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2018 Biennial Monitoring & Evaluation Report

Payette National Forest

Land and Resource Management Plan

Forest

Service

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Table of Contents

List of Tables and Figures

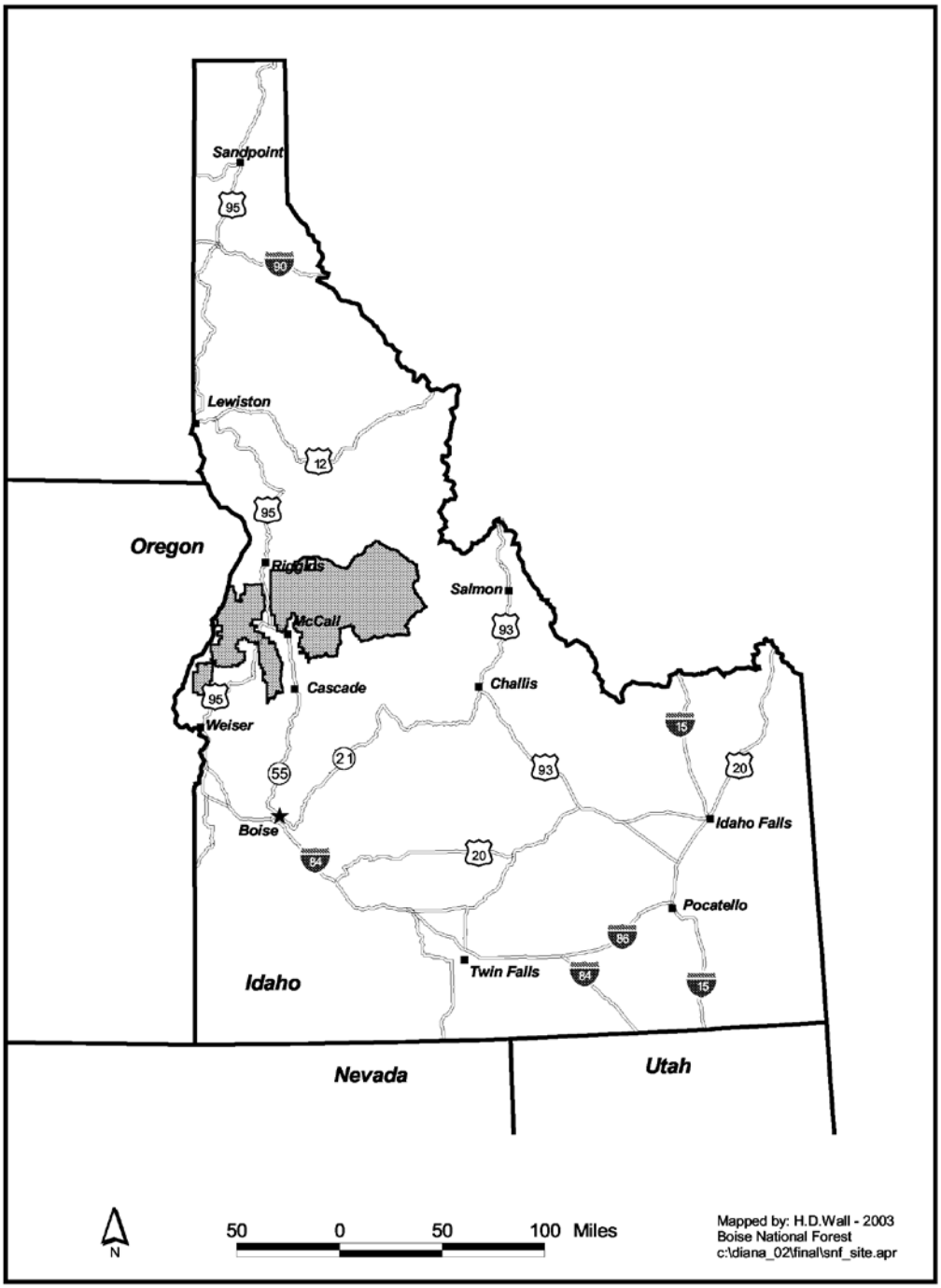
2018 BIENNIAL MONITORING & EVALUATION REPORT

FOR FOREST PLAN MONITORING COMPLETED FY15-FY17

PAYETTE NATIONAL FOREST

LAND AND RESOURCE MANAGEMENT PLAN

MARCH 2018



PAYETTE NATIONAL FOREST VICINITY MAP

Overview

Monitoring provides feedback for the Payette National Forest (Forest) planning cycle by testing assumptions, tracking relevant conditions over time, measuring management effectiveness, and evaluating effects of management practices. Monitoring information should enable the Forest to determine if a change in plan components or other plan management guidance may be needed, forming a basis for continual improvement and adaptive management. Direction for monitoring and evaluating forest plans is found under the 2012 Planning Rule at 36 CFR 219.12 and in the directives in Forest Service Handbook (FSH) 1909.12, Chapter 30.

This monitoring report covers monitoring of activities which occurred during fiscal years 2015, 2016, and 2017. From here on forward monitoring reports will be prepared biennially for the preceding two fiscal years. The next report will be published in spring 2020 and will cover monitoring in fiscal years 2018 and 2019.

The plan monitoring program must contain one or more monitoring questions and associated indicators addressing each of the following:

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, conservation of proposed and candidate species, and maintenance of 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 of the plan area related to climate change and other stressors which may be affecting the plan area
7. Progress toward meeting the desired conditions and objectives in the plan, including providing for multiple use opportunities
8. The effects of each management system to determine it does not substantially and permanently impair the productivity of the land

The plan monitoring program addresses the most critical components for informed management of the Forest's resources within the financial and technical capability of the agency. Every monitoring question links to one or more desired conditions and objectives, as defined in the 2012 Planning Rule. However, not every plan component has a corresponding monitoring question.

The monitoring program sets out plan monitoring questions and associated indicators. Protocols are not a part of the plan monitoring program but will instead be established in implementation guidance. Consideration of and coordination with other broad-scale monitoring strategies, multi- party monitoring collaboration, and cooperation with State agencies where practicable will increase efficiencies and help track changing conditions beyond Forest boundaries to improve the effectiveness of the plan monitoring program. In addition, project and activity monitoring may be used to gather information for the plan monitoring program if it will provide relevant information to inform adaptive management.

Tables IV-1 through IV-4[1] below are organized to display the plan components that drive the monitoring question(s) and the indicator(s) for answering the monitoring question. Monitoring questions are used to evaluate if management is maintaining or moving toward or away from desired conditions or objectives.

Indicators are the specific resource measures used in answering the monitoring questions. In general, the Forest Plan component that is the primary direction being addressed by the monitoring question is also listed.

The monitoring indicators listed in this chapter will be evaluated. The associated evaluation process will then determine if the observed changes are consistent with the Forest Plan and if implementation is effective.

