United States Department of Agriculture

Biennial Monitoring Evaluation Report for the Payette National Forest 2018-2019

Forest Service Payette National Forest September 2020

For More Information Contact:

Pattie Anderson Soucek, Planning Staff Officer
Payette National Forest
500 North Mission Street, Building 2
McCall, ID 83638
208-634-0700.
https://www.fs.usda.gov/payette/

COVER PHOTO: Tree growing on rock near Lick Creek Summit, Payette National Forest, Valley County Idaho. Photo credit: Lisa Thompson USFS.

About our Plan Monitoring Program

Purpose

The purpose of the biennial monitoring evaluation report is to help the responsible official determine whether a change is needed in forest plan direction, such as plan components or other plan content that guide management of resources in the plan area. The biennial monitoring evaluation report represents one part of the Forest Service's overall monitoring program for this national forest unit. The biennial monitoring evaluation report is not a decision document—it evaluates monitoring questions and indicators presented in the Plan Monitoring Program chapter of the forest plan, in relation to management actions carried out in the plan area.

In 2003, the Payette National Forest (PNF) completed revision of its 1988 Land and Resource Management Plan (hereafter, called the 1988 Forest Plan). The Regional Forester signed the Record of Decision for the revised Forest Plan on July 25, 2003. The revised Plan (hereafter also called the Forest Plan) went into effect September 7, 2003. The Forest Plan defines a strategy for the next 10-15 years and describes desired conditions for Forest ecosystems. It sets goals, objectives, standards, and guidelines that emphasize maintaining and restoring watershed conditions, species viability, terrestrial and aquatic habitats, and healthy, functioning ecosystems.

In May 2016, the Payette National Forest executed an Administrative Change to the Land and Resource Management Plan to align *Chapter IV Implementation of the Forest Plan* with the 2012 Planning Rule at 36 CFR 219.12 and in the directives in the Forest Service Handbook 1909.12, Chapter 30. This FY18-19 Biennial Monitoring Report is produced to be consistent with the framework described in the Administrative Change.

Our monitoring plan covers these eight topics required under FSH 1909.12, in addition to social, economic and cultural sustainability. You'll find each of these topics addressed in this report.

1. The status of select watershed conditions.
2. The status of select ecological conditions including key characteristics of terrestrial and aquatic ecosystems.
3. The status of focal species to assess the ecological conditions required under § 219.9.
4. The status of a select set of the ecological conditions required under § 219.9 to contribute to the recovery of federally listed threatened and endangered species, conserve proposed and candidate species, and maintain a viable population of each species of conservation concern.
5. The status of visitor use, visitor satisfaction, and progress toward meeting recreation objectives.
6. Measurable changes on the plan area related to climate change and other stressors that may be affecting the plan area.
7. Progress toward meeting the desired conditions and objectives in the plan, including for providing multiple use opportunities.
8. The effects of each management system to determine that they do not substantially and permanently impair the productivity of the land (16 U.S.C. 1604(g) (3) (C)). (36 CFR 219.12(a))

How Our Plan Monitoring Program Works

Monitoring and evaluation requirements have been established through the National Forest Management Act (NFMA) at 36 CFR 219. Additional direction is provided by the Forest Service in Chapter 30 – Monitoring – of the Land Management Handbook (FSH 1909.12).

The Payette National Forest monitoring program was updated in May 2016 for consistency with the 2012 planning regulations [36 CFR 219.12 (c) (1)]. The Payette National Forest Plan was administratively changed to include the updated monitoring program (Chapter IV). For a copy of the current monitoring program go to https://www.fs.usda.gov/detail/payette/landmanagement/planning/?cid=fseprd496832. Monitoring questions and indicators were selected to inform the management of resources on the plan area and not every plan component was determined necessary to track [36 CFR 219.12(a) (2)]. See the Plan Monitoring Program at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd504727.pdf for discussion on how the monitoring questions were selected to be consistent with the 2012 planning regulations 36 CFR 219.12. The last biennial forest plan monitoring report was completed in March 2018.

Providing timely, accurate monitoring information to the responsible official and the public is a key requirement of the plan monitoring program. This biennial monitoring evaluation report is the vehicle for disseminating this information.

Monitoring Objectives

The objectives of our plan monitoring plan include:

- Assess the current condition and trend of selected forest resources.
- Document implementation of the Plan monitoring Program
- Evaluate relevant assumptions, changed conditions, management effectiveness, and progress towards achieving the selected desired conditions, objectives, and goals described in the Forest Plan.
- Assess the status of previous recommended options for change based on previous monitoring & evaluation reports.
- Document scheduled monitoring actions that have not been completed and the reasons and rationale why.
- Present any new information not outlined in the current plan monitoring program that is relevant to the evaluation of the selected monitoring questions.
- Present recommended change opportunities to the responsible official.

Monitoring Results Summary

Monitoring from the 2018-2019 interval revealed that of 44 indicators there is one indicator for which we are not currently meeting forest plan direction and an additional 8 indicators for which we are unsure if we are meeting forest plan direction because of the lack of data available for those indicators. The one indicator for which we are not meeting forest plan direction is in acres of known infestation of noxious weeds. The trend is increasing weed prevalence of several persistent species, though this indicator also needs a revision in monitoring protocol to account for weed patch density and survey effort. There were three forest planning questions/indicators in which management activities may warrant change to better meet Forest plan objectives, namely timber targets, management of Research Natural Areas, and forest inventory. There are 11 indicators for which changes to the monitoring program are warranted, including changing indicators and/or methodologies as there is currently a disconnect between the indicator and the data available. In some cases the monitoring question is being addressed but not using the exact units of measure for the indicator. In some cases the data collected is on a subset of the forest, but the indicator asks for forest-wide information, so some revision to the indicator is needed or there should be a statistical sampling methodology used to extrapolate or infer forest wide trends from a subset of the forest.

Tables 1-3 below summarize current recommendations for line officer consideration, as well as providing a status for recommendations from past reports.

Table 1. Quantitative summary of adaptive management recommendations for all monitoring questions addressed in this report (44 total).

Recommendation	Yes, need for change	Unsure	No
Results inconsistent with Forest Plan direction	1	8	35
Change to Forest Plan warranted	0	0	0
Change to management activities warranted	3	0	41
Change to Plan monitoring program warranted	11	0	45
Focused assessment needed	0	0	0

Table 2. Summary of findings for each plan monitoring item (questions and indicators)

Monitoring Question	Monitoring Indicator	Last Year Updated	Consistency with Plan Intent1	Recommendation[2]	Type of Change(s) under consideration[2] *Where change may be needed?*
Is the Forest implementing projects that will restore and maintain stream channel integrity, flow regimes, and water quality outlined in the Forest Plan Watershed and Aquatic Restoration Strategy (WARS) and Watershed Condition Framework (WCF)?	Change in select watershed conditions indicators: 1) total road miles and road density; 2) miles and road density within riparian conservation areas (RCAs); 3) miles of total roads, RCAs roads, and unauthorized roads decommissioned.	2019	Yes	No	No changes under consideration
	Number of watersheds moved to an improved Watershed Condition Class.	2019	Uncertain C	Yes	Monitoring Plan to improve sensitivity and consistency of data collected
Are BMPs and project design features implemented and effective in protecting water quality and riparian resources?	National BMP Monitoring Protocols to determine if BMPs are carried out and effective in mitigating nonpoint source pollution	2019	Uncertain C	Yes	Revise the indicator to be % implemented and/or % of implemented BMPs that were effective
Are planned treatments being implemented within priority watersheds to meet desired outcomes?	Acres treated annually in the identified priority watersheds	2019	Yes	No	No changes under consideration
Is stream habitat in priority watersheds being maintained or restored to fully support beneficial uses and native and desired nonnative fish species and their habitats?	Watershed conditions indicators (WCI) either maintained or improving within priority watersheds. Native and nonnative species presence/absence	2019	Yes	No	No changes under consideration
Are the distribution, abundance, and habitat quality of TEPC aquatic species being maintained and/or restored?	Watershed conditions indicators either maintained or improving within TEPC watersheds	2019	Yes	No	No changes under consideration
	Number of actions implemented consistent with recovery plans (draft or final)	2019	Yes	No	No changes under consideration
Is live vegetation at, or moving towards, desired conditions as described in Appendices A and E of the Forest Plan (USDA Forest Service 2003)?	Mix of size classes, canopy cover, and species composition and their spatial patterns by forested Potential Vegetation Group (PVG) and non-forested cover types within 5th field hydrologic units	2019	Yes	Yes	Improve forest inventory program and maintenance of a corporate existing vegetation layer. Improved management of RNAs during project design
Are Forest management actions affecting known habitat of globally rare (G1, G2, G3) plant species at the project level?	Acres of disturbance of known occupied habitat of globally rare species	Not available	Yes	Yes	Monitoring Plan to reconcile the indicator with the data available for acres of rare plant habitat in project areas

Monitoring Question	Monitoring Indicator	Last Year Updated	Consistency with Plan Intent1	Recommendation[2]	Type of Change(s) under consideration[2] *Where change may be needed?*
Have habitat restoration and conservation been prioritized in watersheds identified in the Forest Plan through such items as the Vegetation and Wildlife Habitat Restoration Strategy?	Percentage of available acres within restoration treatments in high priority versus other 5th field watersheds	Not available	Uncertain B	Yes	After completion of Wildlife Conservation Strategy, the Monitoring Plan needs to be revised accordingly.
	Acres restored or trending toward desired conditions in priority watersheds identified in the Forest Plan through items such as the Vegetation and Wildlife Habitat Restoration Strategy	Not available	Uncertain B	Yes	After completion of Wildlife Conservation Strategy, the Monitoring Plan needs to be revised accordingly.
Has winter recreation affected species source environments?	Miles of groomed snowmobile trail, number of winter outfitters and their use, and acres open to motorized over-snow use to estimate level of winter recreation use for site- specific projects	2019	Yes	No	No changes under consideration
Are bighorn sheep present in areas of risk?	Sighting or telemetry location in a risk area	2019	Yes	No	No changes under consideration
Are bighorn sheep present in or near active domestic sheep and goat allotments?	Are bighorn sheep present in or near active domestic sheep and goat allotments?	2019	Yes	No	No changes under consideration
Is separation between bighorn sheep and domestic sheep and goats maintained?	Presence of bighorn sheep and presence of domestic sheep or goat bands	2019	Yes	No	No changes under consideration
Are domestic sheep straying from permitted grazing allotments?	Presence of domestic sheep on areas identified as not suited for domestic sheep grazing	2019	Yes	No	No changes under consideration
Are the distribution, abundance, and habitat quality of TEPC and sensitive terrestrial wildlife species being maintained and/or restored?	Presence/absence data of northern Idaho ground squirrel in potential habitat	Not available	Uncertain C	Yes	Revise indicator to reflect population monitoring methods and outputs.
	Presence/absence data of bull trout in potential habitat	2019	Yes	No	No changes under consideration
	Presence/absence data of steelhead in potential habitat	2019	Yes	No	No changes under consideration
	Presence/absence data of Chinook salmon in potential habitat	2019	Yes	No	No changes under consideration

Monitoring Question	Monitoring Indicator	Last Year Updated	Consistency with Plan Intent[1]	Recommendation[2]	Type of Change(s) under consideration[2] *Where change may be needed?*
Is the transportation system providing recreational opportunities and safe and efficient public and agency access, and is it environmentally compatible?	Miles of roads maintained via INFRA	2019	Yes	No	No changes under consideration
	Motor Vehicle Use Map (MVUM) and National Visitor Use Monitoring (NVUM) results	2018	Yes	No	No changes under consideration
	Miles of trail maintained, trail surveys (TRACS)	2019	Yes	No	No changes under consideration
Are facilities, including developed recreation sites, free of high-risk conditions?	How well facilities meet drinking water quality criteria	2019	Yes	No	No changes under consideration
	Developed recreation site condition surveys	2019	Yes	No	No changes under consideration
Are recreation activity levels changing, and are shifts occurring between types of activities and locations of recreational use?	NVUM results	2018	Yes	No	No changes under consideration
	Project specific change to Recreation Opportunity Spectrum (ROS)	2019	Yes	No	No changes under consideration
Is the level of use occurring at dispersed sites impacting other resource values? If so, what actions were taken and were they effective?	Acres adversely impacted by dispersed recreation	Not available.	Uncertain C	Yes	Monitoring Plan to improve sensitivity and consistency of data collected
	Acres of adversely impacted areas treated to contribute toward restoring desired conditions	Not available.	Uncertain C	Yes	Monitoring Plan to improve sensitivity and consistency of data collected
Are conflicts arising between recreational uses? Are conflicts being resolved?	Change in Recreation Opportunity Spectrum (ROS) class	2019	Yes	No	No changes under consideration
	National Visitor Use Monitoring (NVUM) program results	2018	Yes	No	No changes under consideration
Is wildland fire, including prescribed fire, being utilized to move landscapes towards desired conditions for resiliency and condition class?	Acres burned resulting in desired conditions or acres burned that move the watershed closer to desired conditions	2019	Yes	No	No changes under consideration
Are high wildfire risk areas being identified within the WUI and are those acres being subsequently treated to reduce that risk?	Acres of high wildfire risk within the WUl treated in a manner that reduces risk	2019	Yes	No	No changes under consideration

