SAWTOOTH NATIONAL FOREST
LAND AND RESOURCE MANAGEMENT PLAN

2012 MONITORING AND EVALUATION REPORT
FY 2013

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ATTACHMENTS

I. INTRODUCTION

In September 2003, the Sawtooth National Forest (NF) began implementing its revised Land and Resource Management Plan (Forest Plan). The revised Forest Plan defines a strategy that manages Forest resources to attain a set of desired resource and social and economic conditions by emphasizing the maintenance or restoration of watershed conditions, species viability, terrestrial and aquatic habitats, and healthy, functioning ecosystems. Monitoring and evaluation are critical to determining if we are attaining desired goals. In accordance with the regulations at 36 CFR 219.12(k): "At intervals established in the plan, implementation shall be evaluated on a sample basis to determine how well objectives have been met and how closely management standards and guidelines have been applied. Based upon this evaluation, the interdisciplinary team shall recommend to the Forest Supervisor such changes in management direction, revisions, or amendments to the Forest Plan as are deemed necessary."

Chapter IV of the 2003 Forest Plan establishes that formal evaluation and reporting will occur every 5 years. 2008 marked completion of the first five years of implementation under the 2003 revised Forest Plan, triggering a formal review. The Forest completed the formal evaluation of the first five years of Forest Plan implementation and published the results of that evaluation in 2011.

As a result of the 5-year evaluation, several changes were made to the monitoring elements described in Chapter IV of the Forest Plan. These changes are reflected in this monitoring report. In addition to completion of the 5-year evaluation, the Forest completed an amendment of the Forest Plan to adopt a forested biological community Wildlife Conservation Strategy (WCS) in 2012. The 2012 (WCS) Forest Plan amendment included several changes to the monitoring elements described in Chapter IV of the Forest Plan as well as added, deleted or modified several management objectives. The changes identified in the 2012 WCS Forest Plan amendment are reflected in this report. This document reflects the final monitoring report for fiscal year 2012.

II. 2012 FOREST PLAN MONITORING and EVALUATION REPORT ORGANIZATION

As previously stated, monitoring and evaluation provide knowledge and information to keep the Land and Resource Management Plan viable. Appropriate selection of indicators, and monitoring and evaluation of key results helps us determine if we are meeting the desired conditions identified in the Plan. Chapter IV of the Revised Forest Plan provides the list of activities, practices and/or effects to be monitored and the various indicators to be used as measures. While most of the monitoring elements require that some level of data be gathered each year, the majority of elements are designed to evaluate the effects of management over time. Therefore, results of monitoring efforts for most elements are reported after evaluation of data that has been gathered for multiple years.

Chapter IV, Table IV-1 of the Forest Plan identifies elements related to National Forest Management Act (NFMA) and other pertinent laws and regulations that are reported on either an

annual basis or every 5 years. Elements that are not reported each year are typically those that require the collection of information over multiple years before a meaningful evaluation is possible. In this first year under the 2012 amended Forest Plan, only the 5 elements identified in Table IV-1 with a "yes" in the "Annual Posting of Results" column will be discussed in Section III-A below.

Table IV-2 of the Forest Plan identifies questions and indicators that will be monitored to determine the success of the Forest Plan management strategy in progressing toward desired conditions. Similar to Table IV-1, information pertaining to many of the indicators requires multiple years of collection before any meaningful evaluation of an element and its related question can be made. Therefore, only the monitoring questions and their related indicators with "annually" in the "Report Period" column will be addressed in Section III-B below.

III. SUMMARY OF MONITORING RESULTS:

III-A. Annual Monitoring Requirements – Table IV-1:

Monitoring requirements identified in the Forest Plan shall provide for:
1. A quantitative estimate of performance comparing outputs and services with those projected by the Forest Plan.

As defined in the Forest Plan, Objectives are "concise time-specific statements of actions or results designed to help achieve goals". As such, objectives provide the best projection of outputs and services to be provided through implementation of the Forest Plan. Forest Plan objectives are found under the various Forest-wide Resources sections in Chapter III of the Forest Plan. Following is a summary of the Forest's accomplishments for those objectives designed to provide for specific services on an annual basis, and/or projected outputs resulting from management actions. Other objectives found in the various sections of the Forest Plan do not require an annual accomplishment and are *not* discussed in this monitoring report. These objectives are discussed only in those cases where activities have been implemented that substantially contribute toward or fully accomplish the objective.

The objectives addressed below are organized by resource section as they are found in the Forest Plan. Those resource sections in the Plan that do not contain objectives that are reported on an annual basis or require an annual accomplishment will be noted below.

THREATENED, ENDANGERED, PROPOSED, AND CANDIDATE SPECIES OBJECTIVES (FLRMP pages III-8 to III-11)

Objective TEOB01 - *Continue to map and update locations of species occurrence and habitat for TEPC species during fine- or site/project-scale analyses. Incorporate information into a coordinated GIS database and coordinate with the Idaho Conservation Data Center.*

Accomplishment: TEPC and sensitive aquatic organism information from project analyses, field inventories, and monitoring were entered into the Natural Resource Information System (NRIS) in 2012. This information was used to refine spatial coverages that display species distribution for Wood River sculpin, northern leatherside chub, westslope and Yellowstone cutthroat trout, bull trout, Chinook salmon, and steelhead trout. Data has been shared with the Idaho Conservation Data Center via Idaho Fish and Game collection permits.

Objective TEOB03 - *Identify and reduce road-related effects on TEPC species and their habitats using the Watershed and Aquatic Recovery Strategy (WARS), the Vegetation and Wildlife Habitat Restoration Strategy and Source Environment Restoration Strategy, and other appropriate methodologies.*

Accomplishment: In addition to annual road maintenance, the Iron Creek road realignment project was completed within an aquatic TEPC subwatershed. Portions of Iron Creek are negatively impacted where the main Iron Creek road and stream are tightly pressed between narrow and steep canyon walls. Erosion and sedimentation to Iron Creek is chronic along an approximately 0.4 mile stretch where uncontrolled drainage results in road surface erosion. During snowmelt in 2010, 80 feet of streambank and road shoulder were lost. The new route, as well as the connecting segment of the existing Iron Creek Road (NFSR 70619) to Highway 21 was paved in order to provide a durable surface with lowered sediment production and annual maintenance needs.

Objective TEOB11: *Update appropriate NRIS database modules for TEPC species and their habitats on a biennially basis to incorporate latest field data.*

Accomplishment: In 2012, all data from biological surveys in the Upper Salmon, S.F. Boise, and Raft River subbasins where TES species are present were entered into NRIS water.

AIR QUALITY AND SMOKE MANAGEMENT Objectives (Forest Plan, page III-16)

This section contains no annual accomplishment requirements.

SOIL, WATER, RIPARIAN AND AQUATIC RESOURCES Objectives (Forest Plan, pages III-19 to III-21)

Objective SWOB11: *Coordinate with state and local agencies and tribal governments annually to limit or reduce degrading effects from stocking programs on native and desired non-native fish and aquatic species.*

Accomplishment: No coordination meetings relative to fish stocking occurred in 2012.

Objective SWOB15: *Maintain and update species occurrence and habitat maps for Forest species (e.g., MIS and Region 4 Sensitive species) during fine and site/project-scale analyses.*

Accomplishment: In 2012, all data from biological surveys in the Upper Salmon, S.F. Boise, and Raft River subbasins where TES species are present were entered into NRIS water. Information is also obtained from Idaho Department of Environmental Quality and

Fish and Game, and Utah Division of Wildlife Resources. This information is used to maintain and update occurrence and habitat aquatic MIS and sensitive species.