Evaluation reports will be produced and made public biennially (per the 2012 Planning Rule at 36 CFR 219.12(d)). An interdisciplinary team will develop the biennial monitoring evaluation report which will summarize the results of completed monitoring, evaluate the data, consider relevant information from broad-scale or other monitoring efforts, and make recommendations to the Responsible Official. Some monitoring indicators will require longer timeframes for thoroughly evaluating results, but a biennial review of what information has been collected will ensure timely evaluation to inform planning. The biennial monitoring evaluation does not need to evaluate all questions or indicators biennially, but needs to provide monitoring results with new information regarding management effectiveness and progress towards meeting desired conditions or objectives or validation (or invalidation) of assumptions.

The monitoring evaluation report will help the Responsible Official determine whether or not a change to the Forest Plan, management activities, or the monitoring program is needed or if a new assessment may be warranted based on the new information. It is not a decision document. It is used to inform adaptive management of the plan area.

Species of Conservation Concern

As defined in the 2012 Planning Rule at 36 CFR 219.9(c), a species of conservation concern (SCC) is “a species, other than federally recognized threatened, endangered, proposed, or candidate species, that is known to occur in the plan area and for which the regional forester has determined that the best available scientific information indicates substantial concern about the species' capability to persist over the long-term in the plan area.” The 2012 Planning Rule requires the Regional Forester to identify SCC for plan revision. To be consistent with direction in FSH 1909.12, Chapter 20, the Regional Forester will identify SCC ahead of plan revision if the Forest proposes a plan amendment to change plan direction associated with ecological sustainability or diversity of plant and animal species, per 36 CFR 219.8 and 219.9, respectively. As SCC are identified for the Forest by the Regional Forester, the monitoring plan will be changed as needed.

[1] In the 2016 report Administrative Change to the Land and Resource Management Plan found on the Payette NF web page at: https://www.fs.usda.gov/detail/payette/landmanagement/planning/?cid=fseprd496832 these tables are incorrectly referred to as tables H-1 through H-4 from the 2003 Forest Plan. Instead Tables IV-1 through IV-4 update the tables found in Chapter 4 of the 2003 LRMP and the updated tables are found in the body of this report.

Physical and Biological Ecosystems

At a Forest scale, potential vegetation groups (PVGs) are a useful organizing concept to delineate habitat, which may be related to wildlife occurrence, influenced by elevation, microclimates, or productivity. The Forest has identified desired conditions for potential vegetation groups and watershed condition indicators (USDA Forest Service 2003, Appendices A and B, respectively). The key ecosystem characteristics listed in Appendices A and B are intended to be used for forest plan monitoring at a forest-wide or biophysical-setting scale. Many existing vegetation characteristics are associated with wildlife habitats, and meeting desired conditions in Appendix A, including patch size by PVG, is used as a mid-scale indicator for wildlife source habitat quality (USDA Forest Service 2003).

Specific physical and biological ecosystem indicators that would be monitored for key ecosystem characteristics on the Forest are identified and described in Table IV-1 below. Key ecosystem characteristics can also be combined in different ways to assess habitat for specific species of interest, using habitat models based upon the best available scientific information. Species- specific habitat models are used at the project scale to assess potential effects of forest plan implementation.

Key ecosystem characteristics related to climate change and wildlife are measured at very large scales, not the forest scale, but are important to some wildlife species on the Forest. For example, one key ecosystem characteristic is "persistent spring snow," which is useful for monitoring habitat for some species, including wolverine. Changes in the distribution of persistent spring snow on the Forest are updated by using the persistent spring snow cover model (based on Copeland et. al. 2010) when new climate data is available. The current model covers data for 2009-2015. . Another key ecosystem characteristic is related to drought, measured by drought severity indices and trends, which would be monitored over time as data are updated.

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." Focal species for the Forest will be selected during the Forest Plan revision process, currently scheduled to begin in the mid-2020s.

The presence and distribution of select threatened and endangered species, such as Northern Idaho ground squirrel (NIDGS), and sensitive species, including bighorn sheep, are included in the Forest's monitoring program and are assessed in cooperation with the Idaho Department of Fish and Game, non- government organizations (NGOs), and other federal agencies.

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. Table 1 shows the MIS selected for the 2003 Forest Plan.

Table 1. 1982 Planning Rule Management Indicator Species (MIS) for the Payette National Forest

Type	Common Name	Habitat[1]	Management Concerns
Bird Species	Pileated Woodpecker	Large tree size class in moderate and high canopy cover class in in PVGs 2, 3, 5, 6	Sufficient large trees, snags, and down logs
	White-headed Woodpecker*	Large tree size class in low canopy cover class in PVGs 1, 2, 3, 5, 6	Sufficient snags, and large trees with low crown density
Fish Species	Bull Trout	Perennial streams	Sediment in spawning and rearing areas, water temperature, habitat connectivity, and hybridization with brook trout

Payette LRMP Table IV-1 below provides the updated monitoring questions and indicators for physical and biological resources on the Payette National Forest.

Payette LRMP Table IV-1. Physical and biological ecosystem plan monitoring questions and indicators for the Payette National Forest (Forest)

Selected Plan Component(s)	Monitoring Questions	Indicator(s)	Addresses Monitoring Elements	Summary of monitoring results
TERRESTRIAL ECOSYSTEMS AND VEGETATION				
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	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.	1, 2, 3, 4, 6, 7	Vegetation management projects are designed to move vegetation towards desired conditions. In this monitoring period, the following acreages were managed with a variety of tools to move vegetation towards desired conditions. The remaining acres would either be undergoing succession or disturbance, which also moves 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. Aspen 213 acres Shrublands 3860 acres Herbaceous (Grassland and Forbland) 6910 acres Riparian Vegetation 182 acres Coniferous Forest 56,193 acres Total = 67,358 acres

Selected Plan Component(s)	Monitoring Questions	Indicator(s)	Addresses Monitoring Elements	Summary of monitoring results
	Are planned treatments being implemented within priority watersheds to meet desired outcomes?	Acres treated annually in the identified priority watersheds.		Currently we have not identified priority watersheds for terrestrial habitat improvement. Priority watersheds have been identified for watershed improvement under the Aquatic Conservation Strategy and Watershed Condition Framework. The following projects have been approved and are currently being implemented in areas where terrestrial and aquatic habitat has been determined to have departed from desired conditions: • Big Creek Restoration and Access Management Project • Four Mile Prescribed Fire • Lockwood Drift Fence Improvement • Lost Creek Exclosure Fences • Mud Springs Range Improvement • NIDGS Habitat Restoration Treatments Study, University of Idaho • Reservoir Drift Fence Improvement • Sheep Creek Bull Trout Exclosure Fence Improvement Project • Sheep Creek Drift Fence Improvement • Sugar Creek Storm Treatment and Ford Rehabilitation • West Zone Range Improvement Projects Several of these projects are expected to lead to improvements in watershed condition in the watersheds affected and downstream of the project.

