

FOREST PLAN MONITORING AND EVALUATION REPORT

SALMON - CHALLIS NATIONAL FOREST

Salmon and Challis Forest Plans

FY 11

INTRODUCTION

The FY 11 Forest Plan Monitoring Report is a summary of FY 11. It provides background information, interpretation, and analysis for the many monitoring items described in the Challis National Forest Land and Resource Management Plan, the Salmon National Forest Land and Resource Management Plan, and the Frank Church River of No Return Management Plan. Many monitoring items do not have additional information to report because the forest service either has moved to a different monitoring process or the monitoring item is not applicable any more. Monitoring data was collected for several monitoring items in past years that was not required and has been discontinued.

BACKGROUND

Forest Land and Resource Management Plans (Forest Plans) are part of the long-range direction process established by the National Forest Management Act of 1976 (NFMA). Forest Plans provide guidance for balancing the physical, biological, social, political and organizational components of Forest management in the form of goals, objectives, standards and guidelines.

Monitoring provides the decision-maker, Forest Service employees, local customers, the Regional and Washington Offices of the Forest Service, and Congress, with information on our progress in implementing the Forest Plans and assessing whether they work as intended.

The Challis National Forest Plan was approved in 1987. The Salmon Plan followed in 1988. In 1995, the Salmon and Challis Forests were combined and administered as one unit. In 2000, the two Forests were formally integrated into the Salmon-Challis National Forest, however until the Forest Plans are revised, the forests must follow the guidance provided in their respective plans.

There have been several monitoring reports since the two Forest Plans were approved. The first report in 1995 was comprehensive in scope covering each resource area described in the two plans. Activities for the individual monitoring items were shown for each year and evaluated in narrative form. Any monitoring items recommended to be discontinued were dropped from further reporting. The second report followed in 1996 following the same format incorporating the 1996 information, only with much fewer monitoring items to report. The 1997 report was in a pamphlet format that described Forest accomplishments and news items organized by Ranger District. The years 1998 and 1999 were combined in the next report with a different approach by focusing on six primary issues. This report made recommendations on how the two Forest Plans were rapidly becoming outdated and needing revision to capture new issues, new directions, and new public demands. The 2000/2001 report primarily focused on the fires of 2000 and the Forest's accomplishments in many rehabilitation efforts and the new National Fire Plan direction.

This report provides an account of the management activities specifically for Fiscal Year 2011. Each monitoring item for resource areas is described as stated in the Forest Plans, Wilderness Plan and Middle Fork and Salmon Wild and Scenic River Plan.

TYPES OF FOREST PLAN MONITORING

Forest Plan monitoring involves gathering information and observing management activities to document actions and effects on the Forest. The three primary reasons for monitoring Forest Plans are implementation, effectiveness and validation. A brief description of each follows:

Implementation Monitoring – “Did we do what we said we were going to do?”

Within the framework of Forest planning, implementation monitoring can determine whether plans, prescriptions, projects, or activities were conducted as specified, and whether those actions were in compliance with Forest Plan or project plan direction, objectives, standards and guidelines.

In the absence of formal administrative review, implementation monitoring on the Salmon-Challis National Forest is most commonly conducted by designated specific project administrators such as a range conservationist or minerals specialist, who verify compliance with specified Best Management Practices and site-specific mitigation criteria through regular onsite project inspections. Additionally, a number of selected projects are scheduled for interdisciplinary team review every year, usually on major Forest activities such as timber sales, range allotments and mining.

Effectiveness Monitoring – “Did the management practice do what we wanted it to do?”

Effectiveness monitoring determines whether or not management practices, as designed and executed, are effective in meeting Forest Plan standards, goals and objectives. Examples of effectiveness monitoring operations conducted on the Salmon-Challis National Forest includes both short and long-term water quality sampling and analysis; long-term streambank stability; soil compaction and riparian vegetation monitoring.

Validation Monitoring – “Are the goals and objectives set by the Forest Plan valid?”

Validation monitoring determines whether the data and assumptions used in the development of the Forest Plan are correct.

HOW TO READ THIS REPORT

We have labeled our monitoring results for this report into three categories. Each monitoring item has a number and a prefix which indicates in which category it belongs.

The categories are:

Forest Plan requirement items are prefixed with “FP”;

Baseline items are prefixed with “BL”; and

Additional items which we feel are worthy of tracking are prefixed with “TR”.

All monitoring items follow the same report format. Below is a sample of the general format, explaining the information provided for each item.

Format and Instructions for Displaying Monitoring Information

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
Item #	Specific activity that was measured	How often monitoring is done	When adjustments should be proposed

Monitoring Types:

Implementation – “Did we do what we said we were going to do?”

Effectiveness – “Did the management practice do what we wanted it to do?”

Validation – “Are the goals and objectives set by the Forest Plan valid?”

Baseline – “What is the basis for future comparisons?”

Tracking – “What additional activities are we performing?”

Data Source: List specific report or method of data compilation.

Unit of Measure: (e.g., MMBF, acres, parts per million, etc.)

Findings: Data includes narrative, table and/or graphs.

Variability: Compare predicted performance with actual performance. Were limits exceeded? Where? How far? State reasons for variability, if known.

Evaluation: Evaluation of the data. Explain how new information and changes in conditions could be incorporated into planning. Discuss direction and trends if a five-year report is presented. Note corrections to existing Plan. Identify the need to change management practices, implementation strategies, goals, standards and guidelines.

Appropriateness: Express the need to continue monitoring this item and determine the level of need (mandatory, high, medium, low or discontinue monitoring). If any errors or misinterpretations were discovered during the review process corrections were made where appropriate and an explanation is provided. Most commonly this situation occurred in describing the Units of Measure or Data Source.

MONITORING AND EVALUATION REPORT INTERDISCIPLINARY TEAM

Resource	Responsible Individual
Air Quality	Fritz Cluff
Budget	Shirley Kelley
Facilities	Jennifer Brady
Fire	Fritz Cluff
Fisheries	Bruce Smith
FOIA	Mardi Rhodes
Heritage	Tim Canaday
Insect and Disease	Lynn Bennett
Lands	Trish Callaghan
Minerals	Russ Bjorkland
Range	Faith Ryan
Recreation/Wilderness	Trish Callaghan
Research/Natural Areas	Trish Callaghan
Soils	Dave Deschaine
Timber	Lynn Bennett
Visual Resource	Trish Callaghan
Water	Dave Deschaine
Wildlife/MIS	Jennifer Purvine

Monitoring Report Project Coordinator – Ken Rodgers, NEPA Team Leader

AIR QUALITY: Standards and Guidelines

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-1	Comply with State, Federal Air Quality Standard, Clean Air Act	Each burn	Any adverse public reaction; smoke in inhabited area or exceeds Federal Standards of inhalable particulate matter (PM-10) no greater than 150 µg/m ³

Monitoring Requirement: Salmon and Challis Forest Plans

Monitoring Type: Implementation

Data Source: Prescribed Burn Plans, Fire Dispatch

Unit of Measure: Acres burned

Findings:

Prescribed burns: 2011 - 8,720 acres

Variability: The Forest consults with the Montana/Idaho State Airshed Group on prescribed burns. Idaho DEQ is a member of this airshed group. Prior to initiating each days prescribed burn, permission is requested by the Forest to the Airshed Group and they advise us on whether we can burn or not, depending on current airshed conditions.

Evaluation: Compliance is based on feedback from the surrounding communities, as well as the Airshed Group. We have been in compliance and have received no complaints from localities in and around Salmon in five years. Smoke direction and dispersal is monitored by someone on site at each prescribed burn to ensure smoke dispersal is staying within prescription of mixing height and wind direction anticipated. Idaho DEQ does have an air quality monitor near the city of Salmon; the monitor has not exceeded DEQ standards due to prescribed fire in FY 11.

Appropriateness: Continue at current level to meet the legal requirements and continue to rely on Montana/Idaho Airshed Group and local monitoring.

Aviation: Frank Church – River of No Return Wilderness Management Plan

Monitoring Item	Activity to be Measured	Monitoring Frequency	Monitoring Objective
FC-RONRW-Aviation	1. Airstrip use and trend: Number of aircraft landing Type of aircraft landing (commercial and private) Number of people per party Types of use supported by aircraft 2. Landing strip Safety Inspection report ratings	Annually	Forest Service airstrips provide public and commercial use within acceptable limits

Monitoring Requirement: Frank Church – River of No Return Wilderness Management Plan

Monitoring Type: Implementation/Evaluation

Data Source: Voluntary registration and inspections

Unit of Measure: Qualitative and quantitative evaluation and interpretation

Findings:

Year	# Entries	Type of Flight			Twin Engine	Purpose of Flight						
		Prvt	Com	Adm		Boat	Fish	Hunt	Oth. Rec	T&G	Adm	Other
2011	-	-	-	-	-	-	-	-	-	-	-	-

Variability: Not applicable

Evaluation: Not applicable

Appropriateness: Continue as a Forest Plan monitoring requirement.

BUDGET: Receipt Shares to Counties

Monitoring Item	Activity to Be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-1	Receipt Shares to Counties	Annually	Not Applicable

Monitoring Requirement: Salmon Forest Plan

Monitoring Type: Validation

Data Source: Reports from Regional Office, National Forest Receipts, and Idaho Public Lands Report.

FY 2011 information came from report ASR 10-02 requested from Budget and Finance Albuquerque Service Center.

Unit of Measure: Dollars

Findings:

**Salmon and Challis National Forests
COMBINED RECEIPT SHARES TO COUNTIES (Dollars)**

Year	Idaho	Blaine	Butte	Clark	Custer	Lemhi	Valley	Total
2011	114,708	640	163,533	1,705	1,470,265	2,030,154	67,924	3,848,929

In 2001 the Forest Service changed the way it handled payments to States for both the twenty-five percent fund and the PILT funds. These figures are no longer available to the Salmon-Challis National Forest.

The Salmon and Challis National Forests are located primarily in Custer and Lemhi Counties, Idaho. The percent of Federal ownership in these counties is 93 percent and 90 percent, respectively. County governments receive Federal payments to compensate for lost property tax revenue from two major sources:

1. Twenty-five Percent Fund – The Act of May 23, 1908, authorizes 25 percent of all payments received by the Forest Service during any fiscal year to be paid to the states. These payments are distributed to the counties in which they were earned. In 2000 the **“Secure Rural Schools and Community Self-Determination Act of 2000”** was passed by Congress to restore stability and predictability to the annual payments made to States and counties containing national Forest System lands and public domain lands managed by the BLM for use by the counties for the benefit of public schools, roads and other purposes. Through this act Counties may receive amounts described in the Act under Title 1, Title 11 and Title 111 (All Service Receipts) in place of 25 % payment for FY 2001 through FY 2007.

FLREA -- The Federal Land Recreation Enhancement Act (FLREA) was passed in the 2005 Consolidated Appropriations Act (PL 108-447) signed into law by President Bush on December 8, 2004. The 10-year Act authorizes the Secretaries of the Interior and Agriculture to establish, modify, charge and collect recreation fees at Federal recreation lands and waters as provided for in the Act. FLREA changed how the fees are collected

and how they can be used. The majority of revenue is returned to the site of collection in a specific collection account and not to the 25% fund therefore it will no longer be reported in this section. Collections and expenditures are reported in a separate mandatory annual report to Congress.

2. Payment in Lieu of Taxes (PILT) – Public Law 97-258 authorizes payment to counties containing Federal lands (Forest Service and BLM). PILT amounts depend on several variables. In Lemhi County, payments result from a \$0.10 per acre limit. In Custer County, payments are governed by a population factor.

Variability: PILT payments have been very constant from year to year, while the 25 percent fund receipts have not.

Evaluation: In order to understand the variability of 25 percent fund receipts, it must be divided into its individual resource components. The tables below identify how timber, grazing, recreation, special uses, and other resource areas contributed to the total funding in 2011 for the Salmon and Challis National Forests.

**Salmon-Challis National Forest (Salmon Area)
Source of 25 percent Fund Receipts in Dollars**

Year	Forest Plan	*Timber	Lands	Rec-Land	Power	Minerals	Rec User	Range	Total
2011		71,639	13,764	3,279	5,221	7,736	See FLREA	28,756	127,450

**Salmon-Challis National Forest (Challis Area)
Source of 25 percent Fund Receipts in Dollars**

Year	Forest Plan	*Timber	Lands	Rec-Land	Power	Minerals	Rec User	Range	Total
2011		69,587	21,797	5,927	0	0	See FLREA	73,375	170,686

*Figures for timber include dollars from the National Forest Fund, salvage sale, Knutson-Vandenberg (KV) fund, and purchaser road credits. 2011 data from B&F ASC request for report 13-1.

The twenty-five percent fund receipts have been relatively constant for many resource areas. Recreation use has shown consistent increases while timber has shown a continuing decline.

PILT payments have also undergone a modification in payment method. Some counties have elected to change from an annual variable rate to a fixed average rate as a means of maintaining consistency.

Appropriateness: Continue as a Forest Plan monitoring requirement. The actual receipts to Counties is no longer available to the Forest, however, the data is available through State sources

BUDGET: Capital Investments

Monitoring Item	Activity to Be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-3	Capital Investments	Annually	Meet Forest Plan Objectives and Targets

Monitoring Requirement: Salmon Forest Plan

Monitoring Type: Implementation

Data Source: INFRA was used as the resource specialist input from FY 2006 on.

Unit of Measure: Structures and miles

**Salmon and Challis National Forests
CAPITAL INVESTMENTS - CONSTRUCTION**

Year	Miles Trails	Miles Trail/Wldns	Structure Fish*	Structure T&E*	Structure Wildlife*	Structure Range	Miles Roads
2011	0	0	0	0	0	0	0

*Fish, T&E or Wildlife Structures are no longer reported/tracked through a Management Attainment Reporting System. Our Fish/T&E/Wildlife target definitions have changed to acres and miles of habitat improved. Only Fish/T&E/Wildlife structures over \$5000 are reported and tracked in INFRA.

Variability: The outputs were highly variable, mostly because they are dependent on the budget, which is influenced by social and biological factors.

Evaluation: Forest Plans predictions for outputs were based on knowledge of social and biological factors available in the late 1980's. We are unable to correctly predict what the budget would be over the next 25 + years.

Appropriateness: Continue to report as this is useful information for employees and the public as a means of showing trends in implementing Forest Plan direction and therefore should be part of the Forest Plan monitoring requirement.

BUDGET: Returns to U.S. Treasury

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-4	Returns to Treasury	Annually	Not Applicable

Monitoring Requirement: Salmon Forest Plan

Monitoring Type: Validation

Data Source: This information is no longer available after FY03.

Unit of Measure: Dollars **Variability:** N/A **Evaluation:** N/A

Appropriateness: The data for this monitoring item is no longer available so it is inappropriate to continue to monitor.

Cultural Resources: Frank Church – River of No Return Wilderness Management Plan

Monitoring Item	Activity to be Measured	Monitoring Frequency	Monitoring Objective
FC-RONRW-Cultural Resources	The percent of previously recorded cultural resource sites receiving annual site inventory and evaluation - implementation follows the programmatic agreement with SHPO.	Every 2 years	Heritage resources are protected and managed

Monitoring Requirement: Frank Church – River of No Return Wilderness Management Plan

Monitoring Type: Implementation/Evaluation

Data Source: SHPO programmatic agreement

Unit of Measure: Compliance with SHPO programmatic agreement

Findings: Included in the Heritage Resources section of this document.

Variability: Not applicable

Evaluation: Not applicable

Appropriateness: Continue as a Forest Plan monitoring requirement.

FACILITIES: Road Construction

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-1	Road Construction	Annually	Only when mileage constructed exceeds planned mileage by 10 percent (Salmon); deviated by more than 10% (Challis).

Monitoring Requirement: Salmon and Challis Forest Plans

Monitoring Type: Implementation

Data Source: Annual Road Accomplishment Report

Unit of Measure: Miles

Findings:

**Salmon and Challis National Forests
ROAD CONSTRUCTION**

Year	FY11
Salmon	0.0
Challis	0.0

Variability: Salmon predicted 27 miles/year of road construction (pg. IV-85) for this decade; Challis predicted 2.6 miles/year (pg. V-2). Both Forests are below their predicted mileage due to a shift in forest management priorities from timber harvest to fuels reduction in recent years. The Roadless Rule of 2001 restricted road construction within forest plan identified roadless areas has also impacted timber harvest and associated road construction activities.

Roads support resource activities and, generally, are not a stand-alone target, except for the arterial/collector road system.

Evaluation: Road construction supports other resource activities. As resource activities changed over the planning period so did the need for road construction.

Appropriateness: Discontinue monitoring because it is not reflective of and is not a resource output; road construction supports resource activities to the extent necessary. Also, road construction is tracked annually in the Road Accomplishment Report and entered into INFRA corporate database.

FACILITIES: Road Reconstruction

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-2	Road Reconstruction	Annually	Only when mileage constructed exceeds planned mileage by 10 percent (Salmon); deviates by more than 10% (Challis).

Monitoring Requirement: Salmon and Challis Forest Plans

Monitoring Type: Implementation

Data Source: Annual Road Accomplishment Report

Unit of Measure: Miles

Findings:

**Salmon and Challis National Forests
ROAD RECONSTRUCTION**

Year	FY11
Salmon	0
Challis	0

Variability: Salmon predicted 17 miles/year of road reconstruction (pg. IV-85) for this decade; Challis predicted 11.4 miles/year (pg. V-2).

Evaluation: Due to emphasis on fish habitat, existing roads may eventually be reconstructed to reduce sedimentation and for fish passage. Reconstruction supports other resource activities. As resource activities changed over the planning period so did the need for road reconstruction.

Appropriateness: Discontinue monitoring. Not a resource output; supports resource activities to the extent necessary. Also, tracked annually in Road Accomplishment Report and entered into INFRA corporate database.

FACILITIES: Road Closures

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-3	Road Closures	Annually	If 15% of the newly constructed roads are open without meeting the stated criteria; or if 15% of the existing roads are closed without meeting the stated criteria.

Monitoring Requirement: Salmon Forest Plan

Monitoring Type: Implementation

Data Source: Forest Travel Plan.

Unit of Measure: Number of roads

Findings: This information has not been tracked through the life of the Plan and is not available at this time. Miles of road decommissioning has been tracked, and doesn't relate to new or existing roads being closed (not decommissioned) for this monitoring item.

No comprehensive method exists to monitor this activity.

Variability: Not assessable

Evaluation: Unknown if meeting evaluation conditions or not. Any proposed action affecting roads or access is highly scrutinized by the local publics. The Forest utilizes the 1999 Roads Analysis process when access management is being addressed in a proposed project.

Appropriateness: Discontinue monitoring because road closures have not been tracked during through the life of the Plan. Resource issues/benefits drive road closures, and public access needs (both perceived and real) drive keeping roads open.

The Forest has recently completed a Forest-wide Travel Planning analysis. The product from this analysis is an updated travel plan map for the Salmon-Challis National Forest. The decision on the Travel plan opened 53 miles of road.

FACILITIES: Road Maintenance

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-4	Road Maintenance	Annually	A 20% deviation from expected miles/year or a road condition not meeting objectives of management.

Monitoring Requirement: Challis Forest Plan

Monitoring Type: Implementation

Data Source: Road logs and condition surveys, C&M Supervisor's maintenance logs.

Unit of Measure: Miles

Findings:

South Zone (former Challis National Forest)

Year	FY11
Challis	110

Variability: The average annual mileage bladed over the last twelve years is 313 miles; the forest plan projected 560 miles/year. The forest has a more than 44% deviation from the projected. Condition surveys are performed for deferred maintenance reporting requirements but don't track annual road maintenance accomplishments. Condition surveys are performed on a four-year rotation for ML 3-5 roads and only random samples (average 2%) for ML 1 and 2 roads annually.

Evaluation: N/A

Appropriateness: Discontinue monitoring, reported annually in Road Accomplishment Report and condition is tracked in INFRA database. Road maintenance is a function of available funding. Maintenance is performed in support of resource activities and public access needs.

FACILITIES: Bridge Construction and Reconstruction

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-5	Bridge Construction and Reconstruction	Annually	A 10% deviation from projected quantities.

Monitoring Requirement: Challis Forest Plan

Monitoring Type: Implementation

Data Source: Annual Accomplishment Reports

Unit of Measure: Each

Findings:

Year	FY11
Challis	0

Variability: No specific target/goal for bridge construction/reconstruction.

Evaluation: No target exists for bridge replacement or repair in the Forest Plan.

Appropriateness: Discontinue monitoring; bridge inspections/condition/repairs are tracked in the INFRA database. This item is not a resource output; it supports resource/access activities.

FACILITIES: Buildings

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-6	Buildings	Annually	Identified deficiencies are not corrected.

Monitoring Requirement: Challis Forest Plan

Monitoring Type: Implementation

Data Source: Inspection Reports (replaced by INFRA database)

Unit of Measure: Each

Findings: Safety Inspections were completed for all occupied facilities in 2008 and 2009. Corrective actions continue to be completed.

Variability: N/A

Evaluation: Deferred building maintenance will be tracked in INFRA in the future and projects will be prioritized from these reports.

Appropriateness: Discontinue monitoring, tracked in INFRA database and not a resource output.

Facilities: Dam Administration

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-7	Dam Administration	Annually	Identified deficiencies are not corrected.

Monitoring Requirement: Challis Forest Plan

Monitoring Type: Implementation

Data Source: Inspection Reports

Unit of Measure: Each

Findings: No information collected for FY 11

Variability: Unknown

Evaluation: Monitored through special use permits.

Appropriateness: Continue as a monitoring requirement.

FIRE: Adequacy of Fire Prevention Programs

Monitoring Item	Activity to be measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-1	Person-caused fires	Annually	Major increase in person-caused fires

Monitoring Requirements: Salmon and Challis Forest Plans

Monitoring Type: Effectiveness

Data Source: Annual Fire Report

Units of Measure: Number of person-caused fires and acreage

Findings:

**Salmon-Challis National Forest
Number of person-caused fires and Acreage**

Year	# of Person- caused Fires	Acreage
2011	4	3

Variability: As the use of ATVs and other outdoor recreation uses increases, we expect to see an increase in person-caused fires. If drought conditions exist, we would also expect to see an increase in the number of acres burned as a result of these fires.

