Challis and Salmon National Forest LRMP Monitoring Plan Modification

Introduction

The 2012 planning rule, which is found at 36 Code of Federal Regulations (CFR) 219, guides forest plan monitoring across the Forest Service. The planning rule at 36 CFR 219.12 (c) (1) requires the responsible official to modify the monitoring program to meet the requirements of the 2012 planning rule by May 2016. The Salmon-Challis National Forest conformance strategy focuses on addressing the purpose of the forest plan monitoring program as described in 36 CFR 219.12(a)(1), which includes the need for monitoring information that enables the responsible official to determine if a change in plan components in the plan area may be needed.

In addition, each forest plan monitoring program must contain one or more monitoring questions and associated indicators addressing each of the following eight requirements, which are noted at 36 CFR 219.12(a)(5):

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 at 36 CFR 219.9.
4. The status of a select set of the ecological conditions required under 36 CFR 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)).

The purpose of forest plan monitoring and evaluation is to evaluate, document, and report how well the forest is implementing the forest plan, how well the forest plan is working, and if the forest plan purpose and direction remain appropriate. Monitoring determines actual conditions and circumstances and compares them with assumptions and expected or desired results. Monitoring information should enable the responsible official to determine is a change in plan components or other plan content that guide management of resources on the plan area may be needed.

Types of Monitoring

The monitoring identified in this forest plan is not all of the monitoring conducted on a national forest. Other forms of monitoring, which address other laws, policies, and site-specific decisions are also ongoing. Three categories of monitoring (see Forest Service Manual 1925.21) comprise both forest plan and individual project monitoring:

- Implementation Monitoring – Used to determine if plans, prescriptions, projects, and activities were implemented as designed and in compliance with the forest plan;
- Effectiveness Monitoring – Used to determine if plans, prescriptions, projects, and activities are effective in accomplishing Plan goals, and objectives, and moving toward desired conditions; and

- Validation Monitoring – Used in cases of uncertainty to determine if initial data, assumptions, and coefficients used to predict outcomes in the development of the Plan are correct.

Most monitoring at the national forest level is in the first two categories. Emphasis of the forest plan monitoring program under the 2012 planning rule is the second category.

Forest Plan Monitoring and Evaluation

The proposed monitoring program for the Salmon-Challis National Forest is presented below in a set of tables, each related to one of the eight required items listed above. For clarity, monitoring questions for terrestrial ecosystems and aquatic ecosystems are presented in separate tables. In the tables, each row represents a single monitoring question and associated indicators. Rows begin with selected desired conditions and objectives that lead to the monitoring question. Next, the monitoring question and associated indicators are listed. The desired conditions are generally complex statements that cannot be fully monitored. Therefore, the monitoring questions and indicators focus on some core aspect of the desired condition that we are capable of monitoring and will provide information for the forest supervisor to use to determine if changes to the plan or management actions are needed.

Some monitoring questions and indictors may address more than one of these required topics. Monitoring questions and indicators that address more than one of the eight required items are repeated for each such item. Questions and indicators are based on one or more desired conditions, objectives, or other components in the plan, but not every plan component has a corresponding monitoring question.

The monitoring questions and associated indicators are designed to inform the management of resources on the plan area, including by testing relevant assumptions, tracking relevant changes, and measuring management effectiveness and progress toward achieving or maintaining the plan's desired conditions or objectives, as defined in the 2012 planning rule. Both the questions and indicators use the best available science to provide relevant information regarding the conditions across the national forest and for individual resources. The entire monitoring program must be within the financial and technical capability of the forest, augmented by broader-scale monitoring by the Region, if needed, and other monitoring with partners.

We expect to achieve monitoring and evaluation per the proposed program. We also expect that partnerships can be developed to accomplish more in monitoring and evaluation. Details of the plan monitoring program, including monitoring and analysis protocols, will be part of a separate monitoring guide.

Challis National Forest LRMP Monitoring Plan

Plan Components	Monitoring Question	Monitoring Indicator
Provide developed outdoor recreation opportunities for the general public.	How is the Forest's developed recreation program meeting visitor needs and providing for public health and safety at Forest facilities?	• Level of visitor satisfaction • Recreation facility condition • Recreation use at developed sites • Number of passing and failing tests per water system • Number of public water systems (ex. campground) in use or decommissioned
Emphasize dispersed area recreation over developed site recreation. Provide a broad spectrum of dispersed recreation opportunities.	How is the Forest's dispersed recreation program meeting visitor needs?	• Level of visitor satisfaction • Trail miles maintained/improved to standard • Miles of new trail constructed • Trail miles meeting standard
Identify, protect, interpret and manage the significant cultural resources on Forest lands.	Are heritage resources being protected and are mitigation measures sufficient to prevent damage to heritage resources from federal actions, looting, environmental disturbance, and other actions?	• Number of historic properties recorded and evaluated for the National Register • Number of eligible historic properties being impacted by federal actions, looting, environmental disturbance, and other actions
Preserve and protect Wilderness as an example of natural ecosystems for future generations.	What is the condition of campsites within of designated Wilderness areas? What is the amount, distribution, and potential conflicts among Wilderness visitors?	• Condition of upland and river campsites • Number of motorized and/or mechanized intrusions
Manage special areas consistent with the intent in which they were established.	Do water resource projects meet criteria established in the Wild and Scenic Rivers Act?	• Impacts to Outstandingly Remarkable Wild and Scenic River Values from projects within river corridors