Selected Plan Component(s)	Monitoring Questions	Indicator(s)	Addresses Monitoring Elements	Summary of monitoring results
				In addition to these projects approved within the time period covered by this monitoring report the following projects were previously approved and are being implemented: • Mill Creek Council Mountain Landscape Restoration Project • Lost Creek Boulder Creek Landscape Restoration Project The MCCM project implements treatments within the East Fork of the Weiser River priority watershed. The LCBC project implements treatments within the Boulder Creek priority watershed and is expected to move all subwatersheds within the project area towards the desired condition for aquatic (soil, water, riparian) resources. The decisions for all current completed Payette projects can be found on the Payette website: https://www.fs.usda.gov/projects/payette/landmanagement/projects
	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.		Only 16 of the 39 projects had BEs available for review. It is likely that BEs were not completed for the other 23 projects because there were no TESPC species or habitat within the proposed project area. The other potential explanation is that the BE's I was unable to locate are on Pinyon and not yet available for review. Of the 16 BEs that were reviewed, several had the potential to affect TEPC species but none were likely to trend any TEPC species toward federal listing. The same is true for Sensitive and Watch plant species. Approximately half of the 16 BEs reviewed had some potential for impact to Sensitive and Watch species, but none were likely to adversely affect the species identified. Acres treated can be found at the EDW in the TESP/IS database.

Selected Plan Component(s)	Monitoring Questions	Indicator(s)	Addresses Monitoring Elements	Summary of monitoring results
FIRE				
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.	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.	1, 2, 3, 4, 6, 7	The Payette has a robust fire management program that allows fire to play its natural role to achieve desired conditions as described in the Forest Plan. These acres have primarily been achieved within the Frank Church RONR Wilderness, but opportunities are available outside the wilderness as well. Fuels treatments conducted across the forest are designed to move conditions towards allowance of more fire on the landscape. Accomplishments are reported in the FACTS database. FY15: Tepee, Rapid, Campbell, Dillinger – 36,494 acres FY16: Harlan Creek - 787 acres FY17: Missouri, Lemhi, Jackson Bar – 1,331 acres
High fire risk within the wildland urban interface (WUI) is reduced to conditions that will provide for protection of life, investment, and valuable resources.	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 WUI treated in a manner that reduces risk.	2, 6	Wildfire risk areas within the WUI have been identified in past projects such as Bald Hill, Meadows Slope, Mill Creek-Council Mountain, etc. and hazardous fuels reduction treatments such as prescribed burning, or mechanical non-commercial thinning are currently being implemented in these projects. The Bald Hill WUI project is currently in the planning phase as well as Project 5 within the Weiser-Little Salmon CFLR project that will address these high wildfire risk areas within the WUI. Accomplishments are reported in the FACTS database. FY15: 4,961 acres FY16: 6,953 acres FY17: 4,637 acres

Selected Plan Component(s)	Monitoring Questions	Indicator(s)	Addresses Monitoring Elements	Summary of monitoring results
WATERSHED CONDITION AND WATER QUALITY				
Desired Condition: 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.	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 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. Number of watersheds moved to an improved Watershed Condition Class.	1	Projects in implementation phase: Mill Creek Council Mountain – East Fork of the Weiser River is expected to show an improving trend in Watershed Condition Class with a modest reduction in road density in all project subwatersheds. Approximately 55 miles of roads have been decommissioned. Lost Creek Boulder Creek Landscape Restoration Project – all watersheds are expected to show an improving trend in Watershed Condition Class through reductions in subwatershed road density. Approximately 28 miles of roads have been decommissioned. Boulder Creek watershed, the Forests priority WCF subwatershed and ACS priority subwatershed, is targeted to improve one full WCF condition class upon completion of road decommissioning and installation of AOP structures. Big Creek Restoration and Access Management Plan –watersheds that have had road restoration treatments within the planning area to date are on an improving trend following road decommissioning (3 miles), long term road storage (1 mile) and storm damage risk reduction road treatments (6 miles). These road treatments are maintaining WCF classes. For all projects, road decommissioning has contributed to a positive trend in restoring and maintaining stream channel integrity, flow regimes, and water quality. Long-term implementation and effectiveness monitoring of road decommissioning has shown that recovery of vegetation and overall soil productivity and function is occurring. Stream road crossings have been restored

Selected Plan Component(s)	Monitoring Questions	Indicator(s)	Addresses Monitoring Elements	Summary of monitoring results
				and stabilized allowing upstream habitat connectivity and passage to aquatic organisms. Road decommissioning monitoring results are on file at the Payette National Forest and summarized yearly in the Payette National Forest Soil and Water Monitoring Results. Road decommissioning accomplishments are reported within the Watershed Improvement Tracking (WIT) National Database. Road decommissioning also benefits wildlife by decreasing anthropogenic impacts such as habitat fragmentation and human disturbance associated with increased access.
Desired 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.	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.	1	The National BMP Monitoring protocol is being implemented across the Forest yearly with an emphasis on monitoring project activates within the Collaborative Forest Landscape Restoration Project (CFLRP). Implementation and effectiveness monitoring of Best Management Practices and project design features (PDFs) is occurring across the Forest for a wide variety of projects activities to assure water quality and riparian resources are being protected. Monitoring results can be found in the interim National BMP Monitoring Database and are on file at the Payette National Forest and summarized yearly in the Payette National Forest Soil and Water Monitoring Results.
AQUATIC ECOSYSTEMS AND SPECIES				
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 metapopulations.	Is stream habitat in priority watersheds being maintained or restored to fully support beneficial uses and native and	Watershed conditions indicators either maintained or improving within priority watersheds.	1, 2, 4	See above for description of expected improvements in watershed condition indicators in priority and non-priority subwatersheds in the Mill Creek Council Mountain and Lost Creek Boulder Creek project areas. Stream crossing barriers continue to be replaced with 6 in the last 3 years.

Selected Plan Component(s)	Monitoring Questions	Indicator(s)	Addresses Monitoring Elements	Summary of monitoring results
	desired nonnative fish species and their habitats?	Native and nonnative species presence/absence.		
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.	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. Number of actions implemented consistent with recovery plans (draft or final).	1, 2, 4	Projects including, MCCM, LCBC, BCRAMP are continuing to implement recommendations from recovery plans and maintaining or improving watershed conditions. 10 actions identified in recovery plans have been implemented.
WILDLIFE				
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.	Have habitat restoration and conservation been prioritized in watersheds identified in the Forest Plan through such items as the Vegetation and	Percentage of available acres within restoration treatments in high priority versus other 5th field watersheds. Acres restored or trending toward desired	3, 4, 6	At this time the Forest is identifying priority restoration watersheds for habitat conservation. Identification will be complete at the time of the next plan monitoring report in 2020 and will be included with the report. Wildlife source habitat models for selected species are currently in the process of being updated using the best available science and GIS data.

