Southern Blues Restoration Coalition (CFLR017)

Malheur National Forest

1. CFLRP Expenditures, Match, and Leveraged Funds:

a. FY21 CFLN and Matching Funds Documentation

Fund Source – (CFLN Funds Expended)	Total Funds Expended in Fiscal Year 2021
CFLN14	$40,599
CFLN20	$110,822
CFLN21	$2,043,137
TOTAL	**$2,194,558**

This amount should match the amount of CFLN dollars spent in the FMMI CFLRP expenditure report. Include prior year CFLN dollars expended in this Fiscal Year. CFLN funds can only be spent on NFS lands.

Fund Source – (Forest Service Salary and Expense Match Expended)	Total Funds Expended in Fiscal Year 2021
CFSE21	$926,014
TOTAL	**$926,014**

This amount should match the amount of matching funds in the FMMI CFLRP expenditure report for Salary and Expenses. Staff time spent on CFLRP proposal implementation and monitoring may be counted as CFLRP match – see Program Funding Guidance for details.

Fund Source – (Forest Service Discretionary Matching Funds)	Total Funds Expended in Fiscal Year 2021
CFHF	$685,848
TOTAL	**$685,848**

This amount should match the amount of matching funds in the FMMI CFLRP expenditure report, *minus* any partner funds contributed through agreements (such as NFEX, SPEX, WFEX, CMEX, and CWFS) which should be reported in the partner contribution table below. Per the Program Funding Guidance, federal dollars spent on non-NFS lands may be included if aligned with CFLRP proposal implementation within the landscape.

Fund Source – (Partner Match)	In-Kind Contribution or Funding Provided?	Total Estimated Funds/Value for FY21	Description of CFLRP implementation or monitoring activity	Where activity/item is located or impacted area
Blue Mountain Forest Partners (BMFP)	☒ **In-kind contribution** ☐ **Funding**	**$192,527**	**The BMFP Collaborative supports the SBRC by taking the lead on Multi-Party monitoring and working to develop Zones of Agreement across a diverse group of collaborative members. Their work focuses on the north half of the Malheur NF.**	☒ **National Forest System Lands** ☐ **Other lands within CFLRP landscape:**
Harney County Restoration Collaborative (HCRC)	☒ **In-kind contribution** ☐ **Funding**	**$69,000**	**The HCRC supports the SBRC by helping with Multi-Party monitoring and working to develop Common Operating Principles across a diverse group of collaborative members. Their work focuses on the south half of the Malheur NF.**	☒ **National Forest System Lands** ☐ **Other lands within CFLRP landscape:**
Oregon State University (OSU)	☒ **In-kind contribution** ☐ **Funding**	**$35,968**	**OSU associate time performing monitoring through our Forest Vegetation and Fuels Monitoring Agreement with OSU**	☒ **National Forest System Lands** ☐ **Other lands within CFLRP landscape:**
North Fork John Day Watershed Council	☒ **In-kind contribution** ☒ **Funding** Budget Line Item, if relevant: [1]	**$7,328.40** **$56,975**	**Camp Creek riparian and aquatic restoration including hardwood planting, large wood placement and reconnecting floodplain.**	☒ **National Forest System Lands** ☐ **Other lands within CFLRP landscape:**

Fund Source – (Partner Match)	In-Kind Contribution or Funding Provided?	Total Estimated Funds/Value for FY21	Description of CFLRP implementation or monitoring activity	Where activity/item is located or impacted area
Oregon Department of Fish and Wildlife (ODF&W)	☐ **In-kind contribution** ☐ **Funding** Budget Line Item, if relevant: [1]	**$21,300.50**	**Tinker Creek Headwaters Restoration. Improved Fish Passage, Large Wood Placement and Beaver Dam Analogs. Labor, equipment rentals and supplies.**	☒ **National Forest System Lands** ☐ **Other lands within CFLRP landscape:**
Oregon Department of Forestry (ODF)	☒ **In-kind contribution** ☐ **Funding**	**$36,000**	**ODF Good Neighbor Agreement Fuels Crew. ODF crew works on fuels projects, thinning and slash treatments on Malheur NF lands.**	☒ **National Forest System Lands** ☐ **Other lands within CFLRP landscape:**
Training and Employment Consortium (TEC)	☒ **In-kind contribution** ☐ **Funding**	**$81,999**	**Youth Crew implement road closures, wildlife and fisheries projects.**	☒ **National Forest System Lands** ☐ **Other lands within CFLRP landscape:**
Oregon Natural Desert Association (ONDA) working with Northwest Youth Corps Tribal Stewards Program	☒ **In-kind contribution** ☐ **Funding**	**$8,840.00**	**10 ONDA volunteers and 6 NYC Tribal Stewards did 325 hours of riparian hardwood planting on Camp Creek during two events in the summer of 2021.**	☒ **National Forest System Lands** ☐ **Other lands within CFLRP landscape:**
TOTALS	**Total In-Kind Contributions: $452,962.90** **Total Funding: $56,975**			

Total partner in-kind contributions for implementation and monitoring of a CFLR project across **all lands** within the CFLRP landscape. For CFLRP projects under the CFLRP Common Monitoring Strategy, note that this table addresses the core CFLRP common monitoring strategy question, "If and to what extent has CFLRP investments attracted partner investments across the landscapes?"