Evaluation: The existing prevention program remains effective at leveling off the number of person-caused fires. Initial attack resources are effective in keeping human caused acres burned to a minimum.

Appropriateness: Continue as a Forest Plan monitoring report requirement.

FIRE: Wildfire and Acres Burned

Monitoring Item	Activity to be measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-2	Frequency of wild fire occurrence by size, distribution, intensity, and acres burned.	Annually	20% increase (Salmon) in cumulative 5 year average; 30% increase (Challis)

Monitoring Requirements: Salmon and Challis Forest Plans

Monitoring Type: Validation

Data Source: Annual Fire Report

Units of Measure: Number of wildfires and total acres

Findings:

Number of wildfires and Acreage

Year	# of wildfires	Acreage
2011	65	51,132

Variability: The trend for number of fires and area burned tracks with the drought trend, fire weather, and available fire suppression resources at the time of fires. Area burned trends likely could continue to increase due to the un-natural fuel accumulations outside the Frank Church Wilderness caused by fire exclusion. 2011 shows an increase in number of fires and total acres burned. The number of fires is likely due to a spring that had below average precipitation even though the annual snow pack was near 100%. The increase in acreage burned was primarily due to 4 large fires which burned 45,286 acres.

Evaluation: The trends of increasing area burned have been recognized as a national issue across the western United States and congress and agencies are addressing the problem in multiple ways, including the National Fire Plan, Healthy Forest Initiative, and the Healthy Forest Restoration Act. Due to increased risks to firefighters (landscape level bug infestations, increased extreme fire behavior due to dying vegetation, and increased fuel loading) associated with Fire Suppression activities we may continue to see an increase in acres burned until current conditions subside.

Appropriateness: Continue as a Forest Plan requirement and expand the report by analyzing and displaying the post fire severity of the area burned by Fire Regime Group (per Fire Regime Condition Class methodology). Continue to evaluate new fires by looking at opportunities for managing for multiple objectives.

FIRE: Reduction in Fuel Loading from Forest Activities

Monitoring Item	Activity to be measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-3	Field measurements after activity or fuel treatment	Sample 30% of Projects	Exceeding fuel level guidelines by 10% (Salmon); + or – 20% of Regional standards (Challis)

Monitoring Requirements: Salmon and Challis Forest Plans

Monitoring Type: Validation

Data Source: FACTS

Units of Measure: Number of acres treated

Findings:

Salmon-Challis National Forest Fuel Reduction Acres Treated (including fire-use fires)	
Year	Number of Acres Treated
2011	57,462

Variability: Field observations of projects indicated standards were met. Fuels treatment by mechanical methods and planned ignition will continue to increase. Area treated by fire-use (un-planned natural ignitions) will vary depending on the factors related to expected fire behavior (fire effects/benefits) and potential risks. 2011 acreage shows a significant increase due to late season fire activity forest wide.

Evaluation: The National Fire Plan, Healthy Forest Initiative, and the Healthy Forest Restoration Act provide direction to increase the number of fuels treatment acres as

related to wildland urban interface, fire regime condition class, and other important resource and social concerns.

Appropriateness: Continue as a Forest Plan monitoring report requirement and, for fire-use fires, expand by analyzing and displaying the post fire severity of the area burned by Fire Regime Group (per Fire Regime Condition Class methodology).

FIRE: Fire Management Effectiveness Index

Monitoring Item	Activity to be measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-4	Fire Management Effectiveness	Annually	20% increase in FMEI

Monitoring Requirements: Salmon National Forest Plan

Monitoring Type: Effectiveness

Data Source: NFMAS Planning

Units of Measure: Fire Management Effectiveness Index (FMEI) (See FP page V-13)

Findings: There is no additional information to report. Values used to calculate the FMEI are no longer used in NFMAS. The FMEI can no longer be calculated per Forest Plan direction. NFMAS is no longer being used as planning tool as the federal agencies have been directed to use Fire Program Analysis (FPA) which does not include a measurable FMEI.

Variability: Not applicable.

Evaluation: Not applicable.

Appropriateness: Discontinue as a Forest Plan monitoring report requirement. FMEI is no longer a valid or functioning index in fire management.

Fire: Frank Church – River of No Return Wilderness Management Plan

Monitoring Item	Activity to be Measured	Monitoring Frequency	Monitoring Objective
FC-RONRW-Fire	1. Amount and type of motorized use authorizations for each fire 2. Number and percent of acres of Wildland Fire Use 3. Number and percent of acres of wildfire 4. Number and percent of acres of prescribed fire	Annually	Fire is allowed to serve as a natural ecological process

Monitoring Requirement: Frank Church – River of No Return Wilderness Management Plan

Monitoring Type: Implementation/Evaluation

Data Source: Documentation of reasons for wildfire declaration and number and percent of acres of wildland fire use, wildfire and prescribed fire.

Unit of Measure: Motorized authorizations and acres

Findings:

Year	2011
No. of fires	14
Acres	14,500

Tracking of motorized use on fires has been accomplished but reporting has been highly variable.

Variability: The trend for number of fires and area burned tracks with the drought trend and fire weather. However, 2008 through 2010 show low number of fires and acres burned. This was due to above normal precipitation in May and June

Evaluation: The trends of increasing area burned have been recognized as a national issue across the western United States and congress and agencies are addressing the problem in multiple ways, including the National Fire Plan, Healthy Forest Initiative, and the Healthy Forest Restoration Act. Due to large acres burned in the last 15 years we may be seeing an actual decrease in acreage burned in the Frank Church Wilderness which constitutes a large portion of the Forest.

Appropriateness: Continue as a Forest Plan monitoring requirement.

FISHERIES: Anadromous and Resident Habitat Monitoring

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-1	R1/R4 Basin Surveys of Fish Habitat	To be determined post-baseline	Future monitoring frequency should be based on the level of management activity occurring in a watershed and changes to baseline conditions from natural disturbances such as fire.

Monitoring Requirements: Salmon and Challis Forest Plans

Monitoring Type: Baseline and Trend

Data Source: North and South Zone Fisheries files and data-base programs

Unit of Measure: Number of streams and miles of inventory

Findings:**North Zone (former Salmon National Forest)**

Year	Number of Streams Inventoried		Miles of Stream Inventoried	
	(Anadromous)	(Resident)	(Anadromous)	(Resident)
2011	0	0	0	0

South Zone (former Challis National Forest)

Year	Number of Streams Inventoried		Miles of Stream Inventoried	
	(Anadromous)	(Resident)	(Anadromous)	(Resident)
2011	0	0	0	0

Variability: Stream surveys were performed on the Salmon-Challis National Forest in the mid-to late 1990's in order to determine baseline habitat conditions for streams throughout the forest. These surveys quantified habitat features including pool-riffle ratios, large woody debris structures, the number, size and depth of pools, average channel widths and depths, etc. By necessity, most stream surveys are performed following spring run-off, especially for measurement of in-stream habitat elements like flow, depths, base level pool quality, cover and sediment accumulation.

Evaluation: From 1994 through 2000, 1,000 miles of R1/R4 basin-wide surveys were performed on streams within the Salmon-Challis National Forests in order to create baseline reference conditions for meeting Forest Plan objectives. Long-term goals include the performance of project related stream surveys in order to monitor project implementation and effectiveness.

The Water Monitoring section of this report also contains monitoring results for sediment, stream-bank stability, in-stream flows and temperatures. In addition, the Range section contains results of riparian vegetation (Management Indicator) monitoring.

Appropriateness: The Forest continues to need stream habitat monitoring in support of various actions by other resource programs, as required by Environmental Analyses,

criteria within Biological Assessments and Opinions, plus ongoing inventory for population trends of Sensitive species like Bull trout.

A National Resource Inventory System (NRIS) data-base system has been developed for storage of species and habitat inventory data. Project inventories and implementation/effectiveness monitoring now provide the primary source of new stream habitat information for documenting the attainment of Forest Plan decisions, Standards and Guidelines. As such, it is appropriate to continue stream habitat monitoring.

FISHERIES: Anadromous Fish Spawning Surveys

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-3	Chinook Salmon Spawning Activity and Location	Annually for index and project areas	(Ongoing)

Monitoring Requirement: Salmon and Challis Forest Plans

Monitoring Type: Stream Habitat Condition and Trends

Data Source: North and South Zone Fisheries files and data-base programs

Unit of Measure: Number and stream locations of Chinook salmon redds

Findings:

North Zone (former Salmon National Forest)

Survey Year	Stream Name	Completed Chinook Salmon Redds Observed¹
2011	1. Camas Cr. (Castle Cr. to Hammer Cr.) 2. North Fork Salmon River 3. Panther Cr. (4th of July Cr. to Moyer Cr.) (Moyer Cr. to Blackbird Cr.) (Blackbird Cr. to Deep Cr.) (Panther Cr Riparian Pasture Unit – 1,000 m) (Holding Pasture Unit – 1,000 m) (Holding Pasture Unit – 1,000 m) (Prairie Basin Unit2 – 1,000 m) 4. Hayden Cr. (Boulder Flat Unit – 1,000 m) (Bear Valley Cr. Payne/Ford Unit – 1,000 m)	(Collected by RMRS and IDFG) (Collected by IDFG) (Collected by IDFG & S/B Tribes) (Collected by IDFG & S/B Tribes) (Collected by IDFG & S/B Tribes) (Collected by FS = 5 redds) (Collected by FS = 1 redd) (Collected by FS = 20 redds) (Collected by FS = 0 redds) (Collected by IDFG) (Collected by FS = 0) (Collected by FS = 0)

¹ Idaho Department of Fish and Game and Rocky Mountain Research take the lead in Chinook salmon redd surveys on the North Zone of the Salmon-Challis National Forest. North Zone personnel provide assistance to IDFG when employees are available. IDFG and RMRS maintain their original data for Chinook salmon redd surveys. This information can be accessed on their web sites, via the following locations:

a. Idaho Fish & Game Department:

(<https://research.idfg.idaho.gov/Fisheries%20Research%20Reports/Forms/Show%20All%20Reports.aspx>)

b. Boise Office - Rocky Mountain Research Station:

Russ Thurow (rthurow@fs.fed.us; 208-373-4377)

South Zone (former Challis National Forest)

Survey Year	Stream Name	Completed Chinook Salmon Redds Observed ¹
2011	Data collected by RMRS and IDFG	-

¹ The South Zone does not keep data on Chinook redds; only information on bull trout redds has been recorded and kept on file.

Variability: Salmon redd counts reflect annual adult returns and provide an index for anticipated production of the next year's cohort of fish. Their 700 to 900 mile migration to and from the Pacific Ocean exposes Chinook salmon to a multitude of mortality factors that affect the annual survival and spawning returns of each cohort. Therefore a range of variations exists between each year's respective levels of mortality and the number of adults returning to spawn between three and five years later.

Evaluation: Historic declines of "wild" Chinook salmon and Steelhead have been reflected in the declining trends of adults that have returned to spawn in on-Forest streams over the past 75 years. These declines were especially marked following completion of several dams on the lower Snake River 30 to 40 years ago. Since that time, continued declines in wild salmon populations have also been influenced by stream diversions and dewatering, variations in annual stream flows, juvenile mortality during out-migrations and fluctuations of rearing conditions within the Pacific Ocean. While still quite depressed from historic levels, Chinook salmon and Steelhead spawning returns in the last couple years have risen to levels not seen in some places for fifty years. While not fully understood, the general consensus has been that these increases have been due to better spring run-off conditions and reduced mortality during the out-migration, as well as improved growth and survival during time spent at sea.

Appropriateness: As the primary local method by which to monitor population trends, continued monitoring of Chinook salmon spawning activity is still warranted. Continued monitoring of index stream locations is especially useful for the identification trends in the use of on-forest habitats. Ongoing redd monitoring has been critical to verifying these changes and whether current fisheries and stream habitat recovery efforts are serving their intended purposes, plus to what degree they are helping to recover on-Forest populations of wild salmon and steelhead.

FISHERIES: Resident and Anadromous Fish Population Surveys

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-4	Species Occurrence – (electrofishing)	To be determined based upon management needs	Identified water quality or habitat related problems and changes in baseline conditions

Monitoring Requirement: Salmon and Challis Forest Plans

Monitoring Type: Baseline Monitoring and ongoing fisheries population trends

Data Source: North and South Zone Fisheries program and Idaho Department of Fish and Game data-bases.

Unit of Measure: Number of streams sampled and species found

Findings:**North Zone (former Salmon National Forest)**

Year	Number of Streams Surveyed	Number of Streams in Which Species Were Found		
		Chinook	Steelhead	Bull trout
2011	35	1	12	18

South Zone (former Challis National Forest)

Year	Number of Streams Surveyed	Number of Streams in Which Species Were Found		
		Chinook	Steelhead	Bull trout
2011	31	2	3	17

Following signing of the Forest Plan in 1988, in 1990 the Salmon National Forest (presently the S-C Forest, North Zone) consolidated all known fish species occurrence and distribution information into a comprehensive “General Aquatic Wildlife Survey (Level I) Stream Habitat Inventory” following National and Regional program direction at that time. This report documented all known fish species’ occurrences within perennial streams of the Salmon National Forest. This report catalogued occurrences of native rainbow trout, west-slope cutthroat trout, bull trout, mountain whitefish, Snake River Summer Steelhead, Spring/Summer Chinook salmon, plus areas with introduced eastern Brook trout. In addition, stocking histories of hatchery fish were also summarized for the preceding 50 years. Non-game fish species were not included however, due to lack of surveys and data for those species. All watersheds were cataloged, along with determinations of all stream miles by land status, within each of them, were determined down to 0.1 mile increments. (However, previous program direction and procedures have since been superseded with GIS and NRIS now being the data-bases of record for current resource information.) Challis Forest (presently the S-C Forest, South Zone) fish species distributions have been determined by stream surveys and watershed assessments, as reported upon in their respective inventory reports.

Subsequently, in the mid- to late 1990’s the Forest participated in a multi-year effort directed by the Rocky Mountain Research Station, utilizing R1/R4 Basin-wide Stream Survey methods to inventory stream habitat conditions, which focusing upon the use of snorkel surveys for fish species presence/absence determinations. However, in recent years “electro-fishing” has once again become the preferred method for inventory and monitoring of fish species’ occurrence and trends. Over the past ten years, the findings of S-C Forest fisheries program surveys have been contributed to the Idaho Department of Fish & Game’s statewide “Stream Inventory Data-base”. In addition, the Forest Service has now developed a new agency data-base system of record for resource inventory and monitoring data. (NRIS) S-C Forest fisheries and stream survey data need to also be entered into this data-base. Recently, Salmon-Challis Forest GIS data-bases have been created and/or updated to include fish species occurrence and delineations of respective Riparian Habitat Conservation Areas for all streams within the Salmon-Challis Forest.

Variability: Year to year trends in fish species occurrence and populations depend upon annual variations in habitat limiting factors (like precipitation, stream flow and water temperatures) that influence recruitment and survival rates. In addition, migration

barriers of various types (flow, temperature, physical obstructions, etc.) often limit fish movements and fragment key reproduction and nursery areas in headwater stream reaches. For these reasons, there can often be considerable variation in both fish species' occurrences and populations; not only between years, but between individual streams within or between watersheds.

Evaluation: The performance of annual fish species occurrence and trend monitoring continue to be a critical component of the Salmon-Challis Forest Fisheries Program. This type of monitoring provides ongoing characterizations of fish populations within Forest streams that are necessary for attainment of Forest Plan standards, guidelines, and decisions, as well as various types of legal requirements. Fisheries monitoring also supports other resource programs by providing the information needed for NEPA assessments and Endangered Species Act Section-7 consultation.

Appropriateness: Continuation of annual fisheries population surveys and monitoring continues to be required and necessary for support of all Forest resource programs. Adequate funding and personnel for annual monitoring and data entry into the NRIS data-base system remains a critical requirement for meeting the Salmon-Challis Forest's Forest Plan and its legal obligations. **FREEDOM OF INFORMATION ACT (FOIA):** FOIA Requests

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
TR-1	FOIA Requests	Annually by Fiscal Year	Not applicable

Monitoring Requirement: Not a required monitoring item

Monitoring Type: Tracking

Data Source: FOIA Annual Report

Unit of Measure: Number of requests by resource, cost to the government and fees collected.

Findings: 36 FOIA requests were received and processed in FY 2011. No processing fees were collected.

Total Number of FOIA Requests 2011

YEAR	NUMBER OF REQUESTS
2011	36

Requests by Resource Area 2011

Resource Area	# of Requests 2011
Mining	1
Grazing	13
Wilderness	4
Roads	0
Personnel	0
Outfitters	2
Fire	1
NEPA	2
Recreation	2
Miscellaneous	11

Key Requesting Organizations in 2011

Organization	Number of Requests
Western Watersheds Project	5
Alliance for the Wild Rockies	1
Formation Capital Corporation	2

Variability: Not Applicable

Evaluation: The number of FOIA requests varies from year to year. The cost of processing FOIA requests dropped since 2009.

Appropriateness: Although this is not a required monitoring item in the Forest Plan, it does provide interesting information on the increased interest in Forest activities and should continue to be monitored and reported.

HERITAGE: Site Deterioration

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-1	Site deterioration	Annually	Cultural properties lose characteristics that make them eligible to the National Register of Historic Places

Monitoring Requirement: Salmon and Challis Forest Plans

Monitoring Type: Effectiveness

Data Source: Project inventory reports and monitoring reports

Unit of Measure: Number of sites monitored and number of sites in which National Register of Historic Places characteristics have deteriorated.

Findings:

Year	# Sites Monitored		# Sites Deteriorated		% Sites Deteriorated	
	North Zone	South Zone	North Zone	South Zone	North Zone	South Zone
2011	38	33	6	8	16	24

Variability: The eight sites noted as being deteriorated on the Challis include four sites under investigation for ARPA violations and four sites destroyed by the 2007 fires.

Evaluation: A review of site data suggests that over time the majority of sites monitored are not deteriorating. For the most part site deterioration is generally due to wild fires or a lack of proactive Heritage management, rather than poor project performance. A Historic Preservation Plan for the Frank Church – River of No Return Wilderness is currently being written which will address conflicts between Middle Fork recreational camping and impacts to archaeological sites. Archaeological sites are damaged by various forms of erosion, animal impacts, weathering, non-designated camping, wildfire and vandalism. Very little damage is due to direct project impacts, and most of those occurred many years ago. Forest Plan standards and guidelines are adequate to protect these sites; however, sufficient time and funding is needed to correct the problems, where appropriate

Appropriateness: Continue to monitor as a Forest Plan requirement. This type of monitoring is Mandatory under Section 106 and 110 of the National Historic Preservation Act.

HERITAGE: Site Preservation

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
TR-1	Site preservation	Annually	Cultural properties are not preserved according to management plans

Monitoring Type: Effectiveness

Data Source: Management plans and site monitoring reports

Unit of Measure: Number of sites slated for preservation and number of sites not preserved.

Findings:

Year	# Sites Proposed for Preservation		# Sites Preserved		% Sites Preserved	
	Salmon	Challis	Salmon	Challis	Salmon	Challis
2011	1	2	1	2	100	100

Variability: Reductions 2011 preservation levels are due to lack of funding, insufficient staffing and shifting priorities to other non-preservation activities in support of wild fire suppression, fuel reduction projects, travel management planning, and range NEPA.

Evaluation: To date the data suggests that we are following through with planned preservation projects as funding and project implementation schedules allow.

Appropriateness: Continue to monitor. Monitoring is mandatory under Section 106 and 110 of the National Historic Preservation Act.

HERITAGE: Interpretation

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
TR-2	Interpretation	Annually	Cultural properties are not interpreted to the general or scientific public

Monitoring Type: Implementation

Data Source: Forest Archaeologist

Unit of Measure: List of interpretive products

Findings:

Year	Forest	Name of Interpretive Product
2011	Challis	Idaho Archaeological Society (3 presentations); Historic Ranch Tour for Idaho Archaeological Month; Presentation on log cabin construction for Idaho Archaeological Month; Sater Cabin Stabilization utilizing six volunteers; 44 Cabin Stabilization with assistance from the Treasure Valley Backcountry Horsemen; Middle Fork Interpretive Program in cooperation with the Shoshone-Bannock Tribes.
2011	Salmon	Idaho Archaeological Society (2 presentations); Middle Fork trip with the Shoshone-Bannock Tribes; Middle Fork Heritage Times.

Variability: Interpretive products vary over time depending on funding and workload.

Evaluation: The number of interpretive projects completed on the Forest provides a moderate level of public interpretation. The interpretive program has attempted to

provide a wide variety of locations and styles of interpretation to reach local and national audiences. An interpretive program is strongly suggested under Section 110 of the National Historic Preservation Act.

Appropriateness: Continue to monitor.

HERITAGE: Middle Fork of the Salmon Wild and Scenic River Management Plan: Campsites with Cultural Values

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-2 MFWSR-6	Cultural Site Stability	As needed	Detrimental site instability from activities

Monitoring Requirement: Salmon Forest Plan; Middle Fork of the Salmon Wild & Scenic River Management Plan

Monitoring Type: Implementation/Evaluation

Data Source: Field observations

Unit of Measure: Qualitative interpretation

Findings:

Year	# Sites Monitored for Stability	# Stable Sites	% Stable Sites
2011	40	26	65

Variability: In 2011 an upward trend reflects re-inspection of some of the sites previously known to be stable ten years ago which continue to be in relatively good condition. A re-inspection of some of the Middle Fork sites occurred in 2011 with members of the Shoshone-Bannock Tribes. Discussions during that trip revolved around potential ways to reduce recreation impacts to archaeological sites.