Selected Plan Component(s)	Monitoring Questions	Indicator(s)	Addresses Monitoring Elements	Summary of monitoring results
	Wildlife Habitat Restoration Strategy?	conditions in priority watersheds identified in the Forest Plan through items such as the Vegetation and Wildlife Habitat Restoration Strategy.		
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.	Are the distribution, abundance, and habitat quality of TEPC with recovery plans and sensitive terrestrial wildlife species being maintained and/or restored?	Presence/absence data of [name the species] in existing and potential suitable habitat.	3, 4, 6	Only one TEPC species, NIDGS, a federally threatened species, with known occupancy in the planning area has a Recovery Plan. In 2012, the UOI and PNF initiated an experimental collaborative study designed to assess the effectiveness of habitat restoration treatments on NIDGS. The goal of the study is to create a treatment design that encourages recolonization of NIDGS in suitable areas on the Forest. Research sites are currently being treated, primarily with commercial thinning and prescribed burning, and completion is expected in 2019. From 2015-2017 treatments including prescribed fire (approx. 14,920 acres), overstory thinning (approx. 9,190 acres), and road decommissioning (approx. 13.78 miles) have improved potential habitat for NIDGS across the Forest. The Forest also provided population estimates and demographics resulting from collaborative monitoring on the PNF to support the five-year ESA listing status review for the species in 2017.

Selected Plan Component(s)	Monitoring Questions	Indicator(s)	Addresses Monitoring Elements	Summary of monitoring results
Human activities do not prevent populations from maintaining desired distribution and abundance during critical life stages.	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.	2, 3, 5	A Forest level over-snow travel analysis, which will include potential impacts to wildlife resources, is expected to be completed within the next 2 years.
	Are bighorn sheep present in areas of risk?	Sighting or telemetry location in a risk area.	3, 4	Annual monitoring includes presence / absence surveys for bighorn sheep in priority areas (10 mile radius of known sheep allotments). From 2015-2017, there were no known sightings in the bighorn sheep / domestic sheep separation areas. The last known confirmed sighting was in 2012.
	Are bighorn sheep present in or near active domestic sheep and goat allotments?	Presence of bighorn sheep and presence of domestic sheep or goat bands.	3, 4	From 2015-2017, there were no known sightings within the bighorn sheep / domestic sheep separation areas.
	Is separation between bighorn sheep and domestic sheep and goats maintained?	Presence of bighorn sheep and presence of domestic sheep or goat bands.	3, 4	The separation distance required by the Forest Plan Amendment is being maintained. This is verified by SPOT locations and mapping and an approved protocol-driven presence/absence survey methodology.

Selected Plan Component(s)	Monitoring Questions	Indicator(s)	Addresses Monitoring Elements	Summary of monitoring results
	Are domestic sheep straying from permitted grazing allotments?	Presence of domestic sheep on areas identified as not suited for domestic sheep grazing.	3, 4	The sheep bands were maintained within suited areas of permitted allotments in 2015-2017. There was one suspected incident of stray domestic sheep (in separation zone) during this time period. A follow-up with regular check-ins with SPOT devices and visual checks conducted by Forest Service personnel confirmed that the straying had not occurred.

Productivity of the Land

Productivity is defined as the capacity of National Forest System lands and their ecosystems to provide various renewable resources in certain amounts in perpetuity (36 CFR 219.19). In this context, productivity is an ecological term, not an economic term. Specific productivity indicators that would be monitored for key ecosystem characteristics on the Forest are identified and described in Payette LRMP Table IV-2 below.

Payette LRMP Table IV-2. Productivity of the land: plan monitoring questions and indicators on the Payette National Forest (Forest)

Selected Plan Component(s)	Monitoring Question(s)	Potential Indicator(s)	Addresses Monitoring Element(s)	Summary of Monitoring Results
PRODUCTIVITY OF THE LAND				
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.	Is the Forest maintaining or restoring long-term soil productivity?	Amount of activity area in non-detrimentally disturbed (DD) condition. Amount of activity area classified as Total Soil Resource Commitment (TSRC).	2, 7, 8	MCCM – TSRC slight improvement 2.9 to 2.6% due to road obliteration; DD 2 of 46 tractor units surveyed had DD above 15% due to past activities. With implementation all activity areas monitored to date have improve due to project design features, mitigation measures, and BMPs. Post Implementation monitoring indicates all logging units are meeting Forest Plan standards for DD and long-term soil productivity is being maintained. Skid trails and landings are being rehabilitated after treatment to restore long-term soil productivity and has resulted in a reduction of TSRC. LCBC – TSRC estimated at 6.8 %, selected alternative is expected to move the area towards 5.0 (modeled at 5.9 Alt B, 5.3 for Alt C, 6.0 Alt D); DD 1 out of 9 survey sites was above 15%. With implementation all activity areas are expected to improve detrimental soil condition due to project design features, mitigation measures, and best management practices. Skid trails would be fully recontoured after treatment and landings rehabilitated which would reduce TSRC.
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	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.	2, 8	In FY17, 3964 acres of Forest land were treated by various methods for the eradication of noxious species. In the previous year, there was not any new infestation recorded.

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.				

Human Uses and Designations of the Forest

The plan monitoring program must contain one or more monitoring questions and associated indicators addressing the status of visitor use and visitor satisfaction and progress toward meeting recreation objectives. Specific human use indicators that would be monitored for key ecosystem characteristics on the Forest are identified and described in Payette LRMP Table IV-3.

Payette LRMP Table IV-3. Human uses and designations of the forest plan monitoring questions and indicators on the Payette National Forest (Forest)

Selected Plan Component(s)	Monitoring Question	Indicator	Addresses Monitoring Element(s)	Summary of Monitoring Results
FACILITIES				
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.	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. Motor Vehicle Use Map (MVUM) and National Visitor Use Monitoring (NVUM) results. Miles of trail maintained, trail surveys (TRACS).	5, 7	2978 miles of road of which; 484 miles of operational maintenance Level 3-5 roads (16%), 1662 miles of operational maintenance level 2 roads (56%), and 832 miles of operational maintenance level 1 roads (28%). (INFRA RD_ACMPL7) 1660 miles of road open to public travel; 1139 miles open yearlong to all vehicles, 496 open seasonally to all vehicles, and 25 miles open yearlong to highway legal vehicles only. (2018 MVUM) Miles of trail maintained on an annual basis can be found in the national TRACS database. In Fiscal Year 2017 there was 929 miles of trail maintained with 30% maintained to standard.
	Are facilities, including developed recreation sites, free of high-risk conditions?	How well facilities meet drinking water quality criteria. Developed recreation site condition surveys.	5	All drinking water sources have been 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, chemical & bacteria testing and proper notification to the appropriate agencies. All 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/zone

