**CFLRP Project Name (CFLR17): Southern Blues Restoration Coalition**

**National Forest(s): Malheur National Forest**

## 1. Executive Summary

Briefly summarize the top ecological, social, and economic accomplishments your CFLRP project participants are most proud of from FY23 and any key monitoring results. This is a space for key take-home points (< 500 words).

The Southern Blues Restoration Coalition (SBRC) through our CFLRP project continues to have profound impacts for our local communities. In FY23, we funded 26 projects identified to implement fuels reduction, stream and riparian restoration, invasives control, sale preparation, and monitoring. Much of this work was completed using partner capacity through agreements or by local contractors. Fuels reduction, watershed restoration, and the removal and processing of commercial wood products continue to be our main areas of focus within the SBRC project area, contributing to approximately 278 total full and part time jobs and $20,396,099 total labor income in the local area. The jobs and income created by our CFLRP project are extremely impactful to the local economy.

Our monitoring efforts continue to show that our fuels reduction efforts greatly reduce the risk of large stand replacement wildfire. While we had no large fires in treated areas in FY23, the monitoring results and lessons learned from past fires continue to contribute to the effectiveness of fuels treatments across our SBRC landscape. Understanding the landscape, strategic placement, and treatments at scale have been effective in helping managing wildfires, reducing impacts to natural and cultural resources, and reducing overall fire suppression costs.

One example, the Magone WUI contract, was a success and contributed to precommercial thinning of 2000-acres. We were able to treat mixed conifer and dry pine forest types, as well as several hundred acres of juniper encroachment. This contract brought in 50+ people into our local communities, contributing to positive economic impact to these communities.

*Photos, Magone WUI PCT (Juniper Encroachment Treatments)*

## 2. Funding

**CFLRP and Forest Service Match Expenditures**

| Fund Source:<br>CFLN and/or CFIX Funds Expended | Total Funds Expended<br>in Fiscal Year 2023 |
|---|---|
| CFLN23<br>CFLN22<br>CFLN21<br>CFLN20<br>TOTAL | $2,466,131<br>$868,185<br>$-105,586*<br>$7,762<br>3,236,493 |

This amount should match the amount of CFLN/CFIX 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.
*Fiscal Year 21 expenditures are negative because 1 contract and 2 agreements were completed in FY23 and released unspent funds from obligation.

| Fund Source:<br>Forest Service Salary and Expense Match Expended | Total Funds Expended<br>in Fiscal Year 2023 |
|---|---|
| NFSE<br>WFSE<br>TOTAL | $661,821.45<br>$348,685.50<br>$1,010,506.76 |

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.

| Fund Source:<br>Forest Service Discretionary Matching Funds | Total Funds Expended<br>in Fiscal Year 2023 |
|---|---|
| WFPR<br>BDBD<br>NFHF<br>TOTAL | $ 213,189<br>$ 5,644<br>$ 873,762<br>$1,092,596 |

Per the Program Funding Guidance, federal dollars spent on non-NFS lands may be included as match if aligned with CFLRP proposal implementation.

**Partner Match Contributions**[1]

| Fund Source: Partner Match | In-Kind Contribution or Funding Provided? | Total Estimated Funds/Value for FY23 | Description of CFLRP implementation or monitoring activity | Where activity/item is located or impacted area |
|---|---|---|---|---|
| **Harney County Forest Restoration Collaborative (HCFRC)** | ☒ **In-kind contribution**<br><br>☐ **Funding Budget Line Item, if relevant:** [1] | $75,000 | The HCRC supports the SBRC by helping with multi-party monitoring and working to develo p Common Operating | ☒ **National Forest System Lands**<br><br>☐ **Other lands within CFLRP landscape:** |

[1] Addresses Core Monitoring Question #13

| Fund Source: Partner Match | In-Kind Contribution or Funding Provided? | Total Estimated Funds/Value for FY23 | Description of CFLRP implementation or monitoring activity | Where activity/item is located or impacted area |
|---|---|---|---|---|
| | | | Principles across a diverse group of collaborative members | |
| **Blue Mountains Forest Partners (BMFP)** | ☐ **In-kind contribution**<br>☒ **Funding** | 72,696 | Work includes collaborative meetings, governance, and field trips, CFLRP monitoring and support of Southern Blues Partnership Joint Chiefs | ☒ **National Forest System Lands**<br>☒ **Other lands within CFLRP landscape:** |
| **North Fork John Day Watershed Council** | ☒ **In-kind contribution**<br>☒ **Funding** | $300,835<br>$99,995 | Riparian Restoration. Improved Juvenile fish passage, large wood placement, legacy structure removal, fence protection, hardwood planting. | ☒ **National Forest System Lands**<br>☐ **Other lands within CFLRP landscape:** |
| **Oregon State University** | ☒ **In-kind contribution**<br>☐ **Funding**<br>Budget Line Item, if relevant: | $127,944 | Building white bark pine radial growth chronologies for use in evaluating resistance and resilience of white bark pine. Old growth mortality monitoring. Forest Vegetation and Fuels CFLRP monitoring | ☒ **National Forest System Lands**<br>☐ **Other lands within CFLRP landscape:** |
| **Oregon Training Consortium (OYCC-TEC)** | ☒ **In-kind contribution**<br>☒ **Funding**<br>Budget Line Item, if relevant: [1] | $19,444<br>$71,736 | Emigrant Creek Ranger District Developed Recreation and Trail maintenance as well as Aspen protection (fencing) and guzzler maintenance/reconstruction throughout the district for Wildlife. | ☒ **National Forest System Lands**<br>☐ **Other lands within CFLRP landscape:** |
| **Student Conservation Association** | ☒ **In-kind contribution**<br>☐ **Funding**<br>Budget Line Item, if relevant: [1] | $11,000 | Seeding and seed collection | ☒ **National Forest System Lands**<br>☐ **Other lands within CFLRP landscape:** |

| Fund Source: Partner Match | In-Kind Contribution or Funding Provided? | Total Estimated Funds/Value for FY23 | Description of CFLRP implementation or monitoring activity | Where activity/item is located or impacted area |
|---|---|---|---|---|
| **High Desert Partnership** | ☒ **In-kind contribution**<br>☒ **Funding**<br>Budget Line Item, if relevant: [1] | $22,230<br>$40,893 | Stream Survey Partnership Agreement | ☒ **National Forest System Lands**<br>☐ **Other lands within CFLRP landscape:** |
| **Rocky Mountain Elk Foundation** | ☐ **In-kind contribution**<br>☒ **Funding** | 63,000 | Support of Native Plant materials program | ☒ **National Forest System Lands**<br>☐ **Other lands within CFLRP landscape:** |
| **Ecosource Native Seed** | ☒ **In-kind contribution**<br>☐ **Funding** | $594,000 | Seed Collection | ☒ **National Forest System Lands**<br>☐ **Other lands within CFLRP landscape:** |
| **Oregon Department of Forestry** | **In-kind contribution**<br>☒ **Funding** | $46,406 | Fuel reduction and forest restoration activities, including precommercial thinning, aspen improvement and protection, wildlife habitat improvements | ☒ **National Forest System Lands**<br>☐ **Other lands within CFLRP landscape:** |

Total In-Kind Contributions: $1,150,453

Total Funding: $394,726

Total partner in-kind contributions for implementation and monitoring of a CFLR project across all lands within the CFLRP landscape.

**Goods for Services Match**

| Service work accomplishment through goods-for services funding within a stewardship contract (for contracts awarded in FY23) | Totals |
|---|---|
| Total revised non-monetary credit limit for contracts awarded in FY23 | $ 0* |
| Revenue generated through Good Neighbor Agreements | Totals |
| | $ 0 |

"Revised non-monetary credit limit" should be the amount in the "Progress Report for Stewardship Credits, Integrated Resources Contracts or Agreements" as of September 30. Additional information on the Progress Reports available in CFLR Annual Report Instructions. "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 proposal and work plan.

*There were no stewardship contracts awarded within the CFLRP boundary in FY23.