Evaluation: The 2007 fire year encompassed approximately 250,000 acres of the Forest and impacted a number of campsites with heritage resources along the Middle Fork. Several campsites that were unstable in the 1996 inventory have become stable owing to closure and restoration activities. However, at least 13 sites continue to be unstable from camping, stock, and wildlife use. These sites are scheduled for restoration activities over time and it is envisioned that they will eventually return to a stable condition following appropriate treatment. A Historic Preservation Plan for the Frank Church – River of No Return Wilderness is currently being written which will address Middle Fork camping impacts to archaeological sites.

Appropriateness: Continue as a Forest Plan monitoring requirement on an 'as needed' basis.

INSECTS AND DISEASE: Species

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-1	Insect and Disease	Annually	Determine if outbreaks are likely to reach epidemic levels

Monitoring Requirement: Salmon Forest Plan

Monitoring Type: Effectiveness

Data Source: Aerial Pest Detection Survey, Forest Pest Management, Boise Field Office

Unit of Measure: Number of trees killed on infected acreage by species.

Findings: Annual flights are made in areas identified as moderate to high potential for insect and disease activities. Below are the survey results.

North Zone (former Salmon National Forest)
Total Number of Infected Acres / Trees Killed by Species

Year	Mt. Pine Beetle	DF Bark Beetle	Western Pine Beetle	Spruce Beetle	Subalpine Fir Mortality Complex	Western Spruce Budworm
2011	312,449/1,874,282	1,480/2,612	0/0	0/0	1,408/572	37,192

South Zone (former Challis National Forest)
Total Number of Infected Acres / Trees Killed by Species

Year	Mt. Pine Beetle	DF Bark Beetle	Western Pine Beetle	Spruce Beetle	Subalpine Fir Mortality Complex	Western Spruce Budworm
2011	36,386/124,103	45,193/46,190	0/0	0/0	1,302/5,727	124,006 *

* Defoliated acres all districts

Variability: Mountain Pine Beetle (MPB) continues at outbreak levels across the North Zone, while MPB population is on the decline on the South zone. Douglas fir beetle (DFB) is increasing on the South Zone as more acres are being heavily impacted by Western Spruce Budworm. Expectation that there will be a slight rise in the next five years of DFB near last year fires on the North Zone. Western Spruce Budworm (WSB) continues to expand across the South Zone with 85% of those areas experiencing heavy defoliation which is contributing to expansion of DFB. Small pockets of Subalpine Fir Mortality Complex continue across the Salmon-Challis National Forest. Other insect agents noted in 2011 include Twig beetle that affected 40 acres on the North Zone and increase in Pine Butterfly reaching outbreak levels in Ponderosa pine on the North Fork Ranger District. On the South Zone 7 acres of Aspen decline were mapped on the Challis Ranger District, agent for defoliation was not determined. For the last two years Western pine beetle has not been mapped on the North Zone and for the South Zone not since 2006. Spruce Beetle populations also have not been mapped in the aerial detection surveys on both zones for the last four years.

Evaluation: In the late 1990s the Salmon and Challis National Forests' timber sale program focused on the control of insect and disease problems, primarily in the Douglas

fir and ponderosa pine types. In the last five years the Forest timber sale program has shifted to being more aggressive in conducting fuel reduction work around Wildland Urban Interfaces. Activities have included Sanitation/Salvage (residual mortality from epidemic) and commercial understory thinning to return systems to a more fire resistance stand and to prevent catastrophic fires in these areas.

Appropriateness: Continue as a Forest Plan monitoring and report requirement, but drop Western Pine and Spruce beetle until they become an agent that is impacting forest health across the forest. Monitoring insect and disease activities is required by the National Forest Management Act. This information is needed to assess Forest health and is useful in guiding Forest management activities.

LANDS: Occupancy Trespass

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-2	Occupancy Trespass	Annually	A stable or increasing number of trespass cases

Monitoring Requirement: Salmon and Challis Forest Plans

Monitoring Type: Implementation

Data Source: Survey Reports, Management Attainment Report

Unit of Measure: Case

Findings: Occupancy trespass can take several forms from a misaligned fence to structural buildings. Cases of structural trespass have been resolved primarily through The Small Tracts Act. Resolving occupancy trespass through the Small Tracts Act has resulted in approximately 2 cases per year across the Salmon-Challis National Forest.

	2011
North Zone	2
South Zone	1

The current number of occupancy trespass incidences is eight (three on the North Zone [Salmon Forest] and five on the South Zone [Challis Forest]). Occupancy trespasses were tracked through the Encroachment Action Plan for the Salmon National Forest, November 1992; however this plan has not been maintained since the Forests were combined in 1995. The Forest Surveyor began documenting discoveries of occupancy trespass in fiscal year 1996.

Variability: Actual performance is lagging behind, but is close to predicted performance. Progress in resolving cases has been slow. The main problem causing the delay in processing cases has been the changes of ownership and, to some extent, changes in Forest Service personnel working on the cases. The application and processing of these cases starts over with each change of ownership.

Evaluation: An Encroachment Action Plan for the Salmon and Challis National Forests should be prepared and updated as needed per FSM direction in R-4 Supplement 5500-92-1, Effective 10/9/92, which also states that each National Forest shall incorporate into the Forest Plan their Encroachment Action Plan.

Appropriateness: Continue as a Forest Plan monitoring report requirement. Continue to track resolved occupancy trespass cases through the Small Tracts Act.

LANDLINES: Location

Monitoring Item	Activity to Be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-1	Landline location	Annually	If attainment varies from assigned target by more than + or – 10 percent.

Monitoring Requirement: Salmon Forest Plan

Monitoring Type: Implementation

Data Source: Management Attainment Report (MAR)

Unit of Measure: Miles per year

Findings:**Combined Salmon and Challis Landline Target and Attainments**

Target	2011
Planned	20
Attained	27.9

Variability: The Salmon Forest Plan on page IV-83 shows the annual target to survey and post 14 to 17 miles of National Forest boundaries. The Challis Forest Plan did not set a target for this monitoring item. In 1995, the combined target for both Forests was reduced to 12.

Evaluation: What is actually planned for each year is below the Forest Plan target, indicating budget allocations and priorities vary considerably, the last few years being relatively non-existent.

Appropriateness: Continue as a Forest Plan monitoring requirement even though the targets and trends are no longer meaningful. Tracking of this activity is being maintained and is available in the Management Attainment Report.

MINERALS: Designated Gravel and/or Riprap Sources

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-1	Designated gravel and/or riprap sources	Annually	Problems which do not meet Forest Plan objectives

Monitoring Requirement: Salmon Forest Plan

Monitoring Type: Validation

Data Source: Engineers or Project Administrators for ongoing projects.

Unit of Measure: Annual inspections

Findings: In 2011 permits were issued for sand & gravel, rip-rap, and landscape rock. Totals for 2011 include:

	Commercial	Free Use	Forest Service Use
Sand and Gravel	4,558 tons	0	8,700 tons
Rip-Rap	1,373 tons	0	0
Landscape Rock	0	0	0

Variability: Access to suitable materials is keeping up with demand.

Evaluation: The Votler Creek community pit had additional overburden removed to expose the gravel layer and improve accessibility of the materials. The portion of the pit that has been exhausted was reclaimed in the fall of 2012.

Appropriateness: Continue as a Forest Plan monitoring requirement. Monitoring standards are appropriate.

MINERALS: Lease Stipulations and Forms

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-2	Adequacy of lease requirements	Annually	Inadequate to meet Forest Plan objectives

Monitoring Requirement: Salmon and Challis Forest Plans

Monitoring Type: Validation

Data Source: Project Administrators Annual Reports

Unit of Measure: Compliance with lease stipulations

Findings: There are three mineral leases in the Challis area and one geothermal lease in the Salmon area. However, none of the Challis leases are active.

Variability: N/A

Evaluation: The geothermal lease application on the Salmon/Cobalt RD was received from OreMat for Hot Springs Creek and the environmental analysis to determine if leasing is feasible should be complete by the end of 2012.

Appropriateness: Continue as a Forest Plan monitoring requirement. Appropriate lease inspection and administration will occur should leases become active.

MINERALS: Reclamation Results

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-3	Reshaping and Vegetation of Disturbance	Annually	Any unacceptable or unexpected results not meeting requirements

Monitoring Requirement: Salmon Forest Plan

Monitoring Type: Effectiveness/Validation

Data Source: Project Administrator's file documentation

Unit of Measure: Compliance with plan requirements

Findings: The Forest responds to 6 to 8 plans of operation annually. Each year, a number of active exploration programs are permitted involving drilling, trenching or bulk sampling activities. Post exploration reclamation work was completed on all areas of disturbance. Additionally, the weed treatment portion of each reclamation bond is kept for two years post-exploration and monitoring sites for weeds is done until that time has passed.

Variability: Topographical, vegetation, aspect, and elevation have been dealt with successfully in meeting reclamation standards.

Evaluation: Reclamation plans and practices have been successful.

Appropriateness: Continue as a Forest Plan monitoring requirement.

MINERALS: Locatable Plans of Operation

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-4	Compliance with Plan of Operations	During operations/annually	Any unacceptable or unexpected results not meeting Plan Standards

Monitoring Requirement: Salmon and Challis Forest Plans

Monitoring Type: Implementation/Effectiveness

Data Source: Project Administrator's file documentation

Unit of Measure: Compliance with Plan requirements

Findings: Active Mines

1. **Thompson Creek's Molybdenum Mine** Due to approval of a final patent in 1999, the 2800 acre mine site is composed of mixed ownership with approximately 2200 acres privately owned by Thompson Creek Mining Company, 400 acres of Public land managed by the BLM and 200 acres of National Forest System Lands. The Forest Service, the State of Idaho Department of Lands (IDL) and BLM have administration responsibilities at the mine. Reclamation bonding being updated and IDL will hold FS portion of the bond. TCM submitted a plan of operation for expansion of the mine in 2008. An EIS is underway to analyze the effects of the proposed expansion. The DEIS for the proposal is scheduled for October 2012.

The following larger operations **are inactive** but retain FS administration responsibilities.

1. **Grouse Creek Mine**, located on the Challis-Yankee Fork Ranger District, suspended active mining operations in 2000. Due to approval of a final patent in 2006, The 536 acres mine site is composed of mix ownership with approximately 498 acres privately owned by Hecla Mining Company and 38 acres of National Forest System Lands. Administration of the non-CERCLA portion of the mine site is shared by both the FS and IDL.
2. **Meridian Gold's Beartrack Mine**, located on the Salmon/Cobalt Ranger District ceased mining activity in March of 2000. The project is in the reclamation phase with over 80% of the earthwork and seeding required in the plan of operation completed. The Environmental Protection Agency is in the process of preparing a new NPDES permit for the mine. Once the new NPDES permit is issued the Forest Service and Meridian will negotiate a plan for final reclamation. In the interim it is anticipated continued monitoring and reclamation work will occur for the next five years.

Exploration Plans of Operation - The Forest responds to 6 to 8 plans of operation annually. In the last decade a number of active exploration programs were permitted involving drilling, trenching or bulk sampling activities. Post exploration reclamation work was completed on all disturbances.

Abandoned Mine Lands - In addition to reclamation activities on new plans of operation, inventory and mitigation of Abandoned mine land sites have been initiated on the Forest. Activities include structure removal/dismantling and safety closures construction (bat gates, backfill etc.) on open features. This is an ongoing active program. In 2011, 25 sites were surveyed for cultural resources and the presence/absence of bats. Those sites will be closed in 2012. An estimated 30 sites will be surveyed in 2012 for closure in 2013.

Safety Closures Completed on the SCNF

	2011
Salmon-Challis	0

Monitoring - Monitoring is conducted in the form of site visits by the Forest Service and Interagency Task Force of State agency representatives on the large mines. Additionally, for surface and ground water sampling, aquatic life, archaeology, reclamation activities, etc., are compiled and submitted to the appropriate agencies annually. Agencies conducting site reviews of active mines since 1997 include the

Environmental Protection Agency, National Marine Fisheries Service, U.S. Fish and Wildlife Service, Idaho Department of Water Resources, Idaho Department of Health and Welfare, Idaho Department of Environmental Quality, Idaho Department of Lands, Army Corps of Engineers, and the Idaho Department of Fish and Game.

Blackbird Mine Cleanup Blackbird Mine Cleanup

The Blackbird Mine is an inactive cobalt and copper mine located about 20 miles west of Salmon, Idaho. The site encompasses approximately 830 acres of private patented mining claims and 10,000 acres of unpatented claims within the Salmon-Challis National Forest. Historic mining operations conducted between the late 1800's and 1982 resulted in releases of cobalt, copper, iron and arsenic into Blackbird Creek, Big Deer Creek and Panther Creek.

In 1995 the United States reached agreement with the Responsible Parties (The Blackbird Mine Site Group) to perform the cleanup of the site and to implement a natural resources restoration plan called the Biological Restoration and Compensation Plan (BRCP). This agreement is embodied in a 1995 Consent Decree.

The United States Environmental Protection Agency is the lead agency for remedial cleanup actions at the site. Cleanup actions are subject to the oversight of certain State and Federal Natural Resource Trustees. The USDA Forest Service is a Federal Trustee under the Comprehensive Environmental Compensation and Liability Act (CERCLA) and the Clean Water Act.

The Forest Service has designated an on-scene coordinator for the site to ensure that the rules, regulations and policies that are applicable to the management of National Forest lands are adhered to while performing remedial actions.

Tungsten Jim Mine CERCLA

Thompson Creek Mining Company is the Potentially Responsible Party (PRP) for this CERCLA Action that was initiated in 2005. In 2006, a Final Project Work Plan, Sample and Analysis Plan, Health and Safety Plan, Quality Assurance/Quality Control Plan, and a drafts of an Engineering Evaluation/Cost Analysis (EE/CA) document were developed that analyzes removal action alternatives to clean-up a multi-unit abandoned mine (Site) located in the Thompson Creek Drainage proper (tributary to the main stem of the Salmon River). In addition, site characterization/assessments were conducted on the units of the Site. Additional characterization also occurred on the potential repository sites and borrows sites associated with the clean-up planning. Coordination with State, local government, Federal, and public entities continued in 2007. Progression in the selection of a clean-up alternative stalled in 2007 because of the location of the proposed repository on BLM. The proposed repository location is part of a land exchange between the PRP and BLM initiated in 2007. BLM was none committal to enter into a repository agreement with the Forest Service citing it would conflict with the land exchange process. This is a Forest Service lead CERCLA Action.

Grouse Creek Mine CERCLA

Hecla Mining Company is the PRP for this CERCLA Action. The approximately 80 acre tailings impoundment is located on patented land and is in the final stages of closure under CERCLA authority implemented in 2000. Land status changes through 2006 created a mixed ownership site with approximately 498 acres private and 38 acres National Forest System Lands (NFS); 536 acres total. The 38 acres on NFS lands is

outside the CERCLA Action. Because of the land status change, EPA assumed the lead agency role for the CERCLA Action in 2008 and the Forest Service adopted the role of supporting agency and Natural Resource Trustee.

Variability: The number of inspections conducted varies. On average, large mine operations receive a minimum of one visit/contact per week. Active operations vary depending on level of activity, but inspections of exploration operations are usually conducted once every ten days.

Evaluation: The Forests have an active administration program. Operations are in compliance.

Appropriateness: Continue as a Forest Plan monitoring requirement.

MINERALS: Lease Applications

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
G04	Lease Applications	Annually	Once current backlog is removed, any lease application on which no action is initiated within 3 months.

Monitoring Requirement: Challis LRMP

Monitoring Technique: Inventory backlog

Data Precision/Reliability: High/High

Findings: There are three mineral leases in the Challis area. However, none of the Challis leases are active. No backlog exists.

Evaluation: Since there are no active leases on the Forest, there has been no formal evaluation of leases conducted.

Appropriateness: Continue as a Forest Plan monitoring requirement. Appropriate lease inspection and administration will occur should leases become active.

MINERALS: Lease stipulations and forms, and locatable operating plan requirements

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
G06	Stipulations and requirements	Annually	Lease and operating plan requirements are found inadequate to meet multiple resource needs.

Monitoring Requirement: Challis LRMP

Monitoring Technique: Evaluate adequacy of lease and operating plan requirements

Data Precision/Reliability: Moderate/Moderate

Findings: There are three mineral leases in the Challis area. However, none of the Challis leases are active. Per FP-4 above, inspections and administration of operating plan requirements are meeting multiple resource needs.

Variability: Topographical, vegetation, aspect, and elevation have been dealt with successfully in meeting stipulations/requirements.

Evaluation: Since there are no active leases on the Forest, there has been no formal evaluation of leases conducted. Appropriate lease inspection and administration will occur should leases become active. Operating plan requirements have been successful.

Appropriateness: Continue as a Forest Plan monitoring requirement.

Minerals: Frank Church – River of No Return Wilderness Management Plan

Monitoring Item	Activity to be Measured	Monitoring Frequency	Monitoring Objective
FC-RONRW-Minerals	1. Number of active mining claims operating under appropriate plan of operations 2. Number of inactive mining claims with resource problems such as hazardous materials, erosion and garbage	Every 5 years	Valid claims are operated in a manner that protects wilderness. Resource impacts from abandoned mining activity do not pose a threat to the wilderness

Monitoring Requirement: Frank Church – River of No Return Wilderness Management Plan

Monitoring Type: Evaluation

Data Source: Survey of all valid mineral claims and abandoned mines following regional standards

Unit of Measure: Number of surveys

Findings: There are no valid mineral claims within the SCNF portion of the FCRONRW. No AML surveys have been conducted between 2007 and 2011. Two inactive mining claims have been identified to have resource problems.

Variability: Not applicable

Evaluation: Not applicable

Appropriateness: Continue as a Forest Plan monitoring requirement if AML sites are identified.

RANGE: Condition and Trend

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-1	Condition and trend of vegetation and soils	Annually	If trend is down or if condition is poor and trend is static

Monitoring Requirement: Salmon and Challis Forest Plans

Monitoring Type: Effectiveness

Data Source: Field Exam

Unit of Measure: Current conditions and trends

Findings:

Uplands – Since 1997, a dramatic reduction of upland monitoring efforts has occurred as more focus was spent on riparian and aquatic areas. Upland nested frequency monitoring was originally designed around a 5 to 7 year re-read cycle, but these efforts have been effectively removed from the monitoring priority. There were three nested frequency plots read in 2011; they were on the Lee Creek Allotment. Effort to relocate two previous transects on Lee Creek was unsuccessful despite the time spent. Therefore none of the three can be used to identify trend except anecdotally.

Riparian – Greenline transects are designed to monitor the condition and trend of the riparian vegetation through analyzing the amount of late seral riparian plant communities. Current indications (as of close of FY 2011) are that the Forest is lagging behind schedule for riparian condition and trend monitoring.

Summary of Greenline Monitoring	
Greenline Transects	2011
PNC	12
Late Seral	5
Mid- Seral	3
Early Seral	3
Very Early Seral	0
Upward Trend	11
Static Trend ¹	6
Downward Trend	4
No Trend ²	2
Total	21

¹any change less than 10 points

²first year read

Summary of Greenline Monitoring by District 2011

Year	PNC	LS	MS	ES	VES	Total	Up	Static	Down	Not Apparent	No trend data available (new)	Total
Challis			1									1
Leadore												0
Lost River		1										1
Middle Fork												0
North Fork												0
Salmon-Cobalt												0
Yankee Fork												0

Variability: none to discuss for FY 2011.

Evaluation: Comparisons and evaluations at the Forest level can be made on an annual basis by incorporating the findings from previous readings at the monitored sites, keeping in mind any changes in monitoring methods.

Appropriateness: Continue as Forest Plan monitoring requirement. This monitoring, both riparian and uplands, is a cornerstone for resource management and Forest Plan implementation.

RANGE: Compliance with Standards

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-2	Compliance with forage utilization standards	Annually	Forage utilization exceeds allowable use by 10 percent (Challis Plan)

Monitoring Requirement: Salmon (amended) and Challis Forest Plans

Monitoring Type: Implementation

Data Source: Field Exam. Endangered Species Act Section 7 Reports as required by Biological Opinions.

Unit of Measure: Percent utilization on uplands. On riparian areas monitoring measures stubble height, streambank alteration, and use on riparian woody browse species; all on the greenline at designated monitoring areas.

Findings: The table below displays the utilization monitoring performed on riparian study areas (in the form of stubble height and woody browse monitoring) and upland areas where utilization studies were performed on key forage grass species.

Year	Number of Monitored Pastures	Number Pastures Meeting Standards	Percent Pastures Meeting Standards
Riparian 2011*	60	56	93%
Riparian 2011 other than Lost River	31	29	97%
Uplands 2011*	5	5	100%

Uplands 2011 other than Lost River	17	17	100%
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*2011- Lost River data only

Variability: Previous consolidated Forest Plan monitoring reports (1995 and 1996) addressed the issue of Conditions Which Initiate Further Evaluations (i.e. “exceeding the standard by 10 percent”). This was incorrectly interpreted in previous reports and is not evaluated in this report.

Conditions which may initiate further evaluation are dependent upon the individual site characteristics, resource conditions and extent of departure from standard (e.g. missing stubble height by less than .96” which is the confidence interval at 95%) and other influences on the site including management history. There also is variability between PIBO Team findings and MIM readings on some of the sites; this has not yet been fully evaluated as to the extent of the differences and the possible reasons why.

Evaluation: Only measures of riparian use in grazed pastures are included in this report; riparian areas not scheduled for grazing are not included here as meeting standards. On-going improved efforts by permittees and agency personnel are expected to maintain the high number of pastures which meet the standards.

Appropriateness: Continue as a Forest Plan monitoring requirement. This is a mandatory item agreed to during consultation with National Marine Fisheries Service and U.S. Fish and Wildlife Service. Forty seven of the 172 riparian units reported above are also reported in the annual Interagency Implementation Team (IIT) report on implementation monitoring performed for livestock grazing compliance in support of the effectiveness monitoring with the PACFISH/INFISH Biological Opinions (PIBO).