WILDLIFE RESOURCES Objectives (Forest Plan, pages III-25 to III-26)

Objective WIOB03: *Prioritize wildlife source habitats to be restored at a mid- or Forest-scale, using information from sources such as species habitat models and fine-scale analyses. Update priorities at least every 10 years to reflect changes in resource conditions. Incorporate priorities into the plan level Wildlife Conservation Strategy (WCS) and display on the combined Vegetative and Wildlife Habitat Restoration Strategy Map.*

Accomplishment: An amendment to the Forest Plan, adopting a forested biological community Wildlife Conservation Strategy (WCS), was completed in 2012. The WCS prioritized for restoration, wildlife source habitats tied to forested communities. Restoration priorities are displayed on the south end and north end Vegetation and Wildlife Habitat Restoration maps.

Objective WIOB07: *Focus source habitat maintenance and restoration activities in wildlife priority watersheds identified in the WCS and displayed on the combined Vegetative and Wildlife Habitat Restoration Strategy Map. Within these priority watersheds, emphasize the maintenance and restoration of old forest habitat in nonlethal and mixed-1 fire regimes (PVGs 1-4) and whitebark pine restoration in PVG 11.*

Accomplishment: Habitat restoration work continued in the Upper Little Wood Priority watershed, where prescribed burning was used to reduce stand density, promote large tree growth, and enhance whitebark pine and aspen regeneration. Planning began in the Deer Creek Priority Watershed, which included habitat restoration objectives to reduce stand density and promote large tree growth in lower elevation Douglas fir stands and enhance aspen and whitebark pine stands. Planning was completed in the Liberal Willow Priority Watershed, which included habitat restoration objectives to reduce stand density and promote large tree growth in lower elevation Douglas fir stands and enhance aspen regeneration.

VEGETATION RESOURCES Objectives (Forest Plan, page III-30)

Objective VEOB07: *Update mid and fine-scale inventories of vegetation conditions developed during the forest plan revision process at least every 10 years to assist in identifying needs to change vegetation treatment priorities due to changed resource conditions and/or Agency management priorities.*

Accomplishment: The Forest continued to inventory both forested and non-forested vegetative communities across the Forest. The inventory should be completed during the 2013 field season with a new vegetation layer and associated maps available to the Forest in 2014.

Objective VEOB08: *Schedule and complete treatments designed to maintain or restore desired vegetative and associated wildlife source habitat conditions. Focus treatments in vegetative and wildlife habitat priority watersheds displayed on the combined Vegetative and Wildlife Habitat Restoration Strategy Map. Within these watersheds, emphasize treatments in the non-lethal and mixed-1 fire regime able to attain the range of desired conditions for the large tree size class or old forest habitat within the short-term (≤15years). In PVG11 emphasize whitebark pine restoration treatments.*

Accomplishment: Habitat restoration work continued in the Upper Little Wood priority watershed, where prescribed burning was used to reduce stand density, promote large tree growth, and enhance whitebark pine and aspen regeneration. Planning began in the Deer Creek Priority Watershed, which included habitat restoration objectives to reduce stand density and promote large tree growth in lower elevation Douglas fir stands and enhance aspen and whitebark pine stands. Planning was completed in the Liberal Willow Priority Watershed, which included habitat restoration objectives to reduce stand density and promote large tree growth in lower elevation Douglas fir stands and enhance aspen regeneration.

Others:
Ketchum RD - Upper Little Wood Prescribed Burn- 1200 acres
Ketchum/ Fairfield RD - Aspen Improvement Treatments- 200 acres
Sawtooth NRA – Whitebark Pine Planting- 5 acres (300 seedlings)

BOTANICAL RESOURCES Objectives (Forest Plan, pages III-32 to III-33)

Objective BTOB04: *Maintain annually a list of Forest Watch plants that identify species of concern (see Appendix C for list of species).*

Accomplishment: In FY12, no species were added to or deleted from the Forest Watch list

NON-NATIVE PLANTS Objectives (Forest Plan, pages III-35 to III-36)

Objective NPOB01: *Maintain, and use current field data to update, the Forest-wide database and map library of current status of noxious weed infestations, treatment activities, and locations of newly established infestations.*

Accomplishment: In FY12, the Forest converted our reporting to the new standards through the NRIS TESP/IS process for recording noxious weed accomplishments. All data gathered in FY12 was entered into the database.

Objective NPOB03: *Develop strategic noxious weed management plans for Coordinated Weed Management Areas. Cooperate on a regular basis with federal agencies, tribal governments, the State of Idaho, county weed organizations, state and local highway departments, and private individuals in establishing Coordinated Weed Management Area strategic priorities, and locating and treating noxious weed species.*

Accomplishment: The administrative boundary of the Forest falls within seven Cooperative Weed Management Areas (CWMAs): Camas Creek, Blaine County, Shoshone Basin, Goose Creek, South Fork Boise, Custer County and Raft River. Coordinated accomplishments for CWMAs are reported in the winter following the field season of work. The Forest treated a total of 8,420 acres of noxious weed across the Forest in FY12. Table 1 shows the total number of acres treated by treatment method.

Table 1: Acres of Noxious Weed Treated by Method

Method	Minidoka	Ketchum	SNRA	Fairfield	Forest
Chemical	1,196	3,641	1,314	1,773	7,924
Biological	0	5	5	5	15
Mechanical	0	423	12	46	481
Total	**1,196**	**4,069**	**1,331**	**1,824**	**8,420**

FIRE MANAGEMENT Objectives (Forest Plan, pages III-38 to III-39)

Objective FMOB04: *Schedule and complete hazardous fuel reduction and maintenance treatments within the wildland urban interface.*

Accomplishment: In FY12, the Forest used prescribed fire to treat 978 acres in non-wildland urban interface (Non-WUI) and 1,120 acres in the wildland urban interface (WUI). Mechanical treatment was used to treat 806 acres in WUI and 743 acres in Non-WUI. Total acres accomplished in FY2012 were 3,647.

Additionally, the Sawtooth had several large fires in 2012 that were not reported as accomplishments although the strategy for managing the fires did include restoration objectives. A high percentage of the acreage burned in these fires occurred in a manner consistent with the fire regime and yielded desired, ecologically beneficial fire effects. This includes the following (acres burned on Sawtooth National Forest lands only):

- Halstead fire: 8,867 acres
- Cave Canyon: 56,235 acres
- Deer Hollow: 5,441 acres

TIMBERLAND RESOURCES Objectives (Forest Plan, pages III-42 to III-43)

Objective TROB01: *On a decadal basis:*

a) Harvest timber, other than by salvage, on at least 20,000 acres,
b) Reforest at least 500 acres, and
c) Complete timber stand improvement activities on at least 3,000 acres.

This objective contributes to the accomplishment of VEOB08 and FMOB04

Accomplishment:

a) Harvested timber, other than by salvage, on 162 acres;
b) No reforestation; and
c) Timber stand improvement activities were completed on 139 acres

Objective TROB02: *On a decadal basis, make available an estimated 54 million board feet of timber which will contribute to Allowable Sale Quantity (ASQ).*

Accomplishment: In 2012, the Forest made available 2.1 million board feet (MMBF) of timber (0.5 MMBF of salvage and 1.6 MMBF of green) which contributed to the Allowable Sale Quantity.