## 3. Activities on the Ground

FY 2023 Agency Performance Measure Accomplishments[2] - Units accomplished should match the accomplishments recorded in the Databases of Record. Please note any discrepancies.

| Core Restoration Treatments | Agency Performance Measure | NFS Acres | Non-NFS Acres | Total Acres |
|---|---|---|---|---|
| Hazardous Fuels Reduction (acres) in the Wildland Urban Interface | FP-FUELS-WUI (reported in FACTS)[3] | 18,383*(10,265 reported) | 0 | 18,383 |
| Hazardous Fuels Reduction (acres) in the Wildland Urban Interface - COMPLETED | FP-FUELS-WUI-CMPLT (reported in FACTS)[4] | 8,619* (11,821 reported) | 0 | 8,619* |
| Hazardous Fuels Reduction (acres) outside the Wildland Urban Interface | FP-FUELS-NON-WUI (reported in FACTS) [3] | 14,578 (14,624 reported) | 0 | 14,578 |
| Hazardous Fuels Reduction (acres) outside the Wildland Urban Interface - COMPLETED | FP-FUELS-NON-WUI-CMPLT (reported in FACTS) [4] | 11,804* (11,333 reported) | 0 | 11,804* |
| Wildfire Risk Mitigation Outcomes - Acres treated to mitigate wildfire risk | FP-FUELS-ALL-MIT-NFS (reported in FACTS) | 7,155* (3,819 reported) | 0 | 7,155* |
| Prescribed Fire (acres) | Activity component of FP-FUELS-ALL (reported in FACTS) | 15,070* | 0 | 15,070* |
| Invasive Species Treatments (acres) - Noxious weeds and invasive plants | INVPLT-NXWD-FED-AC (reported in FACTS)[3] | 1010.10* (1.1 reported) | 0 | 1010.10* |
| Invasive Species Treatments (acres) - Noxious weeds and invasive plants - COMPLETED | INVPLT-NXWD-FED-AC-CMPLT (reported in FACTS)[4] | 1010.10* (1.1 reported) | 0 | 1010.10* |
| Invasive Species Treatments (acres) - Terrestrial and aquatic species | INVSPE-TERR-FED-AC (reported in FACTS)[35] | 0 | 0 | 0 |
| Invasive Species Treatments (acres) - Terrestrial and aquatic species - COMPLETED | INVSPE-TERR-FED-AC- CMPLT (reported in FACTS)[46] | 0 | 0 | 0 |
| Road Decommissioning (Unauthorized Road) (miles) | RD-DECOM-NON-SYS (Roads reporting) | 0 | 0 | 0 |

[2] This question helps track progress towards the CFLRP projects lifetime goals outlined in your CFLRP Proposal & Work Plan. Adapt table as needed.

[3] For service contracts, the date accomplished is the date of contract award. For Force Account, the date accomplished is the date the work is completed

[4] New Agency measure reported in FACTS when completed

[3] For service contracts, the date accomplished is the date of contract award. For Force Account, the date accomplished is the date the work is completed

[4] New Agency measure reported in FACTS when completed

| Core Restoration Treatments | Agency Performance Measure | NFS Acres | Non-NFS Acres | Total Acres |
|---|---|---|---|---|
| Road Decommissioning (National Forest System Road) (miles) | RD-DECOM-SYS (Roads reporting) | 0 | 0 | 0 |
| Road Improvement (High Clearance) (miles) | RD-HC-IMP-MI (Roads reporting) | 0 | 0 | 0 |
| Road Improvement (Passenger Car System) (miles) | RD-PC-IMP-MI (Roads reporting) | 0 | 0 | 0 |
| Road Maintenance (High Clearance) (miles) | RD-HC-MAINT-MI (Roads reporting) | 0 | 0 | 0 |
| Road Maintenance (Passenger Car System) (miles) | RD-PC-MAINT-MI (Roads reporting) | 0 | 0 | 0 |
| Trail Improvement (miles) | TL-IMP-STD (Trails reporting) | 0 | 0 | 0 |
| Trail Maintenance (miles) | TL-MAINT-STD (Trails reporting) | 0 | 0 | 0 |
| Wildlife Habitat Restoration (acres) | HBT-ENH-TERR (reported in WIT) | 589 | 0 | 589 |
| Stream Crossings Mitigated (i.e. AOPs) (number) | STRM-CROS-MITG-STD (reported in WIT) | 6 | 0 | 6 |
| Stream Habitat Enhanced (miles) | HBT-ENH-STRM (reported in WIT) | 44.16 | 0 | 44.16 |
| Lake Habitat Enhanced (acres) | HBT-ENH-LAK (reported in WIT) | 0 | 0 | 0 |
| Water or Soil Resources Protected, Maintained, or Improved (acres) | S&W-RSRC-IMP (reported in WIT) | 2,111* (801 reported) | 0 | 2,111* |
| Stand Improvement (acres) | FOR-VEG-IMP (reported in FACTS) | 6,092 | 0 | 6,092 |
| Reforestation and revegetation (acres) | FOR-VEG-EST (reported in FACTS) | 0 | 0 | 0 |
| Forests treated using timber sales (acres) | TMBR-SALES-TRT-AC (reported in FACTS) | 4,359 | 0 | 4,359 |
| Rangeland Vegetation Improvement (acres) | RG-VEG-IMP (reported in FACTS) | 0 | 0 | 0 |

*These accomplishments were either different than, or they were not included in the gPAS report. If different, it is because those FY23 accomplishments were not entered into their respective databases of record by Nov 6, 2023.

**Is there any background or context you would like to provide regarding the information reported in the table above?**
Please see footnotes associated with the accomplishments table above.

Engineering, Roads and Minerals navigated a severe lapse in critical leadership staffing to complete or embark upon four Road Maintenance contracts within the CFLR boundary in the 2023 fiscal year. Though formal reporting of accomplishment in the database of record has lagged due to staffing shortages, the Malheur National Forest was able to complete approximately seventy-six miles of Level II surface maintenance, 54 miles of Level III surface maintenance and over 100 miles of ditch maintenance in the project area. Local contractors began or continued work alongside the Malheur NF road crew on maintenance contracts that will continue into the next project year including the repair or replacement of twenty-seven cattleguards and placement of various berms and culvert repairs. Forest Service employees continued data collection that will contribute to the further repair and decommissioning of pertinent roads in the greater project area.

The Malheur no longer reports numbers for rangeland vegetation improvement in FACTS per regional direction that was given to us years ago. Although these numbers are not reported, fuels reduction, invasives, stand improvement, and commercial thinning treatments all contribute to improvement of rangeland vegetation as well.

**Reflecting on treatments implemented in FY23, if/how has your CFLRP project aligned with other efforts to accomplish work at landscape scales?**

Early in 2023, we received notification that the Southern Blues Partnership project was one of 14 new projects selected for Joint Chiefs funding. The Southern Blues Joint Chief's project proposal was developed through a collaborative process between NRCS, the Forest Service, Blue Mountain Forest Partners, Grant Soil and Water Conservation District, Jerome Natural Resource Consulting, Oregon Department of Forestry, Oregon State University Extension and other partners. Through the new three-year project, NRCS and the Malheur NF will work with landowners, local experts, and partners to apply targeted forestry management, such as thinning and hazardous fuel treatments. Broadly, the project will create strategic fuel treatments to reduce fire risk to local communities while improving forest, rangeland, and overall watershed resiliency to proactively address changes in climate and precipitation patterns. The project will also engage in outreach and education to landowners about their property to promote a more fire adapted landscape. The Joint Chief's Southern Blues Restoration Project is an excellent example of how federal, state, and local agencies can use targeted funding to achieve dramatic results that benefit natural resources, build drought resiliency, and contribute to reducing risk to wildfire to our communities.

In coordination with Grant Soil and Water Conservation District (SWCD) Weed Control Program, we have continued and expanded cross-boundary invasive grass and noxious weed treatments since 2016. Through Title II-funded projects we have controlled ~15,110 acres of noxious weeds and annual grasses within the CFLRP boundary on national forest and non-forest lands. In 2020, the SWCD started a title-II funded project to control annual invasive grasses in the John Day Valley, and most of this area is adjacent to the CFLRP boundary on private lands. In 2023, 36,500 acres of annual grass-invaded private land adjacent to CFLRP boundaries in the upper John Day watershed were controlled using aerial herbicide application.

| Year | Estimated acres of noxious weed control within CFLRP boundary |
|---|---|
| 2016 | 500 |
| 2017 | 1,400 |
| 2018 | 2,000 |
| 2019 | 2,700 |
| 2020 | 3,100 |
| 2021 | 3,200 |
| 2022 | 1,200 |
| 2023 | 1,010 |
| Total | 15,110 |

In 2023, a Categorical Exclusion was completed for the Austin Junction Wildfire Resiliency Project. This project was initially brought forward by the Oregon Department of Transportation, then developed collaboratively with ODOT and Blue Mountain Forest Partners. It was partially funded through Oregon Department of Forestry (ODF) under their Planning Assistance and Categrocial Exclusion (PACE) program. The 110-acre project reduces fuel around an ODOT maintenance facility and The Austin House, a restaurant and gift shop, reducing stand density through commercial removal and non-commercial thinning. Oregon Department of Forestry administered a contract for surveys, analysis, and documentation for the project. The NEPA decision was signed in June 2023.

## 4. Restoring Fire-Adapted Landscapes and Reducing Hazardous Fuels

**Narrative Overview of <u>Treatments Completed in FY23</u> to restore fire-adapted landscapes and reduce hazardous fuels**, 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?

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.

