CFLRP Project Name (CFLR#): North Central Washington CFLRP (CFLR028)

National Forest(s): Okanogan-Wenatchee 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).

In FY23, we continued to leverage CFLN funding to implement signed NEPA and partner-led restoration projects across the NCW CFLRP project area. With the addition of funding provided through the Central Washington Initiative (CWI) Wildfire Crisis Strategy (WCS), we made measurable progress towards our goals again in our second year of the project.

Over 14,000 acres of hazardous fuels reductions and prescribed fire implementation significantly reduced wildfire risk and created more decision space for fire managers to effectively manage wildfires in the future across the project area. Forest restoration-related stand improvement activities on over 3,000 acres provided 7 jobs generating a labor income of $547,580. Additional aquatic restoration agreements were initiated with partners to help restore and maintain key ecosystem services by improving critical in-stream habitat fish in multiple watersheds considered high priority for the recovery of listed fish species. Hydrologic function and fish passage continue to be improved through ongoing partner-led projects with the Yakama Nation, Chelan County, Cascade Fisheries and Trout Unlimited and included efforts to install Aquatic Organism Passage structures and Beaver Dam Analogs, and the placement of large woody debris in several miles of streams that serve as critical habitat for listed salmonid species. Invasive plant treatments carried out by the Washington Conservation Corps targeted 1821 acres and 97 monitoring plots were established by the local districts to collect baseline data to monitor invasive species trends across four project areas.

Eleven different agreements with local Tribes, non-governmental (NGO) partners, Chelan County and the Washington Department of Natural Resources contributed to these accomplishments and leveraged an additional $8.2 million in investments, $3.3 million from USFS contributions (with $3 million from BIL/IRA funding) and $4.9 million from partner match.

We actively engaged collaborative partners through the development of a robust CFLRP monitoring plan and are working to develop monitoring agreements with partners to start collecting supplemental monitoring data in FY24. As part of the CWI WCS planning efforts, the forest engaged in over a dozen in-person outreach sessions with Tribes, State, Federal and County government partners, and collaborative and NGO partners. These engagement sessions helped to develop new and build upon existing relationships with partners representing traditionally underserved communities in our project area. Finally, with the support of Bi-partisan Infrastructure Law (BIL) and Inflation Reduction Act (IRA) funding, we are working to develop and fund partner positions, including two tribal liaisons, to help the forest better communicate and meaningfully engage with local Tribes around terrestrial and aquatic restoration work.

2. Funding

CFLRP and Forest Service Match Expenditures

Fund Source: CFLN and/or CFIX Funds Expended	Total Funds Expended in Fiscal Year 2023
CFLN2822	$530,353.21
CFLN2823	$1,155.780.00
TOTAL	**$1,686,133.21**

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.

Fund Source: Forest Service Salary and Expense Match Expended	Total Funds Expended in Fiscal Year 2023
NSCF2823 (NFSE)	$242,917.92
WSCF2823 (WFSE)	$10,315.99
TOTAL	**$253,233.91**

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: Forest Service Discretionary Matching Funds	Total Funds Expended in Fiscal Year 2023[1]
CFIR2822 (IRHF)	$2,089,139.96
TOTAL	**$2,089,139.96[2]**

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 as match if aligned with CFLRP proposal implementation.

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[1] The FMMI CFLRP expenditure report documents funds that were obligated in FY23. We obligated $2.09 mil in matching funds in FY23 and expended (invoiced) $2.1 mil in matching funds, some of which were obligated in FY22.

[2] Although $2.09 mil was officially documented in the FMMI CFLRP expenditure report, we recorded **$3,047,079.96** in matching funds that were obligated in FY23. Several of the agreements (Title II funds for invasives treatments - $5,940, Mad Meadows Restoration project - $35,000 in a partner agreement) were processed as accounting adjustments to CFLN matching shorthand codes (SHCs), but never showed up in the FMMI report, and one project (Nason Creek Restoration - $917,000 in partner agreements) was accidently missed when setting up matching SHCs at the beginning of the fiscal year.

Partner Match Contributions[3]

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
Trout Unlimited	☒ In-kind contribution ☐ Funding	$525,400.00	Materials, equipment, and construction contract for the implementation of the Goose Creek project.	☒ National Forest System Lands ☐ Other lands within CFLRP landscape:
Trout Unlimited	☐ In-kind contribution ☒ Funding	$54,440.40	Project coordination and planning with Cascade Fisheries and Cascadia Conservation District on S. Fork Beaver Creek, Blackpine, the Cutler Culvert and LTPBR sites in the Methow basin; hiring of two seasonal technicians for maintenance and monitoring of past low-tech aquatic restoration projects.	☒ National Forest System Lands ☒ Other lands within CFLRP landscape:
Yakama Nation	☐ In-kind contribution ☒ Funding	$818,317.00	Funding was used to complete final designs of the Nason Creek Restoration project as well as to construct habitat forming log jams over 2 miles of Nason Creek and tip trees into the river to act as fish habitat.	☒ National Forest System Lands ☐ Other lands within CFLRP landscape:
Washington Conservation Corps	☐ In-kind contribution ☒ Funding	$82,666.67	Funding to support crew member benefits and per diem, administrative support, vehicle, and supplies to carry out invasive weed treatments within the CFLRP boundary.	☒ National Forest System Lands ☐ Other lands within CFLRP landscape:

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[3] 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
Washington Conservation Corps	☒ In-kind contribution ☐ Funding	$31,086.88	Funding to support a local volunteer service crew (4 members) to spray invasive weeds within the CFLRP boundary.	☒ National Forest System Lands ☐ Other lands within CFLRP landscape:
Northwest Youth Corps	☐ In-kind contribution ☒ Funding	$6,551.58	Supported equipment and salary for paid NWYC members to implement the Mad Meadows Restoration project.	☒ National Forest System Lands ☐ Other lands within CFLRP landscape:
Northwest Youth Corps	☒ In-kind contribution ☐ Funding	$7,272.16	Supported volunteer labor for NWYC members to implement the Mad Meadows Restoration project.	☒ National Forest System Lands ☐ Other lands within CFLRP landscape:
Washington Department of Natural Resources	☐ In-kind contribution ☒ Funding	$2,775,123.62	Supported DNR staff working on CFLRP restoration project layout, materials, travel, and contracts with two vendors for small-diameter thinning on the Tillicum and Devil's Gulch projects.	☒ National Forest System Lands ☐ Other lands within CFLRP landscape:
Chelan County Natural Resources Department	☐ In-kind contribution ☒ Funding	$460,587.68	Contracted implementation of 2 instream structures on the main-stem Nason Creek and 4 instream structures on a side channel.	☒ National Forest System Lands ☐ Other lands within CFLRP landscape:
Cascade Fisheries	☐ In-kind contribution ☒ Funding	$38,202.29	Design, survey, project management, administration, and construction of a culvert (AOP) replacement at Black Pine Creek and instream wood additions to Little Bridge and	☒ National Forest System Lands ☐ 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
			Poorman Creeks in the Mission project.	
North Central Washington Forest Health Collaborative	☒ In-kind contribution ☐ Funding	$94,800.00	In-kind contributions of time for collaborative members to attend monthly steering committee or quarterly full group meetings with the USFS.	☐ National Forest System Lands ☐ Other lands within CFLRP landscape:

Total In-Kind Contributions: $658,559.04

Total Funding: $4,235,889.24

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 <u>revised non-monetary credit limit</u> for contracts awarded in FY23	**$275,054.50[4]**
Revenue generated through Good Neighbor Agreements	Totals
	$ 0

"Revised non-monetary credit limit" should be the amount in the "<u>Progress Report for Stewardship Credits, Integrated Resources Contracts or Agreements</u>" 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.

3. Activities on the Ground

FY 2023 Agency Performance Measure Accomplishments[5] - Units accomplished should match the accomplishments recorded in the Databases of Record. Please note any discrepancies.

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[4] This total includes revised non-monetary credit limits for two stewardship contracts in the Twisp project (Lookout DxP and Woodpecker DxP) that were initially set up in FY23. The revised non-monetary credit limits for the Mission Stewardship project on the Methow Valley Ranger District, which was set up in FY21 for an initial $18,300, was revised in FY23 to include an additional $418,210.00 (of which $346,760.00 was added in FY23 due to the additional of several mandatory units). These additional stewardship credits are not accounted for above.

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

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)[6]	7,194	315	7,509
Hazardous Fuels Reduction (acres) in the Wildland Urban Interface - COMPLETED	FP-FUELS-WUI-CMPLT (reported in FACTS)[7]	14,091	315	14,406
Hazardous Fuels Reduction (acres) outside the Wildland Urban Interface	FP-FUELS-NON-WUI (reported in FACTS)[3]	NA	6	6
Hazardous Fuels Reduction (acres) outside the Wildland Urban Interface - COMPLETED	FP-FUELS-NON-WUI-CMPLT (reported in FACTS)[4]	NA	6	6
Wildfire Risk Mitigation Outcomes - Acres treated to mitigate wildfire risk	FP-FUELS-ALL-MIT-NFS (reported in FACTS – *NOTE: this performance measure will not show up in the CFLRP gPAS report, please report totals directly from FACTS*)	1,889 (FACTS)		1,889
Prescribed Fire (acres)	Activity component of FP-FUELS-ALL (reported in FACTS - *NOTE: this performance measure will not show up in the CFLRP gPAS report, please report totals directly from FACTS*)	14,388 (gPas)		14,388
Invasive Species Treatments (acres) - Noxious weeds and invasive plants	INVPLT-NXWD-FED-AC (reported in FACTS)[3]	1,821		1,821
Invasive Species Treatments (acres) - Noxious weeds and invasive plants - COMPLETED	INVPLT-NXWD-FED-AC-CMPLT (reported in FACTS)[4]	1,821		1,821
Invasive Species Treatments (acres) - Terrestrial and aquatic species	INVSPE-TERR-FED-AC (reported in FACTS)[38]	NA		NA
Invasive Species Treatments (acres) - Terrestrial and aquatic species - COMPLETED	INVSPE-TERR-FED-AC- CMPLT (reported in FACTS)[49]	NA		NA
Road Decommissioning (Unauthorized Road) (miles)	RD-DECOM-NON-SYS (Roads reporting)	0		0
Road Decommissioning (National Forest System Road) (miles)	RD-DECOM-SYS (Roads reporting)	0		0
Road Improvement (High Clearance) (miles)	RD-HC-IMP-MI (Roads reporting)	0		0

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[6] 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.

[7] 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 Improvement (Passenger Car System) (miles)	RD-PC-IMP-MI (Roads reporting)	0		0
Road Maintenance (High Clearance) (miles)	RD-HC-MAINT-MI (Roads reporting)	0		0
Road Maintenance (Passenger Car System) (miles)	RD-PC-MAINT-MI (Roads reporting)	0		0
Trail Improvement (miles)	TL-IMP-STD (Trails reporting)	NA		NA
Trail Maintenance (miles)	TL-MAINT-STD (Trails reporting)	NA		NA
Wildlife Habitat Restoration (acres)	HBT-ENH-TERR (reported in WIT)	12,286[10]		12,286
Stream Crossings Mitigated (i.e. AOPs) (number)	STRM-CROS-MITG-STD (reported in WIT)	NA		NA
Stream Habitat Enhanced (miles)	HBT-ENH-STRM (reported in WIT)	3 miles[10]		3 miles
Lake Habitat Enhanced (acres)	HBT-ENH-LAK (reported in WIT)	NA		NA
Water or Soil Resources Protected, Maintained, or Improved (acres)	S&W-RSRC-IMP (reported in WIT)	5		5
Stand Improvement (acres)	FOR-VEG-IMP (reported in FACTS)	2,078[11]	711	2789
Reforestation and revegetation (acres)	FOR-VEG-EST (reported in FACTS)	832[10]		832
Forests treated using timber sales (acres)	TMBR-SALES-TRT-AC (reported in FACTS)	0	390	390
Rangeland Vegetation Improvement (acres)	RG-VEG-IMP (reported in FACTS)	839		839

- **Is there any background or context you would like to provide regarding the information reported in the table above?**

Acres reported from FACTS/gPAS for the Hazardous Fuels Reduction metrics inside and outside WUI don't reflect or align with the most current Community Wildfire Protection Plan mapping of WUI. The WUI was better defined and updated within our CFLRP project area in FY23, and efforts are being made to update the FACTS data to reflect these new boundaries. In future years, we should be able to better break out the Hazardous Fuels Reductions Treatments by WUI/non-WUI.

Additionally, 23,464 acres of Wildlife Habitat Restoration were reported in final gPAS report from the WO, but upon further investigation, we discovered that 11,178 acres of beneficial wildfire just outside the project area boundary were mistakenly attributed with our CFLRP Implementation Project code.