RANGE: Forage Improvement

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-3	Range Forage Improvement	Before treatment, second and fifth year after treatment	None

Monitoring Requirement: Salmon Forest Plan

Monitoring Type: Effectiveness

Data Source: Field Exam

Unit of Measure: Acres

Findings: This monitoring item was listed only in the Salmon Forest Plan. Forage improvement projects, although identified in the plan, have been non-existent since the mid-1990s, primarily because of lack of money and the need to comply with various environmental laws and regulations. This monitoring item will be reported only when this type of project occurs. No projects were undertaken in FY 2011.

Variability: Not applicable.

Evaluation: Improvement projects will be evaluated if and when projects are completed.

Appropriateness: Continue as a Forest Plan monitoring requirement. Forage improvement projects will be evaluated should they occur in the future.

RANGE: Predator Losses

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-4	Predator Losses	Annually	Losses exceed 2 percent

Monitoring Requirement: Salmon Forest Plan

Monitoring Type: Baseline/Implementation

Data Source: Permittee reports, field observation

Unit of Measure: Each loss

Findings: The annual permittee submitted range report encourages, but no longer requires the reporting of livestock losses from predators. This information is not readily or reliably available.

Variability: Not applicable

Evaluation: Data is not available

Appropriateness: Discontinue as a Forest Plan monitoring requirement. This information is not readily or reliably available.

RANGE: Frank Church – River of No Return Wilderness Management Plan

Monitoring Item	Activity to be Measured	Monitoring Frequency	Monitoring Objective
FP-5 FC-RONRW-2	Grazing Use	As needed	Grazing Use in Unique Vegetation Sites. Grazing use is altering natural ecological succession

Monitoring Requirement: Salmon Forest Plan; Frank Church – River of No Return Wilderness Management Plan

Monitoring Type: Implementation/Evaluation

Data Source: Field observations and measurements. None to report in FY 2011.

Unit of Measure: Qualitative and quantitative evaluation and interpretation

Findings: Only two allotments reside within the Frank Church – River of No Return Wilderness. Although both allotments are monitored for grazing use, neither supports unique vegetation sites that warrant specific grazing use monitoring as a means to evaluate natural ecological succession.

Variability: Not applicable

Evaluation: Not applicable

Appropriateness: Continue as a Forest Plan monitoring requirement even though specific grazing use monitoring as a means to evaluate natural ecological succession is not warranted.

RECREATION: Developed Recreation – Site and Facility Condition

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-1	Recreation Facility Condition	Annually	Deterioration of site beyond that anticipated under normal use.

Monitoring Requirement: Salmon and Challis Forest Plans

Monitoring Type: Baseline

Data Source: Forest uses INFRA database to record annual surveys of 20% of recreation facilities.

Unit of Measure: Dollars needed for the maintenance, repair, rehabilitation or replacement of developed recreation facilities. The 2007 Recreation Facilities Assessment includes alternative ways to fund deferred maintenance, ongoing maintenance, and long term capital investment projects.

Findings: Appropriated funding (NFRW and CMFC) is insufficient to prevent the gradual decline in quality and lifespan of facilities at most developed recreation sites. Order of magnitude is that current funding levels are approximately 10-15% of the actual need. Infusions of CIP money and special initiatives (Recreation site improvement money for developed fee sites and American Recovery and Reinvestment Act (ARRA)) are helpful in improving the condition of the developed facilities. Required facility condition reports are entered into INFRA in a timely manner.

Variability: Predicted performance was that the Forest would make steady improvement in the quality of our developed recreation sites. Other higher priority demands for limited funding have precluded a general trend toward improvement and have resulted in a general trend of decline. Based upon the recommendations in the Recreation Facilities Analysis, sites where significant improvements have been made are charging more for fees which, in turn are used back on the site for O&M.

Evaluation: Data collected and reported through INFRA indicates investments needed for the operation and maintenance of all developed recreation facilities. Needs identified are then requested through the out year budget process.

Appropriateness: Continue trend information as a Forest Plan monitoring requirement and a mandatory reporting item. INFRA provides the detailed information. Mandated target is 20% of all facilities inventoried each year.

RECREATION: Developed Recreation – Amount and distribution of actual use compared with projections

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-2	Recreation use at developed sites	Annually	Use beyond est. maximum level

Monitoring Requirement: Salmon and Challis Forest Plans

Monitoring Type: Baseline

Data Source: Annual Recreation Information Management (RIM) Report (through 1995). In 2003, the Forest implemented a new mandatory survey and data collection program called the National Visitor Use Monitoring (NVUM) project.

Unit of Measure: Recreation Visitor Days (RVD's) through 1995.
Recreation Visits starting in 2003.

Findings: Two reports on the National Visitor Use Monitoring process are available; one from FY2003 and one from FY2009. The “maximum” for developed recreation sites has not been reached. The sites are continually under- utilized on weekdays with most developed recreation sites being occupied about 45% of the time they are open. The use numbers shown below are totals for both the Salmon and Challis National Forests, and include developed, dispersed (now General Forest Area), and wilderness use. The average annual use for the two Forests as projected in the Forest Plans was approximately 1,079,000 Recreation Visitor Days (RVD's).

Recreation Visitor Days	
Year	Use
2003	466,835
2009	276,300

Variability: Any comparison between “old” RIM use in RVD's, based entirely on office estimates, and “new” NVUM use in VISITS, based on scientific sampling techniques, is meaningless.

Evaluation: Trend after two sampling years is down slightly and far under estimates for developed sites.

Appropriateness: The new National Visitor Use Monitoring project provides the scientific sampling techniques necessary to obtain accurate visitor use estimates. Continue as a Forest Plan monitoring requirement and mandatory reporting item. Decrease the monitoring frequency from annually to a 5 year cycle per the national schedule for NVUM. Surveys and estimation of use will occur on a Forest-wide basis every five years.

RECREATION: Developed Recreation – Facility Capacity (whether construction & reconstruction of facilities is keeping pace w/ demand)

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-3	Occupancy versus capacity of dev. facilities	Annually	PAOT and PAOT Days greater than or equal to 90% of projected demand.

Monitoring Requirement: Challis Forest Plan

Monitoring Type: Validation

Data Source: Annual Recreation Information Management (RIM) Report (through 1995). In 2003, the Forest implemented a new mandatory survey and data collection program called the National Visitor Use Monitoring project.

Unit of Measure: Recreation Visits.

Findings: There is no additional information to report. On the weekdays and non-holiday weekends developed sites continue to be under capacity across the Forest. Capacity of Developed Recreation site recreation is keeping up with demand.

Variability: Growth in recreation use of the developed sites on the Forest is generally slower than previously predicted.

Evaluation: Non-scientific sensing and observations of field going personnel indicate that there are virtually no developed recreation sites on the Forest that are fully occupied other than a couple of major Federal holidays each year.

Appropriateness: Continue as a Forest Plan monitoring requirement. There is a component in the Infrastructure system that addresses use beyond capacity along with specific work tasks to be employed should use approach capacity. Further, should developed recreation sites ever become filled during more than major holiday weekends, the Forest would consider adding those specific developed sites to the National Recreation Reservation System.

RECREATION: Developed Recreation – Soil and Vegetation Loss at Developed Sites

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-4	Soil or vegetation losses at developed sites as a result of use.	5 years	Campsite condition below Class III using the Limits of Acceptable Change process.

Monitoring Requirement: Challis Forest Plan

Monitoring Type: Implementation

Data Source: Transect photo points.

Unit of Measure: Limits of Acceptable Change (LAC) classes.

Findings: There is no additional information to report. LAC was never implemented on the Forest.

Variability: Significant degradation of soil or vegetation at developed sites has not occurred.

Evaluation: There is a general sense that soil or vegetation conditions at developed recreation sites are not substantially different today than when the Forest Plan decision was made. The exception is for areas popular with motorized users who bring their ATV trailers to developed sites and create additional parking within the site for the trailer while they are camping. Also, developed sites which have not been upgraded to meet the size

needs of contemporary motor homes and large party campers are being expanded by the users which results in soil and vegetation impacts. This issue is resolved as the sites are upgraded through CIP-type projects and through partnerships with the State to fund Recreational Vehicle (RV) sites.

Appropriateness: Continue as a Forest Plan monitoring requirement. There is a component in the Infrastructure (INFRA) database that addresses site condition and setting along with identification of work tasks should such losses occur.

RECREATION: Dispersed Recreation – Site Condition

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-5	Recreation Site Condition	Annually	Salmon – Dispersed sites rated Frissell Condition Class 4/5. Challis – Campsite condition below Class III using the Limits of Acceptable Change process.

Monitoring Requirement: Salmon and Challis Forest Plans

Monitoring Type: Baseline

Data Source: Field inventory evaluating natural conditions at popular dispersed (non-developed) campsites using the Frissell method (Salmon NF) or the Limits of Acceptable Change (LAC) process (Challis NF).

Unit of Measure: Frissell Condition Class rating (Salmon NF) or Limits of Acceptable Change (LAC) Condition Classes (Challis NF).

Findings: Neither system, Frissell or LAC, has been implemented on either Forest in General Forest Areas (GFA's).

Variability: Predicted performance was that the two Forests would undertake a widespread inventory and evaluation of all popular dispersed camping spots in the General Forest Area. Inventory was never done.

Evaluation: Although there is no data to evaluate for the above described item, the new Infrastructure (INFRA) program includes a component for natural setting in the General Forest Area. That part of INFRA is not currently populated for the forest, nor are protocols in place to do so outside of wilderness. Natural resource degradation as a result of recreation use is evaluated to determine rehabilitation or restoration needs on a specific site or location basis.

Appropriateness: Continue as a Forest Plan monitoring requirement recognizing data sources are outdated. Continue to identify adverse resource effects as a result of recreation use through the INFRA program.

RECREATION: Dispersed Recreation – Amount and Distribution of Actual Use Compared with Projections

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
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FP-6	Recreation use in General Forest Area	Annually	Use beyond est. maximum level
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Monitoring Requirement: Salmon and Challis Forest Plans

Monitoring Type: Baseline

Data Source: Annual Recreation Information Management (RIM) Report (through 1995). In 2003, the Forest implemented a new mandatory survey and data collection program called the National Visitor Use Monitoring (NVUM) project.

Unit of Measure: Recreation Visitor Days (RVD's) through 1995.
Recreation Visits starting in 2003.

Findings: The use numbers shown below are totals for both the Salmon and Challis National Forests, and include developed, dispersed (now General Forest Area), and wilderness use. The average annual use for the two Forests as projected in the Forest Plans was approximately 1,079,000 Recreation Visitor Days (RVD's).

Recreation Visitor Days	
Year	Use
2003	466,835
2009	276,300

Variability: Any comparison between "old" RIM use in RVD's, based entirely on office estimates, and "new" NVUM use in VISITS, based on scientific sampling techniques, is meaningless.

Evaluation: Trend after two sampling years is down slightly and far under estimates for developed sites.

Appropriateness: The new National Visitor Use Monitoring project provides the scientific sampling techniques necessary to obtain accurate visitor use estimates. Continue as a Forest Plan monitoring requirement and mandatory reporting item. Decrease the monitoring frequency from annually to a 5 year cycle per the national schedule for NVUM. Surveys and estimation of use will occur on a Forest-wide basis every five years.

RECREATION: Dispersed Recreation – Off Road Vehicle Travel

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-7 (Salmon)	Effects of off-road vehicle travel; Acres damaged by off highway vehicle (OHV) use to the point of triggering active rehabilitation	Annually (Salmon)	IDT Review indicates unacceptable increase; increase in substantiated public complaint letters; Acres increase by 10% over last inventory;
A01 (Challis)		5 years (Challis)	

Monitoring Requirement: Salmon (V-16) and Challis (V-7) Forest Plans. See also Soil FP-3.

Monitoring Type: Baseline/Implementation

Data Source; Monitoring Techniques: Field observation, public comments, and public involvement with Travel Plan; acres needing rehabilitation

Unit of Measure: Acres

Findings: OHV use has increased dramatically during the past decade and resource damage has occurred from unmanaged motor vehicle travel. No specific monitoring of OHV damage was conducted prior to starting the Travel Planning process in 2007, therefore it is not definitely known if acres of damage have increased by 10 percent. Routes not added to the transportation system through travel plan implementation continue to be evaluated and a portion were evaluated in 2011. A total of 1157 routes (550 miles) were evaluated, mapped using GPS technology and pictures were taken of problem areas. These evaluations will be used to help prioritize route decommissioning where necessary and provide opportunities for decommissioning at the project level.

Variability: Not applicable

Evaluation: Soil disturbance, accelerated erosion, damage to vegetation and stream channels from ORVs is a concern on the Forest.

Appropriateness: Continue as a Forest Plan monitoring requirement.

NOTE: The Salmon-Challis National Forest has developed a travel management plan in FY10 under the direction of the Final Travel Management Rule. The Salmon-Challis National Forest has developed a travel management plan under the direction of the Final Travel Management Rule. Decisions were made at the local level about which roads, trails, and areas to designate for which type of vehicle use. Cross-country travel off designated routes is no longer permitted. Implementing the new designated route system will be a long and continuous education and enforcement effort and remains a forest priority.

RECREATION: Dispersed Recreation – Trail Conditions

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-8	Trail condition	2% Annually*	Trail mileage classed as substandard exceeds management objectives or increase in substantiated complaint letters from the public.

*Mandated target is 2% of all trails inventoried each year. This is literally the NUMBER of trails not necessarily mileage percent.

Monitoring Requirement: Salmon and Challis Forest Plans

Monitoring Type: Baseline

Data Source: Trail condition surveys.

Unit of Measure: Numbers of Trails*. Random sample of # of trails are to have full condition surveys done each year along their entire length. The INFRA database houses this information.

Findings: Survey work was done along the randomly chosen trails in 2009 and prior years with the information about the condition of the trails and the support structures recorded in INFRA. The backlog of “deferred maintenance” on trails has led to increased partnerships and creative funding to reduce resource damage and to increase visitor safety along the trail system. FY2011 emphasis in INFRA was reporting of accomplishment of trails cleared/maintained rather than condition surveys

Variability: Predicted performance was that the Forest would make steady improvement in the quality and condition of our trail system.

Evaluation: Data collected and reported through INFRA indicates investments needed for the operation and maintenance of all trails. Needs identified are then requested through the out year budget process. Additional designated motorized routes were added forest-wide to comply with the travel planning decisions.

Appropriateness: Continue trend information as a Forest Plan monitoring requirement and reporting according to INFRA emphasis and protocols.

RECREATION: Wilderness – Campsite Condition

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-9	Condition of wilderness campsites	5 years	Limits of Acceptable Change (LAC) analysis shows that the condition class has declined one class on 25% of inventoried sites.

Monitoring Requirement: Salmon and Challis Forest Plans

Monitoring Type: Baseline

Data Source: Field inventory

Unit of Measure: Campsites by Condition Class

Findings: The revised Frank Church- River of No Return Wilderness Management Plan (2003) adopted the Frissell method of determining campsite condition. The Frissell system employs 5 classes ranging from Class I (most natural) to Class V (most modified). A survey and inventory of most campsites located within the Forests’ portion of the Frank Church – River of No Return Wilderness (910 campsites) indicates that on a wilderness-wide basis approximately 20% of campsites are in Class I (182 camps), 27% in Class II (248 camps), 26% in Class III (236 camps), 20% in Class IV (183 camps) and 7% are in Class V (61 camps). Direction is to undertake rehabilitation actions on Class IV and Class V sites.

Variability: Not applicable.

Evaluation: Change monitoring method from a LAC based system to the Frissell system. Establish a 10 year cycle for repeat of survey.

Appropriateness: Continue Wilderness Campsite Condition as a Forest Plan monitoring requirement. The Frissell method for estimating condition classes will continue to be used.

RECREATION: Wilderness – Amount and Distribution of Actual Use

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-10	Recreation use in designated Wilderness	Annually	Use beyond est. maximum level

Monitoring Requirement: Salmon and Challis Forest Plans

Monitoring Type: Baseline

Data Source: In 2003, the Forest implemented a new mandatory survey and data collection program called the National Visitor Use Monitoring (NVUM) project. 2009 was another survey year.

Unit of Measure: Recreation Visits since 2003.

Findings: The use numbers shown below are estimates with a “90% confidence level of +/- 30%”, and show wilderness visits with visitors exiting for the last time on the Salmon and Challis National forests. Wilderness visits for the Main Salmon River are counted on the Payette National Forest as visitors exit at that location. The average annual use for the two Forests as projected in the Forest Plans was approximately 374,000 Recreation Visitor Days (RVD's).

Recreation Visitor Days	
Year	Use
2003	34,178
2009	18,536

Variability: Comparison between “old” RIM use in RVD's, based entirely on office estimates, and “new” NVUM use in VISITS, based on scientific sampling techniques, is meaningless.

Evaluation: Trend information indicates some downward turn, with a fairly large variability.

Appropriateness: The new National Visitor Use Monitoring project provides the scientific sampling techniques necessary to obtain accurate visitor use estimates. Continue as a Forest Plan monitoring requirement and mandatory reporting item. Decrease the monitoring frequency from annually to a 5 year cycle per the national schedule for NVUM. Surveys and estimation of use will occur on a Forest-wide basis every five years.

RECREATION: Salmon Wild & Scenic River Management Plan – Recreation Segment – User Demands

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-11 SWSR(rec)-1	Reported conflicts between user groups	Annually	Recurring conflicts which could be resolved through regulations

Monitoring Requirement: Salmon Forest Plan

Monitoring Type: Implementation

Data Source: Written or verbal reports of conflicts.

Unit of Measure: Each report.

Findings: Conflicts within a user groups have occurred during spring and fall steelhead seasons when this portion of the forest receives Very High use. “Reserving spots” by leaving camp gear in unoccupied camps has become a problem. The Special Order for length of stay was relaxed from 14 days to 16 days to encompass 2 weekends, with a special emphasis on enforcement. The problem has been generally resolved. Capacity for commercial and non-commercial use needs to be addressed. Recreation section of the wild and scenic river needs a current management plan.

Variability: Predicted growth in use of the Recreation segment of the Salmon Wild & Scenic River has occurred based on the changes in the Salmon fishing success. And increases in the fall at a time of year when the competition for camping spaces and day-use parking spaces are at a premium. The fall season overlaps with traditional river use, private land access, and hunting season.

Evaluation: This anticipated issue has developed as fishing pressure increases, and as competition for outfitter service days remains unevaluated when compared with private use of the river corridor.

Appropriateness: Continue as a Forest Plan monitoring requirement and a mandatory reporting item. Continue to track at the Ranger District level.

RECREATION: Salmon Wild & Scenic River Management Plan – Recreation segment – Allocation system

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-12 SWSR(rec)-2	Need for restrictions	Annually	Recurring conflicts which could be resolved through regulations or an allocation system

Monitoring Requirement: Salmon Forest Plan

Monitoring Type: Effectiveness

Data Source: Written or verbal reports of conflicts.

Unit of Measure: Each report.

Findings: There is no need at the present time or in the foreseeable future, for a launch allocation system between private and commercial boating use on the Recreation segment of the Salmon Wild & Scenic River. However, a capacity study would indicate appropriate level of outfitted service days and overall corridor capacity.

Variability: Predicted growth in use of the Recreation segment of the Salmon Wild & Scenic River has occurred and is very apparent in the spring and fall when steelhead anglers leave abandoned fires, garbage and recreational vehicles along the river corridor

Evaluation: This anticipated issue has not developed as yet. Management plan will identify the options for managing use.

Appropriateness: Continue as a Forest Plan monitoring requirement and a mandatory reporting item. Continue to track at the Ranger District level.

RECREATION: Salmon Wild & Scenic River Management Plan –Recreation Segment – Boating Use

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-13 SWSR(rec)-3	Amount of boating use of the Recreation segment of the Salmon River	Annually	Recurring conflicts which could be resolved through regulations or an allocation system.

Monitoring Requirement: Salmon and Challis Forest Plans

Monitoring Type: Baseline

Data Source: Voluntary self-registration system at boat launches supplemented by random observation.

Unit of Measure: Number of boaters.

Findings: Self-registration system was never implemented.

Variability: Predicted growth in use of the Recreation segment of the Salmon Wild & Scenic River has occurred.

Evaluation: This anticipated issue has not developed as yet.

Appropriateness: Continue as a Forest Plan monitoring requirement and a mandatory reporting item. Continue to track at the Ranger District level.

RECREATION: Salmon Wild and Scenic River Management Plan –Wild Segment – Visitor use

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-14 SWSR(wild)-8	Amount of recreation use of the Wild segment of the	Annually	Use beyond estimated maximum level

	Salmon River		
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Monitoring Requirement: Salmon and Challis Forest Plans

Monitoring Type: Baseline

Data Source: Use data during the controlled permit season is available from the permits.

Unit of Measure: Recreation Visits since 2006.

Findings: The most accurate information available for use of the Wild segment of the Salmon Wild and Scenic River is the mandatory permit system which is in place from June 20 through September 7 of each year. The permit tracks number of people in the party as well as their length of stay, type of water craft, and some of the reservable campsites for both float boats and motorized boats.

Variability: Use figures during the control season continue to be our most reliable information during that season.

Evaluation: Use varies based on many factors, and the high use on the weeks before and after the “control” season is a trend that continues to be monitored by the district. Boaters tend to crowd the calendar at both ends of the control period, and often the week before and the week after control season the number of launches per day is quite high which has a ripple effect on downriver campsites.

Appropriateness: Continue as a Forest Plan monitoring requirement. Continue to track float use levels during the control season at the Ranger District level.

RECREATION: Frank Church - River of No Return Wilderness Management Plan – Middle Fork of the Salmon River – Launch Allocation

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-15 FCWMP-1	Allocation of launches between outfitted and non-outfitted groups on the Middle Fork of the Salmon River	Annually	Significant number of unused launches by either group or significant changes in demand for launches by either group.