We continue to focus on fire resiliency treatments. Treatments ranged from mechanical treatments such as commercial harvest, small diameter tree thinning, mastication, slash piling, and burning piles, to landscape under burning. To increase the scale of under burning needed to meet restoration goals, we continue to utilize contractors to help complete our backlog of prescribed fire, including pile burning. We continue to utilize contract engines and personnel to assist our agency resources with landscape burning and pile burning. We have been successful with our agreement with the State of Oregon to enable us to share capacity of critical resources and training opportunities to build capacity. As the costs of treatments across the landscape increases, the forest looks to utilize a mix of mechanical treatments and fire to increase the resiliency of the landscape while reducing costs of each footprint acre of treatment. The suite of treatments listed above are not necessarily implemented on every acre proposed for treatment. For example, once commercial harvest occurs, not all units need small diameter thinning and subsequent fuels treatments prior to under burning.

*Photos. Fuels reduction work (pile, and broadcast burning)*

Both collaborative groups have continued to be the voice for increasing social acceptance and sharing science for the need for more "good fire" on the landscape. 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 have been involved through the process and have started developing prescriptions that reflect these agreements, however, we often find the treated stands remain too dense and we are leaving too many non-fire-resistant trees. Knowing that there is a time lag between contract development and implementation monitoring and often agreed to language is not communicated well, we have developed a working group to better move our "Zones of Agreement" to contract specification language.

*Photo 1. Post prescribed fire.*

The forest is at various stages of implementation across different project areas within the CFLRP boundary. Projects such as Soda Bear (above right photo, decision 2012) and Starr (decision 2012) have over 85% of the mechanical work finished and implementation is focused on prescribed fire. The Big Mosquito project decision was signed in 2015 and implementation is currently focused on mechanical work including timber harvest and associated slash treatments (top left photo). Galena was signed in 2013. For this project all commercial treatments are completed, and we are currently finishing fuels treatments and underburning across this project area. The forest continues to take advantage of relationships, funding streams, and environmental conditions to get the planned work completed across the CFLRP landscape. We also continue to navigate challenges in staffing, local relationships, and environmental conditions. The burn window in spring 2023 was short due to wetter than normal conditions and combined with strained local relationships, contributed to the below average acres underburned in FY 2023. Our goal is to complete all the planned work in each project area.

**<u>If</u> a wildfire interacted with a previously treated area within the CFLRP boundary:**

There were 24 total fires for 25 ac that occurred within the boundary of the CFLRP. Of those, 11 fires interacted with 5 different types of treatments for 7.1 acres. The largest fire, 19 ac had 2.25 ac of interaction with previously completed treatments that allowed more direct strategy for containment. Average size of fires that interacted with previous treatments was .65 acres with most fires less than 0.25 acre in size.

- Did the wildfire behavior change after the fire entered the treatment?
    - Yes. Although most fires were less than 0.25 ac in size at containment, the combination of moderated weather conditions and previous treatments allowed most fires to be kept small this year.
- Did the treatment contribute to the control and/or management of the wildfire?
    - Yes. Treatments generally allowed responding resources to take a direct suppression strategy.
- Was the treatment strategically located to affect the behavior of a future wildfire?
    - Yes. As the forest continues to complete planned activities from NEPA that started over 10 years ago, the treatments are becoming more and more continuous, creating larger areas for managing natural ignitions and allowing decision space under the appropriate environmental conditions. We're also growing our Agency Administrators to gain more fire experience and confidence to allow fire to play its natural role on this fire adapted landscape.
- Please describe if/how partners or community members engaged in the planning or implementation of the relevant fuels treatment. Did treatments include coordinated efforts on other federal, tribal, state, private, etc. lands?

  - With the lack of opportunity to manage fires for resource benefit, partners were included in pre-season conversations to be prepared to manage the right fires in the right place at the right time for any resource benefit. Had opportunities arisen, state, federal, and private partners would have been informed and included during the decision-making process.
- 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.
- How are planned treatments affected by the fire over the rest of the project? Was there any resource benefit from the fire that was accomplished within the CFLRP footprint or is complementary to planned activities?
    - See above.
- What is your key takeaway from this event – what would you have done differently? What elements will you continue to apply in the future?
    - The forest needs to continue to treat the landscape in its entirety, from thinning through landscape burning at a more contiguous scale. Once completed, all treatments change fuel composition and most moderate fire behavior.

**FY23 Wildfire/Hazardous Fuels Expenditures**

| Category | $ |
|---|---|
| FY23 Wildfire Preparedness* | $6,000,000 |
| FY23 Wildfire Suppression** | $1,000,000 |
| FY23 Hazardous Fuels Treatment Costs (CFLN, CFIX) | $2,507,160 |
| FY23 Hazardous Fuels Treatment Costs (other BLIs) | $10,000 |

* 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).
** Include emergency fire suppression and BAER within the project landscape.

**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. (If not relevant for this year, note "N/A")

As noted in previous sections, no larger fires occurred within the SBRC project area in FY23.

Over the life of the SBRC project three large fires have 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 in 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. The Forest Plan does allow fuels treatments to occur within both roadless areas and wild and scenic corridors. All future landscape projects will

consider fuels treatments in both roadless and wild and scenic corridors. 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.

The Crockets Knob fire burned approximately 4100 ac within the CFLR boundary in 2022. Although it didn't burn within fuels treatment units, it did burn within the footprint of the 1996 Summit Fire. Resources were able to take advantage of existing road systems to broaden our potential control features (PCLs) within our larger POD. A slightly slower fire season across Region 6 (Washington and Oregon) allowed the forest to assign the right number of resources for the right duration to contain this fire. We'll be able to use this control feature within a larger POD in the future when we have another wildland fire in that area. The 25-year interval between fires tells us that although we have time to plan a project in that area where we'll be able to implement treatments for a lower severity fire effects in the future, wildfires can be expected in this area on a regular basis.

## 5. Additional Ecological Goals

**Narrative Overview of <u>Treatments Completed in FY23</u> to achieve ecological goals outlined in your CFLRP proposal and work plan.** This may include, and isn't limited to, activities related to habitat enhancement, invasives, and watershed condition.

The overarching goal for Southern Blues CFLRP 2.0 is implementation of restoration treatments at a scale that will help native wildlife thrive, create forests that are resilient to climate change, and support the health, safety, and prosperity of local communities. In FY23, with the support of our two collaboratives, we utilize CFLR funding to implement restoration treatment to achieve these important objectives within the project area.

**Youth Crew**

Utilizing both CFLR and Title II funds the forest hosted two youth crews (ages 15-18) to on a multitude of natural resource projects. The youth crew worked with various specialists throughout the summer and contributed hundreds of hours removing small diameter conifers in aspen stands, repairing wire and buck and pole exclosure fences, placing coarse woody material in draws and intermittent streams, flagging unit boundaries for fuels treatments, flagging heritage sites within fuel treatment boundaries, removing old cages around riparian hardwoods, constructing beaver dam analogs, building fence around aspen stands, locating and GPS'ing range improvements such as cattteguards and troughs, and maintaining campgrounds.

This opportunity created employment for local youth and provided a foundation of knowledge and skills in natural resources while providing a sense of value and contribution in the management of the Malheur National Forest. The amount of work on the ground the youth crew contributed would not have been achieved without them. A partnership between the Forest Service and Training Employment Consortium allowed this project to be successful.

**Summit Creek Stage 0 Restoration Project Revegetation**

Summit Creek is a significant tributary within the headwaters of the Malheur River and contains nearly 15 miles of bull trout critical habitat with enormous potential for recovery. Summit Creek has expansive valley bottoms that were historically depositional environments supporting abundant and diverse aquatic ecosystems. Historic land management

practices have caused Summit Creek to incise and disconnect from its floodplain except at high flows. Lack of floodplain connectivity and lowered water tables have greatly reduced the size and diversity of riparian plant communities, thereby reducing stream shade and increasing water temperatures.

The purpose of this project is to improve ecological function and biological productivity for ESA Threatened Bull Trout, as well as other native species, while restoring valley bottom connectivity and complexity within Summit Creek. The in-stream portion of the project work included filling the incised channel with nearly 5,000 cubic yards of alluvial sediment and adding large wood to increase roughness throughout the valley bottom. This work was completed in August 2023. By raising the stream bed back to historic elevation, Stage Zero restoration has returned the stream network to an anastomosing, naturally aggrading state where it can remain hydrologically dynamic in perpetuity and retain water, sediment, and nutrients for longer periods of time. Approximately 3,300 rooted stock hardwoods were planted within the completed project reach in October 2023.

This project was implemented by the Malheur National Forest within an approximately 0.75-mile reach of Summit Creek with a consortium of partners including the Malheur Watershed Council, Oregon Watershed Enhancement Board, Burns Paiute Tribe, and Oregon Department of Fish and Wildlife, with additional revegetation work anticipated in FY 24 with assistance from the Oregon Natural Desert Association. CFLN funds were utilized to procure and plant native hardwoods in the project footprint to assist with recovery after active restoration was completed.