Selected Plan Component(s)	Monitoring Question	Indicator	Addresses Monitoring Element(s)	Summary of Monitoring Results
				level at the beginning pf the season of use. Any hazards are addressed as quickly as practicable.
RECREATION SETTING				
Recreational settings range from primitive to developed, offering a wide spectrum of 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.	Are recreation activity levels changing, and are shifts occurring between types of activities and locations of recreational use?	NVUM result Project-specific change to Recreation Opportunity Spectrum (ROS).	5	NVUM results showed 810,000 visits to the forest in 2008 and 397,000 visits in 2013. This decrease does not correspond to the experience of forest recreation personnel and is likely related to overestimate in 2008, underestimate in 2013, or a combination of the two. Professional judgment of Forest personnel ranges from stable overall recreational use numbers to a moderate increase, particularly during big game hunting seasons. A third round of NVUM surveys is underway right now (FY18). Use of UTVs has increased notably as a proportion of OHV recreation. The 2016 Decision for the Big Creek Recreation and Access Management Project changed 2,974 acres from semi-primitive non-motorized to roaded natural in LRMP Management Area 13. Additional designated motorized routes were added for public access in the area where the change occurred.
Dispersed recreation sites and uses are located and conducted in an environmentally responsible manner and managed to established standards.	Is the level of use occurring at dispersed sites impacting other resource values? If so,	Acres adversely impacted by dispersed recreation. Acres of adversely impacted areas treated to contribute toward	5, 7, 8	Localized areas of impact have been noted at various sites across the forest. When identified, the forest has taken actions to create barriers to site expansion and to keep use and/or vehicle parking off of sensitive locations. The Jungle Creek area of Council RD was specifically identified in the Forest Plan for site hardening and undesirable dispersed recreation impacts to the adjacent

Selected Plan Component(s)	Monitoring Question	Indicator	Addresses Monitoring Element(s)	Summary of Monitoring Results
	what actions were taken and were they effective?	restoring desired conditions.		riparian area. This will be part of implementation of the recently signed Middle Fork Weiser River Landscape Restoration Project (ROD signed December 2017). An inventory of dispersed sites was compiled during data collection for the ongoing Huckleberry Landscape Restoration Project. This is being used to highlight areas of undesirable resource impact and address these through site hardening, barrier installation and—if necessary—site closures. 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. Areas of potential impacts to ESA Threatened Northern Idaho Ground Squirrels (NIDGS) have been signed closed to camping. Compliance with this closure has been good overall. Sites within the Huckleberry Landscape Restoration Project area are proposed for installation of more aggressive closure mechanisms. Dispersed recreation impacts to heritage resources in the Big Bar area (Council RD) were successfully addressed during the fall of 2017 with installation of boulders to prevent parking/use of the sensitive area and clarifying parking at the site. Currently, no funding exists for compilation of forest-level data on the overall acreage of dispersed recreation impacts.
Conflicts between recreationists are reduced or addressed while a broad array of recreational opportunities are available.	Are conflicts arising between recreational	Number of project decisions addressing recreation conflicts.	5	The 2016 analysis and decision for Forest – Wide Outfitter and Guide Snowmobile Tours addressed recreation conflicts between motorized and non-motorized winter recreation uses and between outfitted and non-outfitted snowmobile users, and conflicts with motorized use in recommended wilderness. An alternative which

Selected Plan Component(s)	Monitoring Question	Indicator	Addresses Monitoring Element(s)	Summary of Monitoring Results
	uses? Are conflicts being resolved?			would have reduced motorized use in some areas was considered but eliminated from further study after review of data showed that there was too little use to cause an issue with conflict between recreationists. The proposal/selected alternative was modified to reduce the amount of area considered for outfitting and guiding in recommended wilderness because of the potential for conflict between recommended wilderness and motorized use. The Forest Plan does not prohibit outfitted and guided snowmobile use in recommended wilderness but does state that non-conforming uses should not be promoted.

Economic, Cultural, and Social Environment

Monitoring social, cultural, and economic indicators (FSH 1909.12) accomplishes the following:

- Informs managers and the public of changes in social, cultural, and economic conditions that are influenced by the plan
- Monitors contributions of the management of the plan area toward meeting social, cultural, and economic attributes of desired conditions
- Provides feedback for adaptive management toward expected and potential contributions to social and economic sustainability

Specific cultural indicators that would be monitored for key ecosystem characteristics on the Forest are identified and described in Payette LRMP Table IV-4.

Payette LRMP Table IV-4. Economic, cultural, and social environment plan monitoring questions and indicators on the Payette National Forest (Forest)

Selected Plan Component(s)	Monitoring Question	Indicator	Addresses Monitoring Element(s)	Summary of Monitoring Results
SOCIAL AND ECONOMICS				
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.	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]).	7	ASQ in the current Forest Plan is = 325,000,000 board feet (BF) per decade TSPQ in the current Forest Plan is = 405,000,000 BF per decade The timber volume sold reports from gPAS from FY08-17 was 395,106 hundred cubic feet (CCF) or approximately 197,553,000 BF. This volume sold include firewood, biomass, etc. and would be considered the TSPQ from the Forest for the decade. For this reporting period (FY15-17) the following volumes were sold: - FY15 = 5,207 CCF - FY16 = 52,401 CCF - FY17 = 47,378 CCF

Selected Plan Component(s)	Monitoring Question	Indicator	Addresses Monitoring Element(s)	Summary of Monitoring Results
	Is the level of livestock grazing changing?	The number of head months associated with term grazing permits.	7	The level of livestock is currently maintaining at the permitted number. Currently the number of permitted livestock is approximately 10,438 cattle and 27,971 sheep. These numbers translate into 40,146 AUMS for cattle and 68,229 AUMS for sheep. There has not been any decrease or increase in the number of permitted head in the previous fiscal year.
	Is the Forest providing recreational opportunities as planned?	Change in Recreation Opportunity Spectrum (ROS) class. National Visitor Use Monitoring (NVUM) program results.	5	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. NVUM results do not show the availability of specific opportunities but do cover respondents' activity participation. The most prevalent activities are relatively consistent between the 2008 and 2013 sampling years with the exception of fishing. In 2008 it shows up as the primary activity for 18.6% of respondents while it is the primary activity of only 2.8% of respondents in the 2013 data. This is most likely the result of oversampling of respondents in the 2008 data because its prevalence as a dominant recreation activity does not match the experience of Payette NF employees. Other prominent recreation activities were downhill skiing, relaxing, hunting, snowmobiling, driving for pleasure, and viewing natural features. Overall recreation use numbers from NVUM showed 810,000 visits to the forest in 2008 and 397,000 visits in 2013. This decrease does not correspond to the experience of forest recreation personnel and is likely related to overestimate in 2008, underestimate in 2013, or a combination of the two. Professional judgment of Forest personnel ranges from stable overall recreational use numbers to a moderate increase, particularly during big game hunting seasons.