Monitoring Question	Monitoring Indicator	Last Year Updated	Consistency with Plan Intent1	Recommendation[2]	Type of Change(s) under consideration[2] *Where change may be needed?*
Is the Forest maintaining or restoring long-term soil productivity?	Amount of activity area in non-detrimentally disturbed condition	2019	Yes	No	No changes under consideration
	Amount of activity area classified as Total Soil Resource Commitment (TSRC)	2019	Yes	Yes	Monitoring Plan to edit indicator for clarity
Are Forest management strategies effectively controlling or eradicating targeted populations of noxious weeds?	Acres of known infestation in management areas identified for eradication or control	2019	No	Yes	Monitoring Plan to improve sensitivity and consistency of data collected
Is the Forest meeting the expected outcomes for timber production?	Levels of commercial and non-commercial timber products provided (Allowable Sale Quantity [ASQ] and Timber Sale Program Quantity [TSPQ])	2019	Yes	Yes	The Forest did not exceed the ASQ or TSPQ meaning that it is consistent with the Forest Plan, but at current rates the Forest will achieve less than 50% of the ASQ and TSPQ objectives. Increasing timber outputs is recommended as described below.
Is the level of livestock grazing changing?	The number of head months associated with term grazing permits	2019	Yes	No	No changes under consideration
Are tribal interest and rights identified through consultation being addressed?	Challenges identified in annual Tribal Summary Report submitted to Washington Office Tribal Relations	2019	Yes	No	No changes under consideration
Are historic properties being managed to standard?	Presence of Heritage Management Plan	2019	Yes	No	No changes under consideration
	Inventory of NFS lands	2019	Yes	No	No changes under consideration
	Evaluation for eligibility for listing on the National Register of Historic Places	2019	Yes	No	No changes under consideration
	Condition assessments on Priority Heritage Assets	2019	Yes	No	No changes under consideration
	Cultural resource stewardship opportunities for study and/or public use	2019	Yes	No	No changes under consideration

[1] *Do results demonstrate intended progress of the plan components associated with this monitoring item?* Plan intent:

(A) Uncertain – Interval of data collection beyond this reporting cycle (indicate date of next time this monitoring item will be evaluated);

(B) Uncertain – More time/data are needed to understand status or progress of the Plan Component(s);

(C) Uncertain – Methods inadequate to answer monitoring question.

[2] *Based on the evaluation of monitoring results, may changes be warranted?* Refer to pages below for more details regarding any specific recommendations for change.

Table 2. Past monitoring recommendation status summary from the 2018 Monitoring Report.

Year of Recommendation	Recommended Change	**Agency Decision** *After line officer consideration & any other engagement, how did the agency decide to respond?*	**Status** *If the decision was to make a change, what is the status of that change?*
2018	Definitions may need to be updated for range management	Decision to not update definitions until Forest Plan Revision	N/A
2018	Definitions may need to be updated for fuels, management	Decision to not update definitions until Forest Plan Revision	N/A
2018	Definitions may need to be updated for road management	An internal roads working group was formed in fall 2019 to resolve the evolving and sometimes conflicting road definitions as used in the 2003 Forest Plan, the 2005 Travel Rule, and the Forest Service Manuals and Handbooks.	In progress.
2018	Many large landscape restoration projects have been approved or are in analysis currently on the Payette. These projects typically managed lands in MPC 5.2 Commodity Production emphasis for forest restoration with less emphasis on commodity production. While the 1982 planning rule under which the current plan was developed did not consider desired conditions as a plan component requiring amendment the 2012 planning rule does. When the Payette moves into Forest Plan revision, currently scheduled in 2024, the emphasis on commodity production in these areas will need to be reviewed.	Forest Plan revision has been postponed by the Regional Office to after 2024. The Payette revision is not currently scheduled.	Postponed to future forest plan revision
2018	As the Forest implements the Bighorn Sheep Viability amendment, some allotment management issues have been identified. During the future Forest Plan Revision process, a review of potential areas where boundaries mapped for suitable and unsuitable habitat may be adjusted will be conducted.	Forest Plan revision has been postponed by the Regional Office to after 2024. The Payette revision is not currently scheduled.	Postponed to future forest plan revision

Forest Supervisor's Certification

This report documents the results of monitoring activities that occurred Fiscal Year 2018-19 on the Payette National Forest. I have evaluated the monitoring and evaluation results presented in this report. I have examined the recommended changes to the 2003 Land Management Plan, as amended, at this time. I therefore consider the 2003 Land Management Plan sufficient to continue to guide land and resource management of the Payette National Forest for the near future, and plan a deeper examination of the recommended changes through engagement with resource specialists. This monitoring report is publicly available on the Forest website and will be shared with interested parties through standing meetings with the Payette Forest Coalition as well as distributed to subscribers via GovDelivery. This report is publicly available on this site: https://www.fs.usda.gov/detail/payette/landmanagement/planning/?cid=STELPRDB5203156

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Linda L. Jackson, Forest Supervisor, Payette National Forest Date

1. Status of Select Watershed Conditions

Summary of Select Watershed Conditions

The forest plan describes an overarching desired condition that aquatic habitats support species diversity, with emphasis on maintaining or restoring threatened, endangered and sensitive species, rare and unique plant communities, and species of cultural, commercial, and recreational significance. Riparian areas connect upland and aquatic habitats, and promote stable and diverse stream channel conditions. Forest plan direction for aquatic habitats is that management actions result in no long-term degradation of soil, water, riparian, and aquatic habitat. The purpose of management actions is to maintain aquatic habitats where they are properly functioning and restored where degraded. Aquatic habitat restoration activities include maintaining necessary water temperatures, reducing pollutants such as sediment, and removing human-caused barriers to fish passage to restore population and habitat connectivity where genetic contamination to native fish species from exotic species is not an issue.

The following results reflect updates from data collected from May 2020. New information collected or compiled from the last evaluation report March 2018 has been incorporated.

The Administrative Change to the Payette Land and Resource Management Plan (2016) included the following plan components, desired conditions, objectives, and standards related to this topic:

- Watershed conditions are properly functioning. Objectives: Maintain all watersheds (6th level HUC) currently classified as "Functioning Properly". Move all other watersheds towards desired conditions by improving the watershed condition indices where planned activities occur. Improve priority watersheds to the next Watershed Condition Framework (WCF) condition.

- Surface water quality meets or exceeds State standards for aquatic biodiversity and beneficial downstream uses. Standard: Project design must meet or exceed applicable best management practices (BMPs) prescriptions to mitigate nonpoint-source pollution.

- Forest, grassland, shrubland, and riparian plant communities are within a desired range of variability for composition, structure, patterns, and processes. Vegetation forms a diverse network of habitats and connective corridors for wildlife and provides desired levels of snags, coarse woody material, and soil organic matter. Terrestrial and aquatic habitats support species diversity, with an emphasis on maintaining or restoring threatened, endangered, and sensitive species and rare and unique plant communities.

- Distribution of native and desired nonnative fish and other aquatic species is maintained or is expanding into previously occupied habitat, with interconnectivity between and within meta-populations.

- Habitats for threatened and endangered aquatic species are managed consistent with established and approved recovery plans. Management actions either contribute to or do not prevent recovery or delisting of these species. Degrading effects from Forest programs are at levels that do not threaten the persistence of threatened, endangered, proposed, or candidate (TEPC) species populations.

Monitoring Questions and Indicators as defined in the Administrative Change to the Payette Land and Resource Management Plan (2016)

Monitoring Question: Is the Forest implementing projects that will restore and maintain stream channel integrity, flow regimes, and water quality as outlined in the Forest Plan Watershed and Aquatic Restoration Strategy (WARS) and Watershed Condition Framework (WCF)? Indicators:

- Change in select watershed conditions indicators: 1) total road miles and road density; 2) miles and road density within riparian conservation areas (RCAs); 3) miles of total roads, RCAs roads, and unauthorized roads decommissioned
- Number of watersheds moved to an improved Watershed Condition Class

Monitoring Question: Are BMPs and project design features implemented and effective in protecting water quality and riparian resources? Indicator:

- National BMP Monitoring Protocols to determine if BMPs are carried out and effective in mitigating nonpoint source pollution

Monitoring Question: Are planned treatments being implemented within priority watersheds to meet desired outcomes? Indicator:

- Acres treated annually in the identified priority watersheds

Monitoring Question: Is stream habitat in priority watersheds being maintained or restored to fully support beneficial uses and native and desired nonnative fish species and their habitats?

- Indicators: Watershed conditions indicators (WCI) either maintained or improving within priority watersheds. Native and nonnative species presence/absence

Monitoring Question: Are the distribution, abundance, and habitat quality of TEPC aquatic species being maintained and/or restored? Indicators:

- Watershed conditions indicators either maintained or improving within TEPC watersheds
- Number of actions implemented consistent with recovery plans (draft or final)

Key Results for Select Watershed Conditions

The following results reflect updates from data collected from April 1, 2018 through May 15, 2020. New information collected or compiled from the last evaluation report produced in March 2018 has been incorporated. Road decommissioning included in several NEPA decisions across the Forest was implemented over the past two years; this will continue for the foreseeable future, as there are over 200 miles of road decommissioning treatments currently covered by NEPA. During the period covered by this monitoring report, 28.2 miles of road decommissioning was accomplished (see Table 4), including both system road and unauthorized route treatments. This resulted in a reduction in road density and road-related effects in fifteen subwatersheds across the Forest, but did not achieve an improvement in Forest Plan WCI rating or change in WCF classification for any of the subwatersheds.

Road decommissioning treatments included removal of culverts on both perennial and intermittent channels,

followed by restoration of the channel to natural sideslopes and profile, and planting of native vegetation (see Figure 1.)

Table 3. Miles of roads decommissioned 2018-19

Subwatershed	Miles
Crooked River	5.6
East Fork Weiser River	1.2
Headwaters Big Creek	2.71
Jungle Creek-Middle Fork Weiser River	0.87
Little Fall Creek-Middle Fork Weiser River	0.38
Little Goose Creek-Goose Creek	0.49
Little Marble Creek-Big Creek	0.17
Logan Creek	2.79
Lost Creek	4.24
Mica Creek-Middle Fork Weiser River	4.02
Mill Creek-Weiser River	0.83
Sixmile Creek-Little Salmon River	1.24
Smith Creek	0.56
Upper Weiser River	2.62
Upper West Fork Weiser River	0.5
Total	***28.2***

Figure 1. Example of perennial channel treatment during native planting.

BMP monitoring, both during implementation and after (effectiveness) was conducted over the course of the last two years on a variety of projects. National BMP Protocol was utilized for monitoring a subset of activities, as assigned by the Intermountain Regional Office. All BMP monitoring is reported each spring in a Forest wide monitoring report compiled with information submitted from each district and distributed to the state and federal regulatory agencies as part of the Forest's compliance with requirements of the Clean Water Act. A summary of this data is not included, but a summary of the National BMP Protocol forms submitted over the last two fiscal years is found in Table 5. Overall, the visits found BMPs implemented on six of the projects visited. The other three showed them not implemented or only "marginal" in implementation.

Boulder Creek, a WCF Priority watershed, did not have any improvement projects implemented within its boundaries during this monitoring period. Most of the essential projects identified in the draft Watershed Restoration Action Plan (WRAP) recently submitted to the Regional Office are covered by the National Environmental Policy Act (NEPA). However, for the Lost Creek Boulder Creek Final Environmental Impacts Statement and Record of Decision, a lawsuit has resulted in the project being held up. Several culverts in the subwatershed were upgraded to Aquatic Organism Passages (AOPs) before the courts halted project activity, and the hope is that the rest of the projects, including road decommissioning and recreation site improvements, will be implemented over the next few years.

Table 4. Summary of the National BMP Protocol forms submitted over FY18 and FY19.

BMP Form/Protocol Name	Monitoring Result	Comments
Vgetation A (Ground-Based Skidding and Harvesting)	BMPs Implemented: Mostly BMPs Effective: Yes	Composite score was "Excellent."
Roads C (Road Operation and Maintenance)	BMPs Implemented: No BMPs Effective: N/A	No other notes
Aquatic Ecosystems B (Completed Aquatic Ecosystems Improvements)	BMPs Implemented: No BMPs Effective: N/A	Monitoring done on an aquatic organism passage culvert installation.
Minerals A (Active Construction of Minerals Exploration Sites and Pre-Development Activities (Non-Placer Mining)	BMPs Implemented: Mostly BMPs Effective: Yes	Composite score was "Excellent."
Range A (Grazing Management)	BMPs Implemented: Marginal BMPs Effective: Missing Data	Response was missing Question 41.
Recreation H (Completed Ski Area Construction or Reconstruction)	BMPs Implemented: Mostly BMPs Effective: Yes	Composite score was "Excellent".
Road A (Active Waterbody Construction or Reconstruction)	BMPs Implemented: Fully BMPs Effective: Yes	Composite score was "Excellent".
Road E (Active Road Decommissioning)	BMPs Implemented: Fully BMPs Effective: Yes	Composite score was "Excellent".
Road F (Completed Road Decommissioning)	BMPs Implemented: Fully BMPs Effective: Mostly	Composite score was "Good".