*Photo 2 Summit Creek Large Wood Placement*

*Photo 3 Summit Creek Hardwood Planting*

**Butte Creek Habitat Complexity Project**

Butte Creek is a tributary to the Middle Fork John Day River and designated as Steelhead and Bull Trout critical habitat. The project on Butte Creek was completed in two phases, with phase I completed in 2020 and phase II completed summer of 2023. In 2020, an existing Forest Systems Road located along Butte Creek was obliterated and reconstructed onto the nearby toeslope. All non-native road material from the obliterated road was used in the reconstruction of the relocated road. The road obliteration along Butte Creek totaled approximately 0.2 miles allowing for natural stream meandering and stream floodplain access. After the road was obliterated, the stream banks were re-contoured and stabilized with coir mats. Large wood structures were built in the channel and on the floodplain to increase habitat complexity, facilitate sediment deposition, and floodplain rough. In 2023, the remaining 0.7 miles of the project was completed using excavators above and below the restoration work done in 2020. Log weirs, rock barbs, and berms creating fish passage barries were removed from the channel and floodplain to enhance stream meandering and floodplain activation. Large wood structures were built to increase habitat complexity, channel aggregation, and

inundate the floodplain. This project also completed the remaining essential actions for the overall Butte, Ruby, and Beaver Creeks Habitat Complexity project**.**

This project was completed by partnering with the North Fork John Day Watershed Council. The North Fork John Day Watershed Council was able to provide finds from the Oregon Watershed Enhancement Board.

*Photo 5. Large wood placed in 2020, and banks stabilized with coir mats.*

*Photo 4. Hardwood recovery in 2023.*

Treatments implemented in FY23 helped to achieve lifetime project goals on the landscape while directly and indirectly enhancing soiceconomic conditions and local relationships with partners and communities memebers in the area. This would not have been possible without help of collaboration and CFLR funding.

## 6. Socioeconomic Goals

**Narrative overview of activities completed in FY23 to achieve socioeconomic goals outlined in your CFLRP proposal and work plan.**

Many of the CFLRP contracts and agreements awarded for restoration work went to local contractors and a high percentage of the wood products were processed at local mills. 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. 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. Members of the SBRC continued to expand local partnerships and were successful in competing for additional project funds to increase hazardous fuels treatments on Forest Service land within and outside of the CFLRP boundary, as well as on adjacent private lands.

https://forestnet.com/TWissues/2017_sept_oct/riding.php**Results from the Treatment for Restoration Economic Analysis Toolkit (TREAT).** For guidance, training, and resources, see materials on Restoration Economics SharePoint.[7] After submitting your data entry form to the Forest Service Washington Office Economist Team, they will provide the analysis results needed to respond to the following prompts.

Percent of funding that stayed within the local impact area: 50%

[7] Addresses Core Monitoring Question #7

Contract Funding Distributions Table:

| Description | Project Percent |
|---|---|
| Equipment intensive work | 35% |
| Labor-intensive work | 22% |
| Material-intensive work | 22% |
| Technical services | 11% |
| Professional services | 5% |
| Contracted Monitoring | 5% |
| TOTALS: | 100% |

Modelled Jobs Supported/Maintained (CFLRP and matching funding):

| Jobs Supported/Maintained in FY 2023 | Direct Jobs (Full & Part-Time) | Total Jobs (Full & Part-Time) | Direct Labor Income | Total Labor Income |
|---|---|---|---|---|
| Timber harvesting component | **61** | **87** | **$6,037,940** | **$7,327,406** |
| Forest and watershed restoration component | **10** | **20** | **$760,416** | **$1,242,124** |
| Mill processing component | **92** | **171** | **$7,203,064** | **$11,826,569** |
| Implementation and monitoring | **77** | **79** | **$550,391** | **$654,979** |
| Other Project Activities | **1** | **1** | **$64,081** | **$82,589** |
| TOTALS: | | | | |

- **Were there any assumptions you needed to make in your TREAT data entry you would like to note here? To what extent do the TREAT results align with your observations or other monitoring on the ground**?
    - The TREAT results align very well with on the ground observations. CFLR projects and commercial and stewardship sales provide a large workforce and a substantial economic benefit to our small, local communities.

**Please provide a brief description of the local businesses that benefited from CFLRP related contracts and agreements, including characteristics such as tribally-owned firms, veteran-owned firms, women-owned firms, minority-owned firms, and business size.**[8] For resources, see materials here (external Box folder).

Locally owned businesses that benefit from CFLRP related contracts are almost exclusively small businesses, that range from 2-3 employees and up to 100+ employees. These businesses predominately include forest and watershed restoration contractors, timber harvesting contractors, and local mills and wood processing facilities.

[8] Addresses Core Monitoring Question #8

## 7. Wood Products Utilization

**Timber & Biomass Volume Table**[9]

| Performance Measure | Unit of measure | Total Units Accomplished |
|---|---|---|
| Volume of Timber Harvested TMBR-VOL-HVST | CCF | 78,284 |
| Volume of timber sold TMBR-VOL-SLD | CCF | 87,079 |
| Green tons from small diameter and low value trees removed from NFS lands and made available for bio-energy production BIO-NRG | Green tons | 13,119 |

Reviewing the data above, do you have additional data sources or description to add in terms of wood product utilization (for example, work on non-National Forest System lands not included in the table)?

The total accomplishment for timber volume harvested shown above only includes contracts within the CFLRP boundary and data was derived from FPFS. The data provided for timber volume sold reflects all sales offered and sold in FY23. One sale (Del timbersale) was offered in FY22, but not officially sold until FY23. Including this sale, the total volume sold for FY23 was 126,704 CCF. Only one sale sold in FY23 was within the CFLRP boundary. The volume for this sale (Gem DxPre) was 42,713 CCF.

## 8. Collaboration

**Please include an up-to-date list of the core members of your collaborative if it has changed from your proposal/work plan (if it has not changed, note below).**[10] For detailed guidance and resources, see materials here. Please document changes using the template from the CFLRP proposal and upload to Box. Briefly summarize and describe changes below.

Our list of collaborators has not changed.

## 9. Monitoring Process

**Briefly describe your current status in terms of developing, refining, implementing, and/or reevaluating your CFLRP monitoring plan and multiparty monitoring process.**

The SBRC currently has a fairly diverse monitoring program that includes forest vegetation and fuels, invasive treatments, wildlife, aquatics, and heritage implementation monitoring. The SBRC project has partnered with many organizations over the years to collect monitoring data to inform decisions and apply adaptive management to ongoing treatments. These organizations have included the Rocky Mountain Research Station, the Blue Mountains Ecology program, and many others to complete the wide breadth of monitoring needed. For 2023, the SBRC continued to partner with Oregon State University (OSU) for the tenth year completing the forest vegetation and fuels monitoring program. This year, researchers at OSU took over the invasive species monitoring required by the common monitoring strategy, so that invasives plots would be associated with long term forest vegetation and fuels monitoring plots, adding to the strength of this long-term data. A monitoring symposium was also held in the spring of 2023 to share and discuss forest vegetation and fuels studies that are in various stages of completion. We

[9] Addresses Core Monitoring Question #10
[10] Addresses Core Monitoring Question #11

also partnered with Grant Soil and Water Conservation District to assess the impacts of spraying indaziflam on public and private land to adjacent stream courses. This monitoring found that although traces of indaziflam were found within the streams assessed, all of them were below the critical threshold for the most sensitive aquatic species. The SBRC has also continued to partner with the Pacfish/Infish Biological Opinion (PIBO) monitoring program to complete long-term monitoring of conditions and trends within riparian areas to determine if management actions are meeting objectives and trending riparian areas in the desired direction.

The SBRC currently does not have a documented adaptive management plan but does have a CFLRP monitoring plan that we are in the process of updating. The draft updated plan has been included in the specified box folder and incorporates the common monitoring strategy questions, as well as current personnel changes within some of our partner groups and how tasks will be delineated for the future to complete ongoing monitoring projects.

## 10. Conclusion

**Describe any reasons that the FY 2023 annual report does not reflect your proposal or work plan. Are there expected changes to your FY 2023 plans you would like to highlight?**

The Malheur National Forest is continuing to have a robust program of work within the boundary of the SBRC project area. We have had great success in fuels reduction and habitat restoration. Fiscal year 2023, however, saw a temporary slowdown in spring season under burning while the forest worked through local challenges and tensions surrounding the fall 2022 Starr RX project. We returned to under burning this fall and are very well set up for the spring of fiscal 2024.

Fiscal year 2023 was also the last year of the 10-year Stewardship Contract for the Malheur. This contract was a hugely successful tool to accomplish goals with the CFLRP and the broader forest to increase the pace and scale of restoration work. Although this contract has come to an end, the forest developed a strategy through 2023 to utilize a multitude of methods to complete the forest's commercial and stewardship program of work moving forward.