Monitoring Requirement: Salmon and Challis Forest Plans

Monitoring Type: Effectiveness

Data Source: Ranger District records of launches used by outfitted and non-outfitted groups.

Unit of Measure: Launch

Findings: Current allocated launches are fully utilized by both groups.

Variability: Actual performance matches predicted performance.

Evaluation: Management Plan revision for the Frank Church – River of No Return Wilderness (2003) maintained the current allocation of launches on the Middle Fork of the Salmon River.

Appropriateness: Continue as a Forest Plan monitoring requirement and a mandatory reporting item. Continue to track at the Ranger District level and make adjustments as needed through standard management actions.

Recreation: Frank Church – River of No Return Wilderness Management Plan

Monitoring Item	Activity to be Measured	Monitoring Frequency	Monitoring Objective
FC-RONRW-Recreation	Condition of campsites 1. Frissell Campsite Ratings 2. Modified – Cole Campsite Condition Surveys	Annually monitor 10% of campsites	For land based campsites, no more than 5% are in Frissell Condition Class V, no more than 20% in Class IV, and no more than 30% in Class III; 25% or more in Frissell Condition Class II and 20% or more in Class I

Monitoring Requirement: Frank Church – River of No Return Wilderness Management Plan

Monitoring Type: Implementation/Evaluation

Data Source: Frissell campsite conditions surveys and weed inventory forms

Unit of Measure: Frissell campsite condition standards

Findings:

Location of Censused Camps and Yearly Work Completed

Year	High Lakes	River	General Wilderness	Total inventories conducted
2011	106	0	0	106

Most Recent Frissell Condition

Frissell Class	High Lakes		River		General Wilderness	
	#	%	#	%	#	%
1	62	16	22	18	48	32
2	109	28	18	15	55	36
3	102	26	41	33	33	22
4	62	16	39	31	10	7
5	26	7	4	3	4	3
Insufficient Data	28	7	0	0	0	0

Variability: The protocol and a compatible data collection process needs to be coordinated needs to be finalized across the FCRONRW and a strategy to deal with camps that no longer merit a Frissell rating, have been effectively made unusable due to downfall or other natural causes, or that cannot be located needs to be developed.

Evaluation: The Frank Church Management Plan provides direction on the relative percentage of each condition class campsites may occupy before corrective action becomes mandatory. For upland (general wilderness and high lakes) campsites, no more than 5% may be in Condition Class 5, no more than 20% in Class 4, and no more than 30% in Class 3. As of 2011, there were 6% in Class 5, but are in compliance with respect to other condition classes. 101 campsites along the Middle Fork of the Salmon River are assigned to boaters floating the river, and the River Program has extensive use data on these camps. 126 campsites have been inventoried within the boundaries of the Wild and Scenic River Corridor. The Frank Church Management Plan states that campsites along the Middle Fork of the Salmon River will be managed such that no more than 45% are Class 4 and no more than 7% are Class 5. These objectives are being met.

Appropriateness: Continue as a Forest Plan monitoring requirement.

Recreation: Frank Church – River of No Return Wilderness Management Plan

Monitoring Item	Activity to be Measured	Monitoring Frequency	Monitoring Objective
FC- RONRW- Recreation	1. Number of launches by type 2. People per party 3. PAOT levels 4. Encounter levels between different user groups 5. Outfitter and Guide percent of allocation used – launches used 6. Number of Kicker Motors used (Salmon River) 7. Campsite condition surveys using Frissell and Modified – Cole Methods	Annually monitor 10% of campsites	River campsites

Monitoring Requirement: Frank Church – River of No Return Wilderness Management Plan

Monitoring Type: Implementation/Evaluation

Data Source: Frissell campsite conditions surveys

Unit of Measure: Number of groups by user

Findings:

Middle Fork Salmon River Permits

Year	Private Permits		Comm Permits		Avg. Pvt Group Size	Avg. Comm. Group Size
	#	%	#	%		
2011	429	64	242	36	8.9	21.6

Main Salmon River Permits

Year	Private Permits		Comm Permits		Avg. Pvt Group Size	Avg. Comm. Group Size	Kicker Motors
	#	%	#	%			
2011	425	75	140	25	8.7	17	0

Frissel data reported above.

Variability: The numbers of permits for the main Salmon River are constrained during the permit lottery season and are limited to seven launches Middle Fork Salmon River year-round. Party sizes are also limited for both rivers year-round and numbers cannot be legally exceeded.

Evaluation: The objectives for the campsite monitoring are being met.

Appropriateness: Continue as a Forest Plan monitoring requirement.

Recreation: Frank Church – River of No Return Wilderness Management Plan

Monitoring Item	Activity to be Measured	Monitoring Frequency	Monitoring Objective
FC-RONRW-Jet Boats	1. Jetboats launched 2. People per party 3. Length of stay per party	Annually monitor 10% of campsites	River campsites

Monitoring Requirement: Frank Church – River of No Return Wilderness Management Plan

Monitoring Type: Implementation/Evaluation

Data Source: Permit tracking forms

Unit of Measure: Number of jetboats

Findings:

Main Salmon River Jetboat Permits

Year	# Jetboat Permits	# of People	Length of Stay
2011	375	1,383	Unk.

Variability: During the control season, there can be up to six private jetboats on the river at one time. There is no limit on the number of boats outside of the control period. The number of jetboats is highly variable based upon factors such as water levels and new rapids.

Evaluation: The accounting of jetboat use is improving.

Appropriateness: Continue as a Forest Plan monitoring requirement.

RESEARCH NATURAL AREAS: Number and Acres

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
TR-1	Number of RNAs and total acres	Annually	N/A

Monitoring Requirement: This item is identified as a Tracking Item

Monitoring Type: Tracking/Implementation

Data Source: Establishment records

Unit of Measure: Number and acreage

Findings: All the proposed RNAs identified in the two Forest Plans have been designated except for the Deadwater RNA which was dismissed due to excessive non-native vegetation that detracted from its RNA characteristic. No more RNAs are proposed.

Salmon and Challis Forest RNAs (Acres):

RNA	Acres	RNA	Acres
Allan Mountain	1,650	Surprise Valley	1,470
Kenney Creek	1,690	Merriam Lake Basin	740
Davis Canyon	1,215	Middle Canyon	2,200
Dry Gulch – Forge Creek	3,235	Smiley Mountain	3,080
Frog Meadows	330	Mahogany Creek	3,650
Mill Lake	720	Cache Creek Lakes	795
Bear Valley	2,530	Mystery Lake	517
Colson Creek	280	Sheep Mountain	1,542
Dome Lake	1,415	Iron Bog	434
Gunbarrel	1,600	Meadow Canyon (part of Targhee NF)	3,880
Soldier Lakes	155	TOTAL ACRES	33,128

Variability: N/A

Evaluation: N/A

Appropriateness: Discontinue as a Forest Plan monitoring and reporting item. Tracking and implementation of RNA establishment has been complete.

SOIL: Natural Erosion

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-1	Natural soil erosion for on-site loss	Annually	Exceeding local soil loss tolerance levels

Monitoring Requirement: This is not a required monitoring item in either the Challis or Salmon Forest Plans. This is addressed as a research need in the Salmon Forest Plan (II-52). See also FP-7 Naturally Unstable Areas in this report.

Monitoring Type: Baseline

Data Source: Forest Erosion Trough Report and Engineering Road Crew Reports

Unit of Measure: Tons/acre

Findings: There is no additional information to report for FY2011.

Variability: Not applicable

Evaluation: Not applicable

Appropriateness: The collection of natural erosion rates was a priority for some time so that the Forest had local data for input into Erosion Prediction Models, such as BOISED. In recent years new erosion prediction models are being used, such as WEPP. Natural erosion rates are available in the WEPP model so there is no longer a need to collect baseline data for natural erosion rates.

SOIL: Ground Disturbance Activities with the Potential to Alter Soil Productivity

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-2	Activities that alter soil productivity	Appropriate sample of projects	Detrimental soil productivity levels

Monitoring Requirement: Challis (V-12, #2) and Salmon (V-9, #4) Forest Plans. This monitoring item is closely related to and tiers to monitoring item Water FP-4.

Monitoring Type: Implementation/Effectiveness

Data Source: Field measurements, observations, and soil quality assessments

Unit of Measure: Ground cover; soil compaction

Findings: Beginning in 2003, the Soil Quality Assessment process was initiated which includes qualitative observations and quantitative sampling of erosion indicators, ground cover, and soil compaction (bulk density).

FY 2011 Monitoring

During FY 2011 eight project areas were monitored for impacts to the soil resource due to forest management activities and the effectiveness of applied BMPs was evaluated. Types of observation included visual observations and photo monitoring, systematic sampling, core samples, surface cover transects, soil quick pit descriptions. Indicators of soil health observed and monitored included soil structure, compaction, hydrophobicity, surface erosion (sheet rills, gullies), active erosion, ground cover, soil displacement, soil deposition, coarse woody debris, burned soil severity and vegetation community composition.

Grazing and allotment management

Spud Marco Allotment

Past harvest, mining and recreation activities

Upper North Fork HFRA project area

Sawmill Canyon HFRA project area

Withington focus watershed

Copper Canyon minerals exploration project area

Suppression tactics, suppression rehab and fire effects

Indian Creek Fire suppression tactics, suppression rehab and fire effects

Saddle Complex suppression tactics, suppression rehab and fire effects

Salt Fire suppression tactics, suppression rehab and fire effects

Variability: Not applicable to FY 2011 monitoring.

Evaluation: The general results of the monitoring and soil quality assessments indicated no unanticipated short-term or long-term alteration of water or soil productivity and that current best management practices when applied correctly, are effective at eliminating or minimizing adverse effects.

Appropriateness: Continue as a Forest Plan monitoring requirement. Information collected after implementation of activities is used to determine the effectiveness of the projects design features and mitigation measures. It also establishes a feedback mechanism for other forest specialists associated with similar projects. There is a direct relationship with the goals, direction, standards, and guidelines of the Forest Plans.

SOIL: ORV Damage

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-3	Sequential photo points of ORV damage	Annual	Closure of areas upon evidence of watershed damage

Monitoring Requirement: Salmon Forest Plan (V-9). See also Recreation FP-7.

Monitoring Type: Baseline/Implementation

Data Source: Standard soil monitoring; field observations; photo points

Unit of Measure: Photo interpretation and evaluation

Travel Plan implementation- unauthorized route surveys

Findings: Routes not added to the transportation system through travel plan implementation continue to be evaluated and a portion were evaluated in 2011. A total of 1157 routes (550 miles) were evaluated, mapped using GPS technology and pictures were taken of problem areas. These evaluations will be used to help prioritize route decommissioning where necessary and provide opportunities for decommissioning at the project level.

Variability: Not applicable

Evaluation: Soil disturbance and accelerated erosion from ORVs is a concern on the Forest. The use of ORVs both on and off roads and trails has increased over the last 10 years. National direction has mandated all national forests review their transportation systems due to resource and safety concerns. The Salmon-Challis, during FY 2009, published its final EIS – Travel Planning and OHV Route Designation. System and non-system routes were evaluated and a system of routes was designated for use. The Salmon-Challis N.F. is continuing to implement changes in use patterns through maps, signage, and enforcement.

Appropriateness: Continue as a Forest Plan monitoring requirement. Not only has ORV use increased but the types of ORVs have increased since the present Forest Plan was implemented. User created roads and trails have the potential to alter soil productivity, increase erosion, and alter hydrologic functioning of the soil. There is a direct relationship with the goals, direction, standards, and guidelines of the Forest Plans.

SOIL: Benchmark Soils

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-4	Recognize and establish benchmark soils that are representative of large areas	Continuous	Initiate further investigation after establishing representative sampling sites

Monitoring Requirement: Salmon Forest Plan (V-9)

Monitoring Type: Baseline/Implementation

Data Source: Land Types; Land Type Associations

Unit of Measure: Number

Findings: There is no additional information to report for FY 2011. Numerous Land Type Associations have been identified as benchmark soil types representing the larger, more dominant land types within the Forest.

Variability: Not applicable

Evaluation: Soil map unit descriptions accompany the various soil and land type surveys that have been accomplished over the years on the Forest. Map unit descriptions identify and describe the various characteristics and properties of the major soil types within the map unit. At the project level, the soil characteristics at the site level

are compared to those described for the Land Type. Any significant differences are evaluated and used to modify the proposed project design to eliminate or minimize adverse effects to the soil resource.

Appropriateness: Continue as a Forest Plan monitoring requirement. However, the recognition and establishment of formalized “benchmark” soil types representing larger areas is not necessary. Representative soil types are already identified as part of the Land Type and soil mapping process.

SOIL: Comparing Erosion for Various Forest Practices

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-5	Quantified project level erosion sampling	4 plots per year	Exceeding local soil loss tolerance level evaluations

Monitoring Requirement: Challis (V-12, item #1) and Salmon (V-9, item #3) Forest Plans

Monitoring Type: Implementation/Effectiveness

Data Source: Erosion troughs; fabric cloth; 3-F erosion bridge method

Unit of Measure: Tons/acre

Findings: No additional information to report for FY 2011. No project level quantified erosion studies have been performed.

Variability: Not applicable

Evaluation: Not applicable

Appropriateness: Not recommended to Continue as a Forest Plan monitoring requirement.

Due to the episodic nature of soil erosion it is very difficult to quantitatively evaluate soil erosion rates at the project level. Because of this difficulty the Intermountain Regional Office developed a Soil-Disturbance protocol to provide a tool to identify and evaluate soil erosion and disturbance. This protocol includes sampling of erosion indicators, ground cover, soil compaction, and burn severity.

The Soil Disturbance Protocol has been demonstrated to provide a statistically valid evaluation of the effects on soil disturbance with minimal effort and time involved. Direct measurement of erosion rates at the project level was time intensive and often did not provide a statistically valid evaluation of the effects on the soil resource.

SOIL: Soil Survey Activities

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-6	Soil survey activities	Annually	+/- 25% of Plan direction

Monitoring Requirement: Salmon Forest Plan (V-9)

Monitoring Type: Baseline

Data Source: Progress reviews, Management Attainment Report

Unit of Measure: Acres surveyed

Findings: No additional information to report for FY 2011.

Variability: The opportunity to plan and complete soil surveys is totally dependent upon a reliable budget source which has not been available in the recent past.

Evaluation: Mapping could be addressed in the future if funding becomes available.

Appropriateness: Continue as a Forest Plan monitoring requirement. Should funding become available and soil surveys become a priority, reportable units will be adequately monitored and reported.

SOIL: Naturally Unstable Areas

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-7	Naturally unstable areas	Annual	Sites which are not stable due to natural conditions

Monitoring Requirement: Salmon Forest Plan (V-9). See also Soil FP-1 – Natural Erosion.

Monitoring Type: Effectiveness/Validation

Data Source: Observations of incidences; landslide data files

Unit of Measure: Number of events

Findings: No instances of landslides or debris flows were recorded during FY2007. During FY 2008 a large rockslide closed a section of the Middle Fork Trail near Simplot Ranch in the Frank Church-River of No Return Wilderness. The rockslide contained about 100 tons of material and completely obliterated a 30-40 foot long section of the trail. Several areas of natural soil instability are present throughout the Salmon-Challis National Forest. Incidences of natural debris flows have been recorded and photographed. Landslide prone areas have been identified on topographic maps indicating where historical mass wasting prone soils are located.

Variability: Not applicable

Evaluation: Knowing where natural soil instability is located and the types of soils prone to instability assist Forest specialists in planning and managing Forest activities.

Appropriateness: Continue as Forest Plan requirement. These sites should be monitored by maintaining a photographic report file of incidences and maintaining the landslide prone map files as additional areas are further investigated.

SOIL: Vegetation and Soil Conditions: Salmon Wild and Scenic River Management Plan (Wild Segment): Campsites

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-8 SWSR (wild)-2	Vegetation and soil stability	Every three years	Detrimental site instability from activities

Monitoring Requirement: Salmon Forest Plan; Salmon Wild and Scenic River Management Plan

Monitoring Type: Baseline/Implementation/Evaluation

Data Source: Photo points; field observations

Unit of Measure: Qualitative interpretation

Findings: Annually the Forest's Wilderness and Rivers staff monitors a portion of the river camps in the Wild and Scenic River Segments to evaluate the effects of the campsites and social trails on the vegetation, soils and heritage resources. This evaluation is done using the Frissell Condition Class, a general camp condition rating protocol. If adverse impacts are occurring they document the effects and mitigate them if possible. Mitigation may include restricting or eliminating use in a specific area by moving natural debris, such as trees or limbs, to create physical barriers. If unacceptable impacts are occurring river camps may be closed for a time to promote revegetation or to protect heritage resources.

Variability: Not applicable

Evaluation: Not applicable

Appropriateness: Continue as a Forest Plan monitoring requirement. Trends in campsite expansion and extent of social trails are increasing. There is a direct relationship with the goals, direction, standards, and guidelines of the Forest Plans.

TIMBER: Offer, Sold, and Cut

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-1	Timber Sold	Annually	Timber offer not progressing as scheduled

Monitoring Requirement: Salmon and Challis Forest Plans

Monitoring Type: Implementation

Data Source: PTSAR, PSS, TCS, and TSPIRS Reports (PSS, TCS, TSPIRS no longer exist). PTSAR reports are current sources for FY06-09 figures.

Unit of Measure: Volume: MBF; (Area: Acres no longer reported)

Findings: Refer to the table on the next page for a summary of the volumes offered, sold, and cut on the individual Salmon and Challis Units and a total for the combined Forests.

Planned logging is listed in the Salmon and Challis Forest Plans and is stored in our Timber Activity Control System (TRACS) and Forest Plan Timber Summary (FPTS) Area. The volume in Thousand Board Feet (MBF) and the Acres sold in a given year are stored in the Program Sale Statement (PSS) Area and Timber Cut and Sold (TCS).

Two categories of timber volume exist: 1) The Allowable Sale Quantity, which is the quantity of timber that may be sold from the area of suitable land covered by the Forest Plan for a time period specified by the Plan. This quantity is usually expressed on an annual basis as the “average annual sale quantity.” 2) The second category of volume is an estimated amount of volume called Non-Chargeable Volume in TRACS. This is volume from trees not used in the determination of ASQ, such as fuelwood from logging residue, etc. These two categories are listed as “ASQ” and “NON-ASQ” in the tables on the following pages.

North Zone Unit “Planned”			South Zone Unit “Planned”		
	MBF	ACRES		MBF	ACRES
ASQ	21,630		ASQ	3,000	
Non ASQ	2,800		Non ASQ	2,300	
Total	24,430	4,635	Total	5,300	1,575

Volume Sources:

Salmon Forest Plan Page VII-A-8, EIS Page IV-34, Page II-137

Sawtimber = 21,147 MBF + Roundwood = 169 MCF x 3.3 = 558 = about 21,700 ASQ.

The TRACS 21,630 value is due to rounding.

Fuelwood (NON-ASQ) = 814 MCF x 3.47 = 2,800 MBF

Challis Forest Plan Page IV-39. ASQ = 3,000 MBF. NON-ASQ = 2,250, 2,300 in TRACS. Acres sources: Salmon Plan Page III-1, EIS Page IV-34. Sawtimber = 4,012. Challis Plan Page IV-40, Sawtimber = 550 acres. Acres are increased in TRACS for Roundwood and Fuelwood.

**MBF VOLUME: Offered, Sold, and Cut. ACRES Sold and Cut; North and South Zone Units
FY07 through FY11**

COMBINED SCF				
FY	SOURCE OF INFO	MBF OFFER	MBF or AC CUT	MBF or AC CUT
		PTSAR	TCS	TSPIRS
2011	Total Volume	12,080	12,429	No acres cut report

Variability: Salmon offered and sold ASQ volumes were only 16% of the Forest Plan average, the bulk of which occurred between 1997 and 2001. Challis' sold ASQ has been right at the planned level until 1998, and then dropped to approximately 53% of the Forest Plan average.

Evaluation: Section 7 Consultation for salmon under ESA began late in 1992, and marked the beginning of reduced volume offer on the Salmon Unit.

Appropriateness: Continue as a Forest Plan monitoring requirement as a means of displaying the trends of timber sales from Forest Plan projections.

TIMBER: Fuelwood Sold

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-2	Fuelwood cut	Annually	Significant drop in volume indicating a change in supply/demand

Monitoring Requirement: Salmon and Challis Forest Plans

Monitoring Type: Implementation

Data Source: TIM Database 2011

Unit of Measure: MBF

Findings:

MBF Wood Sold	2011
North Zone	
Commercial FW	0
Personal Use Fuelwood	2,633
Free Use Fuelwood	0
South Zone	
Commercial FW	0
Personal Use Fuelwood	2,814
Free Use Fuelwood	64

Variability: The Proclaimed Salmon National Forest did not offer any free-use fuelwood after 2009 and did not have any active commercial fuelwood areas since 2007.

Evaluation: The volume of personal use fuelwood sold has steadily increased for both ends of the forest. Free-Use fuelwood continues to be part of the South Zone program,

although the volume is highly variable dependent on year. More commercial fuelwood areas are needed across both zones.

Appropriateness: Continue as a Forest Plan monitoring requirement.

TIMBER: Reforestation and Stand Improvement

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-3	Reforestation and Timber Stand Improvement	Annually	Significant reduction in Forest Plan outputs

Monitoring Requirement: Salmon and Challis Forest Plans

Monitoring Type: Implementation

Data Source: TRACS and Reforestation/TSI Annual Accomplishment Report

Unit of Measure: Acres

Findings:

North Zone		
Forest Plan (FP) Year	FP Annual Output	2011
Planting	1870	0
Site Prep Nat		0
Total Reforestation		0
*Cert w/o S.P. Plantation Cert.		1500
Release		0
Thin		0
Total TSI	950	0

*Note: The reforestation goal in the Forest Plan was based on planting and site preparation for naturals. Certification of natural regeneration without site prep was not included.