Although the final gPAS report only lists 1 mile of stream habitat enhanced, work completed on the Nason Creek project added an additional 2 miles of habitat enhancement for listed fish, which we note in the totals above.

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[10] This reported accomplishment deviates from the official gPAS report. Please see section below for context.

[11] This reported accomplishment deviates from the stand improvement acres completed in FY23. Please see section below for context.

The stand improvement metric in the gPAS report reports 2078 acres for forest restoration units that were awarded (accomplished) in FY23. These units are in a project currently under litigation (Twisp Woodpecker and Lookout DxPs) and are unlikely to be implemented as soon as originally anticipated but could be implemented as early as 2024 pending the ruling of the U.S. District Court for the Eastern District of Washington. Meanwhile, 3,118 acres of stand improvement were implemented and completed on the ground in FY23 in the Tillicum and other project areas.

Tree planting occurred across 256 acres of severely burned (2018) forests on the Entiat Ranger District. These acres were attributed in FACTS to our CFLRP project, and the funding held at the regional office was not counted as match, though the work did occur. An additional 576 acres of natural regeneration certification occurred within previously burned areas on the Methow Valley Ranger District for a combined 832 acres of reforestation.

Finally, although we have no restoration related road activities to report in FY23, 18.6 and 76.6 miles of regularly scheduled maintenance were performed on high clearance and passenger roads, respectively within the CFLRP boundary in FY23.

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

The Central Washington Initiative (CWI), a national wildfire priority landscape, contributed matching funds for project extensions. Personnel were shared between CWI and our North Central Washington (NCW) CFLRP. The CWI project was able to obligate funds to implement fuels reduction treatments, heritage surveys, aquatics projects designs, pre-Nepa stand surveys, and contract and in-house categorical exclusions (CE's) and Environmental Assessments (EA's). All of this planning and implementation has helped the NCW CFLRP to expand the treatment possibilities in the future.

CWI also has developed a robust partnership strategy, internally and externally. CWI core teams have met with the personnel from the four ranger districts covered by the NCW CFLRP (Wenatchee River, Entiat, Chelan and Methow Valley) to develop a ten-year plan of potential actions across the CFLRP landscape. This 10-year plan has then been presented to external partners to understand what the priorities are for fuels treatments and community infrastructure protection from an outside the Forest Service perspective. This has enabled the CWI and NCW CFLRP to prioritize projects across this CFLRP landscape that are the highest for Tribes, state, county, city, non-profit and local entities.

CWI has been developing the strategy for fuels reduction, WUI and infrastructure protection in cooperation with the Washington State DNR (WADNR). CWI cooperates with the implementation and science divisions of the WADNR to develop scientifically sound plans based on a Landscape Evaluation assessment and Wildfire risk models. Currently, there is a collaborative partner online map being developed and hosted by the WADNR displaying recent and proposed fuels reduction treatments developed by state, federal and private entities. This work will enable the NCW CFLRP to implement projects around other non-Forest Service projects, with the goal of coordinating cross-boundary treatments and treating the most urgent and important areas in need of risk reduction together. Additionally, modeling efforts by WADNR to prioritize potential control lines (PCL's) and potential operational delineations (POD's) across projects within the CFLRP boundary will help us to continue to develop and prioritize landscape-level projects that have dual benefits of improving wildland firefighting objectives and forest restoration.

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?

The North Central Washington CFLRP was designed to focus on high priority watersheds for forest health and wildfire resilience. As mentioned previously, the Forest also received substantial funding for the Central Washington Initiative (CWI) as a 10-year Wildfire Crisis Strategy National Priority Landscape through BIL and IRA funding. Fuels treatments were prioritized in year one and two to best leverage all the funding available to treat as many existing NEPA acres as possible across the entire landscape to meet multiple objectives, including wildfire risk reduction and forest restoration. The additional funding has substantially increased our treatment acres in FY23 and will continue to do so moving forward. We continue to experience significant inflation costs since the time of our initial proposal.

The CWI Wildfire Crisis priority landscape includes the NCW CFLRP project area within the CWI project area, and we are planning projects moving forward in coordination with the overall CWI objectives and priorities. As mentioned previously, through CWI project planning and prioritization, a 10-year planning and prioritization strategy was developed in FY23. This strategy was developed collaboratively with partners including public, local and state government, federal partners, and collaborative groups and NGO's. This 10-year plan will help guide future projects, focusing on the highest priorities to improve resilience of the highest valued resources and assets.

As in 2022, several long duration, large fires were managed just outside the CFLRP project area boundary in wilderness areas. Due to mild fire weather conditions, much of the burned area resulted in resource benefit and will likely help fire managers have more options for managing wildfires under more extreme conditions within the CFLRP boundary in the future.

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

FY23 was a below average fire season for activity on the Okanogan-Wenatchee National Forest. Within the NCW CFLRP project boundary 19 fires occurred on Forest Service Protection (Fig. 1). Five small fires within NCW project boundary interacted with previous hazardous fuels treatments as follows and have been reported in FTEM:

- *Swamp Creek Fire, .25 acres*
- *Nason Creek Fire, .1 acres*
- *Windy Creek Fire, .25 acres*
- *McKenzie Saddle Fire, .1 acres*
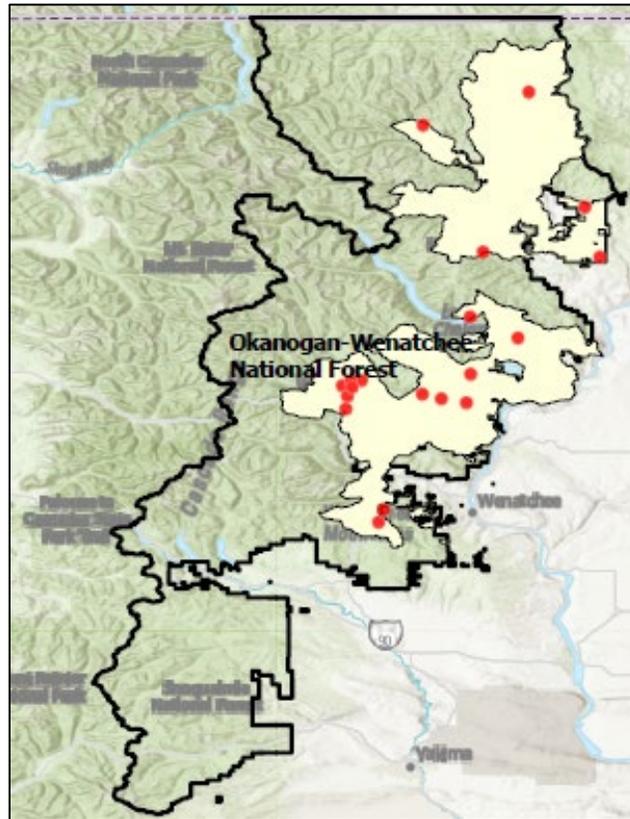- *Bisping Fire, .1 acres*

Figure 1. Location of fires within the North Central Washington CFLRP boundary in FY23. Each red point indicates a fire start that was suppressed or managed.

- <u>FROM FTEM (can be copied/summarized):</u> Did the wildfire behavior change after the fire entered the treatment?

  All fires were small and started within a treatment area.

- <u>FROM FTEM (can be copied/summarized):</u> Did the treatment contribute to the control and/or management of the wildfire?

  Yes

- <u>FROM FTEM (can be copied/summarized):</u> Was the treatment strategically located to affect the behavior of a future wildfire?

  Yes

- 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?

  The fuels treatments with which fires interacted were all completed under previous NEPA projects that involved a high level of coordination and collaboration.

- What resource values were you and your partners concerned with protecting or enhancing? Did the treatments help to address these value concerns?

  Resource values for these projects were primarily restoration and habitat protection.

- 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?

  These fires were quite small and did not affect the rest of the project areas.

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

  It is hard to quantify effectiveness of small fires which start within treatment areas during moderate to low fire potential conditions, but it can be inferred that the treatments reduced the impacts and allowed for quick containment. Conditions may have been conducive to managing some of these fires in the treatment area had our land management plan allowed for it.

FY23 Wildfire/Hazardous Fuels Expenditures

Category	$
FY23 Wildfire Preparedness*	**$11,450,000 Forest Total** $8,810,000 in CFLRP Project area and Forest Support
FY23 Wildfire Suppression**	**$14,152,000 Forest Total (including BAER and suppression)** Approx $25,000[12] in CFLRP Project area
FY23 Hazardous Fuels Treatment Costs (CFLN, CFIX)	**$371,330 (CFLRP Total)**
FY23 Hazardous Fuels Treatment Costs (other BLIs)	**$2,147,902 (CFLRP Match Total)**

* 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")

FY2023 was a lower-than-average fire season. We did experience high success with fire suppression for new fire starts within past treatments, and we can infer that additional treatments will continue to increase initial attack success which reduces overall suppression costs. At this time, we do not have good data specific to this project to refer to, but anticipate improved data through monitoring as the project progresses.

5. Additional Ecological Goals

Narrative Overview of Treatments Completed in FY23 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.

Our 2023 CFLRP implementation continued to emphasize ecological restoration of aquatic and wildlife habitat and native species through fuels and forest restoration work, invasive weed treatments, and instream and floodplain restoration.

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[12] Within the CFLRP project area, there were 19 fires. Eight of the 19 cost $5,400. The remaining ten fire events were part of a miscellaneous accounting code for fires on the forest that totaled $3.3 mil. We were unable to divide out the costs specifically for those remaining 10 events from this accounting code and therefore just estimated $25,000 in suppression costs in the project area.

CFLRP funding has especially helped us to leverage partnerships for invasive weed management and aquatic restoration, as highlighted below.

Restoring forests to within their natural range of variability (NRV) will take time and require multiple entries. Departed conditions, primarily due to fire exclusion, cannot be corrected with one entry. Our initial treatments in FY23 included small tree thinning to reduce the amount of ladder fuels and encroaching conifers, pruning to raise the canopy base height, and handpiling to concentrate activity generated fuels for outyear burning. The handpiles typically cure for one to two years before being burned. The final treatment will include broadcast burning where crews burn areas under specific weather conditions that allow consumption of accumulated fuels while limiting the amount of live tree mortality. Each of these treatments bring the landscape closer to NRV. Ultimately, our goal is to create a terrestrial landscape that becomes more resilient to wildfires, while maintaining quality wildlife habitat.

Fiscal year 2023 saw increased implementation of fuels and forest restoration projects as well as invasive and planting treatments. Fuels, thinning, and invasive treatments all can have secondary benefits that improve or protect habitat for wildlife, through retaining native species and increasing the likelihood that these stands will survive future wildfires while also promoting growth of large trees. White-headed woodpeckers use open ponderosa pine stands, many of which were overgrown due to fire suppression. These projects improved their habitat and moved stands towards more sustainable conditions for the future. Similarly, western gray squirrels also use dry mixed conifer forests and saw habitat improvement through restoration and reduced risk of high-severity fires. Fuels treatments and thinning also improved forage conditions for big game in winter and transitional range, where past fire suppression led to an overabundance of conifers and reduction in grasses and forbs. Improving winter range condition increased availability, palatability, and nutritional value of forage for big game during the critical winter period. Invasive treatments also improved habitat for wildlife by retaining native species and reducing impacts of non-native plant species. Tree planting will improve future forest conditions where it is unlikely to regenerate naturally, e.g. post high-severity wildfire. Many species reliant on forested habitats will benefit from planting in these areas to jumpstart forest development.

Invasive plant treatments were focused on the roads which access all the CFLRP project areas on the Chelan and Entiat Ranger Districts. Work on these two Districts was prioritized because fuels treatments on these districts were slated to be some of the first treatments to be implemented under the CFLRP and CWI projects. Treatment of invasive plants along roads prevents the spread of these plants into fuels treatment units. The reduction of canopy and ground cover from thinning and prescribed burning creates conditions that are favorable to many invasive plants. The treatments were primarily spot spraying of herbicide. CFLRP funds were obligated to the Washington Conservation Corps to fund a crew for 5 months of work. This work was led by USFS staff. A total 1,821 acres were treated within the CFLRP footprint.

Finally, the 2023 CFLRP program was successful at building resilience across the Upper Columbia Basin through multiple matching aquatic partnership projects. The Okanogan-Wenatchee National Forest worked with the Mid-Columbia Fisheries, Cascade Fisheries, Cascadia Conservation District, Confederated Tribes of the Colville Reservation (CTCR), and Yakama Nation Fisheries to improve fish habitat complexity, restore floodplain connectivity, and restore fish passage. The 2023 fiscal year was an important one in working with partners to do important planning and move forward on some larger-scale, and essential, aquatic projects. The Forest worked closely with Chelan County on the continuation of the Nason Creek project as well as accomplishing complex planning on projects to enhance cold water refugia at Nason Creek. The restoration treatment on Nason Creek will help maintain deep, cool pool habitat through periods of baseflow. The Forest in partnership with Yakima Nations initiated work on the Mad River Pine Flats restoration project which will involve more than five miles of river habitat and associated floodplain restoration on the Entiat district. Other projects in the Entiat district that were designed and planned for the next fiscal year include the Tamarack Aquatic Organism Passage project with Cascade Fisheries and Roaring Creek Floodplain enhancement with Cascadia Conservation District. These treatment sites were selected through partnership-led stream surveys and other collaborative restoration strategies. These actions cooperatively will have meaningful improvements to critical fish habitat and better prepare key

watersheds for a changing climate. It is important to note that none of the work would have happened without good communication and collaboration between the Forest and a group of partners committed to aquatic restoration on the Forest.