Our habitat work accomplished riparian repair and planting, spring enhancement, road decommissioning, pre commercial and commercial thinning. We had a wide variety of local contractors perform work this year within our CFLR project area which in turn continues to have a positive economic impact on our local community.
The work we accomplished in fiscal 2023 and are planning for fiscal 2024 has and will continue to be directly aligned with our CFLR project proposal.

## Optional Prompts

**FY 2023 Additional Accomplishment Narrative and/or Lessons Learned Highlights**
If desired, please use this space to describe accomplishments not already described elsewhere in this report.

**Media Recap**
Please share any videos, articles, press releases, etc. – you can include links or copy/paste.

**Visuals**
Please paste here or upload visuals if available, including before/after photos, maps, monitoring graphics, etc.

**For Internal Use**
Use this space to raise awareness on key internal issues, bottlenecks, improvements. Responses won't be made public.

## Signatures

Recommended by (Project Coordinator(s)): /s/ Colleen Malaney
Approved by (Forest Supervisor(s)): /s/ Ann Niesen
Draft reviewed by (collaborative representative): /s/ Mark Webb

## Attachment: CFLRP Common Monitoring Strategy Core Questions

**The 2022 cohort will complete the Common Monitoring Strategy questions in FY23. The 2022 cohort includes:** Lakeview, Missouri Pine Oak Woodlands, North Yuba, North Central Washington, Northeast Washington, Rio Chama, Rogue Basin, Shortleaf Bluestem, Southern Blues, Southwest Colorado, Western Klamath, Zuni

**2021 funded projects (Deschutes, Dinkey, Northern Blues) will only need to address the annual questions** (Q1, Q5, Q7, Q10, Q11, Q13). For CFLRP projects awarded (or extended) in FY23, the Attachment is NOT required. However, please note it will be required in FY24.

The CFLRP Common Monitoring Strategy is designed to reflect lessons learned from the first ten years of the program, expand monitoring capacity, and improve landscape-scale monitoring. It is intended to strike a balance between standardization and local flexibility and to be responsive to feedback that more guidance and capacity are needed. Questions are standardized nationally and indicators are standardized regionally. Many CFLRP projects have been implementing restoration treatments and monitoring progress prior to the Common Monitoring Strategy. This effort may not capture the progress of every project over its lifetime but provides an opportunity for all projects to take a step together in a unified monitoring approach.

- Question 1: "What is the reduction in fuel hazard based on our treatments?"
- Question 2: "What is the effect of the treatments on moving the forest landscape toward a more sustainable condition?"
- Question 3: "What are the specific effects of restoration treatments on the habitat of at-risk species and/or the habitat of species of collaborative concern across the CFLRP project area"
- Question 4: "What is the status and trend of watershed conditions in the CFLR area, with a focus on the physical and biological conditions that support key soil, hydrologic and aquatic processes?"
- Question 5: "What is the trend in invasive species within the CFLRP project area?"
- Question 6: "How has the social and economic context changed, if at all?"
- Question 7: "How have CFLRP activities supported local jobs and labor income?"
- Question 8: "How do sales, contracts, and agreements associated with the CFLRP affect local communities?"
- Question 9: "Did CFLRP maintain or increase the number and/or diversity of wood products that can be processed locally?"
- Question 10: "Did CFLRP increase economic utilization of restoration byproducts?"
- Question 11: "Who is involved in the collaborative and if/how does that change over time?"

- Question 12: "How well is CFLRP encouraging an effective and meaningful collaborative approach?"
- Question 13: "If and to what extent have CFLRP investments attracted partner investments across the landscapes?"

*The tables in the section below are copy/pasted from the suggested monitoring tracking templates to help organize data across CFLRP projects. Adapt the reporting tables as needed to align with regional monitoring indicators.*

## Monitoring Question #1: "What is the reduction in fuel hazard based on our treatments?" (Reported Annually)

For detailed guidance, training, and resources, see corresponding reporting template here. Use it to respond to the following prompts:

**Table 1. Fire intensity (predicted flame lengths) from IFTDSS**

| **IFTDSS Auto-97th percentile flame length output** | *Non-burnable* | *0 – 1ft. flame lengths* | *1 - 4 ft. flame lengths* | *>4 - 8 ft. flame lengths* | *>8 - 11 ft. flame lengths* | *>11 - 25 ft. flame lengths* | *>25 ft. flame lengths* |
|---|---|---|---|---|---|---|---|
| **Initial landscape model (Baseline under CMS)** | 14,640<br>(1.4%) | 133,814<br>(12.9%) | 586,489<br>(56.7%) | 149,468<br>(14.4%) | 61,210<br>(5.9%) | 73,445<br>(7.1%) | 15,962<br>(1.5%) |
| **Landscape model 2 (Second year of CMS)** N/A in first reporting year | | | | | | | |
| **Area treated in FY23** | See Annual Report | | | | | | |

- **Briefly describe monitoring results in table above – include an interpretation of the data provided and whether the indicator is trending toward or away from desired conditions for your landscape.** If the data above does not accurately reflect fire and fuel hazard on your landscape please note and provide context. While generally smaller flame lengths are desirable, this isn't the case in all ecosystems – please note if this applies.
    - With approximately two-thirds of the forest considered a fire regime one ecosystem, an ecologically healthy landscape would experience more surface fire and low rates of spread during a wildfire. More than 60% of the CFLR landscape would experience very low to low rates of spread, 0-5 chains/hour and surface fire, <4' flame lengths. Direct attack with hand tools could successfully be used on fires across these landscapes. An additional 35% of the landscape would experience moderate rates of spread, up to 20 chains/hour and may require equipment but direct attack remains a successful option as 4-8' flame lengths could be expected. Only 5% of the landscape would require indirect suppression tactics to be successful under high to extreme fire behavior. The landscape is moving towards the desired condition

based on fire regimes and requires continued fuels treatments across the areas that remain untreated to maintain the ecosystem health.

**Table 2. Crown fire activity from IFTDSS - IFTDSS Auto-97th crown fire activity output by watershed**

**Initial landscape model (Baseline under CMS)**

| Watershed Name | Unburnable | Surface Fire | Passive Crown Fire | Active Crown Fire | Crown Fire (combined) |
|---|---|---|---|---|---|
| Otis Ck | 44.9 (0.2%) | 10999.9 (54.8%) | 9023.0 (45.0%) | 0.0 (0.0%) | 9023.0 (45.0%) |
| Upper North Fork Malheur R | 603.4 (1.4%) | 23913.4 (55.7%) | 18383.1 (42.9%) | 0.2 (0.0%) | 18383.4 (42.9%) |
| Headwaters Malheur R | 1914.2 (1.6%) | 63778.8 (54.5%) | 51275.3 (43.8%) | 13.6 (0.0%) | 51288.9 (43.8%) |
| Wolf Ck | 117.4 (0.2%) | 41123.2 (57.3%) | 30515.7 (42.5%) | 0.2 (0.0%) | 30515.9 (42.5%) |
| Pine Ck | 41.1 (0.1%) | 20691.2 (62.9%) | 12179.2 (37.0%) | 0.0 (0.0%) | 12179.2 (37.0%) |
| Griffin Ck-Upper Malheur R | 11.6 (0.2%) | 5347.3 (72.7%) | 2000.9 (27.2%) | 0.0 (0.0%) | 2000.9 (27.2%) |
| North Basin | 254.6 (1.7%) | 11615.2 (79.0%) | 2841.5 (19.3%) | 0.0 (0.0%) | 2841.5 (19.3%) |
| Headwaters Silvies R | 2179.7 (3.1%) | 56942.6 (81.3%) | 10933.6 (15.6%) | 3.6 (0.0%) | 10937.1 (15.6%) |
| Bear Ck | 1198.7 (1.7%) | 47599.6 (68.2%) | 20963.1 (30.0%) | 1.1 (0.0%) | 20964.3 (30.1%) |
| Upper Silvies R | 3620.4 (2.3%) | 117907.2 (75.9%) | 33842.7 (21.8%) | 7.1 (0.0%) | 33849.8 (21.8%) |
| Middle Silvies R | 622.7 (1.0%) | 39639.8 (64.5%) | 21193.1 (34.5%) | 0.2 (0.0%) | 21193.3 (34.5%) |
| Upper S Fork John Day R | 421.9 (1.0%) | 28840.8 (65.7%) | 14620.9 (33.3%) | 0.2 (0.0%) | 14621.1 (33.3%) |
| Reynolds Ck-John Day R | 1162.5 (3.0%) | 12638.9 (32.7%) | 24682.9 (63.9%) | 159.7 (0.4%) | 24842.6 (64.3%) |
| Grub Ck-John Day R | 21.8 (0.5%) | 1880.1 (44.8%) | 2295.3 (54.7%) | 0.7 (0.0%) | 2296.0 (54.7%) |
| Canyon Ck | 562.9 (1.0%) | 43012.9 (74.5%) | 14114.9 (24.4%) | 73.2 (0.1%) | 14188.1 (24.6%) |
| Beech Ck | 87.6 (0.4%) | 10999.2 (45.9%) | 12868.0 (53.7%) | 3.3 (0.0%) | 12871.3 (53.7%) |
| Bridge Ck-Middle Fork John Day R | 808.2 (1.9%) | 19729.5 (45.6%) | 22700.5 (52.5%) | 0.0 (0.0%) | 22700.5 (52.5%) |
| Camp Ck-Middle Fork John Day R | 805.1 (0.6%) | 61121.2 (49.3%) | 61799.0 (49.8%) | 250.2 (0.2%) | 62049.2 (50.0%) |

| | | | | | |
|---|---|---|---|---|---|
| Big Ck-Middle Fork John Day R | 160.1 (0.4%) | 17724.2 (49.4%) | 18024.4 (50.2%) | 3.1 (0.0%) | 18027.5 (50.2%) |