Objective TROB03: *Utilize wood products (e.g., fuelwood, posts, poles, house logs, etc.) generated from vegetation treatment activities, on both suited and not suited timberlands, to produce an estimated 25 million board feet of volume on a decadal basis. This volume, when combined with ASQ, is the Total Sale Program Quantity (TSPQ). On a decadal basis, the TSPQ is estimated to be 80 million board feet.*

Accomplishment: In 2012, the Forest made available 4.0 million board feet (MMBF) of wood products (.07MMBF in post and poles and 3.93 MMBF in personal use firewood). When combined with the 2.1 MMBF contributing to ASQ (i.e. TROB02), the Sawtooth National Forest made available 6.1 MMBF that contributed to the Total Sale Program Quantity (TSPQ).

RANGELAND RESOURCES Objectives (Forest Plan, page III-44)

This section contains no annual accomplishment requirements.

MINERALS AND GEOLOGY RESOURCES Objectives (Forest Plan, pages III-48 to III-49)

Objective MIOB01: *Continue to inventory known abandoned mines and prepare restoration plans to address biological and physical resource concerns, chemical stability, and human health and safety.*

Accomplishment: In 2012, restoration plans were initiated for two AML sites; Ontario Millsite and Wood River Zinc Millsite, both on the Ketchum Ranger District. Both sites were identified as requiring priority restoration planning in terms of threats to both human health and environment. These sites have been prioritized for restoration under the regions ECAP (Environmental Compliance and Protection) earmark. Wood River Zinc millsite restoration was slated to begin in 2013. Project planning for Ontario Millsite is ongoing and is slated for completion in 2015.

LANDS AND SPECIAL USES Objectives (Forest Plan, page III-53)

This section contains no annual accomplishment requirements.

FACILITIES AND ROADS Objectives (Forest Plan, pages III-58 to III-59)

Objective FROB01: *Analyze road system needs and associated resource effects in accordance with the established agency policy direction for roads analysis.*

Accomplishment: Subpart A of the rule requires each unit of the National Forest System to:

- Identify the minimum road system needed for safe and efficient travel and for administration, utilization, and protection of NFS lands; and
- Identify the roads on lands under Forest Service jurisdiction that are no longer needed to meet forest recreation and resource management objectives and reflect long-term funding expectations.

The travel analysis process is complete for all Maintenance Level 3, 4, and 5 roads on the Sawtooth National Forest. The process was started to review all Maintenance Level 1 and 2 roads on the Minidoka Ranger District in FY 2012.

Objective FROB06: *Identify roads and facilities that are not needed for land and resource management, and evaluate for disposal or decommissioning.*

Accomplishment: An active route decommissioning program continued during 2012 with 30 miles of unauthorized roads being decommissioned on the Minidoka Ranger District, 2.8 miles on the Ketchum Ranger District, and 3.9 miles on the Fairfield Ranger District.

Objective FROB11: *In the Forest's annual program of work, prioritize and schedule improvements to existing culverts, bridges, and other stream crossings to accommodate fish passage, 100-year flood flow, and bedload and debris transport. Include accomplishments in the biennial update of the Watershed and Aquatic Recovery Strategy (WARS) database.*

Accomplishment: In 2012, two culverts were replaced with a bridge on the 70692 road in Iron Creek. The culverts present a barrier to some fish species during their migratory periods. Install of the bridge improved fish passage to the upper 4.0 miles of Iron Creek and complements a culvert replacement on Iron Creek at Highway 21 completed in 2011.

RECREATION RESOURCES Objectives (Forest Plan, pages III-62 to III-64)

Objective REOB12: *Annually update recreation databases for developed sites, dispersed areas, and trails.*

Accomplishment: Condition and deferred maintenance surveys were conducted for developed recreation sites, recreation buildings, and trails according to schedule. The schedules for these inspections are based on inspecting approximately 20% of each recreation element every year.

In accordance with Trails Deferred Maintenance Protocols, data entry for national core data relative to trails is randomly selected and condition surveys were completed in 2012. National Core data includes data elements such as completed condition survey dates, trail jurisdiction, trail status, and length. In addition, Trail Management Objectives (TMO's) were completed or updated across the Forest.

Objective REOB17: *Initiate a process of phased, site-specific travel management planning as soon as practicable. Prioritize planning based on areas where the most significant user conflicts and resource concerns are occurring. Identify and address inconsistent access management of roads, trails, and areas across Forest, Ranger District, and interagency boundaries.*

Accomplishment: The Forest completed Travel Management in 2008, focusing on areas with unrestricted cross-country motorized travel on the Minidoka, Ketchum and Fairfield Districts. Districts implemented 18.25 miles of trail construction and reconstruction projects in 2012, tiering back to the priorities identified in 2008. The Forest decommissioned 30 miles of unauthorized roads on the Minidoka Ranger District, 2.8 miles on the Ketchum Ranger District, and 3.9 miles on the Fairfield Ranger District, in a continuing effort to consolidate a manageable system of roads and trails.

The Sawtooth National Recreation Area initiated mountain bike trail planning for Galena Summer Trails in 2012. This lead to identification of a larger project to begin phased travel management within the Big Wood River Travel Management Area scheduled to begin in 2013.

SCENIC ENVIRONMENT Objectives (Forest Plan, page III-68)

This section contains no annual accomplishment requirements.

HERITAGE PROGRAM Objectives (Forest Plan, page III-70)

Objective HPOB05: *Maintain an ongoing inventory to locate and identify historic properties on National Forest System lands.*

Accomplishment: In 2012, the Forest focused on updating heritage legacy data in INFRA and GIS. Volunteers were essential to the accomplishment of the NHPA, Section 110 target in 2012.

A winter seasonal archaeologist was hired in 2012 to work on the Black Pine heritage overview and input legacy data.

TRIBAL RIGHTS AND INTERESTS Objectives (Forest Plan, page III-72)

Objective TROB01: *Meet annually with designated tribal representatives to coordinate tribal uses of National Forest System lands as provided for through existing tribal rights with the U.S. Government*

Accomplishment: The Forest currently consults with four tribes in Idaho and Utah. Consultation occurs through notification letters which include invitations to meet with each tribe to discuss specific projects or other concerns associated with the Forest. Tribal relation on the Sawtooth National Forest is conducted by the Forest Archaeologist as a collateral duty. There are no tribal relations duties at the District level.

In 2012, the Forest did not receive any response letters from the tribes. However, the Forest identified adverse effects to four historic properties resulting from livestock grazing in the Black Pine Range. The Shoshone-Bannock Tribe requested the cultural reports associated with this project.

The Forest continues the policy of non-participation with the Wings and Roots consultation program utilized by the Shoshone-Paiute Tribes of the Duck Valley Indian Reservation. The Tribe feels that the Forest is not meeting its legal requirements to consult by not participating in the program.

WILDERNESS, RECOMMENDED WILDERNESS and INVENTORIED ROADLESS AREA Objectives (Forest Plan, page III-74)

This section contains no annual accomplishment requirements.

WILD and SCENIC RIVERS Objectives (Forest Plan, page III-76)

This section contains no annual accomplishment requirements.

RESEARCH NATURAL AREAS Objectives (Forest Plan, page III-77)

This section contains no annual accomplishment requirements.

SOCIAL and ECONOMIC Objectives (Forest Plan, page III-78)

This section contains no annual accomplishment requirements.

SAWTOOTH NATIONAL RECREATION AREA Objectives (Forest Plan, page III-79)

This section contains no annual accomplishment requirements.