Service work accomplishment through goods-for services funding within a stewardship contract (for contracts awarded in FY21)	**Totals**
Total revised non-monetary credit limit for contracts awarded in FY21	$452,893
Revenue generated through Good Neighbor Agreements	**Totals**
	$0

Revised non-monetary credit limits should be the amount in contract's "Progress Report for Stewardship Credits, Integrated Resources Contracts or Agreements," the "Revised Non-Monetary Credit Limit," as of September 30. Additional information on the Progress Reports is available in CFLR Annual Report Instructions document.
Revenue generated from GNA should only be reported for CFLRP match if the funds are intended to be spent within the CFLRP project area for work in line with the CFLRP project's proposed restoration strategies and in alignment with the CFLRP authorizing legislation

2. Please tell us about the CFLR **project's progress to date in restoring a more fire-adapted ecosystem as described in the project proposal** and **how it has contributed to wildfire risk reduction goals**.

Within the SBRC project area, three large fires burned within fuels treatments. The Canyon Creek Fire in 2015 (110,000 acres). The Cow Fire in 2019 (8,500 acres). And the Black Butte fire the summer of 2021 (22,445 acres). From each of these fires, lessons have been learned about the effectiveness of the fuel treatments. We learned from the Canyon Creek fire that the treatments that occurred prior to implementation of SBRC were too small and scattered. Some treatments, that were strategically placed, did help firefighters with containment on one flank of the fire.

From the Cow fire we learned, we should consider treating fuels in inventoried roadless areas and wild and scenic river corridors with prescribed fire and by managing wildfires for benefit, if conditions warrant. Locations of SBRC fuels treatments were very effective in helping contain the southern edge of the fire and reducing overall fire suppression costs. In comparison, suppression cost and effort reductions were not evident in areas like the North Fork Scenic River area, where high bark beetle tree mortality and lack of fuels treatments made preparing for backfire expensive and prolonged containment of the fire along this edge. Additionally, the largest high severity burn areas were in parts of the Glacier Mountain Inventoried Roadless Area that had not seen wildfire or any fuels treatment in the past 80 years. The Forest Plan does allow fuels treatments to occur within both roadless areas and wild and scenic corridors however, they are often not included in project analysis. Both SBRC collaborative groups, Blue Mountains Forest Partners and Harney County Restoration Collaborative, strongly support and advocate for fuels treatments in these types of areas in the future.

We found that the treatments around the Black Butte fire were strategically placed, at the right scale and with the right prescriptions. Black Butte fire suppression costs could easily have been twice as much, if fuels treatments had not been completed. In the few areas, where fuels treatments were not finished, costs and effort to suppress the fire were higher. This points out, the urgency in getting these treatments completed, especially prescribed burning. There is more information about the Black Butte fire in the fuel treatment effectiveness section below.

FY2021 Overview

FY21 Activity Description (Agency performance measures)	**Acres**
Number of acres treated by prescribed fire	9,274 of landscape underburning
Number of acres treated by mechanical thinning	9,007

Number of acres of natural ignitions that are allowed to burn under strategies that result in desired conditions	0
Number of acres mitigated to reduce fire risk	13,108

Please provide a narrative overview of treatments completed in FY21, including data on whether your project has expanded the pace and/or scale of treatments over time, and if so, how you've accomplished that – what were the key enabling factors?

We continued the focus on fire resiliency projects such as thinning, mastication and large landscape underburning. Early in the planning stages of the SBRC project, we used analysis from The Nature Conservancy and local assessments to prioritize treatments. Our two local Counties, with the help from the Malheur NF and Oregon Department of Forestry, established Community Wildfire Protection Plans to identify priority areas for treatment within the urban interface. The Forest Fire Management staff developed a fuel treatment priority map that highlights areas where treatments will be most effective to help manage fire on the landscape by using treatments along roads, ridges, and existing large fire footprints. All the above-mentioned projects have helped focus treatments that will be most effective.

In the first 10 years of the project, over 273,701 footprint acres of vegetation and fuels treatments were accomplished within the SBRC project area. Treatments ranged from mechanical treatments such as commercial harvest, small diameter tree thinning, mastication, slash piling, burning piles, and biomass removal, to landscape underburning. Work on our first Good Neighbor Agreement (GNA) timber sale was completed. This GNA sale was completed with the lead of Oregon Department of Forestry (ODF) employees. ODF's help on this project greatly increased our capacity to accomplish restoration work. Revenue from this sale will go back to the project area to complete additional restoration. That revenue can be used for CFLR match. To help expand our capacity for landscape underburning, we awarded one additional call order towards contractor burning again this year. To increase the scale of underburning needed to meet our restoration goals, we plan to increase our utilization of contractors to help complete our backlog of prescribed fire. We've utilized contract engines and hand crews to assist our agency resources with landscape burning and pile burning.

The majority of the fuels treatments took place in areas of the project that have been identified as having high fire hazard according to the wildfire hazard potential map produced by the USDA Forest Service, Fire Modeling Institute.

With the support of our two collaborative groups, we are also using CFLR funding to improve riparian habitats and improve conditions for threatened and endangered fish species. This year, 6 aquatic organism passage (AOP) structures were installed to replace culverts blocking fish passage to steelhead juvenile rearing habitat and spawning grounds. The pictures below show the Tinker Creek Headwaters Restoration Project. In partnership with Oregon Department of Fish and Wildlife, this project also built 29 Beaver Dam Analogs, removed two culverts on closed and decommissioned roads and place large wood debris on approximately ¾ mile of Tinker Creek and throughout the floodplain.