- **Briefly describe monitoring results in table above – include an interpretation of the data provided, and whether the indicator is trending toward or away from desired conditions for your landscape.** If the data above does not accurately reflect fire and fuel hazard on your landscape please note and provide context.
    - There are 5 watersheds where active crown fire is expected across more than 50% of the landscape. Of those 5, no recent fuels treatments have been implemented, let alone completed in 3 of the watersheds. In the other two watersheds, activities are currently being implemented. Thinning, fuels treatments, and underburning have been completed in some acres and many post-harvest fuels treatments and underburning remain to be completed as contracts are in different stages of completion. Galena has more than 75% of post-harvest contracts awarded or completed and the Magone project is still awaiting commercial harvest to be awarded prior to awarding any small diameter thinning or fuels treatments. The Big Mosquito project has approximately 35% of the post-harvest thinning and fuels treatments awarded or completed. As each of these projects are completed, the percent of active crown fire can be expected to decrease and continue to move towards the desired condition of the landscape, higher amounts of low intensity, high frequency fire. Of the remaining 15 watersheds with less than 50% expected active crown fire, projects such as Damon, Soda Bear, Elk 16, Summit, Upper Pine, and Silvies Canyon are in different phases of completion of the mechanical treatments and underburning. Damon and Soda Bear projects are focused on underburning as mechanical work is complete. Elk 16 is 70% complete with mechanical treatments and 35% complete with underburning. Activities in Silvies Canyon are focused on underburning and the Upper Pine project has 85% of the mechanical either awarded or completed. The forest continues to make progress towards the desired conditions of more surface fire intermixed with passive crown fire across our CFLR project area.

- **Does your CFLRP project have additional hazardous-fuels related monitoring results to summarize and interpret?** If so, please provide that here.
    - Two recent peer reviewed publications addressed 1) modeled fire behavior following hazard fuel reduction treatments and 2) forest resilience as measured by tree physiological and understory vegetation responses within the Southern Blues CFLRP area. The first paper (see https://www.sciencedirect.com/science/article/pii/S0378112721007647) found that surface fuel loading increased for several years after treatment and then declined rapidly. Modelled crown fire potential decreased significantly following treatment. Modelled surface fire flame length and fire spread increased for several years after treatment but then declined significantly and was continuing to decline 5 years following treatment. The second paper (see https://www.sciencedirect.com/science/article/pii/S0378112723006059) found that hazardous fuel reduction thinning was associated with significantly increased radial growth in residual trees and an increase in forb and graminoid abundance and diversity, suggesting the restoration of pattern-process feedbacks to which these forests are adapted. These results were shared at 11 community presentations and three academic conferences.

- **Based on the information in this section, (and any other relevant monitoring information and discussion), what (if any) actions or changes are you considering?**
    - The forest needs to continue to complete mechanical treatments, so the landscape is ready to receive fire, whether natural ignition or through prescribed underburning.

## Monitoring Question #2: "What is the effect of the treatments on moving the forest landscape toward a more sustainable condition?" (Reporting frequency determined by Regional indicator)

For detailed guidance, training, and resources, see corresponding reporting template here. Use it to respond to the following prompts:

Regions have standardized on one of the four following metrics to address Indicator 1 for ecological departure. For your region's chosen metric, please insert the matching table that corresponds with your indicator from the reporting template (abbreviated examples below).

**Table 1: Vegetation Departure**

| **Succession Class** Area (acres) & % total project area | **Early Development** | **Mid Closed** | **Mid Open** | **Late Open** | **Late Closed** |
|---|---|---|---|---|---|
| **Current Acres** | 35,491 ac. (4.5%) | 344,965 ac. (43.7%) | 234,298 ac. (29.7%) | 34,100 ac. (4.3%) | 139,820ac. (17.7%) |
| **Current Departure** | -60,424 ac. | 278,722 ac. | 31,099 ac. | -320,229 ac. | 47,054 ac. |
| **Disturbance only Restoration Needed** | 0 (0.0%) | 73,963 (21.4%) | 17,264 (7.4%) | 0 (0.0%) | 57,465 (41.1%) |
| **Succession only Restoration Needed** | 1,091 (3.1%) | 3,675 (1.1%) | 10,905 (4.7%) | 0 (0.0%) | 0 (0.0%) |
| **Disturbance then Succession Needed** | 0 (0.0%) | 191,494 (55.5%) | 3,956 (1.7%) | 0 (0.0%) | 0 (0.0%) |

- **Briefly summarize how your landscape has departed from historic ecological conditions including disturbance**.
    - The Southern Blues CFLRP area has experienced similar ecological changes that have been documented across the Malheur National Forest. The Malheur was a fire-adapted landscape where relatively widespread, low-intensity fires historically burned on an average of every 10-20 years in most forest types. Due to fire suppression, ponderosa pine and mixed conifer forests have changed from historical conditions. Current stands are typically denser and species compositions have shifted to a higher proportion of fire-intolerant species such as grand fir, lodgepole pine, and western juniper. Other species, such as western larch have declined in their abundance across the landscape. In general, ponderosa pine forests have seen a decrease in large, old trees and an infilling of young trees. Research suggests that mixed conifer forests have as many or more large trees then they historically had but have also experienced an infilling of fire-intolerant species.

- **Briefly describe monitoring results – include an interpretation of the data provided above, and whether the indicator is trending toward or away from desired conditions for your landscape** (including resiliency to future disturbances and climate projections). If the data above does not accurately reflect condition on your landscape, please note and provide context.
    - The monitoring results above demonstrate a deficit of early development and late, open structure across the landscape, and an abundance of younger and/or dense forest structure. These results are consistent with other project-level analyses of current vegetation departure from historical ranges. Through landscape-level planning and implementation the forest is working towards goals to increase resiliency and move forest vegetation towards the historical range of variability. Treatments reduce density, shift species composition, and help promote and protect large and old trees. Treatments tend to focus on the mid and late closed structure classes to move them into open structure classes, which will continue to increase more open stand conditions across the landscape. Through time this will increase the amount of late, open forest structure. Current treatments do not address the deficit of early development at a large enough scale to shift the trend. More work will need to be completed within the forest and with partners to determine appropriate management techniques to restore early development structure.

## Monitoring Questions #3: "What are the specific effects of restoration treatments on the habitat of at-risk species and/or the habitat of species of collaborative concern across the CFLRP project area?" (Reporting frequency determined by Regional indicator)

For detailed guidance, training, and resources, see corresponding reporting template here. Use it to respond to the following prompts:

If reporting on indicator 1 or 2 (wildlife habitat indicators), fill in this table:

| Wildlife Habitat Descrip. | Regional or Project-Specific Indicator? | Indicator and Unit of Measure | Target Range | Value in Initial Year of CMS* | Value in Next Reporting Year of CMS* N/A in 2023 | Desired or Undesired Change? N/A in 2023 | Percent Change N/A in 2023 | Acres of Habitat Treated to Improve this Indicator in this Fiscal Year |
|---|---|---|---|---|---|---|---|---|
| Early Development – Ponderosa Pine/Mixed Conifer Forest | Regional | Acres in entire CFLRP Area and % of Target Range | 90,732 – 119,059 | 29,322 (32.3%) | | | | 0 |
| Late Open – Ponderosa Pine/Mixed Conifer Forest | Regional | Acres in entire CFLRP Area and % of Target Range | 333,189 – 383,298 | 20,222 (6.1%) | | | | 380 |

*Common Monitoring Strategy (CMS)

For the table or table(s) above:

- **Briefly interpret the monitoring results in the table above, including whether the indicator is trending toward or away from desired conditions for your landscape.** If the data above does not accurately reflect conditions on your landscape, please note that and provide context.