Plan Components	Monitoring Question	Monitoring Indicator
Provide habitat to ensure viability and recovery of Threatened and Endangered and Forest Service Sensitive plants and animals.	How are forest management activities and/or natural events affecting ecological conditions that contribute to the recovery of federally listed threatened and endangered species, conserve proposed and candidate species?	• Quality of aquatic habitat for salmonid presence and/or distribution, spawning, and other cold water aquatic life • Compliance with state water quality sediment, turbidity, and temperature standards and maintenance of beneficial uses • Effects of management activities on maintenance and protection of watershed health (e.g. sediment) • Anadromous and resident salmonid redd count trends • Water temperature • Changes in number of fish barriers • Changes in stream channel morphology • Sage-grouse habitat suitability and condition
Maintain or improve the current productivity level of wildlife and fish habitat.	How are forest management activities and natural events affecting the ecological conditions of terrestrial and aquatic ecosystems?	• Ground and vegetation cover and species composition in non-forested communities • Water temperature • Function and condition of lentic riparian systems • Changes in riparian vegetation composition • Forested ecosystem condition- species composition, disturbance, extent • Aspen stand condition
Maintain a high quality allotment administration program Manage all allotments to maintain suitable range in satisfactory (rangeland which is in an ecological state of fair or better and with and upward or stable trend) condition, and improve suitable range that is in less than satisfactory condition. Riparian areas condition and trend will slowly improve within allotments.	Are current allotment management strategies effective in meeting or moving toward desired conditions?	• Sage-grouse habitat suitability and condition • Ground and vegetation cover and species composition in non-forested communities • Changes in stream channel morphology • Function and condition of lentic riparian systems • Changes in riparian vegetation composition

Plan Components	Monitoring Question	Monitoring Indicator
Maintain noxious weed control program at or above current level.	Are our management actions reducing the occurrence of invasive species?	• Acres of invasive plant infestations • Number of acres treated for invasive plants
Meet needs of local dependent mills and allow for moderate growth in demand. Fuel wood offered will meet local demand throughout the planning period. Maintain or provide for increase in livestock grazing to maintain local ranching economy. Ensure that locatable, common variety, and energy minerals are developed in environmentally acceptable ways and in concert with other resources and in compliance with current laws and regulations.	Are goods and services being provided in accordance with forest plan goals, objectives, and desired conditions?	• Total timber sale program quantity • Number of fuelwood cords sold • Level of authorized livestock grazing • Number of approved Locatable Plans of Operation (POOs) • Quantity of common variety mineral materials sold
Provide soil and water guidance to other resource activities to protect and improve water quality and soil productivity.	What are the effects of forest plan management activities to soil and water resources?	• Quality of aquatic habitat for salmonid spawning and cold water aquatic life • Compliance with state water quality sediment, turbidity, and temperature standards and maintenance of beneficial uses • Effects of management activities on maintenance and protection of watershed health (e.g. sediment) • Changes in stream channel morphology • Function and condition of lentic riparian systems • Changes in riparian vegetation composition • Effectiveness and applicability of current practices to maintain water quality • Soil quality, productivity, and function

Plan Components	Monitoring Question	Monitoring Indicator
Improve watershed condition on the Forest.	Are we effectively protecting and improving watershed conditions through forest plan management activities?	• Quality of aquatic habitat for salmonid spawning and cold water aquatic life • Compliance with state water quality sediment, turbidity, and temperature standards and maintenance of beneficial uses. • Effects of management activities on maintenance and protection of watershed health (e.g. sediment) • Changes in stream channel morphology • Riparian habitat condition • Changes in riparian vegetation composition • Effectiveness and applicability of current practices to maintain water quality • Soil quality, productivity, and function • Water quality chemistry analysis (select locations as needed)
Manage riparian areas according to the Riparian Standards and Guidelines. Protect or improve riparian dependent resources during management activities within or affecting riparian areas.	Are we effectively protecting and improving aquatic ecosystems and riparian conditions through forest plan management activities?	• Quality of aquatic habitat for salmonid spawning and cold water aquatic life • Compliance with state water quality sediment, turbidity, and temperature standards and maintenance of beneficial uses • Effects of management activities on maintenance and protection of watershed health (e.g. sediment) • Changes in stream channel features • Changes in riparian vegetation composition Function and condition of lentic riparian systems • Effectiveness and applicability of current practices to maintain water quality