Tinker Creek Fish Passage Photos

In 2021, we replaced more fish blocking culverts than any year before. With the help of CFLR funds, designs for several other AOPS have been completed and are ready to be implemented. Working with Blue Mountains Forest Collaborative, we are identifying strategies moving forward to increase efficiencies. There is concern and support from all sides involved, for treating a higher percentage of the landscape, especially with small diameter thinning and prescribed fire. Similar concerns and support exist for treatments in larger diameter grand fir and Douglas fir stands, which are less fire tolerant. Monitoring field trips have highlighted, that prescriptions being implemented on the ground do not necessarily match the expectations of our collaborative groups. The collaborative groups have worked hard to define Zones of Agreement and Common Ground Principles around stand densities, species composition and structure. Malheur National Forest employees continue to be involved through the process and continue developing prescriptions that reflect these agreements however, often treated stands are still too dense and leave too many non-fire resilient trees. Both the forest and the collaboratives acknowledge the challenges caused by lag times between contract development and implementation monitoring. Furthermore, agreed to language is too often not communicated well. To improve our effectiveness, we have developed a working group to move our “Zones of Agreement” to contract specification language.

BMFP and Forest employees share their observations about tree spacing, vegetation species and wildlife habitat in a recently treated unit on the Malheur National Forest.

Camp Creek Restoration Volunteers – Hardwood Planting. Like the Tinker Creek Project, large wood placement and beaver dam analogs were used here to help reconnect the stream to the natural floodplain.

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

Through discussions with our two collaborative groups over the past several years, we have been looking for ways to reduce our per acre cost to reduce fuels. In the past, most of our thinning slash would have been piled by either machine or by hand and piles burned over the next one to two years. In the current scenario, completion of pile burning is necessary prior to landscape burning; increasing the timeline for completion of identified treatments. With the support of the collaboratives, we recently began trying thinning followed by scattering the slash, as shown in photo 1 below. The slash is this area was not piled, allowing landscape underburned to be implemented the following season. The cost savings by not piling the slash is approximately $200 to $400 per acre depending on the area. The results have been satisfactory in meeting objectives, as shown in photo 2.

Photo 1 - Elk 16 thinning unit, complete – spring 2020

Photo 2 - Elk 16 post prescribed fire – spring 2021

Although there is some risk, of higher severity burn patches from prescribed fire with heavier slash loads, with collaborative support, we plan for those patches in the NEPA decisions. Treated areas within the 2021 Black Butte wildfire area are a good example of the effectiveness of this work. The fire burned into the stand pictured above in August of 2021, with very little effect and provided an easy location to contain the fire. Not only is this stand much more resilient now, in the future, the increase in grasses and forbs will make for better big game habitat and any snags created will be excellent habitat for cavity nesters.

Expenditures

Category	**$**
FY21 Wildfire Preparedness[1]	$3,626,958
FY21 Wildfire Suppression[2]	$18,396,670
The cost of managing fires for resource benefit if appropriate (i.e., full suppression versus managing)	$0
FY21 Hazardous Fuels Treatment Costs (CFLN)	$1,552,479
FY21 Hazardous Fuels Treatment Costs (other BLIs)	$1,670,861

How may the treatments that were implemented contribute to reducing fire costs? If you have seen a reduction in fire suppression costs over time, please include that here.

It is difficult to identify the dollar value of fuels treatments in reducing fire costs, especially against the increases in fire danger each year due to continued hotter, dryer and longer fire seasons. Antidotally, we feel that the Black Butte Fire had the potential to grow much larger and cost much more had fuels treatment work had not been completed ahead of the fire and help us contain the fire where we did. Additionally, completed treatments, located in strategic areas , allowed fire crews to more easily contain the fire, reducing exposure to fire crews and decreasing the need for resources necessary to manage fire containment.

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

With collaborative support we plan to finish the fuel treatment effectiveness assessment of the Black Butte fire in 2022. This assessment will include the potential cost savings in suppression and Burned Area Emergency Response as a result of the fuel treatments.

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

Include expenses in wildfire preparedness and suppression, where relevant. Include summary of BAER requests and authorized levels within the project landscape, where relevant

The total acres within the landscape of Malheur NF fire protection are 877,288 acres or approximately 51% of the Malheur NF. During the 2021 fire season, eight fires started within fuels treatments in the SBRC project area. All eight fires were caught during initial attack and totaled 13.4 acres burned. Although, the Black Butte fire stared outside the SBRC project area, it did eventually burn into the project area. The vast majority of treatment acres burned, were a result of this fire. Total fire size 22, 445 acres. Total acres burned within in SBRC, 11, 329 acres. Total acres burned

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

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

within fuels treatments in SBRC project area, 7,830 acres. Total treatment acres burned within the SBRC project area, all fires combined was 7,843.4 acres. Initial attach success rate of 100% for all fires with starts in fuels treatments in the SBRC project area.

Burned Area Emergency Response was request for the Black Butte Fire. The fire burned within the headwaters North Fork Malheur River, including portions of Crane Creek and Little Crane Creek with a mosaic of high, moderate, and low burn severity. Values at risk include human life and safety of the public and Forest Service employees, property such as critical road and trail infrastructure, critical and occupied habitat for Bull trout, and native plant communities at risk of infestation by noxious weeds. This BAER request would provide for burned area warning signs, noxious weed detection and removal, trail tread stabilization, and storm inspection and response. The total cost of the proposed treatments is $80,156

The section below talks in more depth about the Black Butte Fire.