- Since this data represents baseline conditions in 2023 (initial year of CMS), no trend towards or away from desired conditions can be determined. However, the reported percentage of the area of the target range of early development ponderosa pine/mixed conifer forest appears to be reasonable based on the extent of recent treatments and natural disturbances. A trend towards the target range in this habitat type would most likely be the result of higher intensity natural disturbances like wildfire and more aggressive vegetation treatments than are typically prescribed across the area. Any trend established from future data would be indicative of nesting habitat for a number of migratory bird species, including chipping sparrows and several wood warblers such as McGillavray's warbler, orange-crowned warbler, Wilson's warbler, yellow warbler and yellow-rumped warbler.
- Many of the recent treatments across the project area have placed emphasis on restoring and retaining late open ponderosa pine forests, hence the reported baseline acres seem to underrepresent the current habitat available. This habitat type is considered synonymous with white-headed woodpecker habitat across the area and is often used as a proxy when evaluating habitat quality and availability for white headed woodpeckers. White headed woodpeckers are a management indicator species on the Malheur National Forest with a sensitive status in Oregon.

- **Does your CFLRP project have additional wildlife-related monitoring results to summarize and interpret?** If so, please provide that here.
  - The Southern Blues CFLRP has multiple previous and upcoming wildlife related monitoring projects that are in various stages of completion. Researchers from the Rocky Mountain Research Station have partnered with the CFLRP to study the effects of forest management, vegetation variables, and climate on the success of white-headed woodpecker nesting. Results of this study can be found at: https://www.sciencedirect.com/science/article/pii/S0378112723006771 and plans are being made for future follow-up measurements. The Rocky Mountain Research station has also partnered with the CFLRP to study the effects of salvage logging on three woodpecker species in the 2015 Canyon Creek Fire. The intent of this research was to study how to best design salvage logging to minimize negative consequences to woodpeckers. Although the results of this research are not published yet, a copy of a science bulletin article about the project is included in the report folder. Starting in FY24 the Klamath Bird Observatory will be monitoring past and current songbird species occurrence and quantifying changes in bird habitat over time for the Northern Blues CFLRP as well as the SBRC. This project will measure the success of stand-level and landscape-scale projects through a wildlife lens.

## Monitoring Question #4: "What is the status and trend of watershed conditions in the CFLRP area?" (Reported every 5 years)

For detailed guidance, training, and resources, see corresponding reporting template here. Use it to respond to the following prompts:

Summary of Watershed Condition Scores for the priority HUC12 watersheds within CFLRP boundary:

| HUC12 Watershed Name and 12-digit HUC | Affected by Treatment, Disturbance Events, or Both? | Date Before Treatment and/or Disturbance Event | Watershed Condition Score in Initial Year of CMS | Date After Treatment and/or Disturbance Event N/A in 2023 | Watershed Condition Score in Year 5 of CMS N/A in 2023 |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Bear Creek-Middle Fork John Day River (MFJDR) (170702030301) | Treatment (WRAP Completed) | 8/1/2018 | Functioning At Risk (1.8) | | |
| Lower Camp Creek (170702030207) | Treatment | 11/30/2011 | Functioning At Risk (1.8) | | |
| Upper Camp Creek (170702030205) | Treatment | 11/30/2011 | Functioning At Risk (1.8) | | |
| Lick Creek 170702030206) | Treatment | 11/30/2011 | Functioning At Risk (1.7) | | |

Watershed Condition Score averaged across all affected identified subwatersheds within CFLRP boundary:

| Indicator Number | Indicator Name | Avg. Indicator Value | Date |
|---|---|---|---|
| Aquatic Physical (Weighted 30%) | | | |
| 1 | Water Quality | 1.9 | 2022 |
| 2 | Water Quantity | 1.7 | 2022 |
| 3 | Aquatic Habitat | 2.3 | 2022 |
| Aquatic Biological (Weighted 30%) | | | |
| 4 | Aquatic Biota | 2.1 | 2022 |
| 5 | Riparian/Wetland Vegetation | 2.0 | 2022 |
| Terrestrial Physical (Weighted 30%) | | | |
| 6 | Roads & Trails | 2.0 | 2022 |
| 7 | Soils | 1.5 | 2022 |
| Terrestrial Biological (Weighted 10%) | | | |
| 8 | Fire Regime or Wildfire | 1.9 | 2022 |
| 9 | Forest Cover | 1.3 | 2022 |
| 10 | Rangeland Vegetation | 2.0 | 2022 |
| 11 | Terrestrial Invasive Species | 1.3 | 2022 |
| 12 | Forest Health | 1.5 | 2022 |

**Avg. Watershed Condition Score – 1.9**

- **Briefly interpret the monitoring results in the table above, including whether the indicator is trending toward or away from desired conditions for your landscape.** If the data above does not accurately reflect watershed condition on your landscape, please note that and provide context.
    - Eleven watersheds were identified to use in this analysis. Three of which were affected by wildfire within the last five years. Many of these watersheds have undergone aquatic restoration in the recent past as well. These effects will take time to be realized on the ground and reflected in the watershed condition. Even though the forest will not be reporting changes until 2028, some indicators do show changes from previous years due to watershed restoration treatments. Within the Terrestrial Biological category trends indicate improvement in the Forest Health and Fire Regime indicators as vegetation and fuel treatments have moved these indices towards the “good” category.

- This analysis does not accurately reflect the current conditions of some of the watersheds identified. The most current aquatic restoration actions from 2022 and 2023 are not included in the data. The three fire affected watersheds have not been re-analyzed since exposure to fire. Approximately half of these watersheds were within the fire perimeter. These watersheds were examined by Burned Area Emergency Response team for post fire effects and necessary mitigations. The Team identified three barriers, which were removed post fire, reducing habitat fragmentation in the watershed.

- **Does your CFLRP project have additional watershed condition-related monitoring results to summarize and interpret?** If so, please provide that here.
  - There are currently no other watershed condition-related monitoring results to summarize for the project.

## Monitoring Question #5: "What is the trend in invasive species within the CFLRP project area?" (Reported Annually)

For detailed guidance, training, and resources, see corresponding reporting template here. Use it to respond to the following prompts:

Treatment data for priority invasive species:

| Common Name | Treatment Action | Acres Treated[1] | Acres Monitored | Avg. "Percent Efficacy" | Acres Restored[2] | Response of Desirable Species[3] |
|---|---|---|---|---|---|---|
| Malheur National Forest | Herbicide | 1010.1 | 1034.7* | 66% | 661.7 | N/A |

[1] "Treated" is defined as prevented, controlled or eradicated.

[2] Agency performance accomplishment code INVPLT-INVSPE-REST-FED-AC, which is calculated in FACTS.

[3] "Desirable Species" includes everything that is not an undesirable species or bare ground. If not monitored, write N/A.

*This number is higher than acres treated because for some infestations, multiple species were treated per treatment area.

Table 2. Summary of plot-based field monitoring for invasive species
Data source(s): Forest Vegetation and Fuels Monitoring plots
Were the plots fixed or in different locations year to year: Fixed
Were the plots randomly placed: Yes
If so, how: Stands were randomly selected and systematic plots were overlaid
What statistical assumptions or models did you use: None
Were photos taken at each plot: Yes
Link to full results:

| Treatment Group Name | Brief Treatment Group Description | Date(s) Surveyed | Number of Plots Sampled | Avg. Percent Canopy Cover of Invasive Species per Plot | "Percent Change" N/A in 2023 | Avg. Percent Canopy Cover of Desirable Species per Plot | "Percent Change" N/A in 2023 |
|---|---|---|---|---|---|---|---|

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Treated Areas | Thinning (not followed by prescribed burning) | 06/07/2023-09/15/2023 | 50 | 1.3 | N/A | 10.1 | N/A |
| Non-treated Areas | No thinning, no prescribed fire, and no wildfire | 06/07/2023-09/15/2023 | 50 | 0.2 | N/A | 13.8 | N/A |

**For reporting on plot-based field monitoring, please include a summary of the results here:**

- **Briefly interpret the monitoring results in the table above, including whether the indicator is trending toward or away from desired conditions for your landscape.** If the data above does not accurately reflect the condition on your landscape, please note that and provide context.
    - The numbers presented in table 1 above indicate that the indicator is trending toward desired conditions for our landscape. In the last few years, the number of acres of noxious weeds controlled within the CFLRP has decreased, as has the amount of herbicide used. This indicates that there are fewer, less dense patches of invasive weeds now than compared to when CFLRP invasive plant control began in 2016.
    - Table 2 indicates that the opening of the forest canopy, whether through thinning or prescribed fire, opens new niches that invasive noxious weeds colonize. Typically, those weeds include species that decrease and eventually disappear over time as the canopy grows back in and outcompetes the weeds.

- **Does your CFLRP project have additional invasives-related monitoring results to summarize and interpret?** If so, please provide that here.
    - In spring of 2023, we collected and analyzed water samples from 10 different sites downstream of indaziflam herbicide application areas across the John Day Valley. We found trace amounts of indaziflam in all samples tested, with two samples less than 1 part per trillion. Only one sample, the Dad's Creek subwatershed, reached the minimum no observed effect level for the most sensitive freshwater aquatic organism, duckweed. No samples exceeded this level. At the time of sampling, indaziflam had been applied to approximately 25% of the Dad's Creek subwatershed.