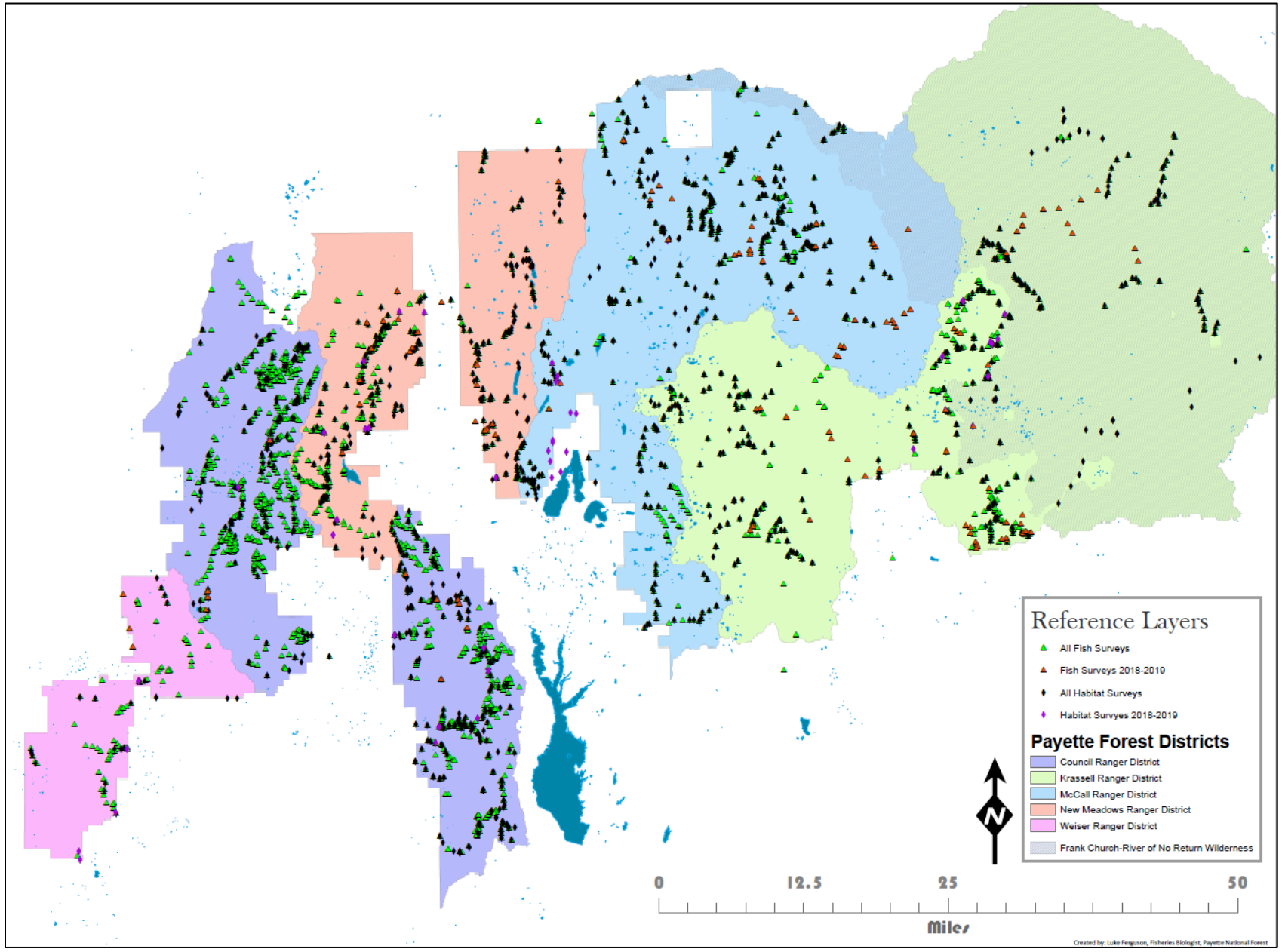
Aquatic Conservation Strategy Priority watersheds with restorative management activities in 2018 and 2019 are identified in Table 6. Those activities were analyzed in NEPA or biological assessments and all were shown to maintain or improve watershed conditions. Through analysis all other activities were shown to maintain watershed conditions. Table 6 also includes activities that are consistent with the recovery plans for Snake River Spring/Summer Chinook Salmon and Steelhead and Columbia River Bull Trout.

Table 5. Aquatic Conservation Strategy priority watersheds with restorative management activities (2018-19).

Subwatershed	Restorative Activities
Upper Little Weiser River	Range stream exclosures
Anderson Creek	Range stream exclosures
Upper East Fork Weiser River	Range stream exclosures
Upper Boulder Creek	Aquatic Organism Passage
Lower Boulder Creek	Aquatic Organism Passage
Smith Creek	Road improvement activities Road decommissioning Aquatic Organism Passage
Upper Big Creek	Road improvement activities Road decommissioning Aquatic Organism Passage

Aquatic species presence/absence data and habitat data was also collected to determine species distribution and habitat quality. In 2018 and 2019, 46 stream habitat surveys and 130 fish presence/absence surveys were conducted and added to a forest database of 1,517 stream habitat surveys and 2,791 fish presence/absence surveys (see Figure 2).

Figure 2. In 2018 and 2019, 46 stream habitat surveys and 130 fish presence/absence surveys were conducted and added to a forest database of 1,517 stream habitat surveys and 2,791 fish presence/absence surveys forest wide.



Recommended Changes for Select Watershed Conditions

Based on these results, the following changes are being recommended at this time:

For the indicator “number of watersheds moved to an improved Watershed Condition Class” there is uncertainty in the data available to determine if the current condition is consistent with the Forest Plan. Therefore, it is recommended to revisit the monitoring plan, specifically the indicator and/or data collection regarding change in Watershed Condition Class, in order to improve sensitivity and consistency of data collected.

For the indicator “National BMP Monitoring Protocols to determine if BMPs are carried out and effective in mitigating nonpoint source pollution” there is a need to revise this indicator to focus on the percent of BMPs implemented and/or the percent of BMPs implemented that were effective.

2. Status of Select Ecological Conditions

Summary of Select Ecological Conditions

The forest plan describes the desired condition that forest, grassland, shrubland, and riparian plant communities are within a desired range of variability for composition, structure, patterns, and processes. Vegetation forms a diverse network of habitats and connective corridors for wildlife and provides desired levels of snags, coarse woody material, and soil organic matter. Terrestrial and aquatic habitats support species diversity, with an emphasis on maintaining or restoring threatened, endangered, and sensitive species and rare and unique plant communities. Research Natural Areas (RNAs) are established by the forest plan to designate areas where ecological processes generally prevail. They remain largely undisturbed by human uses or activities, and provide quality opportunities for non-manipulative scientific research, monitoring, observation, and study.

The following results for Research Natural Areas reflect data collected from 2003 – present as this information was not previously provided in past Forest Plan Monitoring Reports. No forest-wide information is available from the forest's vegetation and timber programs specific to the status of select ecological conditions as described in the monitoring question and indicator in the box below. Limited info related to project specific vegetation outcomes is included for the time period of 2018-19.

The following results reflect updates from Research Natural Area data collected from 2010-2019. New information collected or compiled from the last evaluation report (2009 Monitoring Report) has been incorporated.

The Administrative Change to the Payette Land and Resource Management Plan (2016) included the following desired conditions, objectives, and standards related to this topic:

- Forest, grassland, shrubland, and riparian plant communities are within a desired range of variability for composition, structure, patterns, and processes. Vegetation forms a diverse network of habitats and connective corridors for wildlife and provides desired levels of snags, coarse woody material, and soil organic matter. Terrestrial and aquatic habitats support species diversity, with an emphasis on maintaining or restoring threatened, endangered, and sensitive species and rare and unique plant communities.

Monitoring Questions and Indicators as defined in the Administrative Change to the Payette Land and Resource Management Plan (2016)

Monitoring Question: Is live vegetation at, or moving towards, desired conditions as described in Appendices A and E of the Forest Plan (USDA Forest Service 2003)? Indicator:

- Mix of size classes, canopy cover, and species composition and their spatial patterns by forested Potential Vegetation Group (PVG) and non-forested cover types within 5th field hydrologic units

Key Results for Select Ecological Conditions

Vegetation Management

The Payette inventory forester positions were lapsed in 2005 and the program unfunded. Since then there has been no systematic forest vegetation inventory or monitoring data collection by the Payette National Forest.

Vegetation management projects are designed to move vegetation towards desired conditions. In this 2018-19 monitoring period, the following acreages were managed with a variety of tools (including prescribed burning, non-commercial thinning, and commercial treatments) to move vegetation towards desired conditions. The acreages below do not reflect acres of wildland fire managed for resource benefit, which theoretically could have moved closer to desired conditions, but without monitoring, it is difficult to say for certain. The remaining acres would either be undergoing succession or disturbance, which can also move vegetation towards desired conditions, but the rate of movement may be slower than with active management. Vegetation is present in a mosaic of lifeforms, habitat types, and seral stages at both landscape scales and smaller scales, providing a diversity of spatial patterns. As summarized in Table 7 the trend in vegetation treatments between the last reporting period (2016-17 and this report period (2018-19) is downward for aspen, riparian vegetation, and coniferous forest, while it is stable for herbaceous, and increasing for shrublands.

Table 6. Vegetation projects by treated acres in vegetation classes.

Vegetation class	Treated acres 2016-17	Treated acres 2018-19	% change	Trend
Aspen	213	120	-44%	
Shrublands	3860	5181	+34%	
Herbaceous (Grassland and Forbland)	6910	6918	0%	
Riparian Vegetation	182	21	-88%	
Coniferous Forest	56193	30462	-46%	
Totals	67358	42702	-37%	

Research Natural Areas

The RNA network provides examples of representative forest habitats, shrublands, wetlands, riparian systems, grasslands, geologic formations, wildlife habitats, and aquatic communities. The target is that management plans have been developed and implemented for all RNAs on the forest. Management Plans have not been developed for any of the 13 existing RNAs, instead the Establishment Records have been serving as a proxy for the required Management Plans[1]. One additional RNA at Patrick Butte needs to be formalized with an Establishment Record, which has been initiated but no work was accomplished on it during this reporting period. Ideally, RNAs are monitored to see if the values for which RNAs are established are being maintained though two RNAs have had no known visits since 2009 (Table 8).

Table 7. Status of RNAs

Research Natural Area	Known Visits Since 2009	Known Dates of Visits/Report Available
Bear Creek	3	2018/No, part of range program July 30, 2015/Yes October 3, 2010/Yes
Belvidere [2]	0	N/A
Bruin Mountain	1	September 15, 2016/Yes
Circle End	1	July 8-9, 2010/Yes
Council Mountain	1	2018/No, part of range program
Cuddy Mountain	2	2017/No, part of range program August 31, 2010/Yes
Emery Creek	2	2018/No, part of range program September 2, 2010/Yes
Lava Butte	1	July 24, 2018/Yes
Lost Basin	2	2017/No, part of range program September 1, 2010/Yes
Patrick Butte	2	September 2013/Yes September 2010/Yes August 18 – 20, 2010/Yes
Phoebe Meadows	1	July 22, 2015/Yes
Pony Creek	2	August 28, 2019/Yes July 17, 2012/Yes
Pony Meadows	0	N/A
Rocky Comfort Flat	1	April 29, 2019/Yes

[2]. Belvedere RNA is in the Frank Church River of No Return Wilderness so the Wilderness Plan is also part of the management in addition to the RNA establishment record.

Recommended Changes for Select Ecological Conditions

Based on these results, we are considering the following possible changes:

Regarding indicator "Mix of size classes, canopy cover, and species composition and their spatial patterns by forested Potential Vegetation Group (PVG) and non-forested cover types within 5th field hydrologic units" there is no data currently available, thus there is a recommendation to revise the monitoring plan to improve the Forest inventory program and maintain a corporate dataset of existing vegetation conditions. This would improve the sensitivity and consistency of data collected regarding forested vegetation characteristics forest-wide or at least within the suited timber base as we work to increase the pace and scale of timber harvests.

Regarding RNAs, the following actions are recommended: complete Establishment Record for Patrick Butte RNA; Management Plans should be developed as per Forest Plan; greater involvement of District personnel of recording visits for RNA monitoring visits; and earlier involvement on project NEPA to resolve conflicts early in planning process to preserve the values for which the RNA was established.

[1] Reference is RMRS GTR-69 Feb 2001. Evenden et al. "General management direction for RNAs is incorporated into the respective National Forest and Grasslands Land and Resource Management Plans. More specific RNA management direction may also be found in establishment records, and occasionally in site-specific RNA management plans."

3. Status of Focal Species

Summary of Status of Focal Species

As defined in the 2012 Planning Rule at 36 CFR 219.19, focal species are a "small subset of species whose status permits inference to the integrity of the larger ecological system to which it belongs and provides meaningful information regarding the effectiveness of the plan in maintaining or restoring the ecological conditions to maintain the diversity of plant and animal communities in the plan area.

The 2003 Forest Plan requires monitoring of Management Indicator Species (MIS). The selected MIS; bull trout, a federally threatened species, pileated woodpecker, and white-headed woodpecker, were chosen because they are believed to be indicators of ecological integrity, resilience, and natural disturbances important for restoring and maintaining terrestrial and aquatic habitats on the Forest. Other factors also contributed to the selection process (36 CFR 219.19 (a) (1), 1982). These species have been tentatively selected as focal species, but will be reevaluated during the Forest Plan revision process.

The following results reflect updates from data collected, since the last Biennial Monitoring Report, from April 01, 2018 through May 01, 2020. . New information collected or compiled from the last evaluation report (March 2018) has been incorporated.