If a wildfire interacted with a previously treated area within the CFLR boundary:

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

The Black Butte fire was discovered on Tuesday, August 3. Located in the North Fork Malheur Drainage, southern part of Prairie City Ranger District, in the North Fork Malheur Wild and Scenic River corridor. The fire was burning in timber with a moderate fuel loading on the ground. Steep terrain, dry fuels, and high wind gusts, the fire became more established and grew quickly. Spotting ahead of itself and across the drainage increased its footprint, moving into the SBRC project area. Overtime, the fire grew to interact with over 90 fuels treatments in the Elk/16 project area of the SBRC project and several other collaborated projects. Fuel treatments consisted of commercial and non-commercial thinning, piling of slash, burning of slash, mastication, and prescribed fire. Unit treatment varied in type of treatment and were at different stages of completions. These pre-existing fuel treatments and winds moderating aided firefighters to initiate offensive strategies to increase containment on the North and West lines, in which fire progression was headed. Focused fuel treatments and the suppression efforts of firefighters kept Black Butte's footprint to a lesser scale comparatively to other established fires occurring on the landscape during an extreme drought year. Areas that were heavily mechanically treated or received prescribe burning prior, fire severity was low.

Total fire size was 22,445 acres: UFSF (92%), BLM (6%) and ODF (2%). 11,329 acres or 50% occurred within the SBRC landscape.

The pictures below show a treated stand prior to the Black Butte Fire and after the fire. The picture on the left is a unit in the Elk/16 collaborated project that had been commercially thinned and then masticated. The picture on the right is the same unit shortly after the fire. The unit was planned for prescribed burning but clearly the Black Butte Fire accomplished the goal.

Treated unit pre–Black Butte Fire

Treated unit post–Black Butte Fire

Fuels Treatment Effectiveness Monitoring was completed for Black Butte. Select areas will be monitored for secondary fire effects and response of vegetation.

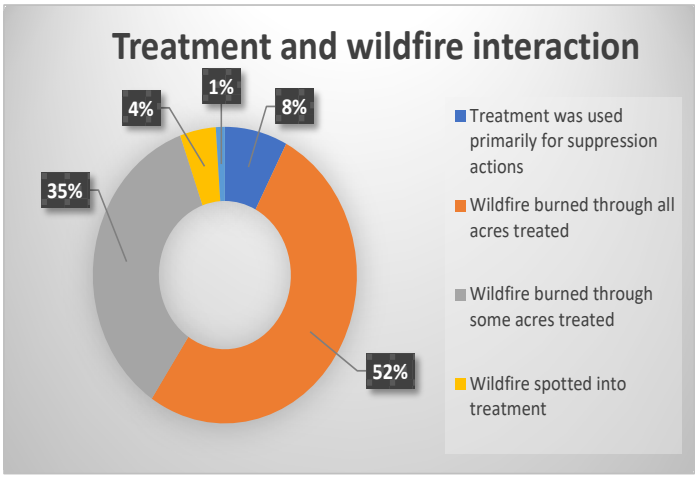
- *Please describe if/how partners or community members engaged in the planning or implementation of the relevant fuels treatment.*
  The Blue Mountains Forest Partners collaborative group was crucial in helping plan and monitor the Elk/16 project treatments that the Black Butte Fire burned into. Their Upland Forest Restoration Zones of Agreement influenced the Forests design of the project and the prescriptions.
- *Did treatments include coordinated efforts on other federal, tribal, state, private, etc. lands within or adjacent to the CFLR landscape?*
  The 16 Road was identified as a safety corridor in the Grant Count Community Wildfire Protection Plan. This helped the Forest expedite its planning efforts and focus treatments in the right place. Reduction of fire behavior and protection of that WUI buffer were a main goal that included private stakeholder coordination. Knox Hazardous Fuels/Forest Health Project served to reduce uncharacteristically intense fire, reduce conifer encroachment of aspen stands, reduce stand density and risk on tree mortality from insects, and capture economic value of surplus trees. Elk 16 Landscape Restoration, EA purpose was "to restore the ecological structure and function of forest ecosystems within the project area landscape to improve forest health and increase resilience to drought, fire, insect disease and other disturbances." It also continued treatment along the 16 Road corridor to the east and treatment adjacent to private property. All of these projects were impacted by the Black Butte Fire and had a positive effect on the fire behavior, fire effects, reduced soil impacts and helped reduce potential suppression costs.

- *What resource values were you and your partners concerned with protecting or enhancing? Did the treatments help to address these value concerns?*
  All projects addressed FS and collaborative values; WUI, old growth fire resilient trees, and aspen stands. Initial treatments were concentrated along main travel corridors. Treatments to promote aspen growth and reduce

competition of old Ponderosa Pine trees through removal of competing conifers occurred in the project areas. The FS relationships with the two collaborative groups continue to mature. Common ground/zones of agreement have resulted in more impactful landscape scale treatments being implemented across the forest.

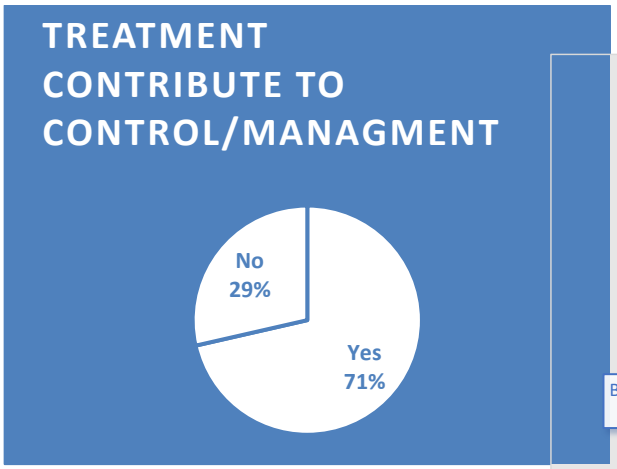
- *Did the treatments do what you expected them to do? Did they have the intended effect on fire behavior or outcomes?*