## The following questions apply across the topics addressed across Questions 1-5:

- Are there accomplishments towards long-term goals which may not be reflected in short-term monitoring? Are there short-term treatments that work towards long-term goals which may be reflected adversely in short-term monitoring? Briefly summarize short- & long-term tradeoffs of your landscape treatments and goals.
    - The SBRC has worked through numerous examples of implementing restoration treatments that have a short-term adverse effect, but a long-term beneficial restoration impact. One example has been demonstrated through the 10 years of forest vegetation and fuels monitoring data we have collected. Mechanical fuels restoration treatments actually tend to increase fine fuels for the first few years after treatment. However, analyzing longer-term data, the results reverse and indicate that treatments are highly effective at reducing fine fuel loadings. Another example is with riparian restoration treatments. These treatments tend to use heavy equipment within riparian areas to complete actions such as large wood placement. These actions tend to have a short term negative impact on riparian resources and fish

populations. However, within just a few short years projects start to demonstrate the longer-term beneficial impacts they were designed to achieve. Through many of the different restoration treatments within the CFLRP the SBRC continually uses informal and formal monitoring to assess if we have met the objectives of the project. We have found over the years that caution around short-term adverse impacts at times has limited us in meeting long-term goals. In these instances, we have walked through the adaptive management process to refine treatments and to better understand these tradeoffs.

## Monitoring Questions #6: "How has the social and economic context changed, if at all?" (Reported every 5 years)

Describe the current social and economic context for your CFLRP landscape. For detailed guidance, training, and resources, see corresponding reporting template here. Use it to respond to the following prompts:

| Indicators | Response for Initial Year of Common Monitoring Strategy | Notes (Optional) |
|---|---|---|
| "Population" most recent year available (tab 1, Forest Service report) | 121,047 | |
| "Percent of total, race & ethnicity" most recent year available (tab 11, Forest Service report) | White alone – 83.4%<br>Black or African American – 0.8%<br>American Indian – 2.5%<br>Hispanic ethnicity – 20.0%<br>Non-Hispanic Ethnicity – 80.0% | |
| "Unemployment rate" most recent year available (tab 1, Forest Service report) | 5.4% | |
| "Per capita income" most recent year available (tab 1, Forest Service report) | $52,904 | |
| "Wildfire Exposure, % of Total, Homes" most recent year available (see Wildfire Risk report) | Homes Directly Exposed – 35.0%<br>Homes Indirectly Exposed – 61.0%<br>Homes Not Exposed – 4.0% | |

- **Provide a brief, narrative context for the data provided above, including any other key socioeconomic conditions to highlight for your landscape.** If the data above does not accurately reflect socioeconomic conditions in/around your landscape please note and provide context.
    - The data provided above describes the current social and economic context for the four counties that were determined to be impacted through the Southern Blues CFLRP. The Southern Blues CFLRP is almost entirely within Grant and Harney counties (Oregon) and implementation within this project most heavily influences these two counties. Umatilla and Union counties (Oregon) to the north are also included within this analysis because they each have a major wood manufacturing facility where timber products harvested within the CFLRP are sold. Some major differences exist between Grant/Harney counties and Umatilla/Union counties due to their populations, proportion of federal lands, and their economies. Grant and Harney counties have considerably smaller populations (at 7,000 residents each) compared to Umatilla county (80,000) and Union county (26,000). They have higher proportions of federal lands and

both counties have higher proportions of farm and forestry sector jobs (the second highest proportion of jobs in both counties).

- **Would you expect CFLRP activities to directly or indirectly impact any of these social and/or economic conditions?** If so, how?
    - We expect CFLRP activities to directly impact unemployment rate, per capita income, and wildfire exposure. To a lesser degree we would expect CFLRP activities to indirectly impact population and race and ethnicity factors, as people move into these counties for CFLRP related work opportunities. Work completed and jobs created through restoration treatments within the CFLRP area directly impacts the associated counties. CFLRP funds are used to leverage other forms of money (such as grants) to complete restoration work, which magnifies the impact CFLRP funds have on the local economies. Treatments within the Wildland Urban Interface portion of the CFLRP also directly reduce the risk of wildfire to homes and private property. Impacts of CFLRP activities will be higher within Grant and Harney counties and lower in Umatilla and Union counties due to the reasons listed above.

- **Does your CFLRP project have additional socioeconomic monitoring results to summarize and interpret?** If so, please provide that here.
    - There are currently no other socioeconomic monitoring results to summarize for the project.
    - Although not directly related to the Southern Blues CFLRP, the Blues Intergovernmental Council recently completed a very thorough socioeconomic assessment for the four counties discussed above, as well as for numerous other surrounding counties to support forest plan revision efforts in the Blue Mountains. This report provides baseline community profiles, a risk-opportunity index, and scenario modeling. "The risk/opportunity index is built from an analysis of each county's exposure to changes in USFS management, and their resilience to significant socio-economic shocks. The scenario modeling estimates job and revenue effects to each county based on key activity levels within potential Forest Plan alternatives – including forest harvest level, livestock grazing, restoration contracting, and recreation" (https://www.pdx.edu/policy-consensus-center/sites/policyconsensuscenter.web.wdt.pdx.edu/files/2022-05/BIC_Assessment_DRAFT_5-25-22.pdf). The direct effects of the Southern Blues CFLRP are discussed in this report for Grant County, as their data show that since 2010 $46,450,956 has been spent on stewardship contracts, of which a large portion of this funding came from CFLRP.

- **Based on the information reported, (and any other relevant monitoring information and discussion), what (if any) actions or changes are you considering?**
    - The SBRC recognizes the importance of the restoration work we are completing across the landscape and the need to continue this work at a similar pace and scale as we have completed in the past decade. Partners within the SBRC CFLRP will also continue to monitor treatments to assess their impacts and whether goals are being met. Through adaptive management changes will be made to help us better achieve restoration goals. The Malheur will continue to strive to utilize the most appropriate tool possible to complete implementation and monitoring work.

*(Monitoring Questions #7 & #8 covered earlier in annual report template)*

## Monitoring Questions #9 "Did CFLRP maintain or increase the number and/or diversity of wood products that can be processed locally?" (Reported every 5 years)

- Data will be provided to 2022 cohort projects to address this question in the FY23 report. If your CFLRP project has data available about the current timber harvest by county and/or product, the number of active processing facilities in the area, or other data about forest products infrastructure please provide here.
    - This information will be forthcoming from the University of Montana BBER.

*(Monitoring Questions #10 & #11 covered earlier in annual report template)*

## Monitoring Questions #12: "How well is CFLRP encouraging an effective and meaningful collaborative approach?" (Reported every 2-3 years)

Data will be provided to 2022 cohort projects to address this question in the FY23 report. For detailed guidance, training, and resources, see corresponding reporting template here. Please upload your completed assessment summary provided by the Southwestern Ecological Restoration Institutes here and use it to respond to the prompts below:

- Reflecting on the summary provided, do you have any additional context for the results to share?
    - Almost two-thirds of the respondents were USDA Forest Service employees that have been involved with collaboration at some level in their careers. Since there was a very high proportion of Forest Service employees this may have heavily influenced some of the results of the survey. The results should be considered in this light when assessing the appropriate paths forward.

- Do you have any feedback about the assessment process?
    - During the presentation that Southwest Ecological Restoration Institutes (SERI) gave to the SBRC partners there was a discussion about strategies to get a more representative response from collaborative members and other agencies for the next survey. It would be beneficial if SERI and SBRC continued this discussion and developed a plan to promote this.

- What have you done, or plan to do, in response to the challenges, needs, and recommendations identified in the collaboration assessment? Please provide up to 3 specific actions.
    - In response to the challenges, needs, and recommendations brought forward through this survey the SBRC would like to increase cross-boundary work, strengthen the collaborative culture on the Malheur, and build alignment on the highest priority work to continue to move towards the vision of the SBRC CFLRP. While partners within the SBRC have started to focus on more cross-boundary work, tools and mechanisms are now being put into place to expand this. There is a need to better understand the authorities available, projects and goals each partner is working on, and how we can best complement each other to achieve true landscape scale restoration. The Malheur has made significant gains in capacity over the past year. Moving forward we hope to focus on training new employees on the work the SBRC has accomplished and mentoring employees to engage with the collaboratives. The SBRC has worked together for 12 years and has experienced significant accomplishments toward the vision and goals of the project. Moving forward we would like to

discuss what work is still left to be completed to continue achieving the vision of the project and how to we accomplish it.

- What types of support or guidance do you need to address any of the challenges, needs, and recommendations identified in the collaboration assessment?
    - The SBRC is not aware of resources that are available and would appreciate learning about new tools or assistance that could be helpful.

*(Monitoring Question #13 covered earlier in annual report template)*