The Administrative Change to the Payette Land and Resource Management Plan (2016) included the following desired conditions, objectives, and standards related to this topic:

- Forest, grassland, shrubland, and riparian plant communities are within a desired range of variability for composition, structure, patterns, and processes. Vegetation forms a diverse network of habitats and connective corridors for wildlife and provides desired levels of snags, coarse woody material, and soil organic matter. Terrestrial and aquatic habitats support species diversity, with an emphasis on maintaining or restoring threatened, endangered, and sensitive species and rare and unique plant communities.
- The amount, distribution, and characteristics of source habitat are present at levels necessary to support persistence of native and desired nonnative wildlife species within their respective ranges across the planning unit.
- Human activities do not prevent populations from maintaining desired distribution and abundance during critical life stages.

Monitoring Questions and Indicators as defined in the Administrative Change to the Payette Land and Resource Management Plan (2016)

Monitoring Question: Are Forest management actions affecting known habitat of globally rare (G1, G2, G3) plant species at the project level? Indicator:

- Acres of disturbance of known occupied habitat of globally rare species

Monitoring Question: Have habitat restoration and conservation been prioritized in watersheds identified in the Forest Plan through such items as the Vegetation and Wildlife Habitat Restoration Strategy? Indicators:

- Percentage of available acres within restoration treatments in high priority versus other 5th field watersheds
- Acres restored or trending toward desired conditions in priority watersheds identified in the Forest Plan through items such as the Vegetation and Wildlife Habitat Restoration Strategy

Monitoring Question: Has winter recreation affected species source environments? Indicator:

- Miles of groomed snowmobile trail, number of winter outfitters and their use, and acres open to motorized over-snow use to estimate level of winter recreation use for site- specific projects

Monitoring Question: Are bighorn sheep (BHS) present in areas of risk? Indicator:

- Sighting or telemetry location in a risk area

Monitoring Question: Are BHS present in or near active domestic sheep and goat allotments? Indicator:

- Are bighorn sheep present in or near active domestic sheep and goat allotments?

Monitoring Question: Is separation between BHS and domestic sheep and goats maintained? Indicator:

- Presence of bighorn sheep and presence of domestic sheep or goat bands

Monitoring Question: Are domestic sheep straying from permitted grazing allotments? Indicator:

- Presence of domestic sheep on areas identified a:s not suited for domestic sheep grazing

Key Results for Status of Focal Species

Terrestrial Wildlife

- The Forest is working on identifying priority restoration watersheds for habitat restoration. For terrestrial species, some of these determinations will result from the recently updated Wildlife Conservation Strategy source habitat models.
- In the Cooperative Forest Landscape Restoration Program (CFLRP) project areas, the largest project areas on the Forest, a 45% change in wildlife habitat (within PVGs 2, 5 and 6), relative to the desired condition, is expected to occur in 90% of the landscape area by 2024.
- In 2018, the PNF conducted 60 visits / surveys on 20 management indicator species (MIS) transects (3 rounds), resulting in 105 pileated woodpecker and 9 white-headed woodpecker detections.
- In 2019, the PNF conducted 72 visits on 36 MIS transects (3 rounds), resulting in 155 pileated woodpecker and 15 white-headed woodpecker (WHWO) detections.

- In addition to the MIS transects, RMRS has conducted white-headed woodpecker research on the Forest since 2011. 2018 and 2019 represented the 7th and 8th year of white-headed woodpecker monitoring for the Weiser-Little Salmon Headwaters (CFLRP). This research contributes to other, on-going Regional efforts to monitor effectiveness of silvicultural and prescribed fire treatments in WHWO habitat throughout their range in Idaho and Oregon. FY2020 represents the last year of data collection for the project.
- The presence and distribution of TEPC, namely federally-threatened Northern Idaho ground squirrel (NIDGS), Proposed-threatened wolverine and sensitive species, including bighorn sheep, are included in the Forest's monitoring program and are assessed in cooperation with Idaho Department of Fish and Game (IDFG), non-government organizations (NGOs), and other federal agencies.
- Per the 2013 Over-snow Grooming Environmental Assessment, there are 691 miles available for groomed snowmobile routes on the Forest. The actual amount groomed each year varies based on snow amounts and partner funding. Four special orders are in effect closing areas of the Forest to oversnow-vehicle use. The total area closed is close to 460,000 acres or 19% of the Forest. In the winter of 2019-2020 there were three winter outfitters on the forest, and the year before (winter 2018-2019) there were four. A Forest level over-snow travel analysis, which will include analysis of potential impacts to wildlife resources (particularly wolverine and lynx) is expected to be completed prior to LRMP revision.
- Annual monitoring includes presence/absence surveys for BHS in priority areas (suitable mapped habitat with 10 mi. of active sheep allotments). No known BHS sightings in maintained wild sheep / domestic sheep separation zones since 2012. LRMP Amendment (2010) direction for separation distance is being maintained.

Fish

- The Forest collected 130 fish presence/absence surveys in 37 subwatersheds (6th HUC) of which 24 documented bull trout presence. The remaining 13 subwatersheds did not document bull trout and did not document bull trout in past surveys either.

Plants

- Approximately 4,600 acres of mapped habitat for G1, G2 and G3 (global ranking)[2] plant species falls within current project boundaries. Species include: *Allium madidum* (G3), *Calamagrostis tweedyi* (G3), *Lewisia sacajaweana* (G2) and *Pyrocomma radiata* (G3). Allium madidum occupies the greatest number of acres within project boundaries, but also typically occurs in non-forested, open, seasonally-wet habitats that are less likely to be impacted by timber harvest and fuels treatment projects. *Calamagrostis tweedyi* is within a project boundary, but not likely to be impacted by project activities due as known populations are in remote locations. *Lewisia sacajaweana* occurs on rocky, exposed ridges that are unlikely to be impacted by project activities. *Pyrocomma radiata* occurs in dry, open sagebrush and grassland habitats. These habitats are not targeted for fuels treatments, so impacts to these habitats are anticipated to be low. These populations are being monitored to determine if fuels treatments could increase the risk of invasive annual grass establishing and/or increasing in occupied *Pyrocomma radiata* habitat. All projects are designed to avoid or minimize impacts to rare plant habitat. Acres of disturbance to rare plant habitat has not been systematically collected during this monitoring period.
- There is extensive occupied habitat for whitebark pine (C, G3, and G4) within project boundaries as well, but it has not been well mapped in the NRM database. A very conservative estimate of whitebark pine occupied habitat falling within current project boundaries would be 20,000 acres. Timber sales do not typically occur

[2] Global Ranking - The global rank (G-rank) is a reflection of the overall condition of an element throughout its global range. G1 = Less than 6 viable element occurrences (EOs) OR less than 1,000 individuals OR less than 2,000 acres. G2 = 6-20 EOs OR 1,000-3,000 individuals OR 2,000-10,000 acres. G3 = 21-80 EOs OR 3,000-10,000 individuals OR 10,000-50,000 acres.

in whitebark pine habitat. Fuels treatments that are occurring in whitebark pine habitat are currently being designed to improve whitebark pine habitat health and resilience. Acres of disturbance to whitebark pine habitat has not been systematically collected during this monitoring period.

Recommended Changes for Status of Focal Species

Based on these results, we are considering the following possible changes:

- Recommended change to the Monitoring Plan to revise the indicator: “acres of disturbance of known occupied habitat of globally rare plant species” to “acres of rare plant habitat analyzed in project areas.” This change is needed to better match data that is available.

- The draft wildlife conservation modeling (underway, draft expected in 2021) has identified high priority areas for focal species, which includes Region 4 sensitive and MIS. Once the Wildlife Conservation Strategy Technical Report for terrestrial species is completed the monitoring plan should be revised accordingly.

- For Forest-wide MIS monitoring, we are currently evaluating the 75 existing MIS transects to potentially eliminate redundant and/or unnecessary transects. This will be completed before the next Biannual Report is due and should be more cost efficient and effective. There is also a need to reconcile data collected with the unit of measure in the monitoring indicators (e.g. acres of disturbance, % available acres, acres restored).

4. Status of Select Set of Ecological Conditions Required to Contribute to Species Recovery

Summary of Status of Select Set of Ecological Conditions Required to Contribute to Species Recovery

The Forest Plan describes a desired condition that terrestrial and aquatic habitats support species diversity with emphasis on maintaining or restoring threatened, endangered, and sensitive species. Habitats for threatened and endangered species are managed consistent with established and approved recovery plans. Management actions either contribute to, or do not prevent recovery or de-listing of these species. Degrading effects from Forest programs are at levels that do not threatened the persistence of Threatened, Endangered, Proposed, or Candidate species populations.

The following results reflect updates from data collected from 2018-19. New information collected or compiled from the last evaluation report March 2018 has been incorporated.

The Administrative Change to the Payette Land and Resource Management Plan (2016) included the following desired conditions, objectives, and standards related to this topic:

- Habitats for TEPC and sensitive terrestrial wildlife species are managed consistent with established and approved recovery plans. Management actions either contribute to or do not prevent recovery or delisting of these species. Degrading effects from Forest programs are at levels that do not threaten the persistence of TEPC and sensitive species populations.

The Forest plays a role in species recovery as directed by the following Recovery Plans:

National Marine Fisheries Service. 2017. Final Recovery Plan for Snake River Spring/Summer Chinook salmon (*Oncorhynchus tshawytscha*) and Snake River Steelhead (*Oncorhynchus mykiss*). Portland, Oregon. 282 pp.

U.S. Fish and Wildlife Service. 2015. Recovery plan for the coterminous United States Population of bull trout (*Salvelinus confluentus*). Portland, Oregon. xii + 179 pp.

U.S. Fish and Wildlife Service. 2003. Recovery Plan for the Northern Idaho Ground Squirrel *(Spermophilus brunneus brunneus)*. Portland, Oregon. 68 pp.

Monitoring Questions and Indicators as defined in the Administrative Change to the Payette Land and Resource Management Plan (2016)

Monitoring Question: Are the distribution, abundance, and habitat quality of TEPC and sensitive terrestrial wildlife species being maintained and/or restored? Indicators:

- Presence/absence data of northern Idaho ground squirrel in potential habitat
- Presence/absence data of bull trout in potential habitat
- Presence/absence data of steelhead in potential habitat
- Presence/absence data of Chinook salmon in potential habitat

Key Results for Status of Select Set of Ecological Conditions Required to Contribute to Species Recovery

Terrestrial Wildlife

Figure 3. NIDGS trapping and collaring – Fawn Creek restoration site (2019)

Two 10-year studies were established in collaboration with UOI / USGS to evaluate habitat restoration treatment effects on NIDGS behavior and demography: thinning and burning forests adjacent to NIDGS sites, and burning within NIDGS sites. The 7th field season was completed in 2019, with monitoring completed at 13 study sites: 9 thin-and-burn and 4 burn-only study sites (approx. 120 acres). In 2019, a total of 172 adults and 103 juvenile NIDGS were trapped and measured across research sites Figure 3. Evaluation of the effectiveness of the experimental restoration treatments is still in its infancy (some of the replicate treatments have not yet been completed), so it is too soon to report results regarding the effectiveness of the experimental treatments.

- Restoration treatments (thinning of canopy trees and subsequent understory burning) are underway at 3 NIDGS thin-and-burn sites: 3 of 5 treatment sites were thinned in 2017 and 2018 and 2 of those sites were burned in fall 2018. The data collected in 2019 was, therefore, the first opportunity to collect post-treatment data at thin-and-burn study sites.
- Due to ongoing litigation resulting from the Lost Creek Boulder Creek Landscape Restoration Project, limited habitat restoration activities for TEPC such as NIDGS and selected sensitive species has occurred since the last report.
- The PNF continues to collaborate with IDFG to monitor wolverine (a Candidate for federal listing) occupancy on Forest Lands in ID, including the PNF. Eight monitoring sites are on the PNF.

Fish

- The Forest collected 130 fish presence/absence surveys in 37 subwatersheds (6th Hydrologic Unit Code (HUC)) of which 24 documented bull trout presence. The remaining 13 subwatersheds did not document bull trout and did not document bull trout in past surveys either. Thirteen of the 37 watersheds documented steelhead and three of 37 subwatersheds documented Chinook salmon.

Recommended Changes for Status of Select Set of Ecological Conditions Required to Contribute to Species Recovery

Based on these results, the following changes are recommended:

Cooperative management of NIDGS includes annual population monitoring by Idaho Fish and Game. But the metric used in that monitoring is not presence/absence. At next amendment, this indicator should be revised to reflect the NIDGS population monitoring methodology and outputs.

5. Visitor Use, Satisfaction, and Progress on Recreation Objectives

Summary of Visitor Use, Satisfaction, and Progress on Recreation Objectives

The Forest Plan identifies a desired condition for recreation resources is to provide diverse landscapes that offer a variety of settings for a wide range of activities, including primitive settings where there are opportunities for solitude, risk, and challenge to more modified settings where there are opportunities for social interaction, comfort, and less risk. Recreation facilities are managed to provide safe experiences and opportunities. Dispersed recreation sites are managed to provide safe experiences and opportunities and the forest provides a variety of environmentally responsible access for recreation users.

The following results reflect updates from data collected from 2018-2020. New information collected or compiled from the last evaluation report (March 2018) has been incorporated.