Selected Plan Component(s)	Monitoring Question	Indicator	Addresses Monitoring Element(s)	Summary of Monitoring Results
				A third round of NVUM surveys is underway right now (FY18).
TRIBAL INTERESTS AND RIGHTS				
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.	Are tribal interest and rights identified through consultation being addressed?	Challenges identified in annual Tribal Summary Report submitted to Washington Office Tribal Relations.	7	Twenty-five informal and formal government-to-government consultation meetings were conducted with 3 different tribal governments. Items of tribal interest were identified and discussed at these meetings and taken into consideration during decision making processes. Challenges the Forest continues to face are relationship building and site disturbance rectification.
HISTORIC RESOURCES				
Stewardship of historic properties	Are historic properties being managed to standard?	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.	7	Heritage Program managed to standard FY 16', 17'.

Selected Plan Component(s)	Monitoring Question	Indicator	Addresses Monitoring Element(s)	Summary of Monitoring Results
		Opportunities for study and/or public use Volunteer hours.		

Other Forest Plan Considerations

FY2015-2017 Project Level Decisions

Decisions were issued and any necessary ESA consultation completed for the following projects in FY2015-2017:

- 7 Devils Lodge Outfitter & Guide Special Use Permit Reissue
- Bear Wallow Boundary Fence 2017
- Big Creek Airstrip SUA Reissuance
- Big Creek Restoration and Access Management Project
- Big Creek Road Plan of Operation Project
- Brundage Bulk Sampling Project
- Brundage Mountain Cat-ski Outfitter & Guide Permit Reissuance
- Cambridge Telephone Company Special Use Permit Re-issue
- Clayburn Boundary Fence Improvement
- Crater Lake Access Road
- Flying Resort Ranches Outfitter & Guide SUA
- Forest-wide Guided Snowmobile Outfitter & Guide
- Four Mile Prescribed Fire
- Four Summit Challenge Event Multi-Year Special Use Authorization
- Golden Meadows Exploration Project January 2016
- Hedges Water System
- Idaho Angler McCall (dba Fly Fish McCall) Outfitter & Guide Special Use Reauthorization
- Idaho Power Brownlee Guard Station Underground Distribution Line
- Lockey U Outfitter & Guide Special Use Reauthorization
- Lockwood Drift Fence Improvement
- Lost Creek Exclosure Fences
- Midvale Telephone Special Use Reauthorization
- Mud Springs Range Improvement
- Murphy Water System Special Use Authorization
- NIDGS Habitat Restoration Treatments Study by University of Idaho
- No Name Creek Water System Special Use Permit
- North Fork Lick Creek Trail #082 Reconstruction/Reroute
- Payette Lakes Ski Club Bear Basin Permit Amendment
- Big Creek Outfitters Special Use Permit Reauthorization
- Ram House Access Trail Special Use Authorization
- Reservoir Drift Fence Improvement (Forest Service Land Only)
- Salmon River Helicopter Repeater Special Use Authorization
- Sheep Creek Bull Trout Exclosure Fence Improvement Project
- Sheep Creek Drift Fence Improvement
- Sturgill-Dennett Unauthorized OHV Route Decommissioning Project
- Sugar Creek Storm Treatment and Ford Rehabilitation

- Tepee Springs Salvage
- West Zone Range Improvement Projects
- Wooten Water System Special Use Permit

Documents related to consultation which occurred during FY2015-2017 are available upon request from the Payette NF Supervisor's Office.

National Databases Used to Collect & Report on Forest Monitoring and Other Activities

The monitoring questions found in Table IV-2 of the 2003 LRMP have been updated in conjunction with compliance with the 2012 Planning Rule. Tracking and monitoring results for most of these questions has now moved to National Databases.

Introduction - Natural Resource Manager

Natural Resource Manager (NRM) is a national Forest Service organization that is responsible for coordinating software development activities for four application groups whose data are accessible through the NRM platform or the Enterprise Data Center (EDC):

- Forest Service Activity Tracking System (FACTS)
- Infra
- Natural Resource Information System (NRIS)
- Timber Information Manager (TIM)

These applications often intersect in how they collect and share data and in how they develop software and use technology. NRM finds ways to manage and grow these applications efficiently, and has already begun to standardize the processes used to develop an integrated program of work. NRM also will be looking for effective ways to use resources to reduce duplication of effort and to maximize technology investments.

There are future plans to provide a public-facing interface for some of the national datasets housed in NRM.

FACTS

The **F**orest Service **AC**tivity **T**racking **S**ystem (FACTS) is an activity tracking system for all levels of the Forest Service. It supports timber sales in conjunction with TIM Contracts and Permits; tracks and monitors NEPA decisions; tracks KV trust fund plans at the timber sale level, reporting at the National level; and, it generates National, Regional, Forest, and/or District Reports.

INFRA

Infra is a collection of Web-based data entry forms, reporting tools, and GIS tools that enable Forests to manage and report accurate information about their inventory of constructed features and land units as well as the permits sold to the general public and to partners. This information is used by Forest supervisors for the effective management of their Forests and also by visitors, partners, and Congress. Infra is a valuable tool for:

- Forest-level management

- Forest analysis, planning, and budgeting
- Implementing core data layers such as trails, roads, cultural properties, recreation, and range allotments
- Monitoring financial accountability; capitalization, depreciation and deferred maintenance
- Collecting partnerships information such as grants, agreements, and leases
- Collecting information to be made available to the public; data warehouse, Wilderness use permits, e-government
- Administering Forest permits and billings, such as Range and Special Uses

Infra also interfaces with several external systems to meet data sharing and financial reporting goals. Infra transmits daily feeds of permit billing and grant and agreement financial information to the Foundation Financial Information System (FFIS). Infra also transmits real property information to the UDSA's Corporate Property Automated Information System (CPAIS).

NRIS

The ***Natural Resource Information System (NRIS)*** combines a series of standard corporate databases and computer applications designed to support field-level users. NRIS databases contain basic natural resource and socio-economic data in standard formats built to run within the Forest Service computing environment. Some of the products available in NRIS include:

- Air Quality Information (AIR)
- Aquatic Surveys (AqS)
- FSVeg (Common Stand Exam, includes a geospatial component)
- Inventory and Mapping (Geology, Soils, etc.)
- National Visitor Use Monitoring (NVUM)
- Rangeland Inventory and Monitoring
- Threatened, Endangered, and Sensitive Plants
- Invasive Species
- Water Rights and Uses (WRU)
- Watershed Classification and Assessment Tracking Tool
- Watershed Improvement Tracking (WIT)
- Wildlife

Air

The Air application helps air resource managers analyze the effects of air pollutants on natural, cultural, and social resources on lands managed by the Forest Service.

Aquatic Surveys (AqS)

Aquatic Surveys (AqS) supports ecological and physical stream variables for three hierarchical levels of the riverine system on National Forest System (NFS) lands: valley segments, stream reaches and channel units. Data collected about aquatic fauna communities (fish, invertebrates, macroinvertebrates, amphibians, reptiles) in streams, lakes and spring environments are supported.

Field Sampled Vegetation (FSVeg)

Field Sampled Vegetation (FSVeg) stores data about trees, fuels, down woody material, surface cover, and understory vegetation. FSVeg supports the business of common stand exam, fuels data collection, permanent grid inventories, and other vegetation inventory collection processes.

