,066 | \$6,973,000 |
| Acres of rangeland vegetation improved RG-VEG-IMP | Acres | 14,211 | \$1,218,000 |
| Miles of high clearance system roads receiving maintenance RD-HC-MAIN | Miles | 394 | \$149,000 |
| Miles of passenger car system roads receiving maintenance RD-PC-MAINT | Miles | 508 | \$3,018,000 |
| Miles of road decommissioned RD-DECOM | Miles | 17 | \$17,000 |
| Miles of passenger car system roads improved RD-PC-IMP | Miles | 41 | \$850,000 |
| Miles of high clearance system road improved RD-HC-IMP | Miles | 28 | \$28,000 |
| Number of stream crossings constructed or reconstructed to provide for aquatic organism passage STRM-CROS-MTG-STD | Number | 0 | \$0 |
| Miles of system trail maintained to standard TL-MAINT-STD | Miles | 167 | \$80,000 |
| Miles of system trail improved to standard TL-IMP-STD | Miles | 30 | \$30,000 |
| Miles of property line marked/maintained to standard LND-BL-MRK-MAINT | Miles | 10 | \$60,000 |
| Acres of forestlands treated using timber sales TMBR-SALES-TRT-AC | Acres | 25,000 | \$14,000,000 |
| Volume of Timber Harvested TMBR-VOL-HVST | CCF | Not in current work plan | Not in current work plan |
| Volume of timber sold TMBR-VOL-SLD | CCF | 537,550 | \$0 |
| Green tons from small diameter and low value trees removed from NFS lands and made available for bio-energy production BIO-NRG | Green tons | 752,570 | |

| Performance Measure Code ²⁷ | 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 | 40,000 | \$2,654,000 |
| Acres of wildland/urban interface (WUI) high priority hazardous fuels treated to reduce the risk of catastrophic wildland fire FP-FUELS-WUI | Acres | 65,000 | \$12,820,000 |
| Number of priority acres treated annually for invasive species on Federal lands SP-INVSP-E-FED-AC | Acres | 0 | \$0 |
| Number of priority acres treated annually for native pests on Federal lands SP-NATIVE-FED-AC | Acres | 200 | \$50,000 |

11. Planned FY 2017 accomplishment narrative (no more than 1 page).

FY 2017 will see increased implementation of the 4FRI Phase 1 Stewardship Contract. Good Earth Power is expected to increase treatments accomplished by at least 30,000 acres in 2017, which is the projected acreage for FY 17 in the original plan proposal. FY 17 will be the third year of timber sale activity outside of the White Mountain Stewardship Contract. Continued accomplishments on the east side of the 4FRI project area will need a steady funding source to maintain output levels (expected to be about 20,000 acres in FY 2017). There should be an increase in outside revenue from two sources in FY 17 to complete restoration work. First, the Northern Arizona Forest Fund is expected to add funds annually. Second, the Flagstaff Watershed Protection Project will have a signed decision in 2015 and will be implemented in 2017. This project is funded by a \$10,000,000 bond from the City of Flagstaff to treat steep slopes on Forest Service land. The forests also expect to prescribe burn nearly 60,000 acres in FY 2017.

12. Describe and provide narrative justification if planned FY 2016/17 accomplishments and/or funding differs from CFLRP project work plan (no more than 1 page):

The original work plan for 4FRI did not include an estimate of accomplishments for all of the work plan performance measures that are tracked within the CFLRP annual report (please see the original work plan at <http://www.fs.fed.us/restoration/documents/cflrp/2010Workplans/4FRIWorkPlan.pdf>). These are included above.

The original funding and expected outputs for FY 17 included in the original 4FRI submission are listed in the table below(4FRI CFLRP proposal, p. 21 of 28).

2017: The work will include preparation of 30,000 acres and administration of approximately 30,000 acres. There will also be some road improvement work or survey work that will be done this fiscal year for task orders in future years. The funds will also be used for monitoring.

| Funds to be used on NFS lands for ecological restoration treatments and monitoring that would be available in FY 2017 to match funding from the Collaborative Forested Landscape Restoration Fund | |
|---|-----------------------|
| Fiscal Year 2017 Funding Type | Dollars/Value Planned |
| FY 2017 Funding for Implementation | \$18,843,000 |
| FY 2017 Funding for Monitoring | \$1,060,000 |
| 1. USFS Appropriated Funds | \$14,300,000 |
| 2. USFS Permanent & Trust Funds | \$150,000 |
| 3. Partnership Funds | \$500,000 |
| 4. Partnership In-Kind Services Value | \$200,000 |
| 5. Estimated Forest Product Value | \$753,000 |
| 6. Other (specify) | |
| FY 2017 Total (total of 1-6 above for matching CFLRP request) | \$15,903,000 |
| FY 2017 CFLRP request (must be equal to or less than above total) | \$4,000,000 |
| Funding off NFS lands associated with proposal in FY 2017 (does not count toward funding match from the Collaborative Forested Landscape Restoration Fund) | |
| Fiscal Year 2017 Funding Type | Dollars Planned |
| USDI BLM Funds | |
| USDI (other) Funds | |
| Other Public Funding | |
| Private Funding | |

The original submission outlined that we would accomplish the planned 30,000 acres of preparation in FY 17, as well as the planned 30,000 acres of contract administration (an increase over current outputs). The actual outputs for FY 17 are just over 50,000 acres of contract preparation and up to 50,000 acres of administration. In addition, preparation work is underway for nearly 60,000 acres of prescribed burning. These numbers are reflected in the expected accomplishments outlined in the Section 10 table above.