South Zone		
Forest Plan (FP) Year	FP Annual Output	2011
Planting	653	0
Site Prep Nat		0
Total Reforestation		0
*Cert. w/o S.P.		1660
Release		0
Thin		596
Total TSI	69	596

Variability: Long term reforestation (exclusive of certification of natural regeneration without site prep) has been highly variable and ranges from a low of zero acres in numerous years to 1,119 acres in 1994. Timber stand improvement has been equally variable, ranging from a low of zero acres in numerous years to 677 acres in 1989.

Evaluation: Annual reforestation and timber stand improvement accomplishments are subject to many yearly variables. These include changing budgets, cutting levels, seedling availability, and even the type of fire season (in emergency situations, project crews are pulled away to battle forest fires). Long-term trends are more meaningful. Anadromous fish listings in the early 1990's along with Section 7 consultation requirements marked the beginning of decreased timber volumes offered for sale on the Forest, thus reforestation needs. Timber stand improvement has likewise been impacted by the Canada Lynx listing in 2000 and subsequent 2007 lynx management amendment which guides (limits) TSI activities in habitat areas. Recent classification of the Salmon-Challis National Forest as secondary (not currently occupied) habitat may present opportunities for increased TSI activity.

Appropriateness: Continue as a Forest Plan monitoring requirement as a means to evaluate long-term trends of forest management.

TIMBER: Restocking

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-4	Adequate Restocking within 5 years	Annually 5 years after final removal	Suitable lands fail to be regenerated within 5 years

Monitoring Requirement: Salmon and Challis Forest Plans

Monitoring Type: Validation

Data Source: Reforestation and TSI Accomplishment Report, Table 22 – 1988-1996
Silva Report (Management Attainment Report) – 1997-2004

Unit of Measure: Percent acres adequately stocked

Findings:

Final Harvest	Acres	Acres Planted	Percent Stocked	Percent Unstocked	Acres Replanted	Survival Transect Acres		Year	Certification Year
						1st Yr	3rd Yr		
2000	380	0	100	0	0	48	337	05	576
2001	250	0	100	0	0	193	363	06	119
2002	419	0	100	0	0	205	1328	07	439
2003	31	225	100	0	0	226	495	08	171
2004	51	0	100	0	0	222	0	09	12
2005	0	0	100	0	0	88	162	10	44
2006	0	0	100	0	0	0	0	11	0
2006 (Burned)	0	570	100	0	0	570	0	11	5080
Total	1131					982 (1552)	2685		1361 (6441)

Variability: Variability is low since restocking is a focused effort. Certification is required on all regeneration harvest units.

Evaluation: Successful regeneration has continued across the forest over the last five years. Focus planting areas have shifted from cut over areas to evaluating and replanting high productivity burn areas to return them to production. 2011 spike in acres certified as stock is a result of these evaluation looking for natural regeneration and identifying future acres that need planted across those burn areas.

Appropriateness: Continue as a Forest Plan monitoring requirement.

TIMBER: Openings

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-5	Maximum size of openings	Annually	Openings exceed maximum size

Monitoring Requirement: Salmon and Challis Forest Plans

Monitoring Type: Implementation

Data Source: STARS and RMRIS data bases

Unit of Measure: Number of even age units greater than 40 acres

Findings: Maximum size limit for openings created in one logging operation by even-aged management is 40 acres. Exceptions are covered in the Regional Guide. The Regional Forester's approval is required for openings over 40 acres. Forest Plan Reference: Salmon Plan, Page IV-41; Challis Plan, Page IV-16.

Year	Total Acres Sold TIM Worksheet	# of CC Units	Size of CC Units over 40 acres
2011	918	0	0

NOTE: Mine and road clearing projects are included in total acres sold but do not meet the definition of even-aged management.

Variability: During 2011, no even age units over 40 acres have occurred on the Salmon-Challis National Forest.

Evaluation: Since 1992, neither zone on the SCNF has exceeded a 40 acre clearcut size.

Appropriateness: Continue as a Forest Plan monitoring requirement. Determine if objectives (i.e. insect and disease control) are being met by limiting openings to less than 40 acres. "The conditions which initiate further evaluations" should be changed to reflect monitoring for effectiveness.

Trails: Frank Church – River of No Return Wilderness Management Plan

Monitoring Item	Activity to be Measured	Monitoring Frequency	Monitoring Objective
FC-RONRW-Trails	1. Percent of trails inventoried annually 2. Percent of system trails identified by condition survey to have resource problems 3. Trail miles cleared annually	Complete 10 percent annually	Trails provide access to the wilderness for a variety of user groups and experience levels. No more than 20 % of the system trails have identified resource problems

Monitoring Requirement: Frank Church – River of No Return Wilderness Management Plan

Monitoring Type: Implementation/Evaluation

Data Source: Trail condition survey and miles cleared annually from INFRA database

Unit of Measure: Miles

Findings: Survey work is done along the randomly chosen trails and the information about the condition of the trails and the support structures was recorded in INFRA. The backlog of “deferred maintenance” on trails has led to increased partnerships and creative funding to reduce resource damage and to increase visitor safety along the trail system.

FCRONRW Trails Inventoried and Cleared

Year	Trails Inventoried (Miles)	Trails w/ Resource Problems (Miles)	Trails Cleared (Miles)
2011	-	-	SZ=170, NZ=51

Variability: Predicted performance was that the Forest would make steady improvement in the quality and condition of our trail system.

Evaluation: Data collected and reported through INFRA indicates investments needed for the operation and maintenance of all trails. Needs identified are then requested through the out year budget process. Additional designated motorized routes were added forest-wide to comply with the travel planning decisions.

Appropriateness: Continue trend information as a Forest Plan monitoring requirement and a mandatory reporting item. INFRA provides the detailed information.

VISUAL RESOURCE: Compliance with Visual Quality Objectives.

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-1	Any management activity or project	Annually	Significant failure to meet assigned Visual Quality Objectives on a project basis.

Monitoring Requirement: Salmon and Challis Forest Plans

Monitoring Type: Implementation

Data Source: Field observation or photo documentation of completed projects.

Unit of Measure: A project.

Findings: All projects monitored and evaluated to date have generally met their assigned Visual Quality Objectives. Specific projects have used outside Landscape Architect for specialized work. One forest Plan amendment (site-specific) was done to allow timber sale activities near the Continental Divide National Scenic Trail.

Variability: Not applicable

Evaluation: Not applicable

Appropriateness: Continue as a Forest Plan monitoring requirement pending implementation of the new and improved Scenery Management System (at forest Plan Revision)

WATER: Substrate Depth Fines

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-1	Fish Habitat (Substrate Depth Fines)	Annually to Biannually	Failure to meet Forest Plan sediment standards of State fisheries goals; 20 percent change in habitat quality

Monitoring Requirement: Salmon (item #7) and Challis (item #2) Forest Plans

Monitoring Type: Baseline/Effectiveness

Data Source: Watershed files; Annual Watershed and Fisheries Monitoring Report

Unit of Measure: Percent substrate fines by depth (Relation to Forest Plan and State fisheries goals); Trend

Findings: Data shown from 2007 through 2011 to derive trend over the reporting period.

Zone	Year	Stream Stations Surveyed	Stations Meeting Plan Standards or Goals <u>1/</u> , <u>2/</u>
Salmon	2011	15	9 (60%)
Challis	2011	22	17 (77%)

1/ Salmon National Forest Plan Goal: 20 percent fines by depth in anadromous habitats; 28.7 percent fines by depth in resident habitats.

2/ Challis National Forest Plan Standard: 30 percent fines by depth in all perennial habitats.

Variability: Analysis of the results of 5 years of core sampling operations on the Salmon/Challis N.F. streams has indicated a generally high level of both spatial and temporal variability of depth fine levels in forest streams. Besides land and resource management activities, factors known to exert significant influence on observed levels of substrate fines include basic geology and geomorphic factors such as parent geology, watershed aspect and channel type, and natural events such as drought, wildfire, excessive runoff flows, or isolated high intensity storm events. These factors must all be considered in any cause and effect analysis on stream substrate sediment levels.

Statistical analysis on subsets of the core sampling data from the Salmon/Challis N.F. suggests that, within the range of values observed, changes of less than five percent fines on an absolute basis, or 20 percent fines on a relative basis, do not indicate a statistically significant change in substrate conditions.

Evaluation: As identified in the accompanying table, 2011 core sampling operations indicated that 62 percent of the total inventoried Salmon Zone streams, and 48 percent of the total inventoried Challis Zone streams have downward trends for depth fines in spawning habitat. Cumulatively, for the 2011 monitoring there were 9 out of 15 (60%) stations that meet Salmon Zone Forest Plan sediment goal and 17 out of 22 (77%) that meet the Challis Zone Forest Plan sediment standard. Differences in the percentage numbers between Salmon and Challis Zones are in part attributed to the more stringent goal identified for anadromous waters in the Salmon National Forest Plan. Sampling crews who surveyed both North and South zone waters found no readily observable differences in stream characteristics between the two areas.

Appropriateness: Continue as a Forest Plan monitoring requirement. Despite a relatively high level of variability due to the influence of natural events, levels of substrate depth fines in Forest streams are widely acknowledged as an indicator of the basic production capabilities of fish spawning and incubation habitats. Although relatively labor intensive, the McNeil core sampling methodology employed by the forest is among the most objective, repeatable, and biologically relevant of the various methods utilized to assess fish spawning habitat conditions of Forest streams. Ongoing consultations with the NOAA Fisheries additionally include identification of sediment trends in Chinook salmon spawning habitats as a principal term and condition of concurrence with Biological Assessments for Salmon/Challis N.F. watersheds.

WATER: Best Management Practices; Water Quality (Temperature)

Monitoring Item	Activity to be Measured	Monitoring Frequency	Condition Which Initiate Further Evaluations
FP-2	Water Quality (Water Temperature)	Annually	Exceedence of PACFISH, INFISH or State Water Temperature Standards or Guidelines

Monitoring Requirement: Salmon (item #1) and Challis (item #1) Forest Plans

Monitoring Type: Baseline/Effectiveness

Data Source: Watershed files; Annual Watershed and Fisheries Monitoring Report

Unit of Measure: Water Temperature (Seasonal Max/Min; Incidence of exceedence of PACFISH or INFISH Standards or State Water Quality Beneficial Use Criteria for coldwater biota and salmonid spawning)

Standards:

- I. State of Idaho Beneficial Use Water Temperature Criteria
 - A. Coldwater Biota: Water temperatures of 22 degrees C (71.6 degrees F) or less with a maximum daily average of no greater than 19 degrees C (66.2 degrees F)
 - B. Salmonid Spawning: Water temperatures of 13 degrees C (55.4 degrees F) or less with a maximum daily average no greater than 9 degrees C (48.2 degrees F) (during identified spawning /incubation period)
- II. PACFISH Water Temperature Criteria
 - A. Trend: No measurable increase in maximum water temperature (7 day moving average of daily maximum water temperature measured as the average of the maximum daily temperature of the warmest consecutive seven day period)
 - B. Migration/Rearing: Maximum water temperatures below 64 degrees F (17.8 degrees C) within migration and rearing habitats

- C. Spawning: Maximum water temperatures below 60 degrees F (15.6 degrees C) within spawning habitats

III. INFISH Water Temperature Criteria

- A. Trend: No measurable increase in maximum water temperature (7 day moving average of daily maximum water temperature measured as the average of the maximum daily temperature of the warmest consecutive seven day period).
- B. Adult Holding: Maximum water temperatures below 59 degrees F (15 degrees C) within adult holding areas.
- C. Spawning/Rearing: Maximum water temperatures below 48 degrees f (8.8 degrees C) within spawning and rearing habitats.

Findings: Water temperature monitoring is no longer performed as baseline monitoring across the Forest due to time constraints and accessibility. Temperature data is obtained at the project level where activities may potentially impact water temperature. (See table on following page)

Water Temperature Data 2011

Year	Stations Meeting Idaho Coldwater Biota Criteria?	Stations Meeting Idaho Salmonid Spawning Criteria?	Stations Meeting PACFISH Rearing Criteria?	Stations Meeting PACFISH Spawning Criteria?	Stations Meeting INFISH Rearing Criteria?	Stations Meeting INFISH Spawning Criteria?
2011	110/111 99%	Spring 87/94 92%	104/109 95%	Spring 93/97 96%	99/111 89%	29/110 26%
		Fall 91/110 83%		Fall 104/110 95%		
		Chinook 7/12 58%		Chinook 10/12 83%		

Variability: Thermograph results have shown water temperature regimes to be highly variable from year to year, particularly with the highly variable climactic patterns observed during the past decade. Yearly differences in absolute summer maxima spanning more than ten degrees have been observed in individual streams over the course of the monitoring period. Data to date suggests that absolute summer water temperature maxima may be as influenced by winter snow pack levels and consequent summer flow levels as they are by summer air temperature regimes.

Evaluation: Designated rearing temperature criteria vary significantly between the State's Beneficial Use Criteria and interim PACFISH and INFISH Riparian Management Objectives (RMOs). Prior to 1995, the only rearing temperature criteria guiding Forest direction was the State of Idaho Beneficial Use Criteria for coldwater biota, which identified 71.6 degrees as a recommended maximum for maintenance of aquatic life-

forms. Adoption of PACFISH and INFISH in 1995, by way of Forest Plan Amendment, revised these criteria to a maximum of 64 degrees and 59 degrees within the PACFISH (Salmon River Basin) and INFISH (Big and Little Lost River Basins) management areas, respectively. The Draft PACFISH EA originally identified a rearing temperature criteria of 68 degrees, which closely approached the State's value, but this was revised downward to its 64 degree value in the final document. The 59 degree INFISH value appears to reflect the lower temperature preferences of bull trout, but the selected INFISH EA alternative applies these criteria to all waters within the INFISH management area.

As with rearing temperature criteria, spawning temperature criteria varies significantly between Idaho state guidelines, and PACFISH and INFISH RMOs.

The Idaho Beneficial Use Criteria for salmonid spawning identifies a maximum daily temperature of 55 degrees and a mean daily temperature of 48 degrees or less. As written, the Idaho State criteria indicates that the specified standards pertain only within the period of spawning and incubation for the individual fish species present in the stream or stream reach. Generalized spawning and incubation timeframes for various salmonid species are included within the State of Idaho Criteria document, but more site-specific periodicities have been documented by Salmon-Challis National Forest Fisheries Biologists, and these localized temporal envelopes were utilized for evaluation of seasonal temperature data. Identified to assist with instream flow fish habitat evaluations, these periodicities encompass both the earliest and latest dates of observed spawning activity on Forest streams. The actual initiation of spawning activity in individual streams may be weighted toward either the early or late portions of these identified periodicity ranges due to the influences of elevation, basin aspect, shading, and other factors upon water temperatures. This variability within the identified periodicity dates must be considered when evaluating suitability of observed spawning temperature regimes, particularly for Chinook salmon and bull trout.

In contrast to the State standards, neither PACFISH nor INFISH specifically link spawning temperature criteria to the spawning periodicities of target species. Designated maxima also deviate from the State standard, with PACFISH identifying a 60 degree maxima (revised upward from the original 55 degree value identified in the Draft PACFISH EA), and INFISH identifying a 48 degree maxima. As with its adult holding criteria, the INFISH spawning/rearing criteria appears to reflect the spawning temperature requirements of bull trout, but is applied to all waters within the INFISH management area, regardless of species present.

Appropriateness: Continue to monitor as a Forest Plan requirement. Seasonal water temperature regimes are a driving factor shaping the metabolic activity and scope for growth of most aquatic organisms. Optimum spawning, incubation and rearing temperature ranges have been identified for most fish species. Temperature regimes substantially outside these identified ranges can produce deleterious effects upon egg development and survival, and reduce metabolic efficiency causing reduction or complete cessation of growth. Temperatures in the mid to high seventies can be directly lethal to cold water fish species, and persistent temperatures in the low sixties can limit bull trout distribution.

Water temperature monitoring operations are, therefore, considered among the most biologically relevant of the various methods utilized to assess fish habitat conditions of Forest Streams. Ongoing consultations with the National Marine Fisheries Service

additionally include identification of seasonal temperature regimes in Chinook salmon spawning and rearing streams as a principal term and condition of concurrence with Biological Assessments for Salmon-Challis National Forest watersheds.

WATER: Changes in Channel Stability and Riparian Integrity

Monitoring Item	Activity to be Measured	Monitoring Frequency	Condition Which Initiate Further Evaluations
FP-3	Channel Stability; Channel Geometry	Annually to Five Years	Major observed changes in streambank stability of channel width-to-depth ratio

Monitoring Requirement: Salmon (item #6) and Challis (item #4) Forest Plans

Monitoring Type: Evaluation

Data Source: Watershed Files; Annual watershed and Fisheries Monitoring Report

Unit of Measure: Percent streambank stability

Findings: The table below displays a list of locations where streambank stability has been monitored in the past 5 years.

Forestwide Streambank Stability Monitoring Results from 2011

Middle Salmon- Panther			
Station	% Bank Stability	Station	% Bank Stability
Arnett Creek 1R		Hull Creek 1R	100
Beaver Creek 1A		Indian Creek 1A	
Big Deer Creek 1A		Indian Creek 2A	
Big Deer Creek 2R		Iron Creek 1A	
Big Deer Creek 3R		Jesse Creek 1R	
Big Hat Creek 1R		Lake Creek 1R	
Cabin Creek 1R		Lake Creek 2R	
Carmen Creek 1R		Little Deep Creek 1R	
Clear Creek 1A		Little Deer Creek 1R	
Clear Creek 2A		McKim Creek 1R	
Colson Creek 1A		Moccasin Creek 1R	
Cow Creek 1R		Moose Creek MSP 1R	
Dahlonaga Creek 1A		Moose Creek NFSR 1A	
Deep Creek 1A		Moyer Creek 1A	
Ditch Creek 1R		Moyer Creek 2A	
Ditch Creek 2R		Musgrove Creek 1A	
East Boulder Creek 1R		Napias Creek 1R	53
Fourth of July Creek 1A		Napias Creek 2R	
Garden Creek MSP 1A		Napias Creek 3R	
Hat Creek 1R		Napias Creek 4R	
Hughes Creek 0A		Napias Creek 5R	
Hughes Creek 1A	87.5	NF Iron Creek 1A	

Middle Salmon- Panther Cont.			
Station	% Bank Stability	Station	% Bank Stability
NF Salmon River 1A	96.5	Pine Creek 3A	
NF Salmon River 2A		Porphyry Creek 1R	
NF Salmon River 3A		SF Iron Creek 1A	
NF Salmon River 4A	100	SF Moyer Creek 1A	
Owl Creek 1A		Sheep Creek 1A	
Owl Creek 2A		Spring Creek 1A	
Owl Creek 3A		Spring Creek 2A	
Panther Creek 0A		Squaw Creek MSP 1A	
Panther Creek 1A	96	Trail Creek MSP 1A	
Panther Creek 2A		Twelvemile Creek 1R	
Panther Creek 3A		Twelvemile Creek 2R	
Panther Creek 4A		Twin Creek 1A	
Panther Creek 5A		Wagonhammer Creek 1R	
Perreau Creek 1R		Warm Springs Creek 1R	
Phelan Creek 1R		WF Iron Creek 1A	
Pierce Creek 1A	99	Williams Creek 1A	90.5
Pine Creek 1A		SF Williams Creek 1R	85
Pine Creek 2A		Woodtick Creek 1A	
Upper Salmon			
Station	% Bank Stability	Station	% Bank Stability
Basin Creek 1A		Morgan Creek 3A	83
Block Creek 1R		NF Rankin Creek 1R	
Challis Creek 1A		Rankin Creek 1R	
Challis Creek 2A		Squaw Creek USR 1A	
Challis Creek 3A		Tenmile Creek 1A	
Challis Creek 4A		Thompson Creek 1A	
East Pass Creek 1A		Trail Creek USR 1R	
Eight Mile Creek 1A		Valley Creek 1A	88.5
Fivemile Creek 1A		WF Herd Creek 1A	
Garden Creek USR 1A		WF Morgan Creek 1A	85.5
Herd Creek 1A		WF Yankee Fk 1A	
Herd Creek 2A		Yankee Fk 1A	
Jordan Creek 0A		Yankee Fk 2A	
Jordan Creek 1A		Yankee Fk 3A	89
Jordan Creek 2A		Yankee Fk 4A	89
Jordan Creek 3A		Yankee Fk 5A	
Jordan Creek 4A			
Mackay Creek 1A			
Morgan Creek 1A			
Morgan Creek 2A			

Upper Middle Fork Salmon			
Station	% Bank Stability	Station	% Bank Stability
Beaver Creek 1A	88		
Marsh Creek 1A	93		
Station	% Bank Stability	Station	% Bank Stability
Lower Middle Fork Salmon			
Camas Creek 1A			
Camas Creek 2A			
Camas Creek 3A			
Castle Creek 1A			
Hoodoo Creek 1A			
Silver Creek 1A	80.5		
Silver Creek 2A			
WF Camas Creek 1A			
Yellowjacket Creek 1A			
Yellowjacket Creek 2A			
Lemhi River			
Station	% Bank Stability	Station	% Bank Stability
Bear Valley Creek 1A		Hawley Creek 1R	
Bear Valley Creek 2A		Hayden Creek 1A	
Bear Valley Creek 3A		Haynes Creek 1R	
Bear Valley Creek 4A		Kenney Creek 1R	
Big Bear Creek 1R	98.5	Little Eightmile Creek 1R	
Big Eightmile Creek 1R		MF Little Timber Creek 1R	66.5
Big Eightmile Creek 2R		Mill Creek LEM 1R	
Big Timber Creek 1R		NF Little Timber Creek 1R	78
Canyon Creek 1R		Pattee Creek 1R	
EF Hayden Creek 1A		Reservoir Creek 1R	78.5
EF Hayden Creek 2R		Withington Creek 1R	94
Pahsimeroi			
Station	% Bank Stability	Station	% Bank Stability
Big Creek_PAH_ 1R		Pahsimeroi River 1R	
NF Big Creek 1R		SF Big Creek 1R	
Big Lost			
Station	% Bank Stability	Station	% Bank Stability
Alder Creek 1R		EF Big Lost River 1R	
Antelope Creek 1R		EF Big Lost River 2R	
Antelope Creek 2R	89.5	EF Big Lost River 3R	57
Bear Creek 1R	66.5	E.F. Navarre Creek 1R	
Cherry Creek 1R	81.5	Muldoon Creek 1R	91.5

Big Lost Cont.			
Station	% Bank Stability	Station	% Bank Stability
NF Big Lost River 1R		Star Hope Creek 0R	89
NF Big Lost River 2R	77	Star Hope Creek 1R	
Pass Creek 1R	85.5	Wildhorse Creek 1R	
Little Lost			
Station	% Bank Stability	Station	% Bank Stability
Badger Creek 1R		Smithie Fk 1R	
Big Creek LLR 1R	70.5	Squaw Creek LLR 1R	81.5
Dry Creek 1R		Timber Creek 1R	
Iron Creek 1R		Wet Creek 0R	90.5
Little Lost River 1R		Wet Creek 1R	
Mill Creek LLR 1R	97	Wet Creek 2R	90

Variability: Between 35 and 100 sites have been annually monitored across the Forest.