The Administrative Change to the Payette Land and Resource Management Plan (2016) included the following desired conditions, objectives, and standards related to this topic:

- Facilities-such as roads, trails, campgrounds, and administrative sites-are constructed, reconstructed, or eliminated as needed to provide a balance of safe, effective, and environmentally responsible management activities.
- Recreational settings range from primitive to developed, offering a wide spectrum of Recreational setting opportunities and uses. Visitors enjoy a variety of special attractions, including National Recreation Areas, Wilderness Areas, Wild and Scenic Rivers, Scenic Byways, historic landmarks, and winter recreation areas.
- Dispersed recreation sites and uses are located and conducted in an environmentally responsible manner and managed to established standards.
- Conflicts between recreationists are reduced or addressed while a broad array of recreational opportunities are available.
- Sustainable ecosystems provide a variety of sustainable products and services for current and future generations. Timber, range, and recreation offer opportunities for economic development and contribute to local community needs, while maintaining ecological Integrity.

The overall picture of recreation on the Payette National Forest includes a wide range of recreation uses and demands. Motorized recreation use continues to be popular, particularly UTV/ATV and motorcycle use. The Forest currently provides 1,952 miles motorized trails, and 1,677 miles of roads open to public motorized travel. Developed recreation on the forest is also very popular with 131 sites available, of which 27 are fee sites, and dispersed recreation opportunities are available to meet demand.

No new project decisions addressing recreation conflicts have been completed since March 2018. In the next biennial report, it is anticipated that two on-going projects will have final decisions: the South Fork Salmon River Restoration and Access Management plan and the Granite Meadows project.

Drinking water sources are tested monthly when they are open and all Forest Service and EPA regulations including the Revised Total Coliform Rule have been followed each year in opening/closing systems, including chemical and bacteria testing and proper notification to the appropriate agencies. Developed recreation sites are surveyed each year for hazard trees and any other sources of potential danger to the public. This is done at the district level at the beginning of the season of use. Any hazards are addressed as quickly as practicable. Additionally, each developed recreation site is to be surveyed every five years to track the condition of the facilities. In 2019, 53% of sites had current condition surveys.

Monitoring Questions and Indicators as defined in the Administrative Change to the Payette Land and Resource Management Plan (2016)

Monitoring Question: Is the transportation system providing recreational opportunities and safe and efficient public and agency access, and is it environmentally compatible? Indicators:

- Miles of roads maintained via INFRA
- Motor Vehicle Use Map (MVUM) and National Visitor Use Monitoring (NVUM) results
- Miles of trail maintained, trail surveys (TRACS)

Monitoring Question: Are facilities, including developed recreation sites, free of high-risk conditions? Indicators:

- How well facilities meet drinking water quality criteria
- Developed recreation site condition surveys

Monitoring Question: Are recreation activity levels changing, and are shifts occurring between types of activities and locations of recreational use? Indicators:

- NVUM results
- Project specific change to Recreation Opportunity Spectrum (ROS)

Monitoring Question: Is the level of use occurring at dispersed sites impacting other resource values? If so, what actions were taken and were they effective? Indicators:

- Acres adversely impacted by dispersed recreation
- Acres of adversely impacted areas treated to contribute toward restoring desired conditions

Monitoring Question: Are conflicts arising between recreational uses? Are conflicts being resolved? Indicators:

- Number of project decisions addressing recreation conflicts

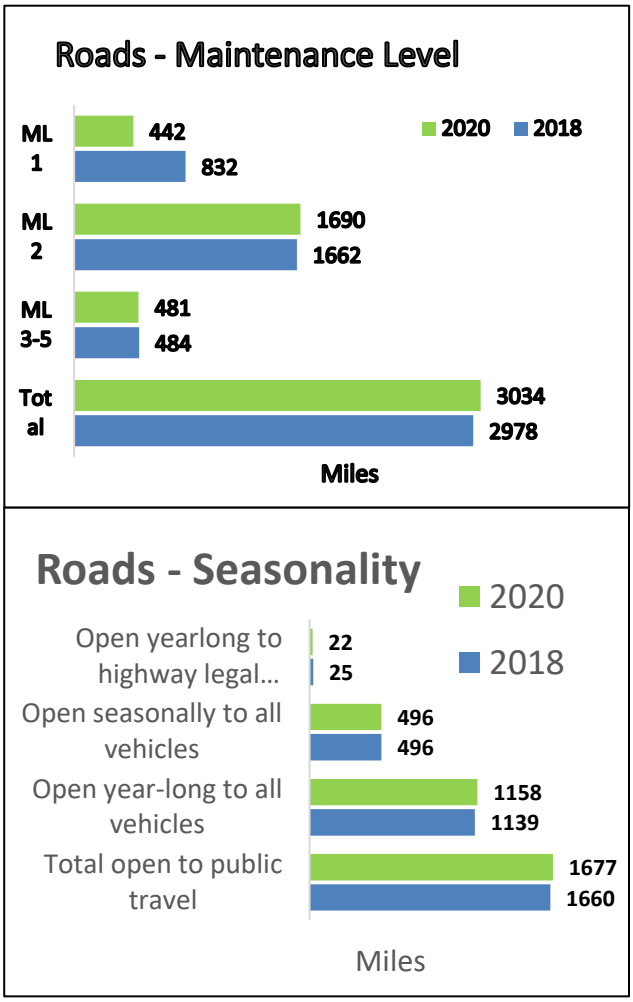
Monitoring Question: ls the Forest providing recreational opportunities as planned? Indicators:

- Change in Recreation Opportunity Spectrum (ROS) class
- National Visitor Use Monitoring (NVUM) program results

Key Results for Visitor Use, Satisfaction, and Progress on Recreation Objectives

- In 2018, NVUM results for the Forest estimated total visits at 374,000. This is similar to the 2013 results (397,000 visits) and implies that the much higher use levels estimated by the 2008 NVUM (810,000 visits) were an overestimate due to errors in NVUM implementation.
- Changes in overall acreage of ROS classes are quite small across the forest and, in the judgment of recreation personnel, have not had a substantial impact on the distribution of opportunities provided. Two draft decisions (Huckleberry Landscape Restoration Project and South Fork Restoration and Access Management Plan), include changes to the ROS to better match on-the-ground conditions
- Areas open to off road driving for dispersed camping (up to 300' from system roads) dispersed camping are delineated on the forest Motor Vehicle Use Map (MVUM). Areas of known resource sensitivity are closed to this use, as shown on the map. In this monitoring period, the following final decisions address reducing impacts from dispersed recreation, and are at varying stages of implementation:
    - The Middle Fork Weiser River Landscape Restoration Project (ROD signed December 2017) and the Huckleberry Landscape Restoration Project (draft ROD in Jan. 2020) both included identifying areas of undesirable resource impact and address these through site hardening, barrier installation and—if necessary—site closures.
    - The Big Creek Restoration and Access Management Plan decision (2017) - several dispersed sites have been closed with alternative sites provided.
    - The 2014/2019 Decision for the Lost Creek and Boulder Creek Landscape Restoration Project - installation of vault toilets and improvement of several dispersed sites at Lost Valley Reservoir has occurred.
- Road and trail data are recorded annually in NRM (Natural Resource Manager) (Figure 4).
    - In Fiscal Year 2018, 804 miles of trail maintained, of which about 25% was maintained to standard. In Fiscal Year 2019, 801 miles, of which about 33% was maintained to standard.
    - Trail Assessment and Condition Surveys (TRACS) are randomly assigned to a few trails each year. TRACS were completed on 32miles in 2018, and 65 miles in 2019.
    - The Forest has 3,034 miles of system road: 481 miles of operational maintenance Level 3-5 roads (16%), 1,690 miles of operational maintenance level 2 roads (56%), and 863 miles of operational maintenance level 1 roads (28%). (2020 INFRA)

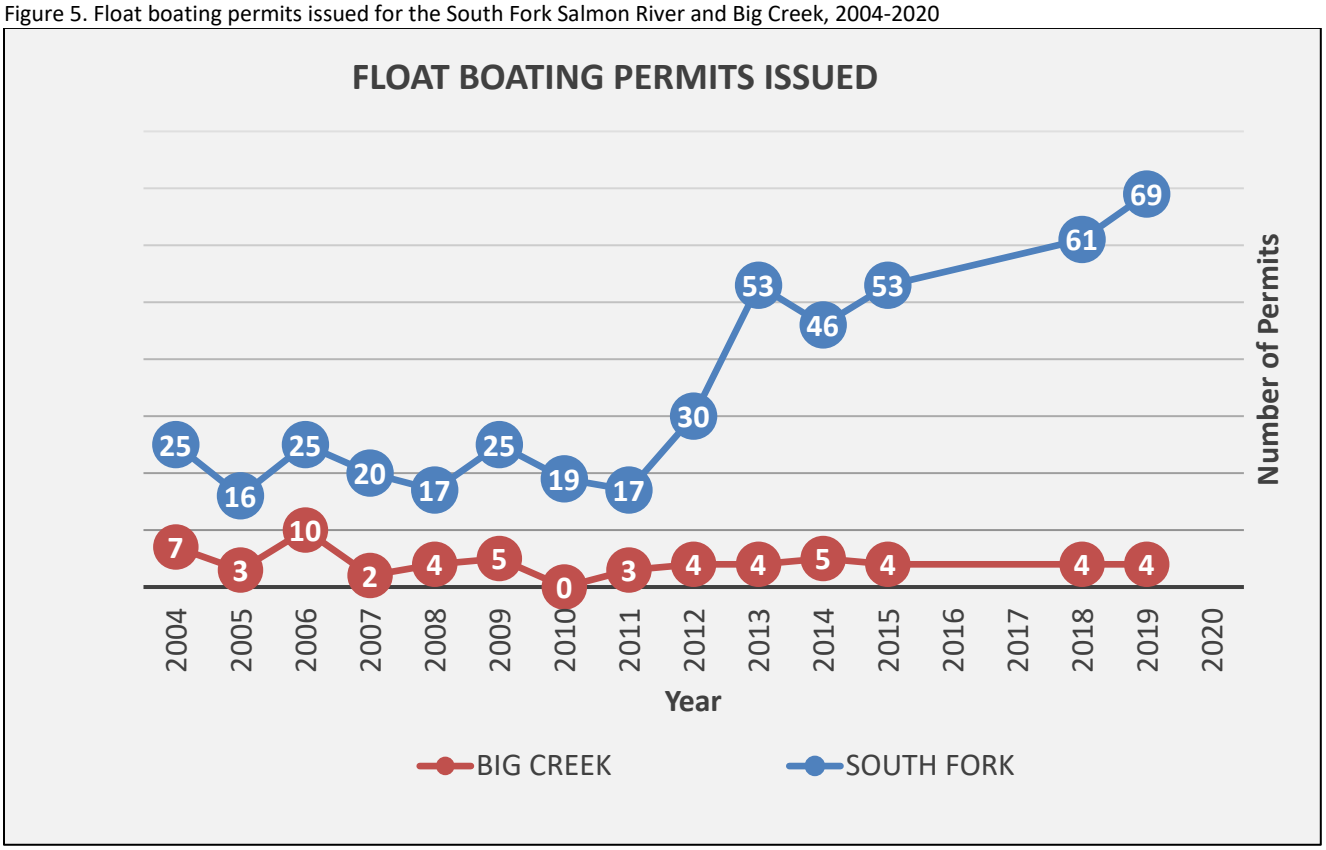
Figure 4. Roads data graphs, 2018-2020



- The Forest has 1,677 miles of roads open to public motorized travel: 1,158 miles open year-round to all vehicles, 496 miles open seasonally to all vehicles, and 22 miles open year-round to highway-legal vehicles. (2020 MVUM)

- Floating the South Fork of the Salmon River or Big Creek requires a free, but mandatory permit. Data for the number of permits issued for the South Fork show a general increasing trend, while Big Creek trend appear fairly constant (Figure 5). Number of float boating users varies, likely due to inconsistencies in data collection.

Figure 5. Float boating permits issued for the South Fork Salmon River and Big Creek, 2004-2020



Recommended Changes for Visitor Use, Satisfaction, and Progress on Recreation Objectives

Based on these results, the following changes are recommended:

For the monitoring questions: Is the level of use occurring at dispersed sites impacting other resource values? If so, what actions were taken and were they effective? Indicators:

- Acres adversely impacted by dispersed recreation
- Acres of adversely impacted areas treated to contribute toward restoring desired conditions

Ideally, the Monitoring Plan would be modified to improve the consistency and sensitivity at which this indicator is measured; however, the program is not currently staffed or funded for that effort.

6. Climate Change and Other Stressors

Summary of Climate Change and Other Stressors

The forest plan establishes an overarching desired condition that disturbance processes – such as fire, insects, disease, floods, and landslides -- contribute to functioning ecosystems. Fire plays its natural role where appropriate and desirable, but is suppressed where necessary to protect life and resources. Fire is used to manage vegetation where appropriate to enhance ecosystem resiliency and lower hazardous fuel levels. Climate stressors are not specifically addressed in the forest plan but are generally encompassed within the Plan's desired conditions regarding resilience to disturbance events and other stressors. The following results reflect climate science updates from data collected from 2011 as this is the first reporting of this topic in a Biennial Monitoring Report.

The Administrative Change to the Payette Land and Resource Management Plan (2016) included the following desired conditions, objectives, and standards related to this topic (note there are no forest plan directions related to climate stressors, though that is being reported in this section for the first time with this 2020 Biennial Report):

- Wildland fire functions in its natural ecological role to improve the health of the land by creating fire-resilient landscapes and restoring fire-adapted ecosystems.
- High fire risk within the wildland urban interface (WUl) is reduced to conditions that will provide for protection of life, investment, and valuable resources.