6. Socioeconomic Goals

Narrative overview of <u>activities completed in FY23</u> to achieve socioeconomic goals outlined in your CFLRP proposal and work plan.

- **Examples may include activities related to community wildfire protection, contribution to the local recreation/tourism economy, volunteer and outreach opportunities, job training, expanding market access, public input and involvement, cultural heritage, subsistence uses, etc.**

The key measures identified in our NCW CFLRP proposal for achieving socioeconomic goals were (1) enhance community sustainability, (2) improve or maintain quality of life, and (3) improve capacity for collaboration. Examples of activities that contributed to these socioeconomic goals are listed below:

1. *Enhance community sustainability*
   - *With CFLRP and matching BIL funds in FY23, we were able to increase the number of contracts awarded to complete fuel hazard reduction, stand improvement and ladder fuel treatments in existing planned NEPA projects. Given the rising cost of these treatments, we would have accomplished significantly fewer acres without CFLN and matching funds.*
   - *The Okanogan-Wenatchee National Forest continues to seek viable alternatives for the removal of low-value wood (LVW) that can be processed locally. In 2023, we participated in Chelan County's efforts to evaluate viability for a wood products campus that would utilize LVW materials. The viability assessment was funded through a Wood Innovations Grant.*
   - *A public meeting for the Chumstick to LP Project was hosted in cooperation with collaborative partners, including the Chumstick Wildfire Stewardship Coalition, Department of Natural Resources, and Cascadia Conservation District. Jointly hosting the planning meeting with local partners increased public engagement and turnout, creating the opportunity for private landowners to connect with the local organizations supporting cross-boundary work on non-NFS lands.*
2. *Improve or maintain quality of life*
   - *The Okanogan-Wenatchee NF was able to increase the number of acres protected from wildfire through the implementation of fuels reduction projects on two different high-risk landscapes.*
   - *The Forest worked with the Wenatchee Community for the Advancement of Family Education (Café), a local Hispanic service organization, to increase engagement and outreach with Spanish speaking community members.*
3. *Improve capacity for collaboration*
   - *In FY23, the Forest executed a partnership agreement with Sustainable Northwest (SNW) to support more effective engagement with partner collaboratives. Through this agreement, we are funding a contractor that is working with the North Central Washington Forest Health Collaborative (NCWFHC) to re-evaluate their goals and alignment with current work on the Forest. SNW also supported extensive engagement with collaborative partners to prioritize work being completed through the Central Washington Initiative and CFLRP. Work with SNW is continuing into next year and will focus on improving engagement between the Forest and partners.*

- *We continue to work closely with the WADNR as a strong partner in implementing the CWI through our shared MOU, signed in 2022. WADNR has been an active co-host of external engagements on the CWI 10-Year Strategy and through these engagements, has developed a collaborative map to show "who is doing what work where", an important tool for cross-boundary work.*
- *An agreement was executed with Washington Resource Conservation and Development Council (RC&D) late in FY22 that will support collaboration and coordination with the NCWFHC around CFLRP work. The agreement includes support from RC&D staff to coordinate monitoring and reporting efforts related to CFLRP, as well as social perceptions monitoring related to this project.*
- *In September of 2023, the Forest hosted several public field tours in the Methow valley that focused on forest restoration principles and looked at past and future projects within the CFLRP planning area. The field trips served to increase community engagement around the work that is occurring, address recurring issues that have arisen in past planning, and support future engagement on planning efforts within the landscape boundary.*

Results from the Treatment for Restoration Economic Analysis Toolkit (TREAT). For guidance, training, and resources, see materials on Restoration Economics SharePoint.[13] 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: **61 %**

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

Description	Project Percent
Equipment intensive work	16%
Labor-intensive work	11%
Material-intensive work	62%
Technical services	10%
Professional services	1%
Contracted Monitoring	NA
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	3	3	$248,216	$301,250
Forest and watershed restoration component	16	33	$1,344,431	$2,461,262
Mill processing component	4	8	$299,364	$487,022
Implementation and monitoring	4	5	$168,632	$231,681
Other Project Activities	0	0	$0	$0
TOTALS:	**26**	**49**	**$2,060,643**	**$3,481,215**

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[13] Addresses Core Monitoring Question #7

- **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?**

  A small percentage of funding was comprised of CFLR-CFLN funds (5%), of which only a small percentage (7%) was used for contracts in the local area. The contractors for the majority of work done with CFLR-N funding were located outside the local economic impact area and from Oregon.

  The majority of project funding was comprised of matching funding: $7,142,380 of $7,541,703 (95%). This reflects the partnership with tribes, state and county agencies, fisheries enhancement groups and youth conservation corps.

  Washington Department of Natural Resources (DNR) contributed staff time to two different CFLR projects (NCW and Tapash). We estimated this contribution because it was not possible to split staff time by CFLRP project. We also realized after receiving our results that funding for one minor partner project ($20,846) was included that should not have been, however, because the amount was relatively minor and did not produce any wood products, we do not anticipate that it changed our results significantly.

  These results generally reflect the majority of the labor associated with work within the NCW CFLRP currently, since much of the work has been focused on leveraging partner agreements to implement aquatic restoration across our project area. Our original CFLRP proposal included economic analysis that suggested that the addition of the CFLRP project and the forest restoration work associated with it could result in an additional 9 full or part time jobs in the timber sector. The estimate above (7 FT/PT direct jobs in Timber Harvesting and Mill Processing) is close to this estimate and is likely to grow with time as more projects get implemented.

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.[14] For resources, see materials here (external Box folder).

Currently, most labor crews involved with forest restoration actions (small tree thinning, pruning, handpiling) are not local contractors. They moved into the communities (in Chelan and Okanogan counties) while implementing the work. Positive impacts to the local counties include hotel stays, purchasing groceries and fuel.

Local logging contractors from Okanogan County implemented some ground-based harvest and log hauling activities that were funded with CFLRP matching funds. Sawmill operations located in Snohomish and Lewis Counties received raw material/logs and the material was processed into usable forest products.

CFLRP and matching FS funds were leveraged with significant partner contributes from Yakama Nation Fisheries, Chelan County Department of Natural Resources, and multiple NGOs, including Cascade Fisheries, Cascadia Conservation District, and Washington Resource Conservation & Development Council (WRCD) to accomplish aquatic restoration and collaborative capacity activities across our project area. These businesses employ local staff to do project planning and management and often contract with local companies to complete in-stream or floodplain restoration activities and prescribed fire coordination.

We also utilized partner agreements with the Northwest Youth Corps (NWYC) and the Washington Conservation Corps (WCC) to carry out implementation of meadow restoration activities and invasive weed mitigation. NWYC offers a challenging education and job-training experience that helps youth and young adults from diverse backgrounds develop

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[14] Addresses Core Monitoring Question #8

the skills they need to lead full and productive lives. WCC is an AmeriCorps volunteer program that provides hands-on experience, field skills, and training opportunities to youth (18-25) and military veterans.

7. Wood Products Utilization

Timber & Biomass Volume Table[15]

Performance Measure	Unit of measure	Total Units Accomplished
Volume of Timber Harvested TMBR-VOL-HVST	CCF	**2,286**
Volume of timber sold TMBR-VOL-SLD	CCF	**35,033 (32,607 reported in gPAS)**
Green tons from small diameter and low value trees removed from NFS lands and made available for bio-energy production BIO-NRG	Green tons	NA

- **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)?**

  Approximately 390 acres of commercial thinning was reported by Washington DNR off NFS lands within our project area. We do not have an estimate of the volume of timber that was generated by those acres of treatment.

  Timber sales sold in FY23 include the Lookout DxP and Woodpecker DxP. Both Lookout and Woodpecker DxP sales are part of the Twisp Landscape Restoration EA project and are currently under litigation; no harvest has occurred at this time. Additionally, the Buckshot timber sale was offered and sold through a GNA agreement with WADNR and operations are expected to occur in FY24.

8. Collaboration

Please include an up-to-date list of the core members of your collaborative <u>if</u> it has changed from your proposal/work plan or last annual report (if it has not changed, note below).[16] For detailed guidance and resources, see materials <u>here</u>. Please document changes using the <u>template</u> from the CFLRP proposal and upload to <u>Box</u>. Briefly summarize and describe changes below.

Formal membership of the North Central Washington Forest Health Collaborative, our primary CFLRP partner, has not changed significantly, but changes have been noted in the template for CMS Question #11 and uploaded to <u>Box</u>. In particular, the North Central Washington Forest Health Collaborative (NCWFHC) has been working to increase representation of diverse and underserved communities on the collaborative and the Wenatchee Community for the Advancement of Family Education (CAFE), a local Hispanic service organization, has been participating regularly in collaborative meetings with financial support from one of the other NCWFHC member organizations. Recently, CAFE formally joined the Collaborative as one of its members. Collaborative meetings also continue to be open to the general public and regularly have engagement from individuals and organizations who are not formal members.

In addition to formal engagement with the NCWFHC, as mentioned earlier in the report, the forest has also been engaging with other interested partners and public around the Central Washington Initiative and 10-year plan for priority work. Over a dozen of these engagement sessions were carried out across the Forest in FY23.

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[15] Addresses <u>Core Monitoring Question #10</u>
[16] Addresses <u>Core Monitoring Question #11</u>

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.

From September 2022 through April 2023, the Forest engaged with over 50 different partners from the North Central Washington Forest Health Collaborative, local tribes (Confederated Tribes of the Colville Reservation, Yakima Nation), non-profits (Conservation Northwest, Methow Valley Conservation Council, TWS, Trout Unlimited, etc.), state and county governments (Washington Depts. of Natural Resources, Fish & Wildlife, Chelan County Natural Resources), universities (Univ. of Washington) and local conservation districts (Cascadia Conservation District, Okanogan Conservation District) to develop a monitoring plan that utilizes the CFLRP Common Monitoring Strategy. Local forest staff and researchers from the USFS Pacific Northwest and Rocky Mountain Research Stations also contributed time and input in this process. The <u>North Central Washington CFLRP Monitoring Plan </u>capitalizes on previous project-level multi-party monitoring, monitoring by Washington Department of Natural Resources as part of their Eastern Washington 20-Year Forest Health Strategic Plan, and landscape-level monitoring conducted as part of the Northwest Forest Plan Monitoring and Evaluation team led by Region 6 and the Pacific Northwest Research Station.

Early during these monitoring discussions, partners choose to divide into six monitoring subcommittees based on interests and focused on the CMS questions and indicators for: (1) fire risk reductions/fuels (2) vegetation structure and departure, (3) terrestrial habitat and wildlife, (4) aquatic habitat and watershed conditions, (4) invasive and cultural plants, and (5) social perceptions and partner engagement. Over eight months, subcommittees met up to eight times to (1) review the national CFLRP CMS questions (2) define their specific goals for multiparty monitoring, (3) identify the need for refinement and/or additional questions, and (4) determine the best approach for collecting data and answering each question. Each subcommittee was charged with thinking through what questions and data would be most useful for both the forest and partners and prioritized questions and approaches that had longer term benefits in either informing whether restoration treatments had the intended effect, could inform adaptive management, or generated data sources that could be used in future planning efforts. Where possible, we leveraged ongoing monitoring or data collection efforts that addressed our questions to increase efficiencies and avoid duplicating effort. We also looked to approaches that were being utilized by other CFLRPs in the region to benefit from the experience and knowledge other groups had in collecting and managing data to answer similar questions.

Following this intensive engagement, the cadre of partners developed and prioritized monitoring questions into the final set of 14 sub-questions (in addition to the 13 common indicator questions) addressed in the North Central Washington CFLRP Monitoring Plan, which was finalized in April 2023. The Forest is currently working with key partners (Cascade Fisheries, Chelan County Natural Resources Dept., Yakima Nation, Klamath Bird Observatory, and USFS RMRS) to get agreements in place to start collecting data in FY24 on some of the supplemental monitoring questions that were developed as part of this process.