Evaluation: Trends have not been statistically analyzed but of those sites sampled in 2011, 77% were greater than the 80% stable PACFISH Riparian Management Objective.

Appropriateness: Continue as a Forest Plan monitoring requirement.

WATER: Best Management Practices

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluation
FP-4	Soil and Water BMPs	Annually to Biannually	Failure to implement Forest Soil and Water Best Management Practices; Erosion rates exceeding predicted effect of project design

Monitoring Requirement: Salmon and Challis Forest Plans. This monitoring item is closely related to and tiers to monitoring item Soil FP-2.

Monitoring Type: Implementation/Effectiveness

Data Source: Watershed Files, annual Watershed and Fisheries Monitoring Report, Soil Qualitative Assessments

Unit of Measure: Field measurements, ocular assessment

Findings: Project level soil and water best management practices (BMPs) are developed through project design for a specific project to eliminate or minimize adverse effects. Although implementation of these BMPs is monitored, site specific monitoring and evaluation of the effectiveness of specific BMPs is not performed on a continuing basis.

During 2011 period BMPs were reviewed on a variety of projects including fuels reduction, prescribed burning, burned area emergency rehabilitation, mining projects, wildfires, fish passage improvement projects and stream restoration projects. Visual observations were made on the effectiveness of the various BMPs utilized for these

projects. For some of the project reviews ground cover transects were evaluated to determine if adequate ground cover was retained after project implementation to protect the soil resource, reduce surface erosion and protect water quality in adjacent streams. On some projects quantitative sampling of erosion indicators, such as soil compaction (bulk density) was performed. Following is a list of the projects that were reviewed by year.

2011 BMP Review

Antelope Grazing Allotments	Rabbit Placer Exploration Renewal
Black Canyon Fire	Road Maint. & Forest Plan Implem.
Indian Fire	Ryder Creek Channel Restoration
Hughes Creek Fuels Reduction	Saddle Fire
Moose Creek Channel Restoration	Salmon/Moose Timber Sale
Mud Lake Pipeline	Salt Fire
On Forest Range Allotments (Forest – Wide)	Withington Creek Salvage Sale

Variability: Virtually all projects with potential to detrimentally affect soil productivity are being monitored and best management practices evaluated at some level appropriate for the project. The number and scope of specified project BMPs vary with the size, scope, nature, complexity, and setting of proposed projects. Specified measures may be straightforward in design or may require additional onsite modification or refinement by the project administrator.

Evaluation: The general results of the monitoring and soil quality assessments indicated no unanticipated short-term or long-term alteration of water or soil productivity and that best management practices are effective at eliminating or minimizing adverse effects.

Appropriateness: Continue as a Forest Plan monitoring requirement. This type of resource monitoring is being implemented at the project level. There is a direct relationship with the goals, direction, standards, and guidelines of the Forest Plans. Multidisciplinary reviews of best management practices are an integral component of the Forest Planning Process feedback monitoring loop. These annual onsite reviews provide the primary mechanism for verification of BMP effectiveness and refinement of project planning processes.

WATER: Maintenance of Minimum Bypass Flows

Monitoring Item	Activity to be measured	Monitoring Frequency	Conditions Which Initiate Further Evaluation
FP-5	Instream Flow	As Issues Arise	Failure to meet specified minimum bypass flow levels

Monitoring Requirement: Challis Forest Plan

Monitoring Type: Effectiveness

Data Source: Forest Watershed Files

Unit of Measure: Instream flow (Cubic Feet/Second); Compliance assessment

Findings: There is no additional information to report for the 2011 reporting period.

Unit	Diversion Sites Surveyed	Minimum Bypass Flow Maintained?
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North Zone	No sites surveyed this period	Not Applicable
South Zone	No sites surveyed this period	Not Applicable

No bypass flow issues were identified during the period. Consequently, no instream flow monitoring operations were specified or conducted.

Variability: Not Applicable

Evaluation: Not Applicable

Appropriateness: Continue as a Forest Plan monitoring requirement. Stream bypass flow monitoring has been identified as an important component of the Challis National Forest Watershed Monitoring Plan, and has been reaffirmed as an appropriate monitoring item within the combined Salmon and Challis National Forests Watershed Program. However, reporting will be dependent upon identification of site-specific flow issues.

WATER: Peak Flow Crest Gauging

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-7	Stream peak flow (cfs)	Annually as appropriate for specific timber harvest projects	Change in R1/R4 channel stability rating to poor.

Monitoring Requirement: Salmon Forest Plan

Monitoring Type: Evaluation

Data Source: Watershed Files

Unit of Measure: Cubic feet per second (cfs)

Findings: There is no additional information to report for the 2011 reporting period.

Unit	Watersheds Measured	Baseline Flow	Post-Harvest Flow
North Zone	No sites surveyed this period	Not Applicable	Not Applicable
South Zone	No sites surveyed this period	Not Applicable	Not Applicable

Variability: Not Applicable

Evaluation: Not Applicable

Appropriateness: Continue as a Forest Plan monitoring requirement. Published literature provides guidance with regards to flow increases due to timber harvest; however, data is not specific to the Salmon-Challis National Forest. Peak or flood flows should be monitored and evaluated as needed to enhance forest databases and peak flow calculations.

WATER: Ocular Evaluation of Erosion Related to Roads and Trails Design

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
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FP-8	Ocular evidence of erosion	Whenever erosion is observed	Erosion rate exceeding predicted effect of project design
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Monitoring Requirement: Salmon Forest Plan

Monitoring Type: Evaluation

Data Source: Watershed Files and Road Crew Reports

Unit of Measure: Not Applicable

Findings: A total of 908 miles of unauthorized roads were surveyed during the 2011 reporting period.

Variability: Not Applicable

Evaluation: Unauthorized roads may or may not be open or drivable. Access may be physically blocked by down or live trees. These roads receive no maintenance, so many have drainage and erosion problems. Drainage structures such as ditches, cross-drains, waterbars, or dips may have never been constructed or are no longer functioning. Unauthorized roads may have design failures at stream crossings often resulting in erosion and sediment delivery

Appropriateness: Continue as a Forest Plan monitoring requirement. Published literature and established BMPs are well tested and provide valuable guidance; however, site specific evaluation of their effectiveness is necessary. Evaluation of effectiveness given our landtypes, climate and implementation methods are valuable in documenting what works and which of our forest practices need to be modified with regards to erosion and sediment transport.

WATER: Special Studies – MgCl Monitoring

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-9	Water Quality	As Needed	Dependent upon specifics of study

Monitoring Requirement: Reporting on special studies occurring on the Forest is not identified as a Forest Plan monitoring requirement. Summarizing special studies in a monitoring report is an opportunity to share information.

Monitoring Type: Implementation/Evaluation

Data Source: Watershed Files; Special Study Reports

Unit of Measure: Not Applicable

Findings: MgCl Monitoring

In 2009 eleven locations on stream adjacent to roads treated with MgCl were monitored to determine if the MgCl was reaching the streams. The highest level of chloride that was detected in the samples was 2 mg/l. The reporting limit based on ESA consultation for fish is 400 mg/l. The EPA recommended a water quality chronic criterion for surface

water is 230 mg/l. Idaho does not have a Surface Water Standard for Chloride. There is no additional information to report for the 2011 reporting period.

Variability: Not Applicable

Evaluation: Not Applicable

Appropriateness: This monitoring requirement should be maintained on an as needed basis rather than a specific schedule. As special studies are conducted this report will serve as a place to share data obtained in the highlighted studies.

WATER: Salmon Wild and Scenic Rivers- Salmon River, Recreation Segment- Water Quality

SWSR(rec)-4: Water quality within the river will be monitored twice annually at approximately the same water levels each year to develop baseline data.

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-10 SWSR(rec)-4	Water Quality	Biannually	Deviation from Forest water quality or state water quality standards

Monitoring Requirement: Salmon and Challis Forest Plans: Salmon Wild & Scenic River Management Plan (Recreation segment) item #4

Monitoring Type: Baseline/Evaluation

Data Source: Forest Watershed Files

Unit of Measure: Dependent on sample parameter

Findings: Water temperature monitoring is no longer performed as baseline monitoring due to time constraints and accessibility. Baseline studies were conducted between 1970 and 1983 and are located in the forest watershed files. Temperature data is obtained at the project level where activities may potentially impact water temperature. See findings for FY 2007-2011 under the Water Resources section FP-2.

Variability: Not applicable.

Evaluation: Not applicable.

Appropriateness: Continue as a Forest Plan monitoring requirement. This monitoring requirement should be maintained on an as needed basis rather than a specific schedule. As potential natural or man-caused threats to water quality arise, monitoring should be conducted to best evaluate, monitor, and plan to reestablish the desired water quality in the Salmon River.

WATER: Wild & Scenic Rivers- Salmon River, Recreation Segment- Water Quality (Newland Bridge)

Discontinued in 2004 report

SWSR(rec)-5: A baseline station will be developed at the Newland Bridge to monitor upstream bacteriological quality.

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-11 SWSR(rec)-5	Water Quality Bacteriological monitoring	Baseline development	Deviation from Forest water quality or State water quality standards

Monitoring Requirement: Salmon and Challis Forest Plans: Salmon Wild & Scenic River Management Plan (Recreation segment) item #5

Monitoring Type: Baseline

Data Source: Forest Watershed Files

Unit of Measure: Dependent on sample parameter

Findings: Baseline studies were conducted between 1970 and 1983 and are located in the forest watershed files.

Variability: Not applicable.

Evaluation: Not applicable.

Appropriateness: Discontinue as a Forest Plan monitoring requirement due to the removal of the outhouses along the Salmon River and the pack-it-in-pack-it-out requirement on the river.

WATER: Salmon Wild and Scenic Rivers- Salmon River, Wild Segment- Water Quality

SWSR(wild)-3: Salmon River water quality monitoring will be continued as identified in the "Water Quality Monitoring Plan" for the Salmon National Forest. Action will be taken to eliminate new pollution sources immediately.

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-12 SWSR(wild)-3	Water Quality on the mainstem Salmon River	As identified in the Water Quality Monitoring Plan	Deviation from Forest water quality or State water quality standards

Monitoring Requirement: Salmon and Challis Forest Plans: Salmon Wild & Scenic River Management Plan (Wild segment) item #3

Monitoring Type: Evaluation

Data Source: Forest Watershed Files

Unit of Measure: Dependent on sample parameter

Findings: There is no additional information to report for the 2011 reporting period. No samples analyzed this period. Baseline studies were conducted between 1970 and 1983 and are located in the forest watershed files.

Variability: Not applicable.

Evaluation: Not applicable.

Appropriateness: Continue as a Forest Plan monitoring requirement. This monitoring requirement should be maintained on an as needed basis rather than a specific schedule. As potential natural or man-caused threats to water quality arise, monitoring should be conducted to best evaluate, monitor, and plan to reestablish the desired water quality in the Salmon River.

WATER: Middle Fork of the Salmon Wild & Scenic River Management Plan: Water Quality

MFWSR-1: Continue water quality monitoring program on the Middle Fork River and expand to other streams and lakes to establish baseline data for existing and potential heavy use areas.

MFWSR-3: The approved Forest Water Quality Monitoring Plan describes the monitoring objectives for the Middle Fork of the Salmon River. To reiterate, water quality monitoring was originally established on the Middle Fork River to monitor general trends as a result of recreation use. Consistent with the objective found in the wilderness plan, the current program direction includes identifying potential problem areas and evaluating site-specific impacts, while still monitoring general trends in water quality.

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-13 MFWSR-1, 3	Water Quality	As identified in the Water Quality Monitoring Plan	Deviation from Forest water quality or State water quality standards

Monitoring Requirement: Salmon and Challis Forest Plans: Middle Fork of the Salmon Wild & Scenic River Management Plan items #1 and 3.

Monitoring Type: Baseline/Evaluation

Data Source: Forest Watershed Files

Unit of Measure: Dependent on sample parameter

Findings: There is no additional information to report for the 2011 reporting period. No samples analyzed this period. Baseline studies were conducted between 1970 and 1983 and are located in the forest watershed files.

Variability: Not applicable.

Evaluation: Not applicable.

Appropriateness: Continue as a Forest Plan monitoring requirement even though baseline data has been obtained. Monitoring should be maintained on an as needed basis rather than a specific schedule. As potential natural or man-caused threats to water quality arise monitoring should be conducted to best evaluate, monitor, and plan to reestablish the desired water quality in the Middle Fork of the Salmon River and other streams and lakes.

WATER: Frank Church – River of No Return Wilderness Management Plan: Water Quality

FCWMP- 3: Continue the water quality monitoring program on the Salmon and Middle Fork Salmon Rivers and expand to other streams and lakes to establish baseline data for existing and potential heavy use areas.

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-14 FCWMP- 3	Water Quality	As identified in the Water Quality Monitoring Plan	Deviation from Forest water quality or State water quality standards

Monitoring Requirement: Salmon and Challis Forest Plans: Frank Church – River of No Return Wilderness Management Plan item #3

Monitoring Type: Baseline/Evaluation

Data Source: Forest Watershed Files

Unit of Measure: Dependent on sample parameter

Findings: There is no additional information to report for the 2007 through 2011 reporting period. No samples analyzed this period. Baseline studies were conducted between 1970 and 1983 and are located in the forest watershed files.

Variability: Not applicable.

Evaluation: Not applicable.

Appropriateness: Continue as a Forest Plan monitoring requirement even though baseline data has been obtained. Monitoring should be maintained on an as needed basis rather than a specific schedule. As potential natural or man caused threats to water quality arise monitoring should be conducted to best evaluate, monitor, and plan to reestablish the desired water quality in the Salmon and Middle Fork Salmon rivers and other streams and lakes in the Frank Church – River of No Return Wilderness.

Weeds: Frank Church – River of No Return Wilderness Management Plan

Monitoring Item	Activity to be Measured	Monitoring Frequency	Monitoring Objective
FC-RONRW-Weeds	1. Location and acres of noxious weed/invasive species 2. Observation of areas previously treated to determine effective treatment of target weeds and protection of nontarget vegetation and resources. 3. Expansion or reduction in area and density of noxious/invasive weeds.	Follow National Protocol for Weed Inventory	Native plants are promoted over exotics. Noxious weeds are effectively managed

Monitoring Requirement: Frank Church – River of No Return Wilderness Management Plan

Monitoring Type: Implementation/Evaluation

Data Source: FACTS database

Unit of Measure: Acres

Findings:

Wilderness Acres Infested and Treated

Year	2011
Acres Infested	11,672
Acres Treated	3,323

Variability: The number of acres infested with noxious weeds is highly variable. New species are continually identified and while some known infestations are eliminated, others show up elsewhere. The number of acres treated each year are variable and are based upon available funding for personnel.

Evaluation: Data is recorded in the FACTS database. Treatments are effective, but the number of acres infested and treated is continually changing and usually increasing.

Appropriateness: Continue trend information as a Forest Plan monitoring requirement and a mandatory reporting item. The FACTS database provides the detailed information.

WILDLIFE: Management Indicator Species (MIS)

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-1	Population Trends	1 to 10 years (varies by species)	Decline in distribution or populations

Monitoring Requirement: In February 2004 both the Salmon and Challis Land and Resource Management Plans were amended to reduce the list of Management Indicator Species in order to improve the reliability, efficiency, and cost-effectiveness of monitoring habitat and populations as a result of Forest management.

The species selected as Management Indicator Species are:

- Pileated Woodpecker for the coniferous community/habitat type
- Greater Sage-Grouse for the sagebrush community/habitat type
- Columbia Spotted Frog for the riparian habitat/community type
- Bull Trout for the aquatic habitat/community type

Monitoring Type: Effectiveness

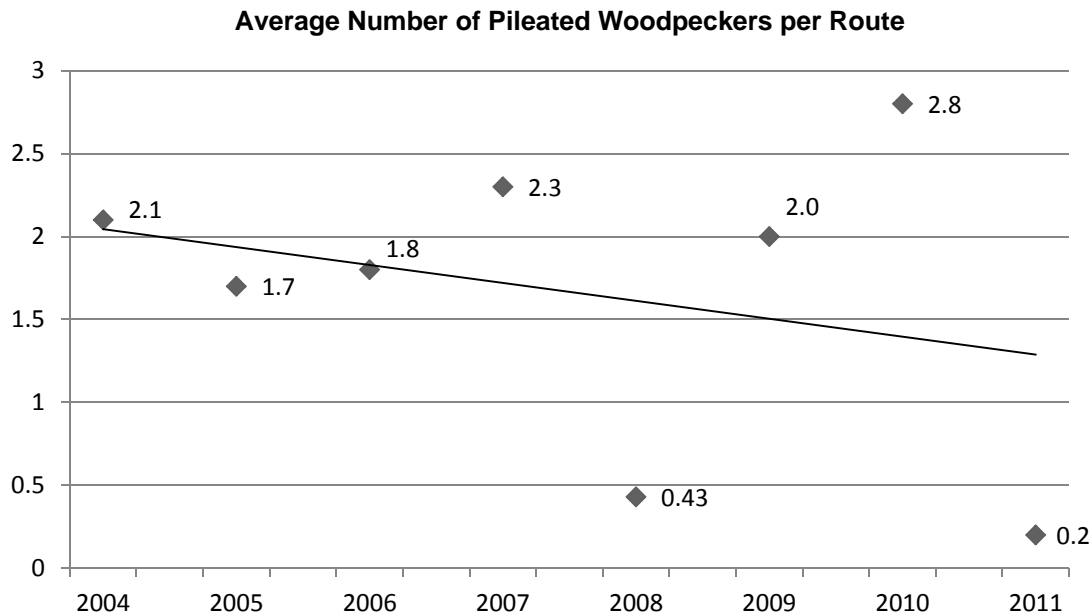
Data Source: Idaho Department of Fish and Game, Salmon-Challis National Forest District Surveys

Unit of Measure: Number transects and/or surveys conducted during the identified monitoring period.

Findings:*Pileated Woodpecker*

The pileated woodpecker has a global ranking of G5; secure: common, widespread, and abundant, and a state ranking of S4; apparently secure: uncommon but not rare; some cause for long-term concern due to declines or other factors (NatureServe 2010). The annual nationwide Breeding Bird Survey is a large-scale, long-term monitoring effort that has the objective to assess population changes of many species of birds. Data is analyzed at a state-wide level. USGS Breeding Birds Survey data for Idaho, using trend estimates, shows a trend of 2.0% from 1966 to 2007 and -0.9% from 1980 to 2007 for pileated woodpeckers. The data for Idaho are very imprecise and would not detect a 5% per year change (Sauer et al. 2008).

The Salmon-Challis National Forest established point transects across all Ranger Districts in 2004 to establish trend data for pileated woodpeckers. The data from these transects is presented below. Although this is not a sufficient amount of data to establish a forest-wide base-line or indicate trend for this species, inferences can be drawn.



Pileated Woodpecker Transects and Individual Counts 2011		
Route Location	Date	# PIWO
Challis- Yankee Fork		
Challis Creek Road	6/29	0
West Fork Morgan		
Little West Fork Morgan		
Yankee Fork Road	7/1	1
Joe's Gulch Road		
Lost River		
Sawmill Canyon	6/7	0
Middle Fork		
Boundary Creek	6/7	0
	6/17	0
North Fork		
Lick/Sheep/Hughes	6/28	0
Colson Creek Road		
Salmon River Road		
Leadore		
Lemhi Pass-Upper Kenney Creek		
Alder Creek		
Salmon Cobalt		
Deep-Cobalt	7/7	0
Copper-Panther		
Total Number of Routes		5
Total Number of Surveys		5
Total Number of PIWO		1

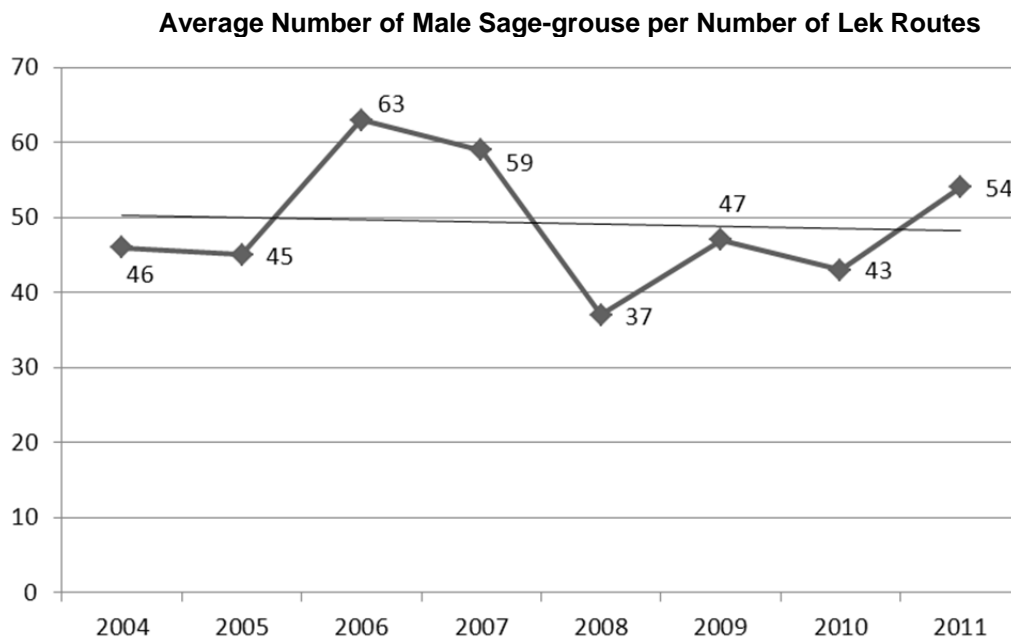
Greater Sage-grouse

The sage-grouse has a global ranking of G4; apparently secure, uncommon but not rare, some cause for long-term concern due to declines or other factors, and a state ranking of S2; imperiled, at risk because of restricted range, few populations, rapidly declining numbers, or other factors that make it vulnerable to range-wide extinction or

extirpation. In Idaho, sage-grouse populations declined at an overall rate of 1.5% per year from 1965–2003. From 1965 to 1984, the population declined at an average rate of 3.0%; from 1985–2003 the population had an annual change of 0.1% per year (IDFG 2005).