Plan Components	Monitoring Question	Monitoring Indicator
Meet state air quality standards. Meet federal and state ambient air quality and visibility standards and other applicable air quality direction. (FCRONRW)	To what degree are atmospheric pollutants changing natural ecosystems in the plan area?	• Changes in water chemistry related to air pollution • Compliance with state air quality standards
Develop a well-planned and executed fire protection and fire use program that is cost efficient and response to land and resource management goals and objectives.	Are fires being managed to accomplish resource management and protection objectives?	• Total acres burned (forested and non-forested) • Acres and number by type of fire (I-V) or by size class • Acres identified for resource benefit
Use prescribed fire to accomplish resource management objectives.	Are fuels reduction projects protecting property, human health and safety, and reducing the potential for unwanted fire effects (in the wildland-urban interface (WUI) and non-WUI)?	• Acres of hazardous fuels reduction in WUI and non-WUI

Salmon National Forest LRMP Monitoring Plan

Plan Components	Monitoring Question	Monitoring Indicator
Improve the quality of recreation experience and increase the PAOT (Person At One Time) capacity of developed recreation sites in heavy use areas.	How is the Forest's developed recreation program meeting visitor needs and providing for public health and safety at Forest facilities?	• Level of visitor satisfaction • Recreation facility condition • Recreation use at developed sites • Number of passing and failing tests per water system • Number of public water systems (ex. campground) in use or decommissioned
Increase emphasis on managing dispersed recreation use in areas providing Semi primitive and Roaded Natural recreation opportunities and maintain the generally high quality of these settings. Improve the condition of priority trails in designated wilderness management areas featuring semi-primitive recreation opportunities and nationally designated trails and maintain other high use system trails in a usable condition.	How is the Forest's dispersed recreation program meeting visitor needs?	• Level of visitor satisfaction • Trail miles maintained/improved to standard • Miles of new trail constructed • Trail miles meeting standard

Plan Components	Monitoring Question	Monitoring Indicator
Locate, determine the significance of, and where appropriate, preserve, protect, and interpret historical and archeological sites.	Are heritage resources being protected and are mitigation measures sufficient to prevent damage to heritage resources from federal actions, looting, environmental disturbance, and other actions?	• Number of historic properties recorded and evaluated for the National Register. Number of eligible historic properties being impacted by federal actions, looting, environmental disturbance, and other actions.
Provide for a quality wilderness experience in the Salmon National Forest portion of the Frank Church--River of No Return Wilderness consistent with Frank Church--River of No Return Wilderness Management Plan objectives.	What is the condition of campsites within designated Wilderness areas? What is the amount, distribution, and potential conflicts among Wilderness visitors?	• Condition of upland and river campsites • Number of motorized/mechanized intrusions
In accordance with guidelines in the approved Frank Church-River of No Return Wilderness Management Plan and the approved Management Plan for the Salmon Wild and Scenic River, the Forest will encourage the County to develop and implement zoning of private riverside lands that is compatible with the Forest Management Guidelines. Where the County does not implement compatible zoning requirements, the Forest will schedule and acquire scenic easements to meet the objectives of the Plan.	Do water resource projects meet criteria established in the Wild and Scenic Rivers Act?	• Impacts to Outstandingly Remarkable Wild and Scenic River Values from projects within river corridors

Plan Components	Monitoring Question	Monitoring Indicator
Provide National Forest portion of the habitat needed to meet Regional Wildlife and Fish Management objectives. o Habitat for each vertebrate wildlife species on the Forest will be managed to insure viable or target populations. o Place emphasis on improving key ecosystems including but not limited to: riparian, aspen, aquatic, snag, and old growth. o Manage and provide habitat for recovery of endangered and threatened species as specified in the Species Management Plan for the Salmon National Forest.	How are forest management activities and/or natural events affecting ecological conditions that 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 concern?	• Quality of aquatic habitat for salmonid distribution, spawning, and other cold water aquatic life • Compliance with state water quality sediment, turbidity, and temperature standards and maintenance of beneficial uses • Effects of management activities on maintenance and protection of watershed health (e.g. sediment) • Anadromous and resident salmonid redd count trends • Water temperature • Changes in number of fish barriers • Changes in stream channel morphology • Sage-grouse habitat suitability and condition
Maintain adequate structural diversity of vegetation on Forest lands to ensure habitat for minimum viable or target populations of all wildlife species and to provide representations of the various ecological stages of endemic plant communities. • Provide habitat diversity through vegetation treatments in conjunction with other resource activities designed to maintain or improve wildlife or fisheries habitat. • Provide habitat for populations of all native vertebrate species of fish and wildlife.	How are forest management activities and natural events affecting the ecological conditions of terrestrial and aquatic ecosystems?	• Ground and vegetation cover and species composition in non-forested communities • Water temperature • Function and condition of lentic riparian systems • Changes in riparian vegetation composition • Forested ecosystem condition- species composition, disturbance, extent • Aspen stand condition