Monitoring Questions and Indicators as defined in the Administrative Change to the Payette Land and Resource Management Plan (2016)

Monitoring Question: Is wildland fire, including prescribed fire, being utilized to move landscapes towards desired conditions for resiliency and condition class? Indicator:

- Acres burned resulting in desired conditions or acres burned that move the watershed closer to desired conditions

Monitoring Question: Are high wildfire risk areas being identified within the WUI and are those acres being subsequently treated to reduce that risk? Indicator:

- Acres of high wildfire risk within the WUl treated in a manner that reduces risk

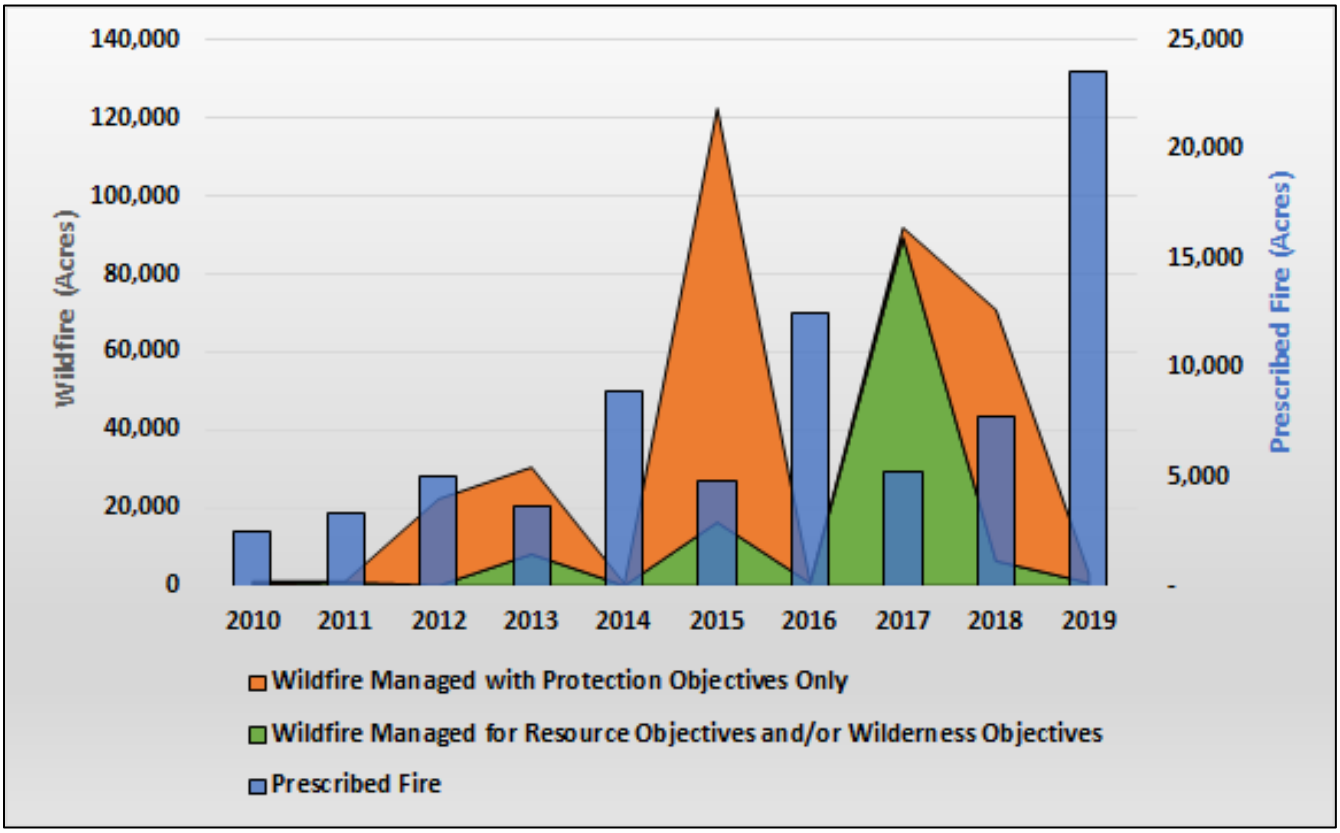
Key Results for Climate Change and Other Stressors

Fire and Fuels

Using fire to move landscapes toward desired conditions - In the last ten years, the use of prescribed fire has become more common on the Payette National Forest, and through extensive public outreach and education

efforts, the relationship between prescribed fire and the local communities has become increasingly positive. The short-term goal for the Payette National Forest is to burn 25,000 acres per year with prescribed fire, which is considerably higher than the 2,471 acres accomplished in 2010 (Figure 6).

Figure 6. Wildfire and prescribed fire (acres) across the Payette National Forest (fiscal years 2010-2019). Burning of hand or machine piles is not included in graph below.



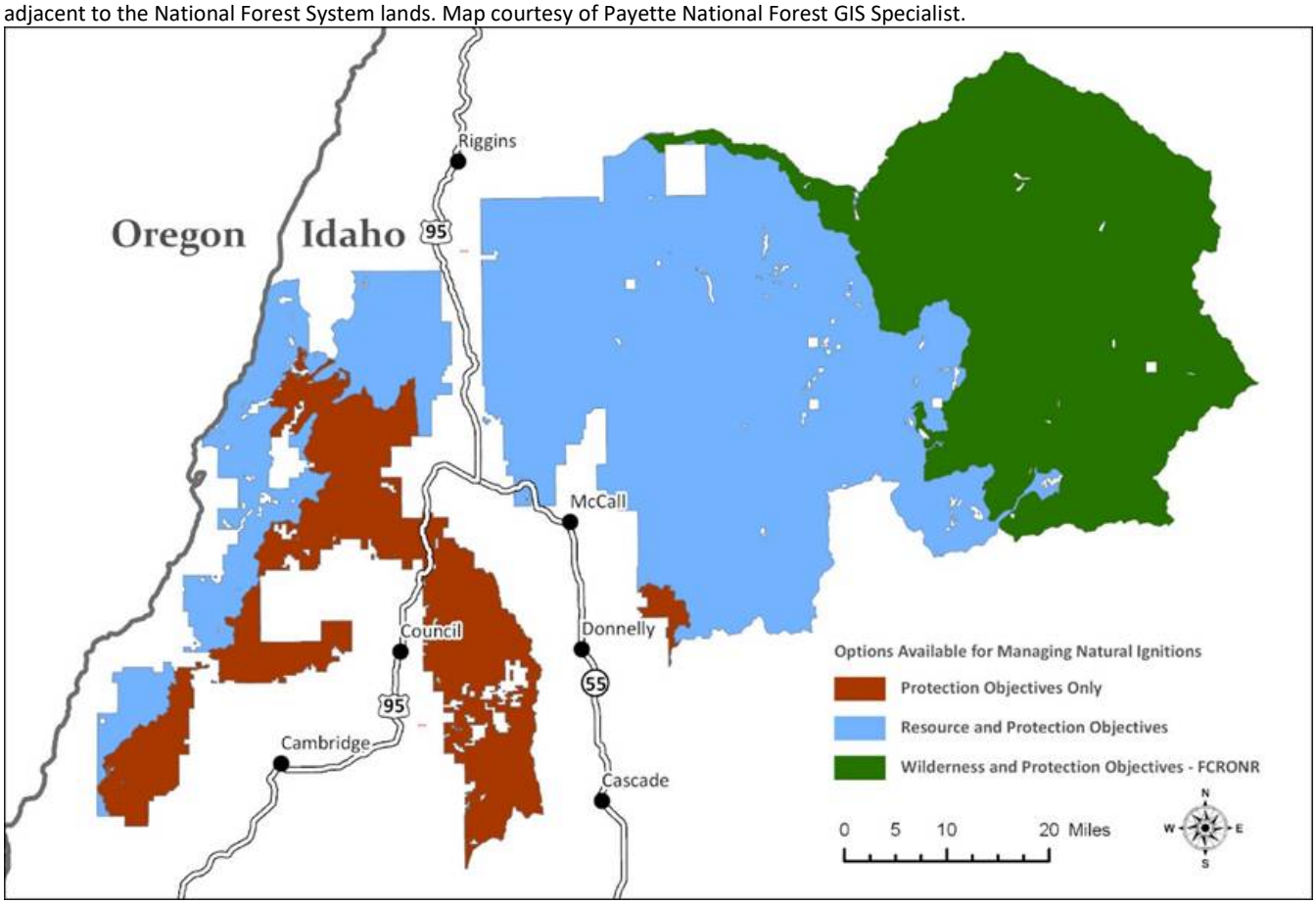
The ability to manage a naturally-ignited wildfire for resource objectives is also an important tool on the Payette National Forest. The Payette National Forest administers approximately 768,000 acres of the Frank Church – River of No Return Wilderness Area (FCRONR). Fire has generally been managed to play its natural role since the establishment of this Wilderness Area in 1980. There are some exceptions when it comes to immediate risk to private inholdings or other significant values requiring protection, but in general, the policy around management of the FCRONR acknowledges that wildfires are natural processes and that efforts should be made to minimize effects from suppression activities on wilderness characteristics. In other words, the emphasis is on protecting wilderness characteristics from suppression actions (e.g., constructing containment lines, use of chainsaws or helicopters, etc.) rather than protecting them from wildfire itself.

Managing lightning-ignited fires to meet resource objectives outside of the FCRONR is slowly expanding since it became an option with the revision of the Payette National Forest Land and Resource Management Plan (Forest Plan) in 2003. The Forest Plan categorized the National Forest into three areas of management options (Figure 7): areas where only protection objectives are available (red), areas where wilderness and protection objectives areas are available (green), and areas where resource and protection objectives are available (blue). Managing lightning-ignited fires for resource objectives is not currently allowed across approximately 247,000 ac, 11% of the National Forest area (red in Figure 7); wildfire events in those areas must be managed with a focus on protecting human and other resource values. Therefore, prescribed fire is the only means to restore fire as a

process, and it is often used along with other fuels/vegetation treatments near communities.

Because the risk of smoke impacts and the consequences of prescribed fire escaping containment are heightened near communities, thinning and other mechanical activities are often relied upon to facilitate the application of prescribed fire as well as mimic fire effects when the application of fire poses too great a risk to people and property. This may include thinning of the understory trees, removal of fire-intolerant tree species, increasing the base heights of the canopy, and piling of recent or existing dead and down woody material for burning at a later date when managers can ignite piles safely with minimal smoke impacts to people.

Figure 7. Fire management options across the Payette National Forest. US 95 is the main north-south highway in Idaho. McCall and Cascade are the primary communities, but there is extensive residential development on private lands, especially around the towns and adjacent to the National Forest System lands. Map courtesy of Payette National Forest GIS Specialist.



Prescribed Fire Strategies

Remote and roadless areas - Strategies for applying fire across the Payette National Forest change with landscape conditions. Remote and roadless areas, including but not limited to designated wilderness, are priority areas for the use of natural ignitions, and prescribed fire is an excellent tool to facilitate greater use of those natural ignitions, especially as a means to protect the human values that do exist in these remote areas. When used within the footprints of the large wildfires of the recent past that exhibit very homogenous and extensive coarse woody debris loadings, prescribed fire can provide a network of habitats and connective corridors for wildlife in addition to adding diversity to age class and structure of the previously burned areas and surrounding landscape.

Roaded landscapes - Many efficiencies are gained by burning across large areas, especially when burning large areas within a network of roads. The fire and engineering managers work together to reduce ladder fuels and tree densities along roadways. This improves roadway safety (e.g., travel conditions and sight distance) and drainage and eases the application and management of prescribed fire. Recent maintenance burns in these landscapes have also shown that tree mortality, escapes, and smoke impacts are far less than with the initial prescribed burns. Costs of the maintenance burns are generally 30-50 percent of the cost of initial applications of prescribed fire.

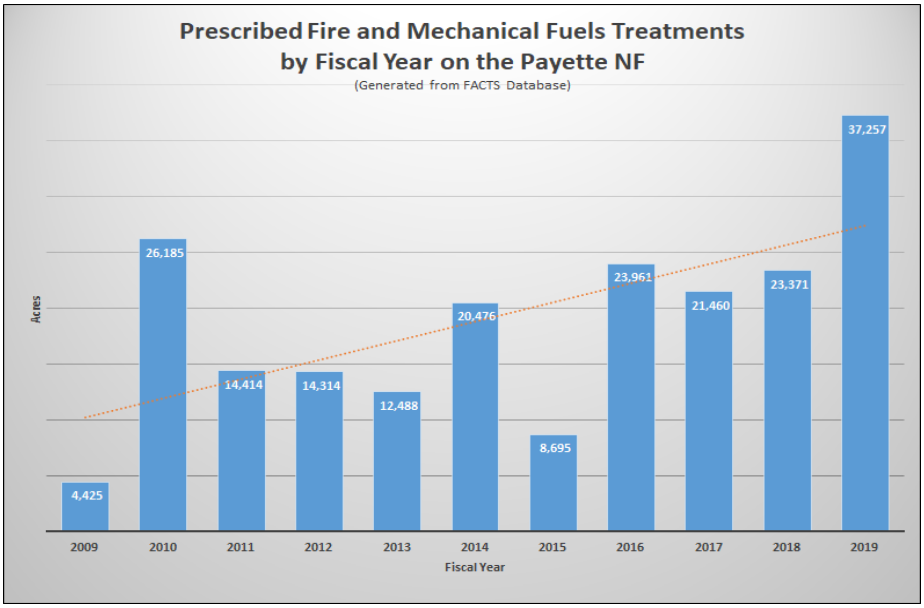
Wildland Urban Interface (WUI) - When applying fire near significant values, such as homes and timber, on nearby private lands, the amount of burn preparation increases (e.g., prior thinning to reduce ladder fuels, notifications, coordination with partnering agencies, etc.), and the resources allocated typically increase. Smoke management becomes more labor-intensive and limits timing and size of burns in and near WUI areas. The cost per acre increases in the WUI, but it also drops significantly after the first prescribed burn. Our fire management strategy within the WUI is to prepare many sites through mechanical means then follow with prescribed fire. Maintenance using prescribed fire is planned at intervals frequent enough to maintain low surface fuel conditions and thus limit the threat of wildfire to values. People in the communities around the Payette National Forest, including numerous Home Owners Associations and individual land owners, are currently increasing their own efforts to improve forest resilience on their lands, which includes preparing for and using prescribed fire.