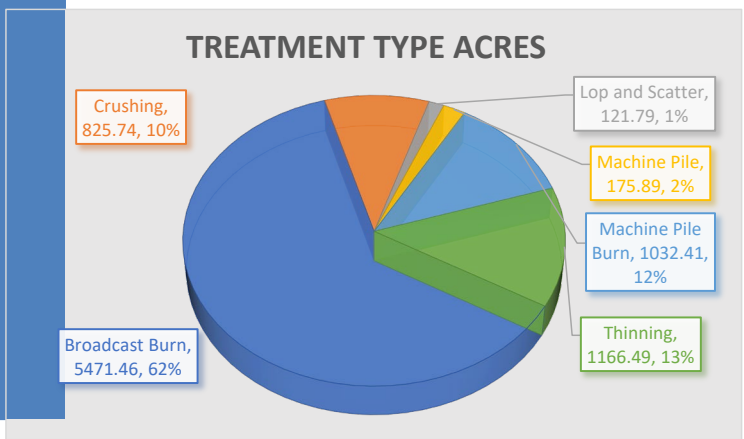
Treatments did as expected. Fire behavior decreased as a result of treatments which allowed suppression resources to establish containment lines and secure the north perimeter along the 16 road. This also allowed resources to be dedicated to the south end of the fire where access and terrain made fire management objective more difficult to achieve and were starting to impact private lands. Many treatment areas were in a condition to effectively backfire from while maintaining lower severity fire effects. Many areas had the mechanical treatments completed (thinning, piling, and mastication), but the removal of fuels through pile burning and prescribed fire still needed to be completed. Higher fire severity was observed in some of these areas but at a small scale, comparatively. In addition, recently completed prescribed fires around the perimeter of the Black Butte aided in preventing spot fires to become established from lack of available fuels. It appears from the Burned Area Emergency Response assessment that treatments were very effective at increasing resiliency to fire.



- *What is your key takeaway from this event – what would you have done differently? What elements will you continue to apply in the future?*

Treatments designed to make stands resilient to uncharacteristically intense fire conditions require intensive treatments across a contiguous landscape. Adding the next activity of landscape burning to the suite of cutting treatments on the landscape results in more effective reduction of fire behavior and resiliency of retention trees. Utilization of the best available science and collaboration results in a more robust and thorough projects. The planning and implementation processes result in more deliberate work getting done on the ground. Timely implementation of all of the planned treatments is still the biggest hindrances on completing treatments prior to a wildfire occurring.





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

- Please include:
  - *Brief description of the planned treatment for the area,*
    Prescribe fire was still planned for 5000 acres. Reviewing the Rapid Vegetation assessment data, it is estimated that over 50% of the planned units had less than 25% basal cover loss, soil severity maps show relatively low percentage of high soil burn severity. Majority of the high soil severity and high basal area loss was in units that featured steep drainages. Timber sale units were also sold but not completed in portions of the planned prescribed burn units. After an assessment of post fire conditions, logging of the sold units began once ground conditions allowed.
  - *Summary of next steps – will the project implement treatments elsewhere? Will they complete an assessment?*
    The planned prescribed burn units are being reviewed to determine if the natural fire created the desired effects and met objectives a prescribe fire would aim to accomplish. Aspen treatment areas are being monitored for their response and need for barriers to help reduce secondary loss of saplings to grazing.
  - *Description of collaborative involvement in determining next steps. ?*
    Blue Mountains Forest Partners Collaborative attended a field trip that reviewed treatment areas that were heavily mechanically treated and was scheduled for prescribed fire in the fall. Review of how the treatments of the Aspen stands preformed during the fire was also reviewed.

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

The numbers came directly from the end of year accomplishments and expenditure reports. The product distribution percentages came from information from TIM, conversations with contractors, and from the different contracts used. Assumptions are based on the work being accomplished or completed in the year it was funded.

Looking at your CFLRP project's TREAT Data Entry "Full Project Details" Tab, what percent of funding was used for contracts within the local impact area? (**see cell D13**)[3] If you have data on what percent of funding was used for **agreements** within the local impact area, please note.

Contract Funding Distributions ("Full Project Details" Tab):

Description	Project Percent
Equipment intensive work	33%
Labor-intensive work	59%
Material-intensive work	8%
Technical services	0%
Professional services	0%
Contracted Monitoring	0%
TOTALS:	**100%**

Please provide a brief description of the local businesses that benefited from CFLRP related contracts and agreements, if known. Consider characteristics such as tribally-owned firms, veteran-owned firms, women-owned firms, minority-owned firms, and business size.[4]

Nearly 100% of contracts awarded for restoration work went to local contractors and a high percentage of the wood products were processed at local mills. The local mill, Malheur Lumbar, has been able to stay in business over the past

[3] If you would prefer to use other data collected locally, you may include that here. Do not include dollars that were contracted to firms outside of the local area.

[4] This information is publicly available through usaspending.gov, there are other firm characteristics that may be more relevant for your CFLRP project or important for tracking over time.

10 years, due in large, to our long term 10-year stewardship contract, which requires the prime contractor to offer the commercial volume locally first. With the support of CFLR funds to help with the removal of small diameter wood products, the prime contractor has also been able to invest in a post and pole mill. With the success of our Southern Blues Restoration Coalition CFLR project, Malheur Lumber has been able to maintain a work force of over 70 individuals. The prime contractor has been able to expand their operations both in equipment and personnel. In 2012, prior to CFLR and the stewardship contract, this company could only support 20-30 employees, now with this support over 100 employees are employed here. See the article "Riding the Cutting Edge" from Timber West magazine TimberWest Magazine - September/October 2017 - Iron Triangle Logging, John Day, Oregon (forestnet.com).