The initial work plan was updated in 2013. The acres accomplished with timber sales and FP Fuels (WUI and non-WUI) are higher than the updated work plan from 2013 due to efforts by the 4FRI Forests and Region 3 to accelerate outputs to be more in line with the current completed NEPA projects.

Starting in FY2016, the Forest Service plans to allocate an additional \$10 million per year for 10 years to the 4FRI project. This increased funding will allow the project to hire dozens of workers to accomplish a range of objectives related to project goals and ramp up implementation significantly. . We do expect the Northern Arizona Forest Fund to contribute at least \$1 million dollars to accomplish restoration work. As stated above, the Flagstaff Watershed Protection Project will also be an additional funding source for treatments that are planned on steep slopes outside of Flagstaff in 2017. The Apache-Sitgreaves expects to continue to receive funding in FY 17 from the Wild Turkey Federation for habitat improvement projects.

There have been multiple cost-saving efforts implemented in FY 15 that are expected to continue through FY 17: sharing resources across district and forest boundaries for sale preparation, wildlife surveys and monitoring, and land line surveys, as well as using contracts for road work, landline surveying, and marking. Implementation of tablet technology for timber contract layout and designating timber may further decrease costs over time.

13. Please include an up to date list of the members of your collaborative (name and affiliation, if there is one). 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.

The following are the current members of the 4FRI Stakeholders Group

| 4FRI Collaborative Group - Current Group/Organization | 4FRI Collaborative Group - Current Group/Organization |
|--|--|
| Arizona Game and Fish | Northern Arizona University |
| Arizona State Forestry | Northern Arizona Wood Products |
| Arizona Wildlife Federation | Northland Pioneer College |
| Campbell Global | Southwest Forest Little Colorado |
| Canyon Creek Logging | The Nature Conservancy |
| Center for Biological Diversity | Town of Pinetop - Lakeside |
| City of Flagstaff | Town of Snowflake |
| Coconino County Board of Supervisors | TRACKS |
| Coconino Natural Resources Conservation | TriStar Logging Inc. |
| Eastern Arizona Counties Organization | Trout Unlimited |
| Ecological Restoration Institute | White Mountain Conservation League |
| Empire Machinery | Wildwood Consulting |
| Forest Energy Corporation | Congresswoman Ann Kirkpatrick |
| Gila County | University of Arizona Cooperative Extension |
| Grand Canyon Trust | Bejac Corp |
| Greenlee County | Real Arizona Development Corridor |
| Mottek Consulting | Natural Resources Working Group |
| Navajo County | Novo BioPower |
| US Fish and Wildlife Service | |

There are multiple new members to the collaborative this year, including Campbell Global, Canyon Creek Logging, TriStar Logging, Trout Unlimited, the Natural Resources Working Group and Novo BioPower. The new members are all members of the either the Implementation Work Group or the Planning Working Group, and in some cases, both groups. Many of the new members have assumed leadership roles in the Work Groups and have volunteered to be co-chairs of the 4FRI stakeholders group as well.

14. How has your project increased support from partners in terms of in-kind contributions and funding? (no more than one page):

The Northern Arizona Forest Fund (NAFF) has brought in increased funding for restoration. Please see the discussion above about the accomplishments of the NAFF in FY 2015 and the amount of funding generated by partners to date.

The City of Flagstaff passed a bond to treat steep slopes directly adjacent to the City of Flagstaff, and 2017 is expected to see the first Flagstaff Watershed Protection project implemented on steep slopes of the Coconino National Forest using these funds.

In cooperation with the Grand Canyon Trust, the Multi-party Monitoring Board has begun the process of utilizing citizen scientists to assist with project monitoring, as well as members of the public to work on project implementation. Initial talks began in late FY 2015, with the first projects from this expanding volunteer effort expected in FY 2016.

15. 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.

Media outreach is provided through two websites—the [4FRI stakeholder website](#), the website of the 4FRI stakeholders group, and the [4FRI Forest Service website](#). The stakeholder website contains links to major articles and TV interviews that occurred in Fiscal Year 2015 ([4FRI stakeholder website link to news stories](#)), as does the Forest Service website ([4FRI Newsroom](#)). Photos of 4FRI can be found on the 4FRI Forest Service website on the Flickr page at the bottom of the home page and at the following link [4FRI flickr photos](#).

Signatures:

Recommended by (Project Coordinator/FRI Team Leader): /s/ *Annette Fredette* _____

Approved by (Acting Forest Supervisor Apache-Sitgreaves NF)²⁸: /s/ *Stephen Best* _____

Approved by (Forest Supervisor Coconino National Forest): /s/ *Laura Jo West* _____

Approved by (Forest Supervisor Kaibab National Forest): /s/ *Heather Provencio* _____

Approved by (Forest Supervisor Tonto National Forest): /s/ *Neil Besworth* _____

OPTIONAL) Reviewed by (collaborative chair or representative): _____

²⁸ If your project includes more than one National Forest, please include an additional line for each Forest Supervisor signature.