Field Sampled Vegetation Spatial (FSVeg Spatial)

FSVeg Spatial manages spatial and tabular vegetation data in one place, at one time. It contains three types of data:

- The vegetation polygon feature class (required to use FSVeg Spatial),
- The vegetation point feature class, and
- Non-stand-exam vegetation data associated with the polygon feature class.

NRM is working with units to move vegetation data from forests into the FSVeg Spatial application

National Visitor Use Monitoring (NVUM)

National Visitor Use Monitoring (NVUM) software manages information gathered from on-site surveys of recreation visitors to lands managed by the Forest Service. For information about NVUM's statistical methodology, visit Recreation, Heritage & Wilderness Programs National Visitor Use Monitoring Program. Data collection is based on a stratified random sample methodology to develop sound estimates of visitor use, characteristics, satisfaction, and spending information for each national forest.

The NVUM Results software is now available to the public on the Internet. It delivers NVUM statistics at the national, regional and forest scales using 70 pre-defined reports and maps. Results from individual forests can be combined using the Results software to access multiple-forests, regional, and national estimates of the numbers and types of recreation visits. Reports are available for all years beginning with fiscal year 2005 (October 1, 2004 to September 31, 2005).

Rangeland Inventory and Monitoring

Rangeland Inventory and Monitoring supports national protocols for vegetation and ground cover sampling, general site characterization and detailed soil pedon descriptions. The application supports site characterization, interpretations and classifications; it also accommodates casual point observations with basic attributes.

National vegetation sampling protocols supported by the application include: Tree/Snag, Ocular Macroplot, Line Intercept, Cover Frequency, Nested Rooted Frequency, Robel Pole, Density, Paced Transect, Macroplot, Riparian Greenline–Winward, Riparian Cross Section–Winward, and Riparian Woody Regeneration–Winward. Rangeland Inventory and Monitoring is a spatial application intended for defined projects with formal protocol- or program-driven inventories.

Threatened, Endangered, and Sensitive Plants, and Invasive Species (TESP/IS)

TESP/IS support national data collection standards for combined TESP and invasive species surveys, TESP element-occurrences, and Invasive Species Inventories.

Water Rights and Uses (WRU)

Water Rights and Uses (WRU) tracks state and federally recognized water uses and related information regarding the water source, beneficial uses, quantity, and periods of water use. The application also tracks core information about water rights that may be associated to the water use and the legal and administrative actions that occur. Data collected during site visits to water use system components includes descriptions and dimensions of the water use system as well as site maps, reports and digital photographs. Integration with other Forest Service corporate applications including Automated Lands Project (ALP) and Infra are also supported to provide for a variety of integrated reports

Watershed Classification and Assessment Tracking Tool (WCATT)

NRM developed the ***Watershed Classification and Assessment Tracking Tool (WCATT)*** application in support of the ***Watershed Condition Framework (WCF)*** to provide a nationally consistent approach for classifying watershed condition. The tool supports the entering, editing and reporting of classification and assessment data for watersheds that contain U.S. Forest Service lands. WCATT provides a Geographic Information System (GIS) approach to data input for tracking Watershed Classification by 12-digit hydrologic units by year. The Watershed, Fish, Wildlife, Air, and Rare Plants Directors area sponsor it.

WIT

Watershed Improvement Tracking (WIT) manages data, observations and planning details about sites that need to be (or have been) restored or improved with the intent of benefiting watershed and aquatic ecosystem health and function. The application is a watershed restoration activity tracker that addresses site conditions, administrative plans and actions, and outcomes. The primary users of WIT are biologists and hydrologists; however, the reporting products deliver raw or summarized information valuable for project leaders, program managers, and public relations staff.

Wildlife

Wildlife supports terrestrial animal observations and site inventories.

TIM

The Timber Information Manager (TIM) supports the business of managing Timber Sales, Salvage Sales, Stewardship Contracts, and Forest Products Permits on National Forest lands. While TIM is used to complete the resource job at the field-level, it simultaneously captures information for service-wide reporting needs. TIM is integrated with other national systems, such as FACTS and PALS for project data, National Cruise applications (for timber volume), FMMI for contacts and billing information, and ATSA for payments, interest, penalties, and contract bonding.

Reports for many of these metrics are available upon request.

Project Level Monitoring

The Forest Monitoring Team did not complete any project monitoring in FY 2015-2018. However, Forest-wide and district level project monitoring was conducted for most resources, including watershed, wildlife, and fire. Reports are available upon request.

Need for Change

The Forest Supervisor has determined that the following items need to be updated to respond to changing conditions:

- Definitions may need to be updated for range, fuels, and road management
- 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.
- As the Forest implements the Bighorn Sheep Viability amendment, some allotment management issues have been identified. During the 2024 Revision process, a review of potential areas where boundaries mapped for suitable and unsuitable habitat may be adjusted will be conducted.

Monitoring and Evaluation Report Timing

The 2018 Monitoring and Evaluation report documents and discloses monitoring results from fiscal years 2004 through 2017 (October 2003 – September 2017). Each Forest Plan Monitoring and Evaluation report is intended to be a "living" document, meaning information displayed in the 2018 report will be considered part of the next report. Much of what is learned from monitoring and evaluation is based on how things evolve from year to year, rather than what is learned at a single point in time.

2018 Forest Program Managers

These are the members of the Payette National Forest interdisciplinary team who compile monitoring information for the Forest:

Sarah Lau	Recreation
John Dixon	Soil Scientist
June Galloway	Wildlife Biologist
Clint Hughes	Geologist
Kristin Williams	Botanist
Paul Klasner	Silviculturist
Leigh Bailey	Hydrologist
Susan Miller	Ecologist
Clayton Nalder	Fisheries Biologist
Rebecca Havens	Lands & Special Uses
Will Perry	Civil Engineer
Jonathan Foster	Range Conservationist
Pattie Soucek	Planner
Steve Penny	Geographic Information Specialist

Report prepared by Sue Dixon, Forest Environmental Coordinator

Attachments

Monitoring information from the prior monitoring plan

MIS Monitoring for Pileated and White-headed Woodpeckers

The monitoring strategy for terrestrial MIS used by the Forest from 2004 through 2007 was based on standardized bird monitoring methods (i.e., Hamel et. al. 1996 and Ralph et. al. 1993). In 2008, the Forest determined that a revised study design was needed to better monitor MIS species. Vicki Saab, FS Rocky Mountain Research Station (RMRS) Research Biologist, worked with the Forest in 2008 and 2009 to revise monitoring techniques

Initial goals of the study were to continue analysis and evaluation of monitoring methods implemented during 2008 and 2009 and to suggest refinements for increased effectiveness and efficiency in a long-term monitoring effort. Specific objectives were to 1) evaluate the effectiveness of playback calls versus point counts for detecting pileated and white-headed woodpeckers, 2) estimate the probability of occupancy (proportion of area occupied) for each species in areas classified as potential white-headed or pileated woodpecker habitat, and 3) assess the effect of habitat covariates on detection and/or occupancy.