The contracts for thinning, slash treatments, riparian restoration, invasive weed management and other restoration activities are also primarily awarded to companies that can show a strong benefit to the local communities and economies. All companies in our pool of contractors appreciate the steady, consistent opportunities for work that comes with the CFLR funding. Prior to CFLR, funding for restoration work was constantly fluctuating from year to year. With that uncertainty it was difficult for our local contractors to commit to expanding their operations in equipment, infrastructure or employees.

FY 2021 Modelled Jobs Supported/Maintained (CFLN and matching funding):

FY 2021 Jobs Supported/Maintained	**Jobs (Full and Part-Time) (Direct)**	**Jobs (Full and Part-Time) (Total)**	**Labor Income (Direct)**	**Labor Income (Total)**
Timber harvesting component	0	0	0	0
Forest and watershed restoration component	20	34	845,457	1,342,878
Mill processing component	75	153	4,754,998	8,096,693
Implementation and monitoring	75	75	0	0
Other Project Activities	0	0	0	0
TOTALS:	171	262	5,600,455	9,439,571

4. **Briefly describe other community benefits that align with the CFLRP proposal and strategies socioeconomic goals**. **How has CFLR and related activities benefitted your community(ies) from a social and/or economic standpoint?** Please link to monitoring reports or other relevant information if available.

Work continued on the task orders awarded in previous years under the Malheur 10 Year Stewardship contract. That uses all local contractors for the work. The socioeconomic benefits resulting from CFLR projects and the use of the local 10-year Stewardship Contract have been substantial. Grant County enjoyed most of these benefits due to the fact Iron Triangle LLC, which holds the 10-year Stewardship Contract, is headquartered there, as is Malheur Lumber Company and most of the Malheur National Forest offices. The re-investment of these funds into local milling infrastructure and local community projects has a multiplying effect on the impact of the CFLR funds.

Additionally, two timber sales were awarded that also went to local contractors. These two sales will treat 56, 545 tons of saw logs and biomass across 2,000 acres in the SBRC.

Local wood processing companies have invested heavily in upgrades and new infrastructure to utilize small diameter wood, adding jobs to the community. These companies have been using the leverage of CFLR funds along with the expectation of continued contracting with a focus on local benefit to help secure investments into their businesses.

All but 5% of CFLR funds for contracts, agreements and supplies went to local vendors. We continue to place an emphasis on benefit to the local communities with the expectation that the primary contractors hire employees locally when their projects are funded with CFLR.

Indicator	**Brief Description of Impacts, Successes, and Challenges**	**Links to reports or other published materials (if available)**
Relationship building/collaborative work	The New York Times article tells the story of collaboration and relationship building on the Malheur National Forest. It focuses on the work of the Blue Mountains Forest Partners, one of the collaborative groups that make up the Southern Blues Restoration Coalition. The OPB story "The West is Burning" also highlights very well how collaboration, including the work of the Blue Mountains Forest Partners, has improved relationships and increased the scale of work.	Link to The New York Times Opinion Article Opinion | They Overcame Mutual Loathing, and Saved a Town - The New York Times (nytimes.com) Link to "The West is Burning" https://www.youtube.com/watch?v=km6azKlFTTQ
% Locally retained contracts	Out of the total of nearly $3 million spent on contracts, agreements and supplies, only 5% of the funds went to a non-local contractor. We continue to emphasize benefit to local in our contracts and buy supplies from local vendors.	The stories at the link below give an opportunity for two of our local SBRC partners to discuss the effects of COVID on their businesses last year. Sponsored by Blue Mountains Forest Partners. https://www.bluemountainsforestpartners.org/2020/10/forest-restoration-in-an-era-of-covid-19/
Job Training Opportunities	We utilized the Harney County Training and Employment Consortium youth crew to help complete several projects. Our local North Fork John Day Watershed Council's Conservation Corps provided youth to help with riparian hardwood plantings as well as many other restoration projects over the years.	North Fork John Day Watershed Council https://www.nfjdwc.org/jdbcc-1 Harney County Training and Employment Consortium. Training and Employment Consortium Home Page (tecteam.org)
Project partnership composition	We have several partners involved with the SBRC project. The diversity of partners is what makes the SBRC successful. We have partners representing industry, local and state governments, environmental organizations, universities, watershed councils, correctional	

	facility, wildlife non-profit and Good Neighbor Agreements with Oregon State Fish and Wildlife and Oregon State Forestry.	

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

The Southern Blues CFLRP Multi-Party Monitoring Program was developed by a multi-disciplinary committee that included two collaborative groups, multiple Forest Service units, universities, and non-governmental organizations. The Multi-Party Monitoring Program currently consists of ten monitoring subgroups that correspond to their respective monitoring projects (see table below). Most of the monitoring projects were developed to be statistically rigorous and to conclusively inform future management decisions in the project area and in similar ecological habitats across the eco-region.

Monitoring Projects/Subgroups, Principal Investigators, and Monitoring Partners

Monitoring Project	Principle Investigator (first listed) and Partners *
Forest Vegetation, Structure, Fuels, and Patterning	
Forest Vegetation and Fuels (ongoing)	Oregon State University MNF Silviculture & Fuels Programs (FS) Blue Mountain Forest Partners
Landscape Pattern Analysis (completed)	Remote Sensing Application Center (FS-WO) Blue Mountains Area Ecology Program (FS) Blue Mountains Forest Health Program (FS) MNF Silviculture Program (FS)
Spatial Patterning – stand-level (completed)	University of Washington Blue Mountains Area Ecology Program (FS)
Aspen (ongoing)	MNF Botany, Wildlife, & Silviculture Programs (FS) Oregon State University, College of Forestry Blue Mountains Area Ecology Program (FS)
Wildlife & Fish	
White-headed Woodpecker (completed)	Rocky Mountain Research Station (FS-R&D) MNF Wildlife Program (FS)
Riparian & Aquatic Restoration (ongoing)	Blue Mountains Area Ecology Program (FS) MNF Botany Program (FS)
Invasive Species	
Invasive Species Control (ongoing)	MNF Botany & Invasive Species Programs (FS) Grant Soil and Water Conservation District Harney County Weed Control
Native Plant Seeding (ongoing)	MNF Botany & Invasive Species Programs (FS)
Social & Economic	
Collaborative Effectiveness	Blue Mountain Forest Partners Harney County Restoration Collaborative