2. Documentation of costs associated with carrying out the planned management prescriptions as compared with the costs estimated in the Forest Plan.

Summary of findings: As described in Chapter IV of the Forest Plan, the final determining factor in carrying out the intent of the Forest Plan is the adequacy of funding. Allocation of dollars from Congress during the first planning period (1987-2003) was consistently lower than Forest Plan projections for most program areas. Because of this, rate of implementation of the 1987 Forest Plan was considerably lower than projected. To predict a more realistic rate of implementation, the budget level used to develop the revised Forest Plan for all programs except timber management and hazardous fuels was based on average allocations from 2001 to 2003. Timber management and hazardous fuels reduction were based on a 10% increase over average service level constraints from the Forest Service Budget Formulation and Execution System. Actual allocations by fund code and program emphasis will vary on an annual basis based on Forest priorities for a given year as well as the will of

Table 2. Predicted versus Actual Forest Budget Levels

Fund Code	DESCRIPTION	Predicted Forest Plan Budget Level	FY 2012 Actual Allocation	Percent Change
BDBD	BRUSH DISPOSAL	$ 46,310	$ 9,500	-89%
*CMFC/ CMII	FACILITY CONSTRUCTION AND MAINTENANCE	$1,459,406	$244,422*	
CMRD	ROAD CONSTRUCTION AND MAINTENANCE	$1,344,086	$ 588,760	-56%
CMTL	TRAIL CONSTRUCTION AND MAINTENANCE	$ 574,146	$ 539,934	-6%
CWKV	REFORESTATION	$ 224,690	$ 4,829	-98%
LALW	LAND ACQUISITION MGMT.	$ 260,138	$ 327	-100%
NFIM	INVENTORY AND MONITORING	$ 577,889	$ 484,836	-16%
NFLM	LAND OWNERSHIP MGMT.	$ 303,174	$ 156,816	-48%
NFMG	MINERALS & GEOLOGY MGMT.	$ 329,959	$ 283,713	-14%
NFPN	LAND MGMT PLANNING	$ 648,466	$ 40,670	-94%
NFRG	GRAZING MGMT.	$ 759,785	$ 633,775	-17%
NFRW	RECREATION/HERITAGE RESOURCES/WILDERNESS MGMT.	$2,545,581	$1,570,237	-38%
*NFTM	TIMBER MANAGEMENT	$ 654,458	$ 0	
*NFVW	VEGETATION MANAGEMENT (FOREST AND RANGE)/WATERSHED IMPROVEMENTS/SOIL/WATER/AIR MGMT.	$1,027,572	$ 0	
*NFWF	WILDLIFE/FISH/THREATENED & ENDANGERED SPECIES HABITAT MGMT.	$ 846,844	$ 0	
NFRR*	INTEGRATED RESOURCE RESTORATION		$2,001,947	
RBRB	RANGE BETTERMENT	$ 78,353	$ 58,829	-23%
SSSS	SALVAGE SALE	$ 258,202	$ 100,000	-61%
*WFHF	HAZARDOUS FUELS	$ 717,303	$ 902,316*	
WFPR	FIRE PREPAREDNESS	$3,978,058	$2,959,210	-26%

*In FY2012, Region 4 became a pilot region to test consolidation of the NFWF, NFTM, NFVW, CMFC and a portion of the WFHF fund codes into a single integrated resource restoration fund code. The intent of the NFRR fund code was to allow greater flexibility to address integrated resource restoration needs. Because of the switch to the NFRR fund code it isn't possible to track the predicted versus actual funding level.

Congress. Table 2 shows the predicted Forest Plan budget inflated to the 2012 level by program area based on average allocations and the actual allocation for fiscal year 2012, not including carry over dollars. Carry over dollars are unobligated funds remaining at the end of the fiscal year that may be carried over to the next fiscal year. These funds tend to be highly variable and therefore are not included.

3. Population trends of the management indicator species will be monitored and relationships to habitat changes determined.

Table 3 shows the Management Indicator Species (MIS) selected by the Sawtooth NF in the 2012 amended Forest Plan. The primary reason MIS are selected is because their populations are believed to indicate the effects of management activities. Other reasons are also considered (36 CFR 219.19(a)(1).

Table 3. Management Indicator Species for the Sawtooth NF, 2003 Forest Plan

Type	Common Name	Habitat	Management Concerns
Bird Species	Pileated Woodpecker	PVGs 2-9	Sufficient large trees, snags, and down logs
	Sage Grouse	Sagebrush/grassland	Habitat reduction and alteration
	Goshawk	PVGs 3,4,7 & 10, PVGS 1 & 2 in high canopy cover	Nest tree removal and habitat modification
Fish Species	Bull Trout	Perennial streams	Sediment in spawning and rearing areas, water temperature, habitat connectivity
	Yellowstone Cutthroat	Perennial streams	

Following is a summary of the monitoring completed for each MIS on the Forest in FY 2012:

Bull Trout Monitoring:
A variety of factors influences the distribution of bull trout populations across the Sawtooth NF. As has been reported in the literature, results from our MIS sampling indicate that patch size, stream temperature, patch connectivity, habitat condition, and the occurrence of brook trout can all influence the presence or absence of reproducing bull trout populations. Information collected over the past eight years has better defined bull trout distribution within patches and across each subbasin. At the subbasin scale, it appears bull trout local populations have remained stable since 2003 with the exception of the loss of a hybridized population in Crooked Creek. We have also found more occupied patches than previously thought. However, this doesn't imply bull trout have expanded their range. Only that we have confirmed their presence in streams that likely supported them all along. In 2012, bull trout populations continue to occupy Boardman, Deadwood, Skeleton, Big Boulder, Little Boulder, Fishhook, and Bear patches and are absent in Elk, Shake, Big Lake, Yellowbelly, and Pole patches with detection probabilities ranging from of 0.76 to 0.97.

In 2004, fisheries staff identified and stratified 97 bull trout patches on the Sawtooth NF. Since that time seven additional patches have been identified in the Upper Salmon subbasin

and one dropped in the S.F. Boise subbasin resulting in 104 patches on the Forest. During the 2004 to 2012 field seasons, crews completed MIS protocol surveys in 100% of the category 1 patches. Bull trout presence was confirmed in 36 patches; habitat was determined to be suitable but no bull trout were detected in 17 patches; and habitat was determined to be unsuitable in 51 patches.

Data collected over the past nine years were compared with information collected prior to 2004 to provide a preliminary indication of bull trout trend across the planning unit. Results from this comparison indicate a slight increase in bull trout distribution in the S.F. Boise, M.F./N.F Boise, and Upper Salmon subbasins. Bull trout were probably present, but previously undetected, in many of the patches that are now reclassified as occupied (category 1). Still, the data indicates that bull trout presence is more robust than previously thought in 2004 and that bull trout are still occupying most patches where previously detected. Table xx shows an increase in the number of unsuitable/inaccessible patches in the S.F. Boise and Upper Salmon subbasins. These patches were reclassified as unsuitable based on recently acquired data that documented unfavorable existing conditions such as streams with culvert barriers, maximum weekly maximum temperature that exceed 15°C over most of the available habitat, abundant brook trout populations, and no strong bull trout populations in adjacent streams.

A more detailed discussion of the Forest's aquatic management indicator species monitoring can be found in Attachment 1, *2012 Sawtooth Aquatic Management Indicator Species Monitoring Reports*, of this monitoring report.