Additionally, the Forest established 97 of 100 on-the-ground invasive monitoring plots in four active projects within the North Central Washington CFLRP boundary to address the CMS question #5 over the summer and fall of 2023. The data were collected in house, which was a considerable impact for district staff, so we are looking towards creative opportunities for leveraging new seasonal positions, partners, or contractors in the collection of this data in future years. Our pre-treatment data has been compiled and analyzed by the region and will be used to track trends in invasive species over the coming years. District staff and collaborative partners also established 54 field plots in the Mission project on the Methow Valley Ranger District to evaluate changes to stand structure, composition, and density and large trees and snags following treatment. Washington DNR flew drone flights over the monitored units to further evaluate and quantify spatial patterns of treatments. We aim to expand this effort to additional projects on the forest in future years.

Our Monitoring Committee envisions a monitoring program that follows an annual cycle of planning, implementation, and reporting and using regular feedback during this process to respond to emerging manager needs and stakeholder interests or changes in implementation schedules over the ten years of the CFLRP and beyond. Starting in year 4 of our project, in collaboration with the North Central Washington Forest Health Collaborative, we hope to host an annual monitoring workshop that allows partners, researchers, and contractors to share results and discuss opportunities for shared learning and adaptive management. We recognize that some questions and results are better suited than others to immediate feedback into an adaptive management approach, but in all cases, results can inform whether the questions we are asking are the right ones to help us understand the benefits of the restoration work on the ecosystems, economics, and social systems of North Central Washington.

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?

In FY23, was a more active year than FY22 in getting dollars obligated to our CFLRP projects. We continued to use the Okanogan-Wenatchee shelf stock NEPA to implement projects within the CFLRP boundary. After years of collaborative planning, the forest was finally able to sign a large NEPA decision for the Upper Wenatchee Pilot Project (~75,000 acres) in the early summer of FY23. This did not enable us to implement any work in the area analyzed but will allow for a robust work plan and treatments in future fiscal years. In addition, we partnered with the Central Washington Initiative (CWI) to lay out plans for out-year projects and initiate NEPA on several fuel breaks and landscape-level forest restoration projects. With the addition of funding provided through CWI we are able to make more implementation plans using this future, generated NEPA.

We were able to implement over 14,000 acres of hazardous fuels reductions and prescribed fire implementation projects. There were 3,00 acres of forest restoration-related stand improvement activities. Aquatic restoration agreements were initiated with partners to help restore and maintain critical in-stream habitat fish in multiple watersheds considered high priority for the recovery of listed fish species. Hydrologic function and fish passage continue to be improved through ongoing partner-led projects with the Yakama Nation, Chelan County, Cascade Fisheries and Trout Unlimited. This included, Aquatic Organism Passage structures, Beaver Dam Analogs, and the placement of large woody debris in several miles of streams that serve as critical habitat for listed salmonid species. Invasive plant treatments were carried out by the Washington Conservation Corps on 1821 acres.

We actively engaged collaborative partners through the development of a robust CFLRP monitoring plan. The CFLRP is partnering with CWI to engage with restoration partners as well. This will ultimately lead to increased collaboration, cross-boundary treatments and socio-economic benefits to the surrounding communities within the CFLRP boundary.

A few challenges did arise with implementation of our proposed projects for FY23. The Twisp Restoration EA has been held up in litigation, so we were unable to implement planned stewardship contracts in that project area in FY23. The Forest is currently awaiting a decision by the District Court of Washington, Eastern Washington District on the court ruling. Pending the decision, treatments could go forward early in 2024. We do expect to complete fuels reduction treatments in the Twisp area in FY24. Another FY22 decision on the Mad Roaring Mills project was unable to start implementation in FY23 due to some issues that arose with USFWS consultation. Consultation has now been completed on Mad Roaring Mills and we expect to start implementing in FY24. We are working diligently and cooperatively with the USFWS to find solutions for consultation delays and expect to be able to implement in all project areas in the future with a more cooperative approach between this USFS and the USFWS. A few aquatic restoration projects were delayed due to further coordination needs between partners.

Finally, we anticipated funding two aquatic restoration projects in FY23 with tribal partners that were not initiated due to some additional coordination needs around the Tribal Forest Protection Act (TFPA) agreements at the regional level. The two projects are high priority work, and we anticipate that they will go forward in future years. We also had a contract for mechanical hazardous fuels reduction work on the Entiat Ranger District that came in significantly under bid, resulting in an excess of funds at the end of the fiscal year. As a result of these unanticipated changes, we were unable to obligate approximately $1.6 million of our FY23 $3 million CFLRP allocation but expect to re-obligate these funds in outyears.

Each year our CFLRP project is getting more accomplished on the ground, initiating more partner engagement and brings more socio-economic benefit to the Okanogan-Wenatchee National Forest and surrounding communities.

Optional Prompts

FY 2023 Additional Accomplishment Narrative and/or Lessons Learned Highlights

In FY23, the Forest worked with state and regulatory partners to complete an update to the Late Successional Reserve (LSR) Assessments for the Forest. LSR Assessments are required by the Northwest Forest Plan for forests to implement treatments within LSRs. The Forest's last assessments were completed nearly 25 years ago and took a conservative approach to maintaining old growth and Northern Spotted Owl habitat that has proved to be unsustainable with increasing fire risk and climate change and created barriers for the Forest in planning and implementing forest restoration at landscape-scales. This LSR Assessment update was submitted it to the LSR Workgroup at the Regional Office for review in November 2023 and includes an updated assessment of the current conditions of LSRs across the forest, a risk analysis, and recommended updates to the treatment framework to better protect and enhance late successional and old forest habitats into the future. The update has been encouraged and supported by the North Central Washington Forest Health Collaborative. Our hope is that the revision will expedite project level review and the NEPA process moving forward, as well as allow the forest to implement better restoration projects at meaningful scales.

Media Recap

1. *The Wenatchee River Ranger District will be implementing five aquatic restoration projects this summer:*
   https://www.fs.usda.gov/detail/okawen/news-events/?cid=FSEPRD1113072

2. *Methow Valley Ranger District hosts Forest Restoration Field Tours:*
   https://www.fs.usda.gov/detail/okawen/news-events/?cid=FSEPRD1135672

3. *Wenatchee River Ranger District initiatives scoping for Chumstick to LP Project:*
   https://www.fs.usda.gov/detail/okawen/news-events/?cid=FSEPRD1140683

Visuals

Figure 2. Aquatic organism passage work completed by partners on Goose Creek in the Wenatchee River Ranger District.

Figure 3. Nason Creek large woody debris installation done in partnership with the Yakama Nation. This project was installed to improve fish habitat for endangered salmonids.

Figure 4. Forest Restoration public field tour in the Methow Valley in September 2023. Three field tours were held over 3 weekends to communicate how the forest works from the landscape scale down to prioritizing treatments in individual stands and different tools that are used in planning and implementation of forest restoration projects.

Signatures

Recommended by (Project Coordinator(s)):   /s/ Kerry Kemp
Approved by (Forest Supervisor(s)): /s/ Kristin Bail
Draft reviewed by (collaborative representative): /s/ Tiana Luke

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?"

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)	113,717 acres (9.8%)	286,680 acres (24.7%)	412,071 acres (35.6%)	93,946 acres (8.1%)	44,303 acres (3.8%)	116,123 acres (10%)	92,097 acres (8.0%)
Landscape model 2 (Second year of CMS)	NA	NA	NA	NA	NA	NA	NA

- **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.

  Additional analysis would be beneficial, as the results in the table above do not accurately represent fire behavior expected under 97th percentile conditions. A long history of large wildfires across the project area continue to exhibit much higher flame lengths than those predicted in this table, even in recently burned areas. We would expect less than 10% of the area under 97th percentile conditions to exhibit less than 1' foot flame lengths, and a much higher percentage in the over 4' flame lengths under 97th percentile conditions. The long-term strategy in this project area is to strategically locate fuel treatments which result in lower flame lengths in the treatment areas to improve suppression opportunities and reduce risk to treated stand and adjacent values. We would expect to see the fire behavior estimates and SDI (suppression difficulty index) reduced in these treatment areas in the future. Due to the scale of the project and complexity of the fire behavior environment, it will be difficult to observe changes in this monitoring indicator.

Table 2. Crown fire activity from IFTDSS (Initial landscape model baseline under CMS)

Watershed Name	Unburnable	Surface Fire	Passive Crown Fire	Active Crown Fire	Crown Fire (combined)
Lower Chewuch River	12807.0 (7.2%)	124843.0 (70.2%)	39906.7 (22.5%)	168.8 (0.1%)	40075.5 (22.5%)
Twisp River	11843.4 (10.9%)	59312.0 (54.8%)	36594.1 (33.8%)	579.6 (0.5%)	37173.7 (34.3%)
Middle Methow River	12239.5 (10.1%)	89512.3 (73.9%)	19195.8 (15.8%)	175.2 (0.1%)	19371.0 (16.0%)
Lower Methow River	2543.1 (8.2%)	16511.5 (53.5%)	11528.0 (37.4%)	276.4 (0.9%)	11804.5 (38.3%)
Stehekin River	1.1 (83.3%)	0.2 (16.7%)	0.0 (0.0%)	0.0 (0.0%)	0.0 (0.0%)
Upper Lake Chelan	837.3 (12.1%)	2261.1 (32.7%)	3794.7 (54.9%)	18.9 (0.3%)	3813.6 (55.2%)
Lower Lake Chelan	23894.7 (20.2%)	70490.9 (59.7%)	23322.5 (19.7%)	412.3 (0.3%)	23734.8 (20.1%)
Mad River	2443.2 (8.0%)	16352.5 (53.4%)	11299.0 (36.9%)	555.5 (1.8%)	11854.5 (38.7%)
Entiat River	14255.7 (9.9%)	76894.1 (53.4%)	50497.4 (35.1%)	2338.3 (1.6%)	52835.6 (36.7%)
Lake Entiat-Columbia River	5835.6 (14.4%)	30984.5 (76.6%)	3579.2 (8.9%)	26.0 (0.1%)	3605.2 (8.9%)
White River-Little Wenatchee River	3017.0 (27.4%)	3467.6 (31.5%)	3562.3 (32.4%)	955.4 (8.7%)	4517.7 (41.1%)
Nason Creek	1811.4 (5.7%)	10947.8 (34.6%)	16504.8 (52.1%)	2391.2 (7.6%)	18896.0 (59.7%)
Chiwawa River	2578.0 (7.3%)	11480.5 (32.6%)	19040.3 (54.1%)	2118.5 (6.0%)	21158.8 (60.1%)
Icicle Creek	2.4 (21.2%)	5.8 (50.0%)	3.1 (26.9%)	0.2 (1.9%)	3.3 (28.8%)
Peshastin Creek	3637.9 (5.8%)	26429.6 (41.9%)	31509.5 (49.9%)	1525.6 (2.4%)	33035.2 (52.4%)
Mission Creek	277.8 (3.8%)	4054.5 (55.3%)	2958.1 (40.4%)	35.4 (0.5%)	2993.4 (40.9%)
Wenatchee River	7702.9 (7.9%)	40748.7 (41.8%)	46988.0 (48.1%)	2159.7 (2.2%)	49147.7 (50.4%)
Middle Fork Tenaway River – Tenaway River	2.9 (41.9%)	1.6 (22.6%)	1.6 (22.6%)	0.9 (12.9%)	2.4 (35.5%)
Wilson Creek-Cherry Creek	0.4 (16.7%)	1.3 (50.0%)	0.9 (33.3%)	0.0 (0.0%)	0.9 (33.3%)
Taneum Creek-Yakima River	0.2 (3.2%)	2.2 (32.3%)	2.4 (35.5%)	2.0 (29.0%)	4.4 (64.5%)
Headwaters Ashnola River	2.9 (46.4%)	2.4 (39.3%)	0.9 (14.3%)	0.0 (0.0%)	0.9 (14.3%)
Swamp Creek-Columbia River	1455.1 (5.2%)	21929.4 (78.3%)	4593.1 (16.4%)	17.3 (0.1%)	4610.5 (16.5%)
Salmon Creek	4.7 (13.4%)	21.3 (61.1%)	8.9 (25.5%)	0.0 (0.0%)	8.9 (25.5%)

Loup Loup Creek-Okanogan River	198.4 (9.9%)	1309.2 (65.4%)	493.5 (24.7%)	0.2 (0.0%)	493.7 (24.7%)
Lost River	73.4 (4.9%)	495.1 (32.9%)	932.7 (62.1%)	1.8 (0.1%)	934.5 (62.2%)
Upper Methow River	1039.0 (7.1%)	6932.5 (47.1%)	6511.9 (44.3%)	224.8 (1.5%)	6736.8 (45.8%)
Upper Chewuch River	5214.0 (6.0%)	63520.8 (72.5%)	18850.6 (21.5%)	42.7 (0.0%)	18893.3 (21.6%)

- **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.