Monitoring of greater sage-grouse populations occurs in cooperation with the Idaho Department of Fish and Game (IDFG) and the Bureau of Land Management (BLM). Monitoring is performed by counting the number of male birds occupying leks along an established lek route in the early spring. Most of the lek areas are located on BLM land; one route is located on the Salmon-Challis NF. Data used to determine trend for the Salmon-Challis MIS were derived from the Antelope Creek, Upper Big Lost, Little Lost, and Upper Birch Creek lek routes in the Upper Snake region and Upper Lemhi, Leadore East, Leadore West, Lower Lemhi, Lower East Pahsimeroi, Lower West Pahsimeroi, Upper Pahsimeroi, Little Hat Creek, and Spring Gulch, Dry Gulch, and Carlson Cabin lek routes in the Salmon Region.

Population numbers and lek activity has been very cyclic over the years throughout the region. Monitoring data generally indicates a continued increasing trend since 1999. Snow conditions during 2008 made accessing many of the leks during peak breeding times difficult or impossible. Exact estimates of trend are difficult to make due to missing data, and variable monitoring and collection methods from year to year. The figure showing trend was derived by averaging the peak number of males on lek routes and dividing that by the number of routes surveyed by year (Figure 2).



Peak Male Sage-grouse Counts by Lek Route 2011

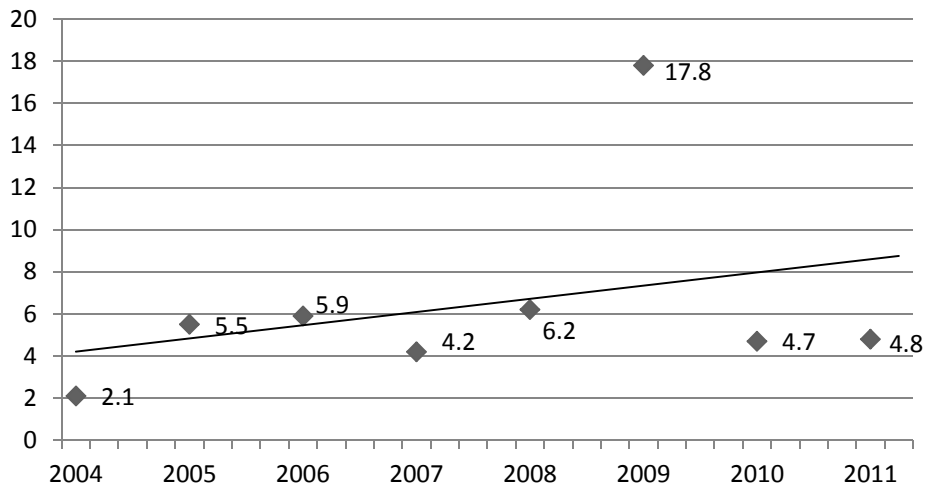
	Count
Salmon Region	
Upper Lemhi	154
Leadore East	43
Leadore West	60
Lower Lemhi	29
Lower East Pahsimeroi	22
Lower West Pahsimeroi	49
Upper Pahsimeroi	91
Deer Gulch	nd
Little Hat Creek	9
Spring Gulch	nd
Carlson Cabin	19
Upper Snake Region	
Antelope Creek	66
Upper Big Lost	29
Little Lost	80
Upper Birch Creek	53

Columbia Spotted Frog

The spotted frog has a global ranking of G4 and a state ranking of S3/S4, which indicates a range of uncertainty about the status, between apparently secure, uncommon but not rare, some cause for long-term concern due to declines or other factors; and vulnerable in the nation or state/province due to a restricted range, relatively few populations, recent and widespread declines, or other factors making it vulnerable to extirpation.

Spotted frogs have been observed on all Rangers Districts on the S-CNF, most typically in association with vernal pools. Permanent monitoring points were established across the Salmon-Challis NF in 2004. Data that is collected includes egg mass numbers and frog age counts. Data has been collected each year on most Ranger Districts since 2004. The number of sites surveyed per Ranger District has varied. The number of egg masses detected are averaged based upon the acres of ponds surveyed, as shown in the figure below.

Although there is much data concerning presence of Columbia spotted frogs across the Forest and suitable sites have been identified and surveyed for long term monitoring, sufficient monitoring data necessary to indicate trend have not yet been accumulated.

Average Number of Spotted Frog Egg Masses per Surveyed Acres**Spotted Frog Monitoring Sites and Egg Mass Counts**

Location	Acres*	2011 Date	Egg Mass
Challis			
Pine Flat Pond #1	0.73		
Block Creek Pond	0.25	5/11	0
Gooseberry Pond	0.25	5/11	0
Morgan Creek Summit	0.25	7/7	0
Pine Flat Pond #2	1.08		
Pine Flat Pond #3	0.59		
Pine Summit Pond	1.44	6/21	0
Slab Barn Lake	1.16		
Little WF Morgan Ck	4.03	7/7	0
Challis Creek Beaver Pond Complex	0.5	4/11	0
		6/21	0
Yankee Fork			
Squaw Creek	0.25	6/17	hatch
Little Bayhorse Pond	2.1	6/21	0
		6/23	5
Little Bayhorse Lake	16.5	6/23	22
		6/28	0
Bayhorse Lake	24.6		
Kelly Creek Pond	1.7		
Joe's Gulch Pond	0.1		
Lost River			
Pond #1	0.5	6/6	12
		6/13	12
Pond #2	0.5	6/6	0
		6/13	0
Pond #3	0.5		
Middle Fork			
Boundary Creek Pond	1.98	6/17	9
		6/21	16
Cape Horn Pond	0.5	6/7	14
		6/17	6
North Fork			
Hughes Barn Pond	0.7		

Lower Spring Creek	0.05	4/14	1
		4/29	13
Upper Spring Creek	0.07	4/14	0
		4/29	17
Donnelly	0.46		
North Fork			
Grove Pond	0.06	7/6	0
		7/13	0
Quaking Aspen Pond	0.5	7/6	0
		7/13	0
Wildcat Pond	0.31		
Frank Hall Beaver Pond	0.25		
Purcell Springs	0.05		
Salmon-Cobalt			
Moyer Association Ponds	0.82		
Haynes Creek	0.23		
K-Mountain Pond 1	0.77	5/13	0
		5/20	0
K-Mountain Pond 2	0.58	5/20	0
K-Mountain Pond 3	0.23	5/13	0
		5/20	0
K-Mountain Pond 4	0.02	5/13	0
		5/20	0
CNF Pond	0.75		
Williams P and P Pond	1.1		
TOTAL			127

*Estimated size

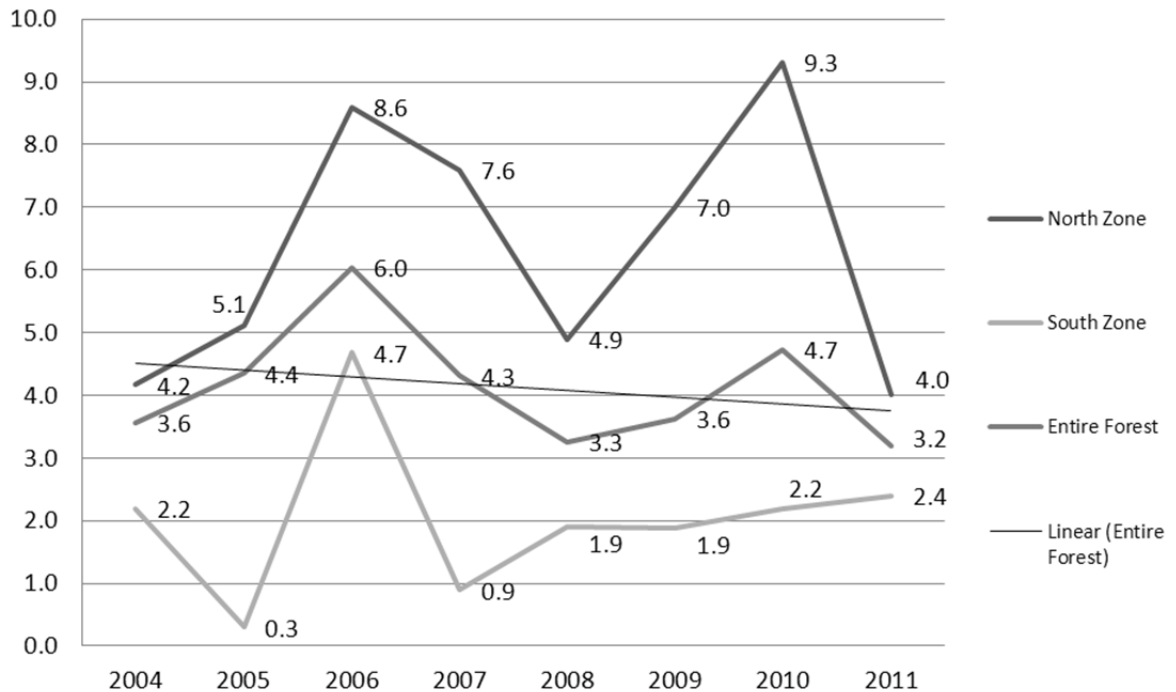
Bull Trout

The bull trout has a global ranking of G3 and a state ranking of S3; vulnerable in the nation or state/province due to a restricted range, relatively few populations, recent and widespread declines, or other factors making it vulnerable to extirpation. Threats to this species include hybridization with brook trout, competitive interactions with rainbow, brown, and lake trout; activities that damage riparian areas and cause siltation of spawning streams, habitat fragmentation, lack of passage through water diversion structures, and habitat loss as a result of climate change (NatureServe 2010).

A state-wide assessment of bull trout populations found that bull trout in Idaho are presently widely distributed, relatively abundant, and apparently stable. The Salmon-Challis National Forest is within two bull trout recovery units; the Salmon River, in which most of the SCNF occurs, and the Little Lost, which includes the Lost River Ranger District. The population of bull trout ≥ 70 mm in Idaho was estimated to be 1.13 million, with over half of those bull trout occurring within the Salmon River Recovery Unit. The average density of bull trout ≥ 70 mm in the Salmon River Recovery Unit was 4.4 fish/100 m². In the abundance analysis, it was found that bull trout were most likely to occur in survey sites in first through third order streams. There was a significant post-1994 increase in abundance for all salmonid species. This increase may be attributable to stream water temperatures, drought, productivity, or some combination of these or other unknown factors (High et al. 2008).

Average Abundance of Bull Trout ≥ 70 mm/ 100 m²

Year	South Zone	North Zone	Entire Forest
2011	2.4	4.0	3.2

Average Bull Trout Abundance (Bull Trout ≥ 70 mm /100 m²)

Variability: Results of the management species indicator species monitoring can vary widely from year to year. Factors such as accessibility to monitoring locations, weather patterns, precipitation amounts, and landscape-level perturbations such as wildfire all contribute to whether individuals are present and in what numbers they occur.

Evaluation: The 2004 Amendment to the Management Indicator Species list resulted in a reduced list of MIS and increased the quality and quantity of data being collected for these species.

Appropriateness: Management Indicator Species monitoring required in the 1982 implementing regulations for the National Forest Management Act (NFMA) of 1976. Continue as a Forest Plan Monitoring requirement. Continue as a Forest Plan monitoring requirement.

WILDLIFE: MIS Habitat Conditions

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-1	Habitat Conditions	1 to 10 years (varies by species)	Any documented change in current status

Monitoring Requirement: Salmon and Challis Forest Plans

Monitoring Type: Effectiveness. Management Indicator Species and monitoring technique:

- Pileated Woodpecker for the coniferous community/habitat type: Arcview/GIS analysis of satellite vegetation classification imagery
- Greater Sage-Grouse for the sagebrush community/habitat type: Plant Species composition and structural diversity following established rangeland monitoring protocols, (including nested frequency, shrub belt density transects, etc)
- Columbia Spotted Frog for the riparian habitat/community type: Water Temperature, pH, conductivity
- Bull Trout for the aquatic habitat/community type: Water Temperature, Vegetation Cover and Large Woody Debris, Sediment, and Pool Quality

Data Source: Ranger Districts and corporate databases

Unit of Measure: Acres of potential habitat and habitat parameters.

Findings: No new MIS Habitat Conditions taken in 2011.

Variability: Results of the management species indicator species habitat monitoring can vary widely from year to year since each species has very different habitat measurement parameters.

Evaluation: The 2004 Amendment to the Management Indicator Species list resulted in a reduced list of MIS and increased the quality and quantity of data being collected for these species' habitat parameters.

Appropriateness: Management Indicator Species monitoring required in the 1982 implementing regulations for the National Forest Management Act (NFMA) of 1976. Continue as a Forest Plan Monitoring requirement.

WILDLIFE: Threatened or Endangered Species

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-1	Habitat and Population Trends	Annually to two to five year intervals	Any change from current status

Monitoring Requirement: Salmon Forest Plan

Monitoring Type: Effectiveness

Data Source: Idaho Department of Fish and Game, US Fish and Wildlife Service

Unit of Measure: Number transects and/or surveys conducted during the identified monitoring period.

Findings: Presently, terrestrial wildlife species listed as Threatened or Endangered under the Endangered Species Act do not occur on the Salmon-Challis National Forest.

Appropriateness: The 2007 Northern Rockies Lynx Management Direction and Forest Plan Amendment requires unoccupied forests to consider Lynx habitat needs by

performing annual winter track monitoring and summer habitat evaluations for potential occurrences of Lynx and documentation of prey base (primarily snowshoe hare and Pine squirrel) habitat areas. Ongoing winter track and camera surveys are also warranted for continuation, for species of special concern like wolverine and fisher which, while presently listed as R4 sensitive species, are under consideration for potential ESA listing as well.

- FY-11 winter track surveys were completed by snowmobile to inventory and monitor Lynx Analysis Units for potential occurrences of Lynx as well as their primary winter prey, Pine Squirrels and Snowshoe hares. Five winter track surveys were performed on the North Zone and three were performed on the South Zone. Numerous locations of Lynx prey species were identified and recorded, however no Lynx tracks were discovered.
- On January 26, 2012 Idaho Department of Fish & Game personnel investigated and released a wild male Lynx that was caught in a Bobcat trap on the Salmon/Cobalt Ranger District. This Lynx was determined to be a pure, wild male based upon DNA analysis from hair and scat samples, performed by the Rocky Mountain Research Station laboratory in Missoula, Montana. As of 5/9/12 the lab was still working on developing a consolidated DNA data-base for sampled Lynx populations in both the northern and southern Rockies. Once this data-base is assembled, they will then be able to possibly determine the reference population from which this individual may have originated. i.e. If it may have come from a Canadian based population in the northern Rockies, or possibly from a Colorado based population, in the southern Rockies. Decadal cycles of hare abundance have been documented within the northern boreal forest ecosystems over the past 50 years or more, which affect the distribution of both Lynx and Snowy Owls. During periods of declines in hare populations, emigrations from northern latitudes to southern latitudes have been observed as both species extend their ranges over a larger area, in search of prey bases. Presently, the historic pattern of cyclic hare abundance would indicate that we may be in a period of hare declines in northern portions of their range, which would support the possibility of range extensions to more southern areas during this period. The recent wide ranging extensions of Snowy Owls in the USA, sometimes as far south as Oklahoma, would tend to indicate such a situation is presently occurring for Lynx as well. These trends may be the basis for reports of Lynx track sightings and now a Lynx, on the Salmon-Challis Forest during the last two years. Being the first recording occurrence of Lynx on the forest within 20-30 years, the need to continue monitoring for this species is especially important at this time; not to mention meeting the requirements of the 2007 Northern Rockies Lynx Management Direction, Forest Plan amendment.



(Beth Waterbury, IDFG photo)

WILDLIFE: Habitat Improvement Accomplishments

Monitoring Item	Activity to be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-2	Habitat Improvement Accomplishment	Annual	N/A

Monitoring Requirement: Salmon and Challis Forest Plans

Monitoring Type: Implementation

Data Source: Annual Wildlife Report, Management Attainment Report

Unit of Measure: Number of improvement projects and acres

Findings: The table below illustrates wildlife habitat improvements performed for 2011 in response to Forest Plan Goals and Objectives.

Wildlife Habitat Improvement - Structures and Acres

Year	Structures Implemented	Acres Treated
Forest Plan Goal/Year	28	1,395
2011	0	NZ=3,025 SZ=200 Total 3,225

Variability: The ability to perform habitat improvement projects varies from year to year, depending on the level of integrated planning for incorporation of wildlife goals and objectives into projects of other resources like range, timber, fuels and recreation.

Evaluation: The development of wildlife habitat structures by either the Wildlife program itself or through integration of Wildlife habitat improvements (e.g. creation of potential

den sites, brush piles, upland bird guzzlers and riparian Sage grouse brood rearing areas in association with rangeland water developments, marking of nest trees/snags etc. in projects of other resource programs has been very limited in recent years. Currently, most accomplishments for wildlife habitat have been in association with prescribed burns performed by the timber and fuels program.

The definitions for claiming habitat acres have recently been changed to include acres treated by projects of other resource programs that improve wildlife habitat as well. (However, only those acres benefiting wildlife, as determined in the NEPA process and RoD, can be claimed.) Therefore, Forest Plan decisions for performance of “post project monitoring” still need to be performed in order to determine the actual results and effectiveness of integrated projects. The evaluation, construction and/or maintenance of other types of wildlife habitat management structures (riparian exclosures) and past habitat treatments (e.g. aspen) has also been limited due to their lower priority rankings in development of forest-wide workplan priorities.

Appropriateness: It is appropriate and necessary to continue monitoring and reporting the number of structures developed and habitat acres improved in order to track and validate the degree to which Wildlife habitat improvements are being accomplished in response to Forest Plan goals, objectives and decisions.

WILDLIFE: Standard and Guideline Performance

Monitoring Item	Activity to Be Measured	Monitoring Frequency	Conditions Which Initiate Further Evaluations
FP-3	Standard and Guideline Performance	Annually for two major projects per year	Significant deviation from prescribed parameters

Monitoring Requirement: Salmon Forest Plan

Monitoring Type: Post Project Implementation Monitoring

Data Source: Ranger Districts

Unit of Measure: Number of projects significantly deviating from the wildlife standards and guidelines contained in the Salmon NF Land and Resource Management Plan.

Standard and Guideline Performance Monitoring

Year	Function	Number/Location	Activity
2011	Wildlife	NZ=10 SZ=0	Annual monitoring

Findings: FY-11 North Zone monitoring included the monitoring and maintenance of ten habitat projects on the Leadore Ranger District in order to maintain their functionality for mitigation of impacts on behalf of fish and wildlife resources. These projects included the Bear Valley Cr. riparian exclosure and 160 acre TES species recovery area (a former private inholding acquired by the WFRP program through a Congressional appropriation from the Land & Water Conservation Fund); the lower and upper Big 8 Mile Cr. TES species and riparian recovery areas; plus the Hood Gulch, Irish Boy Spring, Kadletz/Bear Valley, Little 8-Mile, Grove Cr. Quaking Aspen, West Fk. of Jake's Canyon, and Wildcat Pond riparian species special management areas.

Appropriateness: It is appropriate and necessary to continue this monitoring element in order to validate attainment of Forest Plan Wildlife program goals, objectives and decisions for demonstrating compliance with Forest Plan Standards and Guidelines; especially for mitigation measures required through project NEPA analyses, Endangered Species Act Section-7 consultations and their Records of Decision, Biological Assessments, and Biological Opinions.

**Wildlife: Frank Church – River of No Return Wilderness Management Plan:
Native populations and key habitat components are not impaired**

Monitoring Item	Activity to be Measured	Monitoring Frequency	Monitoring Objective
FC-RONRW-Wildlife	1. Percent of forage utilization on selected transects within seasonally important wild ungulate habitats; 2. Ratio of males, females, and young in wild ungulate populations.	Every 5 years	Native populations and key habitat components are not impaired

Monitoring Requirement: Frank Church – River of No Return Wilderness Management Plan

Monitoring Type: Implementation/Evaluation

Data Source: IDFC species management plan (varies by species) and paired plot transects within seasonally important wild ungulate habitats.

Unit of Measure: Forage utilization and population counts

Findings: There have been no ungulate forage utilization transects completed in the FCRONRW. IDFG conducts ungulate surveys and publishes the results in annual reports.

Variability: Not applicable

Evaluation: Not applicable

Appropriateness: Discontinue as a Forest Plan monitoring requirement.