Table 4 - Comparison of bull trout patch strata 2004-2012.

Category	**S.F. Boise Subbasin # of Patches**		**N.F. & M.F. Boise Subbasin # of Patches**		**S.F. Payette Subbasin # of Patches**		**Upper Salmon Subbasin # of Patches**	
	2004	**2012**	**2004**	**2012**	**2004**	**2012**	**2004**	**2012**
1 – Occupied	11	13	4	4	0	2	6	17
2 – Suitable/Unoccupied	22	7	1	1	4	2	28	7
3 – Unsuitable/Inaccessible	10	23	0	0	0	0	3	28
4 - Unsurveyed	0	0	0	0	0	0	8	0
Total	**43**	**43**	**5**	**5**	**4**	**4**	**45**	**52**

Yellowstone Cutthroat Monitoring:

The 2012 WCS Amendment to the Sawtooth Forest Plan included a decision to add Yellowstone Cutthroat trout (YCT) as an MIS.

2012 Monitoring Results

A variety of factors influence the distribution of YCT populations across the Sawtooth National Forest. As has been reported in the literature, results from our MIS sampling indicate that drainage size, stream temperature, connectivity, habitat condition, and the occurrence of brook trout can all influence the presence or absence of reproducing YCT

populations. Information collected has better defined YCT distributions within drainage and identified uses that threaten habitat conditions and the viability of some YCT populations. In 2012, YCT populations continue to occupy all streams in Upper Cassia Creek, Clyde Creek, headwater portions of George and Clear Creeks in Utah. At the subbasin scale it appears YCT populations have remained stable since last surveyed. However streams in the Upper Cassia drainage support lower fish densities than previous years.

A more detailed discussion of the Forest's aquatic management indicator species monitoring can be found in Attachment 2, *2012 Sawtooth Aquatic Management Indicator Species Monitoring Reports,* of this monitoring report.

Pileated Woodpecker Monitoring:

Table 5: Pileated Woodpecker Monitoring Results by District

District	Points Monitored/ Transects	Hits (observations)	Acres Inventoried
Fairfield Ranger District	100/10	10	4,270
Ketchum Ranger District	90/9	2 (both on one transect)	4,450
Sawtooth NRA	180/18	10 (on 6 transects)	8,900

Sage Grouse Monitoring:

Table 6. Sage Grouse Monitoring Results by District

District	Division	Leks Inventoried	Males Counted	Acres Inventoried
Minidoka Ranger District	Cassia (Idaho)	6 (Cottonwood Ridge)	58	300
	Raft River (Utah)	6	3	150
Fairfield Ranger District	(adjacent to Forest on BLM and Private)	28	286	700

Goshawk Monitoring:

Table 7. Goshawk Monitoring Results by District

District	Territories Inventoried	New Territories Identified	Territories Occupied	Fledglings Produced	Acres Inventoried
Minidoka Ranger District	27	0	19	---	8,000
Fairfield Ranger District	8	0	5	10	1,200
Ketchum Ranger District	4	0	1	2	1,800
Sawtooth National Recreation Area	18	1	8	16	12,600

4. Accomplishment of Aquatic Conservation Stratgey (ACS) priority subwatershed restoration objectives.

Summary of findings: The Watershed Aquatic Recovery Strategy (WARS) is a process that identified restoration priorities (high, moderate, and low) and restoration type (passive, active, and conservation) among the 650 subwatersheds across the Southwest Idaho Ecogroup. This strategy provides the "blue print" for recovery and protection of aquatic (both physical and biological) resources across the Ecogroup. Table 8 displays a summary of the aquatic restoration that occurred in ACS priority subwatersheds on the Sawtooth NF in 2012.

Table 8 – Sawtooth NF 2012 Aquatic Restoration Projects by WARS priority

	Within ACS Priority Watersheds	Outside ACS Priority Watersheds			Total From Columns 3, 4 and 5
		WARS *High* Priority Watershed	WARS *Mod* Priority Watershed	WARS *Low* Priority Watershed	
Miles of Stream Improved	2	8	2	1	11
Acres of Lake Improved	2,766	2,948	0	0	2,948
Acres of Watershed Improved	42	55.25	16.75	64	136

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

A. Terms and Conditions - Summary of findings:
Both NOAA Fisheries and the USDI Fish and Wildlife Service (USFWS) issued Biological Opinions in response to the Federal Action (i.e. proposed action or management strategy) outlined in the 2003 Forest Plan. However, only NOAA Fisheries issued reasonable and prudent measures and related terms and conditions with their Biological Opinion.

Reasonable and Prudent Measures (RPMs) are non-discretionary measures to minimize take that may or may not already be part of the description of the proposed action. They must be implemented as binding conditions for the exemption in section 7(o)(2) to apply. The Forest Service has the continuing duty to regulate the activities covered in this incidental take statement. If the Forest Service fails to carry out required measures, fails to require applicants to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, or fails to retain the oversight to ensure compliance with these terms and conditions, the protective coverage of section 7(o)(2) that will become effective at the project level may lapse. To be eligible for an exemption from the prohibitions of Section 9 of the ESA, the Forest Service must comply with the following terms and conditions, which implement the reasonable and prudent measures described above for each category of activity. These terms and conditions are non-discretionary.

The terms and conditions related to two of the three RPMs in the NOAA Fisheries Biological Opinion apply to the Sawtooth and require annual reporting. These terms and conditions are identified below, along with the accomplishments related to them.

RPM #1: Minimize the likelihood of incidental take by clarifying local sideboards pertaining to:

Fire Management timelines for fire operational resource guidance

Fire operational guidelines were originally developed in the spring of 2004. These guidelines included protective measures for wildlife, botanical, and aquatic resources. In 2006, the Boise NF and Sawtooth NF completed a Programmatic Biological Assessment (BA) for Wildfire Suppression and Wildland Fire Use activities that incorporated and improved upon the 2004 guidance. This BA was submitted for informal consultation, which concluded with letters of concurrence from the FWS and NOAA on 08-11-2006 and 08-30-2006, respectively. In 2012, the Forest finished new programmatic fire suppression guidance.

RPM #2: Minimize the likelihood of incidental take by maintaining the necessary linkages between the Sawtooth NF Plan and broad-scale restoration/recovery strategies. To implement RPM #2 the Sawtooth NF is required to:

Provide an oversight and accountability body that links to IIT by continuing to work with the IIT and provide exchange of information regarding processes that are local in scope, but have broad-scale implications, such as subbasin planning, watershed analysis and monitoring.

The intent of the IIT implementation monitoring was to track implementation of management direction at the level of the FS Land and Resource Management Plan or BLM Resource Management Plan for the salmon, steelhead, and bull trout listed in the Upper Columbia and Snake River Basins. Specific objectives are to:

- Provide a reporting format for all Level 1 Team implementation monitoring requirements, and ensure a "feedback loop" for Level 1 Teams and Managers to accomplish agency adaptive management;
- Meet the broad-scale, mandatory requirements and commitments of the PACFISH/INFISH, the 1998 Biological Opinions, and the IIT Charter;
- Provide documentation to show that direction in PACFISH, INFISH and the 1998 Biological Opinions is being implemented on the ground; and
- Document status and trends in implementation of federal activities by land management agencies, including locations of non-compliance with the aquatic conservation direction.

It was hoped that data collected by the Implementation Monitoring Module in combination with data from the Effectiveness Monitoring Module, would provide information to help validate the basic assumptions under which the management direction was developed.