- Identifying high fire risk within the WUI and addressing those high risk areas -
- Wildland fire functions in its natural ecological role to improve the health of the land by creating fire-resilient landscapes and restoring fire-adapted ecosystems.
- High fire risk within the wildland urban interface (WUl) is reduced to conditions that will provide for protection of life, investment, and valuable resources.

Over the last 10 years the Payette NF has been increasing the pace and scale of fire and fuel treatments for the purpose of

- restoring the role of fire, creating fire-resilient landscapes and fire-adapted systems,
- reducing the risk of fire in the WUI (I.e., creating fire-adapted communities), and
- Improving and maintaining desired wildlife habitat conditions (Figure 8).

Figure 8. Prescribed fire and mechanical fuels treatments by fiscal year on the Payette NF.



These fuel treatments have occurred among 20 project areas. Half of these projects incorporate activities that promote fire-adapted communities. And the Payette NF is currently in the planning stages of three large-scale projects that promote fire-adapted communities. These projects encompass past or on-going projects within the WUI.

Climate Stressors

The purpose of the Sustainability Scorecard is to support and grow capacity to better assess climate risks and respond more rapidly. Climatic conditions are changing quickly. Five out of the last six years set new high temperature records globally. Across the country we are seeing changing precipitation patterns, more extreme storms, and earlier growing seasons. A warmer climate is expected to increase the frequency and extent of droughts, insect outbreaks, and wildfires. We have learned through our science management collaborations that past management practices do not achieve the same outcomes they did under more stable climate regimes of the last century. Increased disturbances to forests and grasslands have increased ecological, social, and economic effects. The Sustainability Scorecard will help us track progress of climate-driven management decisions and projects through shared learning from adaptation challenges and successes in the field. Managing the Nation's forests and grasslands to adapt to and mitigate the effects of climate change will help ensure forests continue to produce the benefits that we need. The Sustainability Scorecard will facilitate implementation of the Sustainability Action Plan; a roadmap of the Agency's sustainability work and vision.

Since 2011, the Forest has reported with the "Climate Change Performance Scorecard" a National Forest Service Program where each unit can take stock of its accomplishments and set goals for the following year. The Scorecard's multiple dimensions ensure that each Unit works toward a balanced response to climate change. The initial Scorecard was in use from 2011 through 2016. The agency developed the next iteration of the Scorecard for the FY17 reporting cycle. FY 2017 was a transition year for the agency as the new Climate Action Card, which will supersede the Scorecard, continues to be developed. FY 2018 continued as a transition year, with the Regional Office (R4) requiring the Forests to continue to report in Elements 1 – 10 to maintain continuity of reporting data and to capture the progress in climate and sustainable operations efforts. From FY 2011 – FY 2016. The same elements continued to be reported on in FY 2017 and FY 2018. In FY 2019, Region 4 participated as a pilot program for the new Forest Service Sustainability Scorecard. This scorecard allows us to track our organizational improvements toward fostering resilient adaptive ecosystems to mitigate climate change.

The requirements for the initial Climate Change Performance Scorecard were that by 2015, each Unit was expected to answer yes to at least seven of the scorecard questions, with at least one yes in each dimension (organizational capacity, engagement, adaptation, mitigation and sustainable consumption). The Payette National Forest met that requirement in FY 2013.

In FY 2019, the "pilot" differed from the previous scorecard in several ways. First, it retains some elements from the previous Scorecard such as vulnerability, adaptation, monitoring, carbon, sustainable operations, and partnerships, and includes some new elements such as training, leadership, guidance and Adaptation Learning Network (currently in development). Second, it proposes a shift in measuring progress by moving towards outcome oriented measures through evidence based information as opposed to output based YES/NO measures. The intent of this shift is to better account for progress made on the ground by following steps more closely. It allows us to better document lessons learned and successes and make changes to the Agency's sustainable forest management practices and policies, as needed. Lastly, the elements within this Scorecard are connected. Instead of asking individual questions for each element, we are asking regions and units to consider relationships between the umbrella elements and the supporting elements. The Payette National Forest answered "Green" to 1 element, "Yellow" to one element, "Orange" to 1 element and "Red" to 3 elements, indicating a need for additional work to meet the new measures. Some Region 4 Forests are further ahead in meeting these measures as they are in new Forest Plan revision processes; it is expected the Payette will continue moving towards "Green" however, may not get to some areas until our next Forest Plan revision.

Recommended Changes for Climate Change and Other Stressors

Based on these results, we are considering the following possible changes related to monitoring climate change stressors:

- The Payette will continue to follow Regional direction towards reporting on Sustainability, and utilizing the tools produced by the Region and the WO to continue to move towards better levels of sustainability in our work. It is uncertain at this time what reporting will be required in FY 20, the Region will be releasing that information within the next few months.

7. Progress Toward Meeting Desired Conditions and Objectives

Summary

The Payette National Forest has no specific monitoring questions or indicators for this topic. Related information is presented in other sections of this document.

In general, results of the monitoring program demonstrate the Payette National Forest Plan is working as intended in nearly all instances. This monitoring report indicates a need to make minor changes to the Monitoring Program but there is no intention at this time to make any substantive changes to the Forest Plan prior to Forest Plan Revision. Revision for the Payette National Forest was scheduled to begin in 2024 but recently that date has been pushed back to sometime yet to be determined.

The Payette does have measurable plan level desired conditions and objectives. This monitoring report and the effort to collect the needed information to respond to the monitoring questions day-lighted the need to emphasize data collection and data entry efforts for some resource areas. These issues will be addressed during this next cycle of Forest Plan monitoring.

Overall, the Payette Forest moved towards desired conditions and accomplished more of the objectives outlined in the LRMP. Most projects analyzed and implemented did not require a Forest Plan amendment as they were consistent with Plan direction. These projects were all moving the Payette Forest towards desired conditions. However, there are some projects that did require project level amendments and these projects are not moving the Forest toward the desired conditions outlined in the Forest Plan.

8. Effects of Management Systems on Productivity of the Land

Summary of Effects of Management Systems on Productivity of the Land

The forest plan provides an overarching desired condition that soils retain all or most of their natural productive and are in a condition that promotes vegetative growth, hydrologic function, long-term nutrient cycling, and erosional stability. Existing noxious weed populations are not expanding, and new invader species are not becoming established.

The following results reflect updates from data collected from 2018 and 2019. New information collected or compiled from the last evaluation report for March 2018 has been incorporated.

The Administrative Change to the Payette Land and Resource Management Plan (2016) included the following desired conditions, objectives, and standards related to this topic:

- Soil protective cover, soil organic matter, and coarse woody material are at levels that maintain or restore soil productivity and soil-hydrologic functions where conditions are at risk or degraded. Soils also have adequate physical, biological, and chemical properties to support desired vegetation growth.
- Existing noxious weed populations are not expanding in size. New noxious weed outbreaks may occur temporarily or continue to exist as small, nonexpanding populations in areas of high susceptibility. Noxious weed populations in low susceptibility areas are small and scattered with low-to- moderate densities. New invader species to the Forest are not becoming established. Native plants are dominant on disturbed or recently restored sites.

Monitoring Questions and Indicators as defined in the Administrative Change to the Payette Land and Resource Management Plan (2016)

Monitoring Question: Is the Forest maintaining or restoring long-term soil productivity? Indicators:

1. Amount of activity area in non-detrimentally disturbed condition
2. Amount of activity area classified as Total Soil Resource Commitment (TSRC)

Monitoring Question: Are Forest management strategies effectively controlling or eradicating targeted populations of noxious weeds? Indicator:

1. Acres of known infestation in management areas identified for eradication or control

Key Results for Effects of Management Systems on Productivity of the Land

Soils

In 2018 and 2019 the forest's soil program was managed to standard for Detrimental soil Disturbance (DD) and Total Soil Resource Commitment (TSRC), two standards that ensure soil productivity is maintained.

Detrimental Soil Disturbance (DD) is the alteration of natural soil characteristics that results in immediate or prolonged loss of soil productivity and soil-hydrologic conditions. It is represented by any or all these characteristics: soil displacement, soil compaction, soil puddling, and severely burned soil. Effects are determined for a defined activity area, which is the specific area where proposed actions may have detrimental soil impacts. Proposed activities that may affect soil resources are required to meet Standard SWST02 which states:

> In an activity area where existing conditions of DD are below 15 percent of the area, management activities shall leave the area in a condition of 15 percent or less detrimental disturbance following completion of the activities.
>
> In an activity area where existing conditions of DD exceed 15 percent of the area, management activities shall include mitigation and restoration so that DD levels are moved back toward 15 percent or less following completion of the activities.

In 2018 and 2019, the Forest Soil Disturbance Monitoring Protocol[3] (Page-Dumroese et al., 2009) was used to monitor timber harvest units to determine detrimental soil disturbance at 2-6 years following ground-based harvest. All units were found to be below 15% DD following harvest and rehabilitation and ranged from 0 to 12.9% with eleven units having DD below 5%.

Total Soil Resource Commitment (TSRC) is the conversion of a productive site to an essentially non-productive site for a period of more than 50 years. Examples of TSRC include roads, designated skid trails, landings, parking lots, and other dedicated facilities. Productivity on these areas range from 0 to 40 percent of natural background. Effects are determined for a defined activity area, which for TSRC is an all-inclusive area where effects to soil commitment could occur or are occurring and is typically the projects defined area. Proposed activities that may affect soil resources are required to meet Standard SWST03 which states:

> In an activity area where existing conditions of TSRC are below 5 percent of the area, management activities shall leave the area in a condition of 5 percent or less TSRC following completion of the activities.
>
> In an activity area where existing conditions of TSRC exceed 5 percent of the area, management activities shall include mitigation and restoration so that TSRC levels are moved back toward 5 percent or less following completion of the activities.

Projects that contain activities to reduce TSRC include; vegetation management (timber sales), travel management, and watershed restoration. Roads and constructed skid trials have been identified as the greatest

[3] *Reference: Page-Dumroese, D.S., A.M. Abbott, T.M. Rice. 2009. Forest Soil Disturbance Monitoring Protocol. 2 vols.*

contributor to TSRC. Decommissioning through decompaction and obliteration of the road or skid trail back to its natural contour promotes vegetative cover, nutrient cycling, soil development and reestablishes shallow groundwater pathways that promotes overall soil productivity and recovery. In 2018 and 2019, TSRC monitoring of timber sales using the FSDMP and project implementation monitoring of road decommissioning indicate TSRC standards are being met and reduced, resulting in improved soil productivity. Reductions in TSRC within timber sale units ranged from 0 to 3.3% and averaged 1%. Table 9 shows projects that had a reduction in TSRC from road decommissioning in years 2017 and 2018. Road decommissioning of 20 miles has improved soil productivity on approximately 83 acres.

Table 8. Projects that included road decommissioning and a reduction in TSRC by miles and acres improved.

Project Name	Road Miles Decommissioned	Acres Improved
Big Creek Restoration and Access Management Project	2.7	11.3
Brundage WUI - Bear Basin Restoration Project	0.5	2.1
Lost Creek Boulder Creek CFLR	6.6	27.9
Mill Creek / Council Mountain CFLR	1.4	6.1
Muddle Fork Weiser River CFLR	3.2	13.4
Meadow Slope Project	1.2	5.3
Crooked River CE	4.1	17.2
Total	20	83

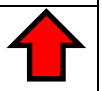
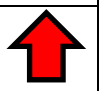
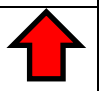
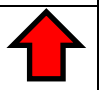
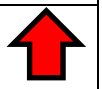
The 2017 and 2018 soil monitoring results support the conclusion that modern harvest activities that include site-specific planning, restrictions and rehabilitation requirements, typically result in meeting Forest Plan detrimental soil disturbance and TSRC standards. Monitoring results are summarized yearly in the Payette National Forest Soil and Water Monitoring Results (2018 and 2019). Road decommissioning accomplishments are reported within the Watershed Improvement Tracking (WIT) National Database.

Noxious Weeds

Focusing only on the nine species for which there was consistent annual data, the trend from 2017 to 2019 was an increase in total acres infested from 620 to 2500 acres forest-wide; however, weed managers report that the density of weeds within existing infestations is declining in many weed patches so the increase in acreage does not accurately represent an increase in weed populations. For those species for which there is data across all three years (Table 10) acres of rush skeletonweed and Canada thistle have the most mapped acres and both have increased dramatically during this monitoring period (Figure 9).

Figure 9. Photos of Canada thistle and Rush Skeletonweed, two of the most problematic weed species on the forest. These weed populations increased by 1032% and 363% respectively between 2017 and 2019.

Table 9. Mapped acres by weed species 017-2019 with trend.