Plan Components	Monitoring Question	Monitoring Indicator
Manage all allotments to maintain suitable rangelands that are presently in satisfactory condition and improve suitable rangelands that are in poor or fair condition. • Improve and maintain environmental quality of NFS ranges by managing the grazing in harmony with the needs of other resources and their uses. • Search out and apply techniques to resolve livestock grazing problems or conflicts with other resource uses within riparian areas. • Coordinate range improvement and management activities with wildlife habitat needs, especially on key habitat areas such as winter ranges, calving areas, riparian areas, and sage-grouse leks. • Maintain proper stocking and livestock distribution to protect riparian ecosystems.	Are current allotment management strategies effective in meeting or moving toward desired conditions?	• Sage-grouse habitat suitability and condition • Ground and vegetation cover and species composition in non-forested communities • Changes in stream channel morphology • Function and condition of lentic riparian systems • Changes in riparian vegetation composition
Control noxious weeds as needed to protect the value of other resources and comply with State law.	What management actions are being taken to address invasive species?	• Acres of invasive plant infestations • Number of acres treated for invasive plants
Provide a continuous flow of raw material available to dependent manufacturing communities. Provide a personal use and commercial firewood program to meet the demands of local Forest communities. Contribute to the maintenance of viable rural economics by promoting stability of family ranches and farms. Encourage the legitimate exploration and extraction of leasable and locatable minerals from National Forest lands while maintaining or improving other resource values.	Are goods and services being provided in accordance with forest plan goals, objectives, and desired conditions?	• Total timber sale program quantity • Number of fuelwood cords sold • Level of permitted livestock grazing • Number of approved Locatable Plans of Operation (POOs) • Quantity of common variety mineral materials sold

Plan Components	Monitoring Question	Monitoring Indicator
Maintain watershed conditions and water quality such that downstream beneficial uses are protected and compliance with State standards is achieved. • Maintain soil productivity, minimize man-caused soil erosion, and maintain the integrity of associated ecosystems.	What are the effects of forest plan management activities to the productivity of the land?	• Effectiveness and applicability of current practices to maintain water quality • Soil quality, productivity, and function
Maintain watershed conditions and water quality such that downstream beneficial uses are protected and compliance with State standards is achieved. • Conduct management and resource development within riparian zones in a manner compatible with protection of water quality and fish habitat. • Prevent stream channel instability, loss of channel cross-sectional areas, and loss of water quality resulting from activities that alter vegetative cover. • Riparian zones will be managed in a manner compatible with protection of water quality and fish habitat. • Search out and apply techniques to resolve livestock grazing problems or conflicts with other resource uses within riparian areas. • Manage forest cover types in riparian areas to perpetuate tree cover and provide healthy stands, high water quality and wildlife and fish habitats.	Are we effectively protecting and improving aquatic ecosystems and riparian conditions through forest plan management activities?	• Quality of aquatic habitat for salmonid spawning and cold water aquatic life. • Compliance with state water quality sediment, turbidity, and temperature standards and maintenance of beneficial uses • Effects of management activities on maintenance and protection of watershed health (e.g. sediment) • Changes in stream channel morphology • Function and condition of lentic riparian systems • Changes in riparian vegetation composition • Effectiveness and applicability of current practices to maintain water quality. • Soil quality, productivity, and function
Meet state air quality standards.	What are the effects of atmospheric pollutants to natural ecosystems?	• Changes in water chemistry related to air pollution. • Compliance with state air quality standards.

Plan Components	Monitoring Question	Monitoring Indicator
Provide a cost effective level of fire protection to minimize the combined costs of protection and damages, and prevent loss of human life.	Are fires being managed to accomplish resource management and protection objectives?	• Total acres burned (forested and non-forested) • Acres and number by type of fire (I-V) or by size class • Acres identified for resource benefit
Use prescribed fire to treat hazardous fuel conditions, accomplish range improvement, wildlife habitat improvement, and to create a diversified Forest condition when it is cost efficient.	Are fuels reduction projects protecting property, human health and safety, and reducing the potential for unwanted fire effects (in the wildland-urban interface (WUI) and non-WUI)?	• Acres of hazardous fuels reduction in WUI and non-WUI