The Forest coordinated with the PIBO program and provided them information on DMAs within the allotments scheduled to be surveyed. PIBO then used this information to collect annual indictor data at each site. This information was provided to the Forest the following winter.

B. Conservation Recommendations that resulted from consultation under Section (a) of the Endangered Species Act.
In addition to the RPMs, the following conservation recommendations resulted from consultation with USFWS and NOAA fisheries:

1. The USFS should evaluate and report to NOAA Fisheries the effectiveness of rehabilitation efforts in RCAs in response to fire suppression activities (use of heavy machinery, fire retardants, camp and base locations, etc.) that affected RCAs.

The Halstead Fire originated approximately 18 miles NW of Stanley in the Middle Fork Salmon River subbasin on the Salmon Challis National Forest (SCNF) and moved south and east. Active burning on the Sawtooth National Recreation Area occurred in the Mid Valley Creek and Stanley Creek 6th code watersheds (TMUV, IGST, CAHR and NBSC local pops). The fire was detected on June 27th and burnt approximately 182,000 acres with 10,000 acres occurring on the Sawtooth NRA.

Despite efforts by resource advisors (READ), a fire camp was established within the Riparian Conservation Area (RCA) located on private land between Goat and Iron Creeks, just west of Stanley. Several measures were proposed in a memo dated 08/21/2012 from NOAA in order to minimize effects form the Halsted fire camp. These conservation measures, presented below, were implemented by READs:

1. Minimize the camp's influence on RCAs by maintaining a flagged boundary of the camp perimeter for the entire duration the camp is used. Flagging should also designate appropriate areas for vehicle use and staging, minimizing both their extent within and impact on riparian conditions.

2. In the case of camp growth, ensure expansion does not further encroach upon or otherwise affect RCAs.

3. Ensure vehicle wash stations, equipment fueling areas, and fuel storage sites associated with the established fire camp are not located in RCAs. Any such facilities currently located in the RCA should be relocated to avoid contamination of critical habitat.

4. Gray water from showers or other fire camp facilities should be hauled to and deposited in approved sewage disposal sites.

5. In camp areas where soils are disturbed (i.e., campsites, roads, trails, etc.) adequate drainage structures and/or sediment controls shall be established to prevent measurable quantities of sediment delivery to adjacent streams. In addition, these features should be regularly maintained to ensure they continue to function as designed for the life of the camp.

6. Ensure the camp footprint is adequately rehabilitated. Rehabilitation should include removal of any vehicle or foot paths, decompaction of soils where necessary to reestablish lost functionality, replanting of disturbed sites with an appropriate seed mix, and short- and long-term noxious weed treatment where necessary.

Other design criteria outlined in the 2012 Fire suppression programmatic were not met and required emergency consultation including: (1) Four drafting sites were not properly screened to meet NMFS screening criteria; and (2) approximately 900 meters of dozer fireline was constructed in the RCA of Stanley Creek, including four stream crossings. In October 2012 the dozerline and camp were rehabilitated. Recovery of these areas will be reviewed in FY13.

3. Over the planning period, the Forest Service objective for fish habitat restoration should be to move at least two ACS Priority Subwatersheds per subbasin into a "functioning appropriately" condition. The SWIE Matrix (LRMP Appendix B) should be used to assist in assessment of this objective. In addition, the Forest Service should initiate habitat improvements in the other ACS Priority Subwatersheds as identified by WARS. The strategy to achieve this objective should include steps to coordinate restoration activities, and should take advantage of opportunities to pool funding (within Forest Service, and among other sources including NOAA) across administrative boundaries to accomplish top priority restoration projects.

Refer to responses for (1) Accomplishment of ACS priority subwatershed restoration objectives and (2) Have restoration and conservation activities been focused in priority watersheds identified by the WARS process?

4. Cooperate with the State of Idaho, tribes, and others to evaluate bull trout subpopulation status and distribution on a regular basis.

The Forest partnered with the RMRS to sample several streams in the S.F. Boise drainage with the intent of looking at stream temperature and bull trout distributions within each of the surveyed drainages.

5. Participate in and promote opportunities to study local populations of bull trout to gain a better understanding of conservation and recovery needs at a local scale.

The Sawtooth NF continues to gather information on the presence and vitality of bull trout for ESA and MIS purposes. More specifically, the current effort focuses on determining whether bull trout and/or reproducing bull trout populations exist in specific streams on the Fairfield Ranger District and Sawtooth National Recreation Area (SNRA). A detailed description of bull trout monitoring can be found in Attachment 1: 2012 Sawtooth Aquatic Management Indicator Species Monitoring Report.

6. Cooperate with others in efforts to reduce densities and distribution of brook trout, and to manage habitat to provide a competitive advantage to native salmonids, especially bull trout.

In 2012, the Forest worked with Utah Division of Wildlife Resources (UDWR) to reduce brook trout populations in the headwaters of Johnson Creek in Raft River. UDWR is completing multiple pass electrofishing to remove all brook trout and give Yellowstone cutthroat a

competitive advantage. A temporary fish barrier was also installed in 2011 to prevent brook trout from invading the treated stream.

7. Cooperate to increase the benefits for bull trout from work on Forest system lands and efforts by the State, counties, and other Federal agencies to conserve and recover the species. In particular, assist in identifying actions to remove barriers to bull trout movements in locations where the Forests is also doing work to resolve passage problems and improve habitat.

In 2012, two culverts were replaced with a bridge on the 70692 road in Iron Creek. The culverts present a barrier to some fish species during their migratory periods. Install of the bridge improved fish passage to the upper 4.0 miles of Iron Creek and complements a culvert replacement on Iron Creek at Highway 21 completed in 2011.

III - B. Monitoring Elements in Table IV-2 of the Forest Plan with Annual Reporting Requirements:

As described in Chapter IV of the Forest Plan, monitoring elements were designed around monitoring questions that need to be answered about Forest Plan implementation. These questions are key to determining if we are moving towards meeting the desired conditions identified in the Forest Plan. Following is a summary of the findings for those elements that we are required to monitor and evaluate on an annual or biennial basis:

- **Activity or Practiced to Be Monitored: 08. Safety of administrative facilities**

  Monitoring Question: Are administrative sites, including drinking water sources, safe for visitors and employees?

Summary of findings: Sanitary surveys are required every 5 years at a minimum to assess the overall operational quality, function and maintenance of water systems. In accordance with the schedule, sanitary surveys were conducted on 21 water systems in FY2012. In addition to the sanitary surveys, condition surveys were completed this year on approximately 20% of the total buildings.

Water systems are tested for bacteriological contamination on a monthly basis when they are open. Any systems that show bad results are re-tested according to FS direction and either closed or posted as non-potable if re-testing indicates a problem. The drinking water systems for all Forest administrative sites were opened in 2012. Monthly samples collected from these water systems during the months the systems were open for use determined that each of these systems was compliant with the Safe Drinking Water Act standards.

During FY12, the Forest installed new gas heating stoves and electrical upgrades at Shake Creek Administrative Site

- **Activity or Practiced to Be Monitored: 09. Safety of developed recreation sites**

  Monitoring Question: Are developed recreation sites free of high-risk

conditions? Do water systems meet Federal, State, and local requirements?

Summary of findings: Generally, all Forest developed recreation sites are inspected in the spring or early summer in conjunction with opening for the summer season. Any identified hazards are removed or mitigated at this time. Water systems are managed and tested in accordance with the Safe Drinking Water Act and Forest Service regulations.