Socio-economic	University of Oregon, Ecosystem Workforce Program Blue Mountain Forest Partners

* MNF = Malheur National Forest, FS = Forest Service Unit, WO = Detached Washington Office Unit, R&D = Research Unit

Forest vegetation and fuels (FVF), riparian restoration, invasive species, socio-economic, and collaborative effectiveness monitoring projects are in their seventh year of implementation. The final season of data collection for the WHWO monitoring was completed in 2021. The FVF, invasive species, and WHWO programs have had a significant field data collection component. For some of these projects, both pre-treatment and post-treatment data have been successfully collected and meaningful preliminary data analysis and management recommendations have begun. The primary mechanisms by which monitoring findings have been or will be communicated to managers and incorporated into an adaptive management framework are summarized below.

SBRC Multiparty Monitoring Metrics and Delivery Status

Product	Delivery status
Regular informal communication between monitoring principal investigators, MNF interdisciplinary team members, MNF leadership, and membership of the BMFP and HCRC.	Ongoing
Annual monitoring progress reports for MNF and BMFP	Ongoing
Regular presentations to full collaborative group meetings (BMFP and HRCR).	Over 25 completed to date; 5 completed in 2021
Monitoring symposia: Full day meeting for monitoring PIs, managers, collaborative and other stakeholder groups, scientists, and the general public.	2016 and 2019 symposia; plans, manuals, and presentations online: http://www.bluemountainsforestpartners.org/work/multiparty-monitoring/ The 3rd symposium is tentatively planned for fall of 2022
Spatial Patterning: *Historical Forest Structure, Composition, and Spatial Pattern in Dry Conifer Forests of the Western Blue Mountains, Oregon*	Published general technical report in November 2017: https://www.fs.fed.us/pnw/pubs/pnw_gtr956.pdf
Landscape Pattern Analysis Tool	The tool was developed to meet the needs of the Southern Blues CFLRP; however, the workflow is generalizable across landscapes and can be implemented in any region of the country with the right reference data. Webinars and presentations have occurred in 2017 & 2018: http://fsweb.geotraining.fs.fed.us/www/index.php?lessons_ID=3918 Final version of tool officially released in 2018: https://southern-blues-dev.appspot.com/
Preliminary and final reports and publications. Data from the FVF Multi Party monitoring helped inform the most recent article in the Journal Forests "21st Century Planning Techniques for Creating Fire-Resilient Forests in the American West".	Will be released as data collection is completed or sufficient to make inferences or meaningful management recommendations. As a result of the FVF monitoring by OSU, there is currently one manuscript in press and 6 published manuscripts (3 of which were published in 2021) in the following scientific journals: *Ecological Applications, Journal of Forestry, Forests, Ecosphere*, *Frontiers in Forests and Global Change*, and *Forest Ecology and Management*.

Data from the FVF Multi Party monitoring was also used in an article in Forest Ecology and Management titled "Mechanical thinning without prescribed fire moderates wildfire behavior in an Eastern Oregon, USA ponderosa pine forest	Forests | Free Full-Text | 21st Century Planning Techniques for Creating Fire-Resilient Forests in the American West | HTML (mdpi.com) Mechanical thinning without prescribed fire moderates wildfire behavior in an Eastern Oregon, USA ponderosa pine forest - ScienceDirect

Preliminary data and results of the FVF monitoring have helped shape the Blue Mountain Forest Partners' Zones of Agreements, which is a guiding document to silvicultural prescriptions and other restoration topics that are mutually agreed upon by SBRC and the MNF. We continue to collect monitoring data across all aspects of SBRC restoration projects. Currently there are 550 monitoring plots forest-wide, and discussions are planned for fiscal year 2022 around increasing the number of plots to cover a wider range of projects currently being implemented, as well as new ways the data may be used to inform adaptive management and new technology moving into the future. We have no doubt that the MNF CFLRP Multiparty Monitoring Program will produce significant results, in the expected timeframes, that will describe the social, economic, and ecological impacts of the Southern Blues CFLRP.

6. FY 2021 Agency performance measure accomplishments:

Performance Measure	Unit of measure	Total Units Accomplished	Total Treatment Cost ($) *(Contract Costs)*
Acres of forest vegetation established FOR-VEG-EST	Acres	26.3	$3,156
Acres of forest vegetation improved FOR-VEG-IMP	Acres	5,211.6	$912,030
Manage noxious weeds and invasive plants INVPLT-NXWD-FED-AC	Acre	2,404.5	$52,370
Highest priority acres treated for invasive terrestrial and aquatic species on NFS lands INVSPE-TERR-FED-AC	Acres	Not Reported	
Acres of water or soil resources protected, maintained or improved to achieve desired watershed conditions. S&W-RSRC-IMP	Acres	9,172.33	$697,097
Acres of lake habitat restored or enhanced HBT-ENH-LAK	Acres	63	$3,024
Miles of stream habitat restored or enhanced HBT-ENH-STRM	Miles	21.674	$111,000
Acres of terrestrial habitat restored or enhanced HBT-ENH-TERR	Acres	13,967.53	$209,513
Acres of rangeland vegetation improved RG-VEG-IMP	Acres	Not reported	
Miles of high clearance system roads receiving maintenance RD-HC-MAIN	Miles	Not reported	
Miles of passenger car system roads receiving maintenance RD-PC-MAINT	Miles	Not reported	
Miles of road decommissioned RD-DECOM	Miles	Not reported	
Miles of passenger car system roads improved RD-PC-IMP	Miles	Not reported	
Miles of high clearance system road improved RD-HC-IMP	Miles	Not reported	
Road Storage *While this isn't tracked in the USFS Agency database, please provide road storage miles completed if this work is in support of your CFLRP restoration strategy for tracking at the program level.*	Miles	0	$0
Number of stream crossings constructed or reconstructed to provide for aquatic organism passage STRM-CROS-MTG-STD	Number	6	$900,000
Miles of system trail maintained to standard TL-MAINT-STD	Miles	0	