The current monitoring and research objectives are; 1) determine habitat suitability for nesting woodpeckers in burned and unburned forests, 2) determine effectiveness of silvicultural and prescribed fire treatments on fuels reduction and wildlife habitat, 3) evaluate historical and future forest and habitat conditions under different management and climate scenarios and 4) identify habitat suitability needs to help guide forest restoration activities. Broad scale occupancy monitoring is designed to provide standardized data on the distribution, site occupancy, and population trends of white-headed woodpeckers across their range. The study also assesses forest treatment effectiveness and fire-climate impact modeling for historical and future dry mixed conifer forests.

Seventy-two transects, for sampling of white-headed woodpecker and pileated woodpecker occupancy, were established across the Forest. Methodology includes use of playback calls, with repeated sampling of transects (three times), and survey time frames from mid-April to late June. Some transects in designated pileated habitat (up to 5%) are only surveyed once, without substantial influence on the occupancy analysis. Transects were surveyed by both RMRS and Payette NF personnel.

Due to financial and staffing constraints, yearly survey transects were selected based upon proximity to priority projects and Forest needs. Twenty-one transects were surveyed, by protocol, three times between mid-May and late-June, in 2015. Fourteen transects were surveyed three times each in 2016 and twelve 10 pt. transects located in priority areas were surveyed a total of three times in 2017.

From 2015-2017, RMRS conducted additional research and monitoring which included; point count surveys, nest searches, nest monitoring (including genetic sampling) and vegetation sampling. Some juvenile and adult white-headed woodpeckers were also banded and radio-tagged. In 2015, 21 nests were monitored, 6 adults and 8 nestlings were banded, and 28 breeding adults were radio-tagged (2014-2015). In 2016, 16 nests were monitored, vegetation data was collected at all nests and 21 survey points, 4 adults were radio-tagged and 194 radio-telemetry locations were recorded.

IN 2017, 18 nests were monitored, vegetation data was collected at all nests and 28 survey points, 5 adults were radio-tagged and 278 radio-telemetry locations were recorded.

All RMRS Progress Reports (Saab et. al 2013-2017) are available upon request from the Payette SO.

As part of the Weiser – Little Salmon Collaborative Forest Landscape Restoration (CFLR) Proposal the Forest is currently in the process of implementing three large-scale landscape restoration projects, Mill Creek Council Mountain, Middle Fork Weiser River and Lost Creek Boulder Creek. All projects are expected to increase available white-headed woodpecker source habitat in the short-and long-term. Pileated woodpecker source habitat has become more common than was found historically and would be reduced, while white-headed woodpecker source habitat has subsequently declined. Restoration projects improve white-headed woodpecker source habitat while bringing pileated source habitat closer to historical levels.

Population Trend Monitoring for Bull Trout

Population monitoring information for bull trout can be found in the following reports or databases (available upon request):

- *Fish Inventory Database (unpublished 2017)*
- *A Forest-wide Bull Trout habitat Suitability Model (2011)*
- *Management Indicator Species, Fisheries Monitoring Report, West Zone Fisheries (2010)*
- *A Watershed-Scale Monitoring Protocol for Bull Trout (2009)*
- *Fisheries Monitoring Results: 2006-2009*
- *A Summary of Biological Surveys on the West Zone of the Payette National Forest (2009)*

Additional monitoring data is available upon request.

Terms and conditions or reasonable and prudent measures that result from consultation under Section (a) of the Endangered Species Act

This section evaluates compliance of projects with terms and conditions or reasonable and prudent measures that resulted from consultation with the USFWS and NOAA Fisheries as provided in Section 7(a) of the Endangered Species Act.

The Biological Opinion (BO) on the Forest Plan from NOAA dated June 9, 2003, contains a number of terms and conditions. Project implementation needs to be in compliance with those terms and conditions. For project specific discussions of compliance with the BO in 2003 copies of the Biological Evaluations, Assessments, and Opinions are available upon request.

Fisheries Consultation Requirements

In Table 3, the left hand column briefly summarizes the specific term and condition from the BO, and the right-hand column summarizes how the Forest met or made progress toward that term and condition in 2013. These requirements are measures to protect fisheries from some actions that the Forest Plan allows.

Table 2 Compliance with Terms and Conditions for Reasonable and Prudent Measures Required by NOAA Fisheries

Terms and Conditions	Compliance in 2012
# 1 – To implement Reasonable and Prudent Measure #1, clarification of local sideboards. the Forest Service shall:	
A. RCAs – Assess effectiveness of floodprone widths	RCA delineation typically uses the default widths of 300' and 150' or one or two site tree heights rather than delineation as a result of studying the floodprone-width or riparian vegetation, etc. Project development identifies local landslide hazards. In FY2015-2017, RCA delineation was made using either the default widths or one or two site tree heights, not through identification of floodprone width or riparian vegetation.
B. Landslide Prone – Stratify by hazard class	Completed as for RCAs In FY2015-2017, landslide prone areas as delineated in the Forest GIS coverage were verified on-the-ground and project implementation adjusted accordingly.
C. Definitions – Identify change to WCIs and potential effects to WCIs over 3 temporal scales	Changes to WCIs and effects over temporary, short-term, and long-term timescales are evaluated as part of project development. Preliminary development of tentative temperature WCIs for redband trout were proposed in 2007. WCIs were evaluated for all projects occurring in ESA fish species habitat.
D. Fire Management	In FY2015-2017, no variances from guidelines were identified. No consultations occurred in which limitations on the Forest Service authority needed clarification.
# 2 – To Implement Reasonable and Prudent Measure #2, maintain link between LRMP and Broadscale restoration/recovery strategies, the Forest Service shall:	
A. IIT – Provide oversight and accountability body linking to IIT	The Interagency Implementation Team (IIT) is no longer active.
B. In Upper Salmon, SFSR, and Little Salmon - Framework must be in place to implement "likely to adversely affect" actions	When required the Forest has completed documentation that meets the intent of "Framework".
# 3 – To Implement Reasonable and Prudent Measure #3, Upper Salmon and South Fork Salmon direction, the Forest Service shall:	
A. Do not increase ECA above 15% in watersheds with ESA-listed anadromous fishes.	In FY2015-2017, the Forest did not approve any projects which would increase ECA above 15% in watersheds with ESA-listed anadromous fishes.
B. In the South Fork Salmon River (SFSR): *1. Revise the default WCIs to values appropriate for the Subbasin*	Completed in FY 2006. Report available upon request.
2. Continue sampling, analysis, and annual reporting of sediment levels.	Sampling occurred in FY2015-2017. Reports available upon request.

3. Projects must meet criteria if even a negligible likelihood to adversely effect	Projects in the SFSR either maintained or improved conditions in FY2015-2017.

Wildlife Consultation Requirements

For wildlife the components are conservation measures, not terms and conditions, and thus do not have a mandatory reporting requirement.

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