The drinking water systems for the majority of the recreational facilities were open for use in 2012. Monthly samples collected during the months the systems were open for use determined that each of these systems was compliant with the Safe Drinking Water Act standards. In 2012, most of the developed recreation water systems met all standards established under this act and agency regulations.

- **Activity or Practiced to Be Monitored: 19. Protection of historic properties during project implementation**

  Monitoring Question: Are historic properties being affected by project activities?

Summary of findings: In 2012, the Forest (NF) consulted with the Idaho and Utah State Historic Preservation Office (SHPO) on all identified National Historic Preservation Act (NHPA) Section 106 undertakings. Three projects were determined to have an adverse effect to historic properties in 2012. The first involved four prehistoric sites that were being impacted from livestock grazing in the Black Pine Range. A Memorandum of Agreement (MOA) was developed between the Forest and Idaho SHPO to mitigate the effects through enclosures. The second involved the addition of a metal roof on a historic recreational residence that is part of a proposed historic district. The affect was mitigated through a MOA with SHPO that approved a metal roofing product that immolates wood singles. The last project involved the proposal to remove the Hereford Guard Station located in the Albion Division, Minidoka Ranger District. An architectural historian was contracted to evaluate the complex and determined that the ranger dwelling was a unique architectural example rare in Idaho. The future of the guard station is still in consultation with Idaho SHPO and the Advisory Council on Historic Preservation.

In 2012, the Sawtooth NF Heritage Program met the "program managed to standard" national target. The Sawtooth NF met the target in several ways. The Forest developed a heritage overview and predictive model for the Black Pine Division of the Minidoka Ranger District, which is defined as elements of a program managed to standard. The heritage overview collected data that outlined the Forest's history and heritage resources (such as: archaeological sites, historic buildings and museum collections) for the Black Pine Range. The predictive model utilized GIS and statistical analysis to develop an archaeological model that was used to predict areas where heritage resources should be located. The Forest also focused on updating heritage legacy data in INFRA and GIS. Volunteers were essential to the accomplishment of the NHPA, Section 110 target in 2012. A winter seasonal archaeologist was hired in 2012 to work on the Black Pine heritage overview and input legacy data.

- **Activity or Practiced to Be Monitored: 35. Watershed restoration and conservation activities**

  Monitoring Question: Have restoration and conservation activities been focused in priority watersheds identified by the WARS process?

Summary of findings: The Watershed Aquatic Recovery Strategy (WARS) is a process that identified restoration priorities (high, moderate, and low) and restoration type (passive, active, and conservation) among the 650 subwatersheds across the Southwest Idaho Ecogroup. This strategy provides the "blue print" for recovery and protection of aquatic (both physical and biological) resources across the Ecogroup.

The intent of the WARS strategy is the movement of subwatershed functions, ecological processes, and structures toward desired conditions. The intent of WARS is also to: (1) secure existing habitats that support the strongest populations of wide-ranging aquatic species and the highest native diversity and geomorphic and water quality integrities; (2) extend favorable conditions into adjacent subwatersheds to create a larger and more contiguous network of suitable and productive habitats; and (3) restore soil-hydrologic processes to ensure favorable water quality conditions for aquatic, riparian, and municipal beneficial uses that will fully support beneficial uses and contribute to the de-listing of fish species and 303(d) water quality limited water bodies.

WARS identified subwatersheds with high aquatic integrity (strong populations of listed fish species and native cutthroat trout), high geomorphic integrity, and high water quality integrity. These subwatersheds received the highest priority for restoration, specifically a conservation strategy that maintains and protects their high quality with minimal short-term risk from other management actions.

High priority subwatersheds were further prioritized to focus recovery efforts and provide a "blue print" as to which should be the highest priority for restoration or conservation during the planning period (next 10-15 years). ACS priority subwatersheds were identified for each subbasin to represent the "highest of the high" in terms of applying management direction and restoration prioritization, especially for short-term recovery objectives. This process is designed to focus management direction and restoration prioritization for the recovery of listed fish species, their habitats, and 303(d) impaired water bodies, and other SWRA resources.

Aquatic restoration can be measured by (1) How many projects were implemented; (2) How many acres or miles were accomplished; and (3) How many dollars were spent. In FY12, 9 projects were completed (Table 9) that protected, maintained, improved or restored water resources, soil resources, stream habitats, and lake habitats and associated desirable species. These projects improved 11 miles of stream, 136 acres of riparian and upland areas, 2,948 acres of lake, and decommissioned 40.2 miles of roads/trails. Approximately $144,739 was spent on these projects. Projects focused in ACS and WARS high priority subwatersheds accomplished 7 miles (64%) of stream, 21.9 miles of road decommissioning (54%), 2,948 acres (100%) of lake, and 55.25 acres (41%) of riparian and upland improvements on the forest.

Although ACS and WARS high subwatersheds are the highest priority for restoration, not all restoration projects implemented or dollars spent in FY12 occurred in these subwatersheds. This is due to several reasons. First, some projects were not planned with forest-wide, management area objectives or WARS emphasis in mind. Second, some restoration projects are driven by specific resource issues that must be addressed immediately or additional degradation may occur (i.e. sediment coming from a storm damaged road). Finally, restoration projects may be driven by outside groups that have a specific interest in an issue or aquatic resource that falls outside of ACS priority subwatersheds. Even with these considerations, the projects implemented in FY12 still addressed many key forest wide or management area objectives in ACS or high priority subwatersheds.

Table 9 - FY 12 aquatic restoration accomplishments on the Sawtooth National Forest

Project Name	Subwatershed (s) in which restoration occurred	Summary of accomplished work	Target Accomplished	WARS Restoration Strategy and Priority	ACS priority
Fairfield Ranger District					
Beaver Program	**Upper Little Smoky Cr.** **East Fork Three Mile Cr.** **Beaver Creek**	Through the Wood River RCD Interagency Beaver Committee the Sawtooth National Forest relocated beavers for the purpose of improving wildlife habitat. Accomplished one beaver release into Carrie Creek in the S.F. Boise watershed, eight beavers released headwaters of Threemile Creek in the Camas Creek watershed, and four beavers released on the SNRA into Beaver creek—Salmon River watershed.	1 mile of stream and 1 acre 1 mile of stream and 8 acres 2 miles of stream and 4 acres	Moderate/Active Low/Active High/Active	No
Non System Road/Trail Obliteration	**Upper Little Smoky Cr.**	Routes were ripped where compaction and surface condition warranted. Native material was used to block vehicles at all access points and throughout lengths of routes. Route closures were signed at all access points. Benefits will be reduced route surface erosion/sediment delivery.	11.75 acres; 1 mile of stream; and 3.9 miles route decom.	Moderate/Active	No
Ketchum Ranger District					
Non System Road/Trail Obliteration	**Castle Creek-Warm Springs Creek**	Routes were ripped where compaction and surface condition warranted. Native material was used to block vehicles at all access points and throughout lengths of routes. Route closures were signed at all access points. Benefits will be reduced route surface erosion/sediment delivery.	8.25 acres and 2.75 miles route decom.	High/Active	No
Minidoka Ranger District					
Grape Creek Riparian	**Grape Creek**	Willows were planted in the spring of 2012 in lower Grape Creek just above the state property boundary. Small panels were placed to protect some plantings from cattle.	1 mile of stream and 2 acres	Passive/High	Yes
Non System Road/Trail Obliteration	**Headwaters Dove Cr** **Johnson Cr** **Buck Hollow-South**	Obliteration of priority non system roads and trails on the Minidoka Ranger District. Roads were ripped where road compaction and surface condition warranted. Native material was used to block vehicles at all access points and throughout lengths of	18.75 miles of decom. and 56 acres 0.78 miles of decom. and 2	Active/Low Active/High	No Yes