  Similar to the response for flame length, since crown fire is a direct function of flame length, passive and active crown fire is significantly under predicted in this analysis, and additional analysis would likely provide more representative data. Model adjustments may provide more realistic outcomes, including modifying the fuel data (not an uncommon practice with off the shelf Landfire data) such as changing fuel models, lowering crown base height data, or other data inputs.

- **Does your CFLRP project have additional hazardous-fuels related monitoring results to summarize and interpret?** If so, please provide that here.

  There are numerous small project-level monitoring projects that have occurred in the past, but nothing broad scale to represent the entire CFLRP project area. We initiated some small-scale stand-level monitoring in FY23 but those efforts did not include any quantification of fuels. We intend to add some stand-level fuels monitoring metrics to that protocol in future project areas if we have the capacity.

  Additionally, starting in 2021, the WDNR Forest Resilience division science team piloted an approach to assess how forest health treatments interacted with wildfires. The "Work of Wildfires" Assessment use data from areas in which specific fires and treatment units overlapped during a given fire season. Fire perimeters and fire progression data are overlaid on treatment data to identify when and where treatments were breached. Treatment and wildfire overlap locations are then combined with fire weather information for the days of the breach, collected from incident Remote Automated Weather Stations (iRAWS), if available, or RAWS. These data are used to characterize relative humidity and wind speed during the days in which the fire-treatment interaction occurred. Fire severity data is characterized using pre- and post-fire composite satellite imagery. Severity is then summarized within each treatment unit and evaluated the entire wildfire.

  The 2023 version of the report will not be published until March 2024, but the 2022 Work of Wildfires Report is available online. Although no wildfires greater 100 acres burned within the CFLRP project boundary in 2022 or 2023, we plan to use these reports and data to assess patterns of burn severity (compared with historic reference ranges) and treatment effects in future fires > 100 acres within our CFLRP landscape.

- **Based on the information in this section, (and any other relevant monitoring information and discussion), what (if any) actions or changes are you considering?**

  As mentioned above, changes we are making include improving strategic planning of fuels project locations to result in fuel breaks in the best locations to improve suppression objectives and protect values, while also continuing landscape level restoration projects for multiple resource benefit and stand resiliency.

We also intend to work with the region to refine our base inputs for the landscape treatment file that is used to generate the IFTDSS model outputs and see if we can resolve some of the inconsistencies we identified in the baseline dataset this year.

Monitoring Question #2: "What is the effect of the treatments on moving the forest landscape toward a more sustainable condition?"

For detailed guidance, training, and resources, see corresponding reporting template underlined 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 (following Haugo et al. 2015)

Succession Class Area (acres) & % total project area[17]	Early Seral	Mid-Seral Closed	Mid-Seral Open	Late-Seral Open	Late-Seral Closed
Vegetation Departure					
Disturbance and successional restoration needed	0 (0%)	122,602.4 (42.2%)	2,052.3 (0.7%)	0 (0%)	0.1 (0%)
Disturbance only Restoration Needs	47,711.1 (16.4%)	13,138.8 (4.5%)	10,773.1 (3.7%)	2,727.3 (0.9%)	13,566.3 (4.7%)
Succession only Restoration Needs	51,408.8 (17.7%)	5,186.4 (1.8%)	21,089.6 (7.3%)	29.5 (0%)	0 (0%)
Rest. Needs Treated	2,155.9	10,185.1	5,184.4	162.5	1,018.6
Restored to NRV	-	-	-	-	-
Percent Change	-	-	-	-	-
Running Totals [Initial baseline under CMS[5]]	198,291.3 (24.7%)	238,294.1 (29.6%)	221,502.2 (27.6%)	50,263.9 (6.3%)	95,470.9 (11.9%)

Table 2. Acres departed by Biophysical Setting vegetation type. Positive values indicate an excess (above HRV), and negative values indicate a deficit (below HRV).

Vegetation Type	Early Seral	Mid-Seral Closed	Mid-Seral Open	Late-Seral Open	Late-Seral Closed
Dry Ponderosa Pine - Mesic	4,174	4,799	-6,146	-8,158	7,451
Mixed Conifer - Eastside Dry	31,017	137,758	5,511	-140,568	-13,487
Mixed Conifer - Eastside Mesic	-6,841	-4,125	20,501	-9,986	-2,275
North Pacific Mountain Hemlock Forest - Xeric	-802	4,848	-2,412	4,337	-1,342
Northern Rocky Mountain Mesic Montane Mixed Conifer Forest	389	-15	404	-192	-140
Pacific Silver Fir--Low Elevation	-809	1,183	1,491	-386	-2,340
Spruce - Fir	47,711	-35,120	6,104	-4,930	-1,878
Subalpine Fir	-100	22	111	0	-5
Subalpine Woodland	14,300	-32	-15,564	-	-
Grand Total	**89,038**	**109,317**	**10,001**	**-159,884**	**-14,015**

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[17] Proportions were calculated as the percentage of forested BpS's in the project area that were in need of restoration.

- **Briefly summarize how your landscape has departed from historic ecological conditions including disturbance**.
- **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.

In general, mid-seral closed structure types are most overrepresented on our CFLR landscape, especially in our dry forest types. Early seral also shows up as being overrepresented in our landscape. Much of this excess of early seral habitat is in Spruce-Fir and Subalpine Woodland BpS forest types and a result of recent wildfires (note that because these vegetation types are a relatively smaller portion of our project area and historically experienced higher severity wildfires, results must be interpreted with caution at this scale). However, an excess of early seral in the Mixed Conifer- Eastside Dry BpS suggests that recent fires have had higher proportions of high severity fire than expected based on historic fire regimes in these forest types. This is supported by and aligns with broader trends seen across the Pacific Northwest (Haugo et al. 2018, Donato et al. 2023). The most notable departure within our landscape is in the Mixed Conifer- Eastside Dry BpS with an excess of mid-seral closed (137,758 acres) and a deficit of both late-seral open (-140,568 acres) and closed (-13,486 acres). The departures in both mid-seral closed and late-seral open structure classes are well documented results of past management in dry forests across the interior Northwest, including fire suppression, logging of the largest and oldest trees, grazing, and removal of indigenous populations and their cultural burning practices (Hessburg and Agee 2003).

Nearly half of the documented restoration need on our landscape (48.5%) is within the mid-seral closed structure class, with most of this structure class needing both disturbance (thinning and/or prescribed fire) and succession (time to grow) to move the landscape towards desired conditions. Over 25% of our restoration need in this landscape consists of succession only, with most of that occurring in either the Mixed Conifer- Eastside Dry BpS or Subalpine Woodland BpS, either in the early seral or mid-seral closed structure types. In these cases, more time is needed to develop the large open old structure conditions that were more represented in these vegetation types historically. Our goal through our CFLRP treatments and implementation will be to move the excess mid-seral closed to late-seral open (especially within the Mixed Conifer- Eastside Dry BpS) through time. However, this is a multi-stage process that not only requires multiple treatments to restore characteristic patterns, but also time to grow existing trees into a large size class. We anticipate over the 10 years of this project that we will see some movement from mid-seral closed to mid-seral open, with much of that mid-seral open in need of succession (time to grow) over the life of the project.

Finally, it is worth noting that the analysis performed for this question is coarser than what is used at the project level to determine needs and locations of treatments on the Okanogan-Wenatchee National Forest. The Forest uses an approach, called a landscape evaluation, which was developed as part of the Okanogan-Wenatchee Forest Restoration Strategy (FRS; USFS, 2012). The FRS employs photo interpreted stand structure, composition, and density data from historic and current imagery (0.5-1 m resolution) to determine departures in structural stages (based on O'Hara et al. 1995) at the stand-scale. This process requires fine tuning of the vegetation types and structural classes using field based and remotely sensed (e.g., Lidar) data to assess restoration needs within each project area. We plan to use updated stereo-aerial imagery from NAIP at the completion of the CFLRP project to monitor changes in structure as a result of treatments in some of the project areas where treatments are implemented and will be able to compare those results with the broader landscape results provided through this method.

- **Does your CFLRP project have additional ecological departure related monitoring results to summarize and interpret?** If so, please provide that here.

In FY23, we also initiated some stand-level monitoring within one project area to address several related questions: How well did treatments meet the prescription targets for tree density, composition, and spatial pattern? Were large trees (> 25" DBH) and snags (>12" DBH) retained or created through successive treatments? How much post-harvest mortality or loss of large trees and snags occurs over time (e.g., from windthrow, mechanical damage, etc.)? What is the prevalence of insects and disease in project units that are treated as part of the CFLRP?

We collected field plot data on 54 nested plots to derive tree density, species composition, and distribution of size classes by species. We used 1/10th acre fixed area plots to capture all trees > 7" and smaller plots (1/100th acre) to capture saplings and seedlings < 7" DBH. We measured large trees (>25" DBH) and snags (>12" DBH) on 1/2-acre fixed area plots. Plot locations were monumented for re-measurement in the future and landscape photos were captured at each site.

Remotely sensed data was also collected using a drone to summarize spatial patterns of individual trees, clumps and openings, and canopy cover. Maps of individual trees derived from 1 to 3-ft-resolution canopy height models (CHMs) will be derived from structure for motion data from drone-based imagery (Figure 1). CHMs show the height of vegetation above ground and are segmented into approximations of tree crowns based on their shape—called "tree approximate objects" or TAOs (Jeronimo et. al 2019).

Trees per acres (> 7" DBH) averaged 99.4 trees per acre with a mean basal area of 118 sq ft./acre pre-treatment in the Mission study area, though trees per acre ranged widely depending on the sampled site (Table 3). On average, there were 4 trees per acre greater than 25" DBH in the study area, with the average DBH of large trees 28.2" (Table 3). Plots were largely dominated by Douglas-fir pre-treatment, followed by ponderosa pine and smaller proportions of aspen, subalpine fir, spruce and other species (Figure 2). Englemann spruce tended to be the largest trees across the study area, with a mean diameter of 19" DBH and a median diameter of 24" DBH. Douglas-fir and ponderosa pine averaged 13.2" and 15.0" DBH, respectively, across sampled sites pre-treatment (Figure 3). The mean diameter of all species was 13.5". Future measurements post-treatment will help us determine if mean diameter of residual trees increases and species composition shifts to more ponderosa dominated stands. We will also be exploring how treatments change basal area and trees/acres across the project area and whether these changes meet prescription targets.

Table 3. Pre-treatment tree density and diameter for all trees (> 7" DBH) and large trees (>= 25" DBH) in the Mission Restoration project on the Methow Valley Ranger District. Fifty-four pre-treatment plots were installed in FY23.

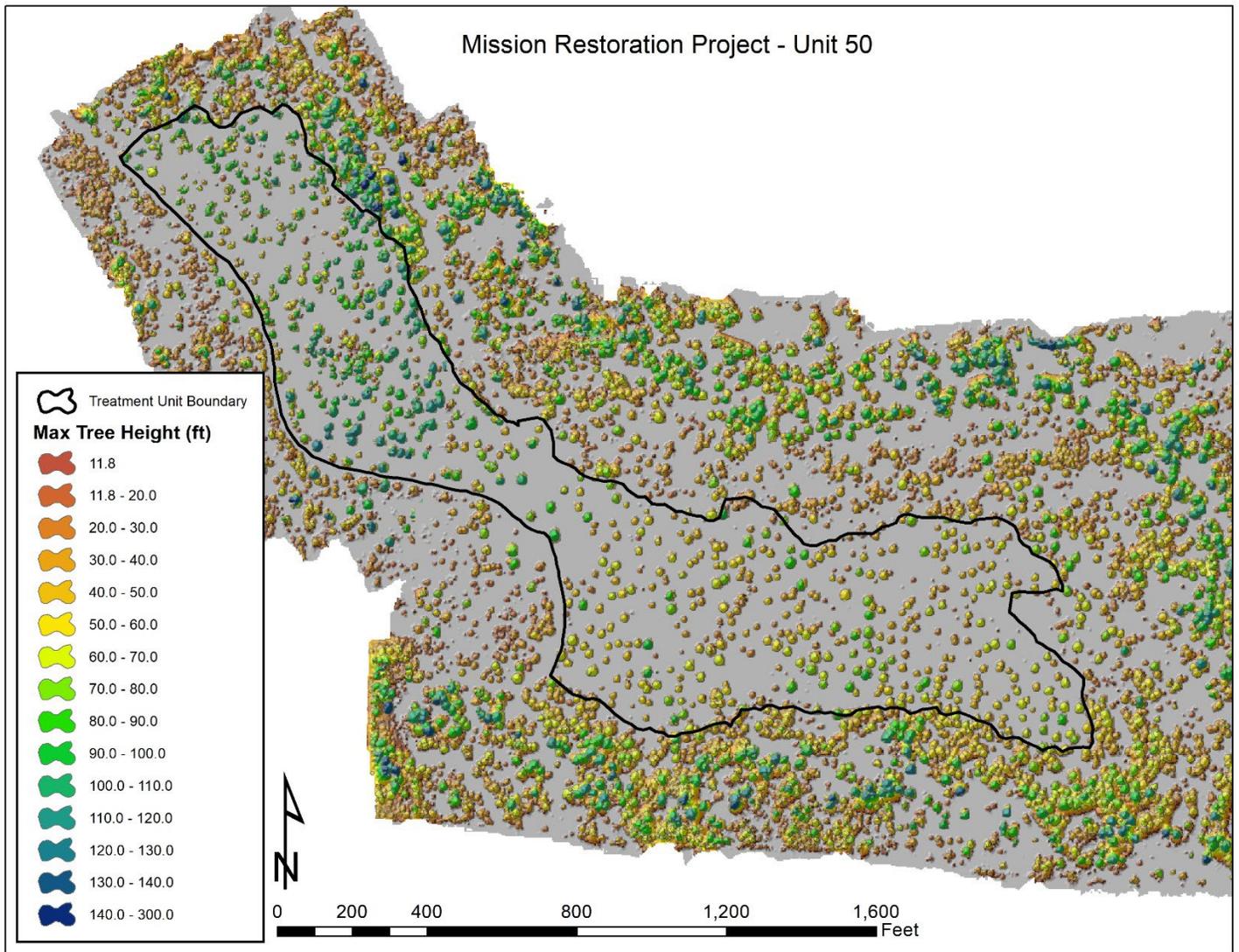|	**All Trees >= 7"**	**Trees >= 25"**
Mean Trees/Acre +/- SE	99.4 +/- 5.0	4.3 +/- 0.4
Range (Trees/Acre)	30 - 200	0 - 14
Average Diameter (in)	13.5	28.2
Mean Basal Area +/- SE	118.3 +/- 7.8	23.3 +/- 2.3