Performance Measure	Unit of measure	Total Units Accomplished	Total Treatment Cost ($) *(Contract Costs)*
Miles of system trail improved to standard TL-IMP-STD	Miles	0	
Miles of property line marked/maintained to standard LND-BL-MRK-MAINT	Miles	0	
Acres of forestlands treated using timber sales TMBR-SALES-TRT-AC	Acres	865.1	$0
Volume of Timber Harvested TMBR-VOL-HVST*	CCF	60,015	$0
Volume of timber sold TMBR-VOL-SLD*	CCF	11,584.58	$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	989.34	$10,883
Acres of hazardous fuels treated outside the wildland/urban interface (WUI) to reduce the risk of catastrophic wildland fire FP-FUELS-NON-WUI	Acre	14,886.2	$2,307,361
Acres of wildland/urban interface (WUI) high priority hazardous fuels treated to reduce the risk of catastrophic wildland fire FP-FUELS-WUI	Acres	12,093.9	$1,874,555
Acres mitigated FP-FUELS-ALL-MIT-NFS	Acres	13,108	$1,310,800
Please also include the acres of prescribed fire accomplished	Acres	9,274	$1,112,880
Timber Sale Brush Disposal TMBR-BRSH-DSPSL	*Acres*	756.1	$30,244

Units accomplished should match the accomplishments recorded in the Databases of Record. For CFLRP projects under the CFLRP Common Monitoring Strategy, items marked with a * help to address the core CFLRP common monitoring strategy question, "Did CFLRP increase economic utilization of restoration byproducts?"

7. **The Washington Office (Enterprise Data Warehouse) will use spatial data provided in the databases of record to estimate a treatment footprint for each CFLRP project's review and verification**. This information will be posted here on the internal SharePoint site for verification *after the databases of record close October 31*.

- **If the estimate is consistent and accurate**, please confirm that below and skip this question.
- **If the gPAS spatial information does NOT appear accurate**, note the total acres treated below.

Fiscal Year	**Footprint of Acres Treated** (without counting an acre of treatment on the land in more than one treatment category)
FY 2021	58,690
Estimated Cumulative Footprint of Acres (CFLRP start year through 2021)	273,701

If you did not use the EDW estimate, please briefly describe how you arrived at the total number of footprint acres: what approach did you use to calculate the footprint?

8. **Describe any reasons that the FY 2021 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?

We fell short of our planned fuels and commercial thinning volume targets this year. Two large stewardship task orders that included several thousands of acres of hazardous fuels reduction treatments were offered to the contractor but did not get awarded. The volatility in the timber market this year seemed to be the biggest reason the contractor was not comfortable bidding on this work. The continued drought in the west has made it difficult to complete the amount of prescribed fire and managed fire needed to get to the goal of more than 20,000 acres of "Good Fire" on the forest each year.

9. **Please include an up to date list of the members of your collaborative if it has changed from previous years**. If the information is available online, you can simply include the hyperlink here. If you have engaged new collaborative members this year, please provide a brief description of their engagement.[5]

Blue Mountains Forest Partners: https://www.bluemountainsforestpartners.org/

Harney County Restoration Collaborative: https://highdesertpartnership.org/collaboratives/harney-county-restoration-collaborative/hcrc-landing-page.html

10. **Media recap**. Please share with us any hyperlinks to videos, newspaper articles, press releases, scholarly works, and photos of your project that you have available. You are welcome to include links or to copy/paste.

All media and reports completed this year are linked in the main part of the report.

(OPTIONAL) **For CFLRP Projects in the final year of their initial 10 year funding plans**. Please use this space to provide any key reflections on lessons learned and opportunities for improvement for CFLRP moving forward – this could be bullets, a few brief paragraphs, or links to reports you would like to share on this topic.

This is the 10th year of the Southern Blues Restoration Coalition CFLR project. The two collaborative groups that make up the Southern Blues Restoration Coalition and the Malheur National Forest along with several other partners have applied for an extension for 10 more years to complete all the work needed for the landscape. There were several lessons learned from our first 10 years; the biggest is that there is a lot of work required to restore a large landscape that has had natural fire excluded for over 100 years. The SBRC project is nearly half of the Malheur National Forest and our original goal was to treat 40% of the landscape in those 10 years. We have been able to treat approximately half of the acres we planned to treat to this point. We overestimated how far the value from the commercial products removed in the prescriptions would go towards paying for the service-related work. This has forced us to look for efficiencies in how we get the service work completed at lower costs per acre. Working with the collaborative groups we are starting to incorporate those lessons into how we design and implement our projects.

[5] For CFLRP projects under the CFLRP Common Monitoring Strategy, this table addresses the core CFLRP common monitoring strategy question, "Who is involved in the collaborative and if/how does that change over time?"