Species	2017 mapped acres	2018 mapped acres	2019 mapped acres	% change 2017 to 2019	Trend
bull thistle (*Cirsium vulgare*)	124.85	61.84	29.64	-76	
butter and eggs (*Linaria vulgaris*)	5.95	67.71	53.91	+805	
Canada thistle (*Cirsium arvense*)	92.88	423.09	429.72	+363	
gypsyflower (*Cynoglossum officinale*)	182.02	146.04	116.83	-36	
rush Skeletonweed (*Chondrilla juncea*)	155.85	468.48	1764.87	+1032	
Scotch cottonthistle (*Onopordum acanthium*)	20.74	2.51	5.97	-71	
spotted knapweed (*Centaurea stoebe*)	19.28	683.19	38.03	+97	
sulphur cinquefoil (*Potentilla recta*)	16.59	1.56	61.52	+271	
Whitetop (*Cardaria draba*)	2.59	0.45	0.05	-98	
Totals	620.75	1854.87	2500.54		

Recommended Changes for Effects of Management Systems on Productivity of the Land

Based on these results, we are considering the following possible changes:

For the Monitoring Question: Is the Forest maintaining or restoring long-term soil productivity?
The indicator below, should be changed to reflect how the detrimental soil disturbance FP standard is phrased.

- Indicator: Amount of activity area in detrimentally disturbed condition

For Noxious Weeds, reporting results could be improved by also accounting for level of survey effort, which may vary from year to year and thus impact the results of the survey. Adding a weed density metric for mapped populations would also be useful in tracking trends on perennial weed populations. This would improve the sensitivity and consistency of data collected to allow for better comparisons between years and to refine trend observations.

9. Social, Economic, and Cultural Sustainability

Summary of Social, Economic, and Cultural Sustainability

The Forest Plan provides desired conditions that ecosystems of the forest have ecological and watershed integrity, meaning they have a viable combination of all the diverse elements and processes needed to sustain the systems and to perform desired functions; furthermore, forest ecosystems are managed in an environment of public and interagency trust, and cultural and socioeconomic sustainability.

The following results reflect updates from data collected from 2018-2020 (mid-year, where applicable). New information collected or compiled from the last evaluation report March 2018 has been incorporated. Timber data is based on fiscal years 2018 and 2019.

The Administrative Change to the Payette Land and Resource Management Plan (2016) included the following desired conditions, objectives, and standards related to this topic:

- Sustainable ecosystems provide a variety of sustainable products and services for current and future generations. Timber, range, and recreation offer opportunities for economic development and contribute to local community needs, while maintaining ecological Integrity.
- Ecosystems on the Forest are managed to promote meaningful relationships with American Indian tribes to understand and incorporate tribal cultural resources, needs, interests, and expectations.
- Stewardship of historic properties (see example Figure 10)

Figure 10. Photo of a historic property: Romine Ranch Barn, Warren Creek, in the Frank Church River of No Return

Monitoring Questions and Indicators as defined in the Administrative Change to the Payette Land and Resource Management Plan (2016)

Monitoring Question: Is the Forest meeting the expected outcomes for timber production? Indicator:

- Levels of commercial and non-commercial timber products provided (Allowable Sale Quantity [ASQ] and Timber Sale Program Quantity [TSPQ])

Monitoring Question: Is the level of livestock grazing changing? Indicator:

- The number of head months associated with term grazing permits

Monitoring Question: Are tribal interest and rights identified through consultation being addressed? Indicator:

- Challenges identified in annual Tribal Summary Report submitted to Washington Office Tribal Relations

Monitoring Question: Are historic properties being managed to standard? Indicators:

- Presence of Heritage Management Plan
- Inventory of NFS lands
- Evaluation for eligibility for listing on the National Register of Historic Places
- Condition assessments on Priority Heritage Assets
- Cultural resource stewardship opportunities for study and/or public use

Key Results for Social, Economic, and Cultural Sustainability

Timber Program

The Forest Plan identifies approximately 330,000 acres as being suited timberland on the Payette National Forest.

ASQ and TSPQ are decadal objectives identified in the Forest Plan, not annual targets. ASQ is defined as the quantity of timber that may be sold from the area designated as suitable timberlands identified in the Forest Plan. The TSPQ is the total amount of wood product (e.g. fuelwood, posts, poles, house logs, biomass, etc.) generated from both suited and unsuited timberlands.

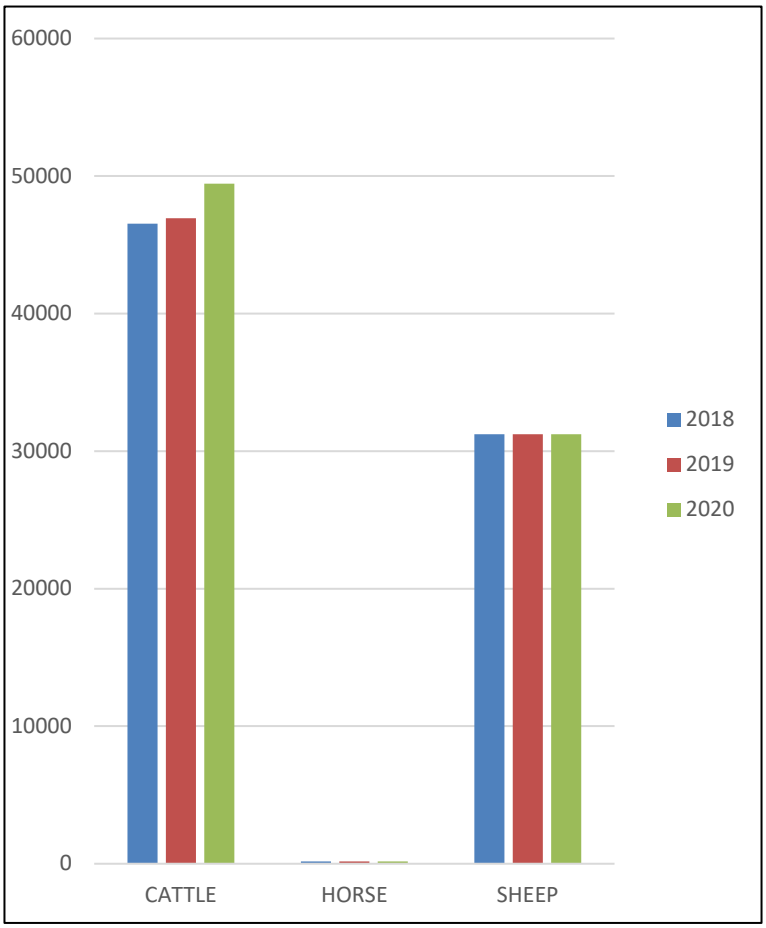
In the first decade (i.e. 2003-2012), the Forest Plan identifies the ASQ as 325 million board feet (MMBF) and the TSPQ as 405 MMBF. In the first decade (2003-2012), the Forest produced approximately 180 MMBF toward the ASQ and 201 MMBF toward the TSPQ. This is approximately 55% of the expected ASQ and 50% of the expected TSPQ for the first decade.

This reporting period (2018-2019) is within the second decade of 2013-2022. In the second decade the FEIS for the Forest Plan identifies the ASQ as 326.5 MMBF and TSPQ as 348.4 MMBF. To date in the second decade (2013-2019) the Forest has produced approximately 99 MMBF toward the ASQ and 115 MMBF toward TSPQ. In this reporting period for this Forest Plan Monitoring Report (i.e. 2018-2019) the Forest produced 12.3 MMBF of ASQ and 18.2 MMBF of TSPQ. This is a reduction from the prior reporting period of 2016-2017 in which the Forest produced approximately 48 MMBF toward the ASQ and 52 MMBF toward the TSPQ.

At current rates, the Forest will produce less than 50% of the ASQ and TSPQ for the second decade. If there is a desire to increase these outputs, some potential options are: 1) increase the number of acres treated with commercial harvest; 2) increase the intensity of commercial treatments, meaning remove a higher percentage of the standing volume, when this could be done consistent with other Forest Plan management direction.; 3) explore options for producing other types of wood products such as commercial firewood, posts & poles or increasing biomass utilization.

Livestock Grazing

Figure 11. Grazing by head months per livestock type per year



Grazing levels are not changing significantly. In 2020 there are 52 active permits:

- 4 sheep permits , 31225 head months
- 4 horse permits, 172 head months
- 44 cattle permits, 49,456 head months

Some permittees hold multiple permits and operate on multiple allotments. Permitted grazing numbers are relatively stable since 2018 (Figure 11), with no change in head months for horse and sheep grazing, and a slight upward trend in head months for cattle grazing.

Tribal Rights and Interests

Since the 2018 Payette Forest Monitoring Report, several consultation meetings, both formal and informal have occurred with affected and/or interested Tribes. During these consultation efforts, tribal governments have informed the Forest Service of their interests in areas of projects, resources of importance and their wished for management of the areas. In some instances, tribal representation has been at the table as part of a collaborative effort. Consultation meetings are listed in Table 11. Tribal consultation specific to projects is addressed in relevant NEPA documents and project records.

The Forest has continued to work cooperatively with the tribes in field data collection and information sharing. The Payette Forest hosted the Inter-Tribal Youth Camp in 2019 for 45 campers. This opportunity provides a connection to the natural resources from a professional perspective, an ecological perspective and a cultural

perspective. The tribal governments are conducting ethnography's to inform analyses and ultimately decisions regarding a proposed mining project. Two of the tribes have completed their efforts and the third completion is imminent.

Given the extensive consultation efforts and meetings, the lingering issue between the tribal governments and the Forest continues to be trust. In 2012, the Forest severely impacted an archeological site and that action still resonates deep within the ability of Tribes to trust the Forest Service. Only time and continued positive effort and actions with improve that condition.

Table 10. Tribal consultations since 2018

Tribal Government	Formal Consultation	Informal Consultation	Issues of Significance
Nez Perce Tribe	3	30	Water Quality, Fishery, Resource Availability, Resource Access, and Site Restoration.
Shoshone Bannock Tribes	1	22	Water Quality, Fishery, Resource Availability, Resource Access, Site Restoration, Waste Water, and CERCLA. Because of the cultural site destruction, this Tribe will only formally consult on Phoebe Creek and Stibnite Gold Project.
Shoshone Paiute Tribes	15	0	Water Quality, Fishery, Resource Availability, Resource Access, Site Restoration, and Spiritual Connectivity.

Heritage Program

During the reporting period of 2018 and 2019 the Forest's heritage program was managed to standard as well as managing and protecting historic properties as directed by LRMP. This work was accomplished through a series of outreach project, utilizing the skills of volunteers, and from regional support for implementation of the Frank Church-River of No Return Wilderness – Heritage Preservation Plan. See Table 12.

Table 11. Heritage program accomplishments 2018-19.

Program Component	2018	2019
1- Program Plan	10	10
2 – Inventory of NFS lands	10	10
3 – Evaluation for eligibility for listing on the NRHP		
4 – Condition Assessment of PHAs	9.81	8.85
5 – PHA stewardship		
6 – Cultural Resources Stewardship opportunities – Studies and Use	10	6
7 - Volunteers	10	10
Totals	50	45

Recommended Changes for Social, Economic, and Cultural Sustainability

Based on these results, the following change is recommended:

There is a desire to increase the ASQ and TSPQ outputs above 50% of identified values for the second decade, some potential recommendations are: 1) increase the number of acres treated with commercial harvest; 2) increase the intensity of commercial treatments, meaning remove a higher percentage of the standing volume, when this could be done consistent with other Forest Plan management direction.; 3) explore options for producing other types of wood products such as commercial firewood, posts & poles or increasing biomass utilization.

Public Engagement Opportunities

Many aspects of forest management are completed through formal public collaborative processes with stakeholders.

The Payette Forest Coalition represents a wide array of interests and is deeply involved in the Cooperative Forest Landscape Restoration Program (CFLRP) projects, primarily on the west side of the forest. They meet monthly throughout the year and also host field visits (see Figure 12).

The Big Creek Yellow Pine Collaborative was established by Senator Crapo's office for the purpose of collaborating on travel management on the east side of the forest during the time period of 2014-2019.

Figure 12. Payette Forest Coalition on a field trip to a CFLRP project area with forest staff

Additional information about forest plan monitoring on the Payette National Forest is available at the following links:

Monitoring plan: https://www.fs.usda.gov/detail/payette/landmanagement/planning/?cid=fseprd496832

Monitoring reports: https://www.fs.usda.gov/main/payette/landmanagement/planning

Document Preparers

Brian Gardner, Forest GIS Specialist

Brian McMorris, Range Management Specialist

Chris Clark, Forest Silviculturist

Clayton Nalder, Forest Fisheries Program Manager

Dustin Doane, Forest Fuels Program Manager

Emily Simpson, Forest Recreation Specialist

Erik Whiteman, Forest Cultural Resources Program Manager

John Dixon, Forest Soil Scientist

Jonathan Foster, Forest Range Program Manager

June Galloway, Forest Wildlife Program Manager

Kristin Williams, Forest Botanist

Melanie Vining, *acting* Forest Watershed Program Manager

Pattie Anderson Soucek, Forest Planning Staff Officer and Tribal Liaison

Paul Klasner, Natural Resources Staff Officer

Sandee Dingman, Forest Environmental Coordinator, Writer/Editor and IDT Lead

Steve Penny, Forest GIS Specialist

Susan Miller, Forest Ecologist

End of Report##