Figure 1. Post-treatment drone-based structure for motion canopy height model (CHM) for Unit 50 of the Mission Restoration Project. Tree approximate objects (TAOs) can be used to derive spatial pattern metrics and compare those metrics to reference historical stand condition datasets to better understand how treatments are restoring not just historic density, but also spatial patterning.
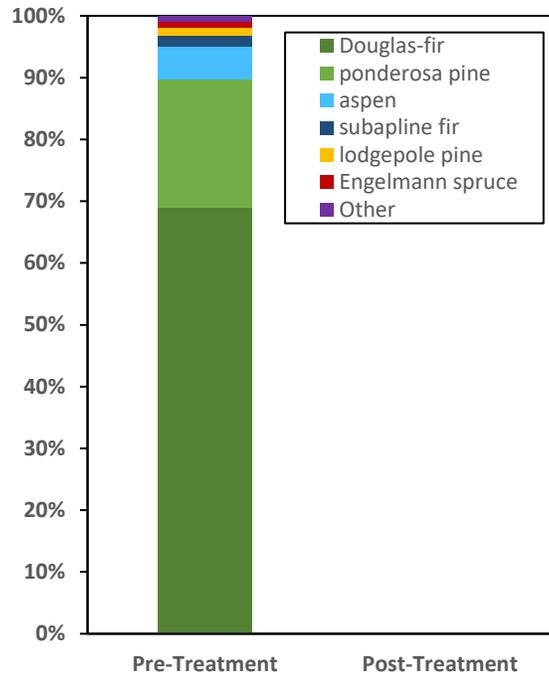
Figure 2. Proportion of species measured across the Mission Restoration project area in FY23. No post-treatment data will be collected until 2024 and beyond.

Figure 3. Diameter distribution of different species measured in the Mission Restoration project (n = 536). Boxes represent the 25th and 75th percentiles of the data with the median represented with the black horizontal bar within each box. Whiskers represent the 5th and 95th percentiles. Circles are outliers. Species codes are as follows: DF = Douglas-fir; PP = ponderosa pine, LP = lodgepole pine, SAF = subalpine fir, ES = Englemann spruce, AS = aspen.

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?"

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

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

Wildlife Habitat Description	Regional or Project-Specific Indicator?	Indicator and Unit of Measure	Target Range	Value in Initial Year of CMS*	Acres of Habitat Treated to Improve this Indicator in this Fiscal Year
Late-seral closed Mixed Conifer Eastside Dry and Mixed Conifer Eastside Mesic (Northern Spotted Owl, Fisher)	Regional	Departure from HRV	59,412- 81,033 acres	50,687 acres	173 acres
Mid-seral closed Mixed Conifer Eastside Dry and Mesic (Northern Spotted Owl, Fisher)	Regional	Departure from HRV	51,743 – 62,793 acres	192,472 acres	2263 acres
Mid-seral closed Spruce-Fir, Subalpine Fir, N. Rocky Mtn. Mesic Montane Mixed Conifer Forest (Canada Lynx)	Regional	Departure from HRV	39,932-51,446 acres	4,823 acres	0 acres
Late-seral closed Spruce-Fir, Subalpine Fir, N. Rocky Mtn. Mesic Montane Mixed Conifer Forest (Canada Lynx)	Regional	Departure from HRV	25,512-30,953 acres	23,498 acres	46 acres
Late-seral closed Dry Ponderosa Pine (Mesic) and Mixed Conifer Eastside Dry (Western Grey Squirrel)	Project	Departure from HRV	43,705 – 61,767 acres	42,475 acres	65 acres
Late-seral open Dry Ponderosa Pine and Mixed Conifer – Eastside Dry (White Headed Woodpecker)	Regional	Departure from HRV	158,359 - 184,815 acres	9,632 acres	17 acres

*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.

  Northern spotted owls and fishers are represented by the Mixed Conifer Eastside Dry and Mixed Conifer Eastside Mesic in the Late-seral closed and the mid-seral closed stand structures. It is assumed that any commercial treatments would reduce nesting/roosting/foraging habitat while pre-commercial or small diameter thinning, prescribed burning, and low-intensity wildfire would enhance habitat. Only enhancement treatment acres are used in the calculations in the table above.

Canada lynx are represented within the spruce-fir, subalpine fir, and Northern Rocky Mountain Mesic Montane Mixed Conifer Forest vegetation types. Foraging habitat that supports winter snowshoe hares consists of mid seral closed and late seral closed stand structures. It is assumed that any treatments resulting in a reduction in understory would reduce habitat for Canada lynx, this includes wildfire. Treatments that promote understory and enhance habitat include commercial-only thinning, planting, and seeding. Only enhancement treatment acres are used in the calculations in the table above.

Western grey squirrels are represented by the Late-seral closed Dry Ponderosa Pine (Mesic) and Mixed Conifer Eastside Dry vegetation types and structures as described for the Okanogan populations. Given the preference for large trees with interconnected crowns, it is assumed that commercial thinning treatments would reduce habitat for the species and pre-commercial or small diameter thinning, prescribed burning, and low-intensity wildfire that retained large trees and >40% canopy cover while reducing fire risk would enhance habitat. Only enhancement treatment acres are used in the calculations in the table above.

White-headed woodpeckers are represented by the Late-seral open Dry Ponderosa Pine and Mixed Conifer – Eastside Dry vegetation types and structures. It is assumed that restoration-type commercial thinning treatments that maintain large trees and reduce risk of wildfires would retain or enhance habitat for the species and pre-commercial or small diameter thinning, prescribed burning, and low-intensity wildfire would enhance habitat. Only enhancement treatment acres are used in the calculations in the table above.

Additionally, in calculating treatment acres, we only included treatments for the current fiscal year (FY23), so we are not accounting for prior treatments that may have already altered stand structure or habitat function. Our assumption is that commercial thinning, pre-commercial or small diameter thinning, and prescribed fire (broadcast or underburning) treatments happen in separate years as subsequent treatments and therefore should not overlap. We confirmed that we were not counting any overlap in units that were treated with commercial thinning, pre-commercial or small diameter thinning, and prescribed fire in this fiscal year, though some units received multiple treatments (e.g., PCT + piling or rearrangement of fuels). Therefore, the acres represented above reflect footprint acres of treatment. Finally, habitat enhancement acres that were listed as part of the annual CFLRP accomplishments in the main report include other species (e.g., deer, elk) and additional treatment types that affect habitat (e.g., road decommissioning) besides those listed in the table above and are therefore higher than the acres listed in this monitoring table.

- **Does your CFLRP project have additional wildlife-related monitoring results to summarize and interpret?** If so, please provide that here.

We summarized Northern Spotted Owl (Strix occidentalis caurina) habitat using data generated by the Northwest Forest Plan Monitoring team with R6 and the Pacific Northwest Research Station. These data are generated annually and binned into four different categories: unsuitable, marginal, suitable, and highly suitable (Davis et al. 2022). Data were clipped to the NCW CFLRP area (Figure 1). Tracking of habitat trends over time has proved to be important for understanding the impacts of treatments and disturbances on habitat for this threatened species. Baseline data (2023) are reported in Table 2 below.

In future years, we plan to be able to report on how aquatic restoration projects are impacting the occurrence and distribution of listed fish species. Data will be collected by partners and include eDNA samples and snorkel surveys, as well as habitat and Level I stream surveys.

Table 2. Acres of Northern Spotted Owl habitat within the North Central Washington CFLRP project area by suitability category. 2023 baseline data are generated through the end of the calendar year for 2022.

	Unsuitable	Marginal	Suitable	Highly Suitable
Northern Spotted Owl Habitat (acres)	387,534	103,634	64,884	35,077
Acres Treated (FY23)	4,193	1,376	455	136
Change from Baseline*	N/A	N/A	N/A	N/A

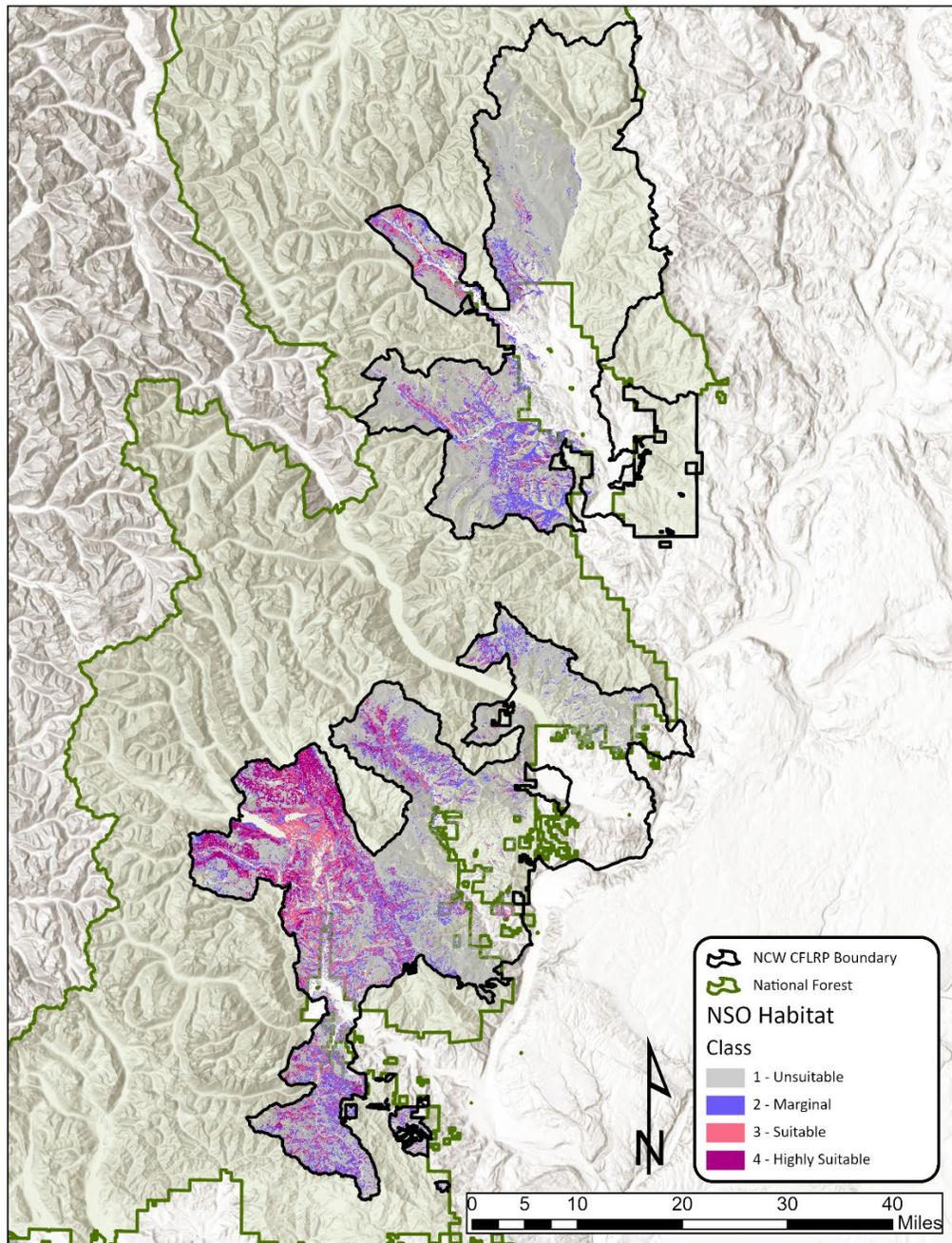*Not applicable in first year of reporting.

Figure 1. Mapped Northern Spotted Owl habitat within the NCW CFLRP boundary in 2023. Data from Davis et al. 2022.

Monitoring Question #4: "What is the status and trend of watershed conditions in the CFLRP area?"

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 Scorein Initial Year of CMS	Date After Treatment and/or Disturbance Event	Watershed Condition Score in Year 5 of CMS*
Beaver Creek-Wenatchee (170200110701)	Treatment	11/3/2023	Functioning At Risk (1.9)	N/A	N/A
Lower Nason (170200110203)	Treatment	11/3/2023	Functioning (1.6)	N/A	N/A
Buttermilk (170200080506)	Treatment	11/3/2023	Functioning At Risk (1.7)	N/A	N/A
Lower Chiwawa (170200110111)	Treatment	11/3/2023	Functioning At Risk (1.8)	N/A	N/A
Lower Mad River (170200100103)	Treatment	11/3/2023	Functioning At Risk (2.0)	N/A	N/A

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

Indicator Number	Indicator Name	Avg. Indicator Value	Date	Change in Avg.* (Improvement, Deterioration, or No Change)

Aquatic Physical (Weighted 30%)

Indicator Number	Indicator Name	Avg. Indicator Value	Date	Change
1	Water Quality	1.3	2022	N/A
2	Water Quantity	1.2	2022	N/A
3	Aquatic Habitat	2.3	2022	N/A

Aquatic Biological (Weighted 30%)

Indicator Number	Indicator Name	Avg. Indicator Value	Date	Change
4	Aquatic Biota	2.0	2022	N/A
5	Riparian/Wetland Vegetation	2.3	2022	N/A

Terrestrial Physical (Weighted 30%)

Indicator Number	Indicator Name	Avg. Indicator Value	Date	Change
6	Roads & Trails	2.0	2022	N/A
7	Soils	1.8	2022	N/A

Terrestrial Biological (Weighted 10%)

Indicator Number	Indicator Name	Avg. Indicator Value	Date	Change
8	Fire Regime or Wildfire	2.5	2022	N/A
9	Forest Cover	2.0	2022	N/A
10	Rangeland Vegetation	2.0	2022	N/A

11	Terrestrial Invasive Species	1	2022	N/A
12	Forest Health	1.2	2022	N/A
	Avg. Watershed Condition Score	**1.8**		

- **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.

Many of the watersheds within the CFLRP boundary in the Upper Columbia Basin have been identified as functioning at risk. For the affected watersheds that we have selected above, four of the five are considered functioning at risk. In each of these watersheds, aquatic habitat is an indicator that specifically has scored low for each of the watersheds. Roads and trails and fire regime both have low scores for most of the watersheds selected as well.

There are future projects planned to help bring the scores up over the next few years in many of these watersheds. Nason Creek watershed has the Upper Nason Creek Enhancement which is an Instream/Floodplain Habitat Enhancement project that would accomplish restoration of 2 miles of in-stream habitat and 30 acres of floodplain enhancement. A large-scale project that would add an additional 40 acres of habitat is moving the Nason Creek Highway 207. The Chiwawa watershed also has multiple Instream/Floodplain Habitat Enhancement projects that would add 10 miles and 33 acres of enhanced habitat through multiple Large Wood Enhancement projects. The Beaver Creek watershed has several low-tech projects planned as well as multiple culvert removals. The Mad River watershed also has multiple projects planned, including the Mad Roaring Mills Floodplain restoration which involved more than five miles of floodplain restoration of critical fish habitat. There are also several AOP and BDA projects planned for this watershed as well over the next few years. While there are currently some low indicator scores for many of the watersheds across the CFLRP boundary, through the funding allocated by CFLRP and strong partner engagement, it is likely that these scores will improve over the next five years.

Since the WCC scores reported this year are baseline data from which to compare future work, no interpretation has been made of whether the current values are trending towards or away from desired conditions.

- **Does your CFLRP project have additional watershed condition-related monitoring results to summarize and interpret?** If so, please provide that here.

Not at this time. We plan to investigate several additional watershed monitoring indictors including monitoring how aquatic, floodplain, and riparian habitats respond to restoration projects aimed at increasing habitat complexity and how roads affect hydrologic connectivity and sediment delivery in a sub-watershed pre- and post-treatment. These questions will use a combination of site surveys, remote sensing (green Lidar), and models. We are working to initiate an agreement with Chelan County Natural Resources Department to carry out field and remote sensing surveys of priority aquatic restoration projects to answer the first question, starting in FY24. Forest staff have already completed road surveys and hydrological modeling for planned projects that will be implemented during our CFLRP project, and post-implementation surveys and model runs will be conducted after project implementation is complete.

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

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

> Data source(s): FACTS & *R6 Invasive Species Field Plot Protocol*
> Were the plots fixed or in different locations year to year? *Fixed*
> Were the plots randomly placed? *Yes*
> If so, how? *ArcMap gridded points generated using a 5-acre fishnet grid for the project area*
> What statistical assumptions or models did you use? *N/A*
> Were photos taken at each plot? *Yes*
> Link to full results: *Uploaded into Box folder*

Table 1. 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]
Bull Thistle	Herbicide	280	222	95%	266	N/A
Common Mullein	Herbicide	90	90	95%	85.5	N/A
Dalmatian Toadflax	Herbicide	367.3	367.3	95%	456.9	N/A
Diffuse Knapweed	Herbicide	1470.2	1470.2	95%	1473.9	N/A
Gypsyflower	Herbicide	63.4	48.9	95%	60.0	N/A
Hardheads	Herbicide	17.9	17.9	95%	17.0	N/A
Spotted Knapweed	Herbicide	755	369	95%	719.2	N/A
Whitetop	Herbicide	17.9	17.9	95%	17.0	N/A
Yellow Star-Thistle	Herbicide	150	150	95%	142.5	N/A
	Totals/Avgs	3211.7	2753.2	95%	3238.0	

[1] "Treated" is defined as prevented, controlled or eradicated. Multiple species may be treated in a single area, so these acres reflect treatment acres and not footprint acres and may contain some overlap.

[2] Note that though the report would like us to use the agency performance accomplishment code INVPLT-INVSPE-REST-FED-AC, which is calculated in FACTS, this accomplishment metric cannot be summarized by species. To summarize the acres restored, we calculated the acres completed x average percent efficacy of control. However, this does not guarantee that these acres have been permanently restored.

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

Table 2. Summary of plot-based field monitoring for invasive species (if applicable). Non-treated areas were areas that did not display any signs of previous treatment in the last 15 years. Previously treated areas showed some signs of treatment in the prior 15 years. Control plots are plots where no immediate (within the 5-10 implementation window of a project) treatments are planned and treatment plots are plots where treatment is planned within the next 1-3 years, but in FY23, these plots were sampled pre-treatment. Some of the treatment plots may have also been previously treated. Treatments planned for the treatment plots include commercial thinning, non-commercial thinning, and prescribed fire (can include pile burning and/or broadcast burning).

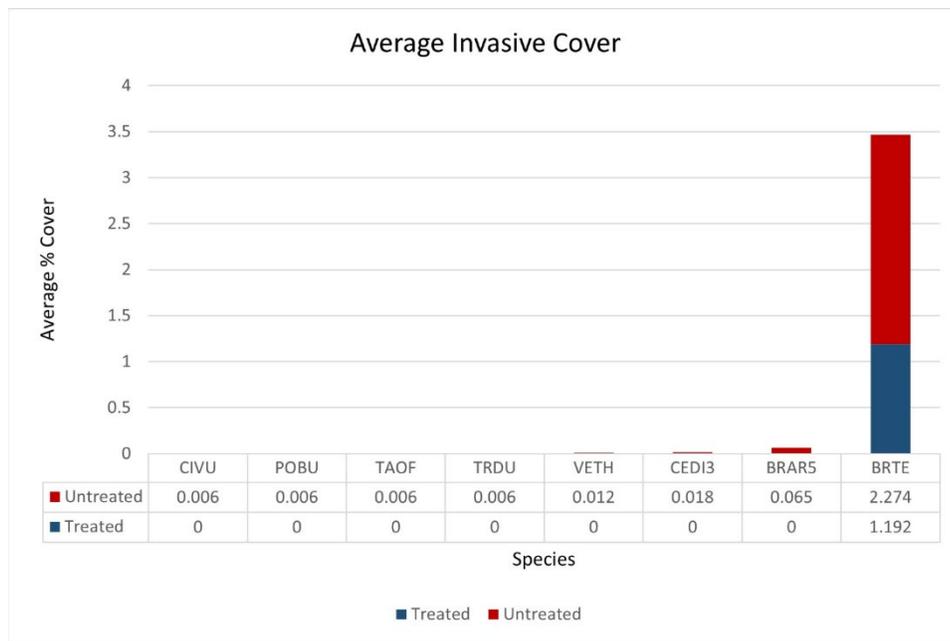| Treatment Group Name	Brief Treatment Group Description	Date(s) Surveyed	Number of Plots Sampled	Avg. Percent Canopy Cover of Invasive Species per Plot	"Percent Change"[1]
Previously Treated Areas	Thinning followed by prescribed burning (pile or broadcast)	June 2023 – Oct 2023	13	1.19%	NA
Non-treated Areas	No thinning, no prescribed burning, and no wildfire	June 2023 – Oct 2023	84	2.39%	NA
Control plots	Control	June 2023 – Oct 2023	22	0.34%	NA
Treatment Plots	Pre-Treatment in FY23	June 2023 – Oct 2023	75	2.79%	NA

Figure 1. Average percent cover of eight invasive species that were detected on invasive monitoring plots within the NCW CFLRP project area prior to treatment, based on whether these plots had evidence of treatment within the past 15 years.

- **Briefly summarize the key points from the reporting template for your invasive species-related indicators.**

Data was summarized from FACTS on the acres of infested areas treated for 9 different common species across the CFLRP project area. By calculating the percent efficacy on those acres that were monitored following treatment, we were able to calculate the initial acres restored in FY23 (see below for caveats).

We also established an initial 97-0.1-acre circular long-term monitoring plots between July and October 2023 in three different study areas across four Ranger Districts – Entiat, Chelan, Wenatchee River, and Methow Valley – in the North Central Washington CFLRP in 2023. Plots were selected in ArcPro using a 5-acre fishnet grid laid over each project area. Field personnel then randomly choose which plots to visit to get a total of 25 treatment and 8 control plots across each of 3 study areas. Total percent cover for invasive plants, bare soil, and litter and duff were recorded at each plot. Invasive plants were identified to species and ocular cover estimates were recorded

for each plant. Eight species were noted across the three study areas pre-treatment. Past treatment types, plot center photos and location notes were also gathered to revisit plots on a 2-year cycle.

There were 13 plots that had some combination of treatment in them in the past and 84 plots where no previous treatment was noted (Table 2). Invasives were found on 22 plots: 4 of which were treated in the past (31% of treated plots), and 18 which were untreated in the past (21% of untreated plots). Plots were determined as treated if thinning, burning, or other combinations of treatments occurred within the last 15 years. Average invasive percent cover was calculated by species with a species-plot matrix in Microsoft Excel. None of the plots have received recent treatment (in the last 2 years) and 22 of the plots were established as control plots (no planned treatment during the CFLRP project), while 75 of the plots are planned for near-term treatment (in the next 1-2 years).

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

Data from FACTS on invasive treatments across our CFLRP project area (Table 1) indicate that generally our invasive species of concern significantly respond to herbicide treatment with an average of 95% efficacy. However, treatment effectiveness may be monitored in the months or year following treatment and large initial responses may be dampened over time. For example, seeds of some invasive species are viable in the soil for years and even following mortality of mature individuals, the population can rebound from seed in treated areas. It is also important to note that although we calculated acres restored by looking at the efficacy of initial treatments, actual restoration and reestablishment of native plants can take years, treatments may need to be applied multiple times in a given area and an initial herbicide treatment does not guarantee a treatment's long-term success.

In our field plots, cheat grass (Bromus tectorum, BRTE) was the most widespread invasive species noted across our project area and was mostly confined to low elevation shrub steppe-ponderosa pine woodland sites that are slated for broadcast burning in the next 1-2 years and may have experienced some limited small tree thinning and pile burning prior to sampling. Cheat grass invasion was relatively minor to date but is anticipated to increase some in response to prescribed fire.

Other projects that were sampled pre-treatment were in primarily dry mixed-conifer (Mission) and moist mixed-conifer (Upper Wenatchee Pilot Project) forest types and had very low occurrences of invasive species pre-treatment. This is not unexpected, as most invasive issues on the forest are currently concentrated near roads or in previous treatment areas, especially where pile burning is prevalent. However, we would have expected our pre-treatment plots and our control plots to have similar pre-treatment cover of invasives, but pre-treatment plots showed slightly higher (2%) cover of invasives than control plots (0.3%).

- **Does your CFLRP project have additional invasive species-related monitoring results to summarize and interpret? If so, please provide that here.**

No

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.

  As noted in CMS Q2, treatments that move stands from mid-seral closed to mid-seral open will not demonstrate restoration to within the natural range of variability (NRV). Our goal through our CFLRP treatments and implementation will be to move the excess mid-seral closed to late-seral open (especially within the Mixed Conifer- Eastside Dry BpS) through time. However, this is a multi-stage process that not only requires multiple treatments to restore characteristic patterns, but also time to grow existing trees into a large size class. We anticipate over the 10 years of this project that we will see some movement from mid-seral closed to mid-seral open, with much of that mid-seral open in need of succession (time to grow) over the life of the project. Therefore, it may be difficult to demonstrate accomplished restoration outcomes with this metric during our project although we hope to make positive directional change.

  Also, small tree thinning or commercial harvest treatments are likely to result in a net increase in fuels early in the project timeline and show an associated increase in fire behavior (i.e., flame lengths, fireline intensity) within the first couple of years of treatment. Over time and with successive treatments, however, small diameter fuels (1, 10, 100-hr) should be reduced to pre-treatment levels and factors contributing to increased probability of passive or active crown fire and fireline intensity should also be reduced. We do not have data to demonstrate this trend yet but will likely try to collect fuels data on the ground in a subset of our project area in future years. It is unlikely the landscape fire behavior models will pick up these trends during intermediate treatment stages.

Monitoring Questions #6: "How has the social and economic context changed, if at all?" 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:

Step 1: List counties:

Chelan, Kittitas, Okanogan, Yakima, Douglas, Snohomish, Lewis, Pierce, Stevens, Ferry, Whatcom, Skagit

Step 2: Across all counties listed above, provide the data below:

Federal land ownership: % of project area (Data available via *Headwaters Economics* report (see Appendix for instructions), see tab 2 of "Forest Service report"): ***40.6%***

NFS lands within that: % of project area (tab 2, Forest Service report): ***32.4%***

(OPTIONAL) Within these counties, are there specific communities you would like to describe apart from the county characteristics?

In the supplemental table below, we include the optional socioeconomic indicators for just Chelan and Okanogan counties, the two counties that our NCW CFLRP project spans.

Table 1.

Indicators (each row includes information source from Headwaters Economics Economic Profile System - see Appendix for instructions)	Response for Initial Year of CMS*	(Optional) Notes *Including data for Okanogan and Chelan counties only (within the local identified impact area)*	Response for Year 5 of CMS	Percent Change
Population, most recent year available (tab 1, Forest Service report)	2,725,382 (tab 2) (2021)	122,280 (2021)	NA	NA
Percent of total, race & ethnicity, most recent year available (tab 11, Forest Service report) **(2021)**	White alone – 72.2% Black/African American – 3.7% American Indian – 1.6% Hispanic ethnicity – 16.0% Non-Hispanic ethnicity – 84.0%	White alone – 71.4% Black/African American – 0.4% American Indian – 3.9% Hispanic ethnicity – 25.8% Non-Hispanic ethnicity- 74.2%	NA	NA
Unemployment rate, most recent year available (tab 1, Forest Service report)	5.7% (tab 1; 2021) 4.7% (tab 8; 2022)	5.8% (tab 1; 2021) 5.3% (tab 8; 2022)	NA	NA

Per capita income, most recent year available (tab 1, Forest Service report)	$66,515 (2021)	$63,193 (2021)	NA	NA
Wildfire Exposure, % of Total, Homes, most recent year available (see Wildfire Risk report; tab 2) **(2020)**	Homes Directly Exposed - 32.0% Homes Indirectly Exposed - 39.0% Homes Not Exposed - 29.0%	Homes Directly Exposed - 45.0% Homes Indirectly Exposed - 50.0% Homes Not Exposed - 6.0%	NA	NA

*Initial Year of Common Monitoring Strategy (CMS) Reporting

(ADDITIONAL INDICATOR OPTIONS) Beyond the indicators above, are there other community characteristics you would like to track over time? The table below includes suggested information also available from Headwaters Economics that may complement the required indicators. Regions and Projects are welcome to use other indicators relevant to their local monitoring priorities and socioeconomic context.

Indicators	Response for Initial Year of CMS*	(Optional) Notes *Including data for Okanogan and Chelan counties only (within the local identified impact area)*	Response for Year 5 of CMS	Percent Change
Timber % of private employment, most recent year available (tab 2, Forest Service report) for some counties. If not available, simply list "N/A")	1.3% (2020, estimate for data not disclosed)	0.8% (2020, estimate for data not disclosed)	NA	NA
Travel and Tourism % of private employment, most recent year available (tab 2, Forest Service report) for some counties. If not available, simply list "N/A")	15.5% (2020, estimate for data not disclosed)	14.0% (2020, estimate for data not disclosed)	NA	NA
Government % of Jobs, most recent year available (tab 1. Forest Service report)	15.2% (2021)	15.2% (2021)	NA	NA
Residential land area, most recent year available, (tab 2, Forest Service report)	26.1% (% change 2000-2010)	19.1% (% change 2000-2010)	NA	NA
Wildland-Urban Interface % developed, 2010 (tab 2, Forest Service report) **(NO DATA)**	Homes Directly Exposed - Homes Indirectly Exposed - Homes Not Exposed -	(NO DATA)	NA	NA
Earnings per job, most recent year available (tab 3, socioeconomic trends report)	$72,449 (2021)	$60,924 (2021)	NA	NA

Fed. Payments % of gov. revenue, most recent year available (tab 2, Forest Service report)	0% (2017)	0% (2017)	NA	NA
Top employment sectors (see Employment by Industry, most recent year available (tab 5, Forest Service report). *Note: Please list the top 2-3 sectors that make up most of the employment size.* **(2021)**	1. Government 2. Health care /social assist. 3. Retail trade 4. Construction/ manufacturing	1. Government 2. Health care /social assist. 3. Farm 4. Retail trade	NA	NA
Total Federal Land Payments, Forest Service Payments, most recent year available (tab 12, Forest Service report)	$10,511,810 (FY2019; FY22 $)	$3,042,191 (FY2019; FY22 $)	NA	NA
Percent of total individuals and families in poverty, most recent year available (tab 9, Forest Service report)	6.6% (2021)	10.7% (2021)	NA	NA
Percent of total, Food stamps/SNAP, most recent year available (tab 10, Forest Service report)	11.9% (2021)	12.9% (2021)	NA	NA
Percent of Total Native American, most recent year available (tab 6, Demographics)	1.6% (2021)	3.9% (2021)	NA	NA
Potentially Vulnerable Households, % total most recent year available, (tab 11, Populations at Risk)	20.9% (>65 live alone + single female) 4.9% (no car) (2021)	25.0% (>65 live alone + single female) 4.6% (no car) (2021)	NA	NA
Students eligible for free lunch, Data not available via Headwaters Economics	53% (OSPI; Oct. 2022)	Chelan county: 65% Okanogan county: 83%	NA	NA
School enrollment, Data available state by state [1]	1,519,518 (local counties) Data.WA.gov	Chelan: 50,628 Okanogan: 47,152	NA	NA
Second homeownership, Data not available via Headwaters Economics		Chelan county: 31% Okanogan county: 38%	NA	NA
Forest-level visitation, Data not available via Headwaters Economics. The NVUM app is open to the public and can be used to find forest level visitation estimates and characteristics: https://apps.fs.usda.gov/nvum/results Note: data is only updated every 5 years.	4,106,000 estimated site visits, page 9 NVUM program OKW (2020)		NA	NA

*Initial Year of Common Monitoring Strategy (CMS) Reporting

Table 2. For each included National Forest (if CFLRP is across all Districts) or Ranger District, please provide:

Forest	Ranger District	Indicators	Response for Initial Year of CMS*	(Optional) Notes	Response for Year 5 of CMS	Percent Change
Okanogan-Wenatchee		Total annual budget:	$28,942,670.14	Budget for whole forest (only the northern 4 districts are part of the NCW CFLRP boundary)	NA	NA
		Total Full Time Equivalents:	516 (Forest), 217 (CFLRP Districts)	CFLRP Districts include Methow Valley, Entiat, Chelan, and Wenatchee River		

*Initial Year of Common Monitoring Strategy (CMS) Reporting

- **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 local impact area for the North Central Washington CFLRP includes counties adjacent to the project area. In the tables above, we reported measures in the local impact area as well as measures within the two counties in which NCW CFLRP activities occurred (Okanogan and Chelan). Population size was considerably smaller in the two counties compared to the local impact area, especially because the local impact area includes some outlying counties of the Seattle metro area. The percentage of American Indian and Hispanic ethnicity were double in Okanogan and Chelan counties compared to the local impact area, while the Black/African American population was 90% less in Okanogan and Chelan counties. Per capita income was over $3,000 less for the two counties and 95% of home were directly or indirectly exposed to wildfire in Okanogan and Chelan counties as opposed to 71% in the local impact area. Over a third of housing units in Chelan and Okanogan counties are estimated to be second homes and this trend significantly influences housing prices throughout the area. Tourism is a significant contributor to the local economy in both Chelan and Okanogan counties and because of the proximity to the greater Seattle metro area, the Forest experiences an estimated 4.1 million visits per year.

- **Would you expect CFLRP activities to directly or indirectly impact any of these social and/or economic conditions?** If so, how?

  Over 14,000 acres of hazardous fuels treatment were implemented across the NCW landscape, reducing the risk of wildfire risk and increasing the capacity for wildfire management for the 95% of homes in Okanogan and Chelan counties which have direct or indirect wildfire exposure. Most of the product distributions from commercial timber sales go to mills outside of Okanogan and Chelan counties, though several mills do occur within the local impact area. Industry partners highlight that for every 1 MMBF produced from forest restoration work in Washington, approximately 12 local jobs are created. This work continues to support mill infrastructure and continued operability, while generating additional future restoration funding through stewardship contracting and Good Neighbor Authority (GNA), and timber sales providing potential volume to regional mills.

- **Does your CFLRP project have additional socioeconomic monitoring results to summarize and interpret?** If so, please provide that here.

Not at this time.

- **Based on the information reported, (and any other relevant monitoring information and discussion), what (if any) actions or changes are you considering?**

None at this time.

(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?"

- 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.

  Data and analyses to address this question are being provided by the University of Montana BBER but are not yet available for our CFLRP project.

  However, timber harvest volume totals were pulled for the two counties that our project area lies within for the 2022 calendar year from the Washington Department of Revenue (Table 1). Data were only separated by public & private land ownership and public lands may include BLM or other agency lands besides USFS.

  The following mills or wood processing facilities are within our local impact area, though there are currently no facilities within Chelan or Okanogan Counties:

      Kittitas County:
  - *Willis Enterprises – Bullfrog*

      Lewis County:
  - *Alta Cedar*
  - *Hampton*
  - *Northwest Hardwood*

      Pierce County:
  - *Manke Lumber*
  - *Rainier veneer*

      Skagit County:
  - *Sierra Pacific Ind.*

      Snohomish County:
  - *Buse Timber*
  - *Canyon Lumber*
  - *Fritch Mill*
  - *Hampton*
  - *Stella Jones*

      Stevens County:
  - *Vaagen Bros.*
  - *Columbia Cedar*
  - *Boise Cascade*

      Yakima County:
  - *Yakama Forest Products*

Table 1. Timber Harvest Volume and revenue for Chelan and Okanogan counties in 2022.

County	Owner	Volume (MBF)	Stumpage	$/MBF
Chelan*	Public	204	38,579	$189.11
Chelan	Private	5040	1,351,903	$268.23

Chelan	TOTAL	5,244	1,390,482	
Okanogan*	Public	22,041	3,901,323	$177.00
Okanogan	Private	7181	1,081,054	$150.54
Okanogan	**TOTAL**	**29,222**	**4,982,377**	

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

Monitoring Questions #12: "How well is CFLRP encouraging an effective and meaningful collaborative approach?"

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 <u>here</u>. Please upload your completed assessment summary provided by the Southwestern Ecological Restoration Institutes <u>here</u> 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?
- Do you have any feedback about the assessment process?
- 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.
- What types of support or guidance do you need to address any of the challenges, needs, and recommendations identified in the collaboration assessment?

Data and analyses to address this question are being provided by the Southwestern Ecological Restoration Institute (SWERI) but will not be available for our CFLRP project until January.

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