	Fork Junction Cr **Upper Cassia Cr**	routes. Route closures were signed at all access points. Benefits will be reduced route surface erosion/sediment delivery.	acres 1.14 miles of decom. and 4 acres 9.33 miles of decom, 1 mile of stream and 28 acres	Active/Moderate Active/High	No Yes
Sawtooth National Recreation Area					
Iron Creek Road Realignment	**Lower Valley Creek**	Project closed and rehabilitated former Road 70692 alignment, including the culvert crossing of Iron Creek. The project also closed and rehabilitated the unauthorized routes branching from the former route. CMLG funding completed the other project objectives including construction of the new bridge and road alignment and paving. Other work includes reconditioning a section of Iron Creek road in the narrows area.	3 miles of stream, 5 acres	Active/High	No
Pole Creek Travel Management Implementation	**Pole Creek**	As a result of community collaboration facilitated by the Sawtooth Society, travel appropriate travel objectives were identified within the Pole Creek drainage. Closure of the inappropriate and unauthorized routes was initiated in 2011 with approximately 2 miles. Heavy equipment was utilized to close and encumber areas to travel while breaking compaction, re-establishing natural drainage, incorporating organic material, and accelerating restoration of damaged areas.	0.5 miles of stream, 5 acres, and 3 miles of decom.	Active/High	Yes
Non System Road/Trail Obliteration	**Stanley Lake Cr** **Lower Valley Cr** **Stanley Cr**	Implement vehicle control and site and route rehabilitation measures within the Sawtooth NRA where actively expanding recreation use or travel is not appropriate or desired. Benefits will be less bank erosion and sediment input from stream crossings, increased riparian vegetation and habitat, and reduced road and trail surface erosion/sediment delivery.	0.5 miles of stream, 5 acres, 1 acre lakes, and 0.5 miles of decom.	Active/High	Yes
Aquatic Invasive Education Program and Management Strategy	**Lower Redfish Lake Cr.** **Upper Alturas Lake** **Lower Alturas Lake** **Stanley Lake Creek**	The Sawtooth National Recreational Area has several lakes that are popular boating destinations and are vulnerable to aquatic invasive species. To help protect aquatic resources within these lakes the Forest Service partnered with Idaho Department of Agriculture to establish a boat inspection station on Redfish Lake and monitoring in several of our large glacial lakes. Forest Service also completed spot boat inspections on Pettit, Alturas, and Stanley Lakes in 2012.	1,530 acres lake 837 acres lake 398 acres lake 180 acres lake	Passive/High Active/High Passive/High Active/High	Yes Yes Yes No

		Two ISDA seasonal temporary employees were hired for the Redfish station under the supervision of the ISDA. In addition the USFS hired two Student Conservation Association (SCA) volunteers that attended an AIS short course in Stanley at the beginning of the season. The Redfish station operated from June 21 through September 4, 2012 and was manned by the ISDA team Thursday thru Sunday, usually from 9:00am – 7:00pm. USFS manned the Redfish Station Monday and Tuesday, also from 9:00am – 7:00pm, for a total of 6 days of coverage each week at Redfish. 1,518 watercraft were inspected in the 2012 season. One contaminated boat with New Zealand Mud Snails was washed. All boats with any plants on them were also washed. Four boats total were washed in 2012. Two boats were washed by the ISDA crew, including a jet ski with dead quagga mussels on it and Nevada registration. Two boats were washed by the SCA crew. Three of the boats were just dirty, with no plants or animals visible.			

* Subwatershed names reflect 2008 state certified layer

- **Activity or Practiced to Be Monitored: 39. Water quality and beneficial use status**

  Monitoring Question: Are management actions maintaining or restoring water quality to fully support beneficial uses, and native and desired non-native fish species and their habitats over multiple spatial scales?

Summary of findings:

The Clean Water Act of 1972 (Public Law 92-500), as amended in 1977 (Public Law 95-217) and 1987 (Public Law 100-4), was intended by Congress to provide a means to protect and improve the quality of the water resources and maintain their beneficial uses. The Clean Water Act (Sections 208 and 319) recognized the need for control strategies for nonpoint source pollution. To provide environmental protection and improvement emphasis for water and soil resources and water-related beneficial uses, the National Nonpoint Source Policy (December 12, 1984), the Forest Service Nonpoint Strategy (January 29, 1985), and the USDA Nonpoint Source Water Quality Policy (December 5, 1986) were developed. Soil and water conservation practices were recognized as the primary control mechanisms for nonpoint sources of pollution on National Forest System lands. This perspective is supported by the Environmental Protection Agency (EPA) in their guidance, "Nonpoint Source Controls and Water Quality Standards" (August 19, 1987).

As part of its land stewardship policy, the Forest Service's management actions must be carried out in a manner which protects soil and water resources. The Clean Water Act directs the

Secretary of Agriculture to establish and administer a program…of installing and maintaining measures incorporating best management practices (FSM 2532) to control nonpoint source pollution for improved water quality…" Best Management Practices (BMPs) become the primary mechanism for meeting water quality standards. BMPs are defined as "A practice or a combination of practices, that is determined by a State (or designated area-wide planning agency) after problem assessment, examination of alternative practices, and appropriate public participation to be the most effective, practical (including technological, economic, and institutional considerations) means of preventing or reducing the amount of pollution generated by nonpoint sources to a level compatible with water quality goals (40 CFR 130.2(q))." Implementation of BMPs and a consistent monitoring approach allows evaluation and modification of practices designed to protect water quality.

The state of Idaho has identified a number of BMPs pertaining to Forest Practices Rules and Regulations, Stream Channel Alterations, Roads, etc. that the Forest must follow. The Forest Service in Idaho has a memorandum of understanding (MOU) with Idaho Department of State Lands and Environmental Quality on implementing the nonpoint source water quality program. The Forest Service is responsible for (1) implementing nonpoint source pollution controls, and (2) meeting Idaho Water Quality Standards. A primary tool used for mitigating nonpoint pollution is through implementation of BMPs.

In addition to these, the Forest has many standards and guidelines in the Forest Plan that are intended to minimize impacts to water quality. Standards are typically action restrictions designed to prevent degradation of resource conditions, or exceeding a threshold of unacceptable effects, so that conditions can be maintained or restored over time. Guidelines represent a preferred or advisable course of action generally expected to be carried out. Guidelines often indicate measures that should be taken to help maintain or restore resource conditions, or prevent resource degradation.

To assess how well the Sawtooth National Forest's management activities are maintaining or restoring water quality, the Forest conducts project implementation reviews of select projects each year. The assumption is that if projects have implemented Forest Plan requirements, project specific mitigation measures, and relevant Idaho BMPs, then most impacts to water quality and beneficial uses have been minimized.

Project Implementation Reviews –Reviews focus on how well Forest Plan management direction and project specific mitigation measures were implemented and if the project achieved its intended purpose. Because of multiple fires occurring on the Forest throughout the field season, no full Interdisciplinary Team implementation reviews were completed in in 2012. However, a small group representing wildlife, fisheries, soils, and hydrology reviewed the One Mile Canyon Habitat Improvement project on the Minidoka R.D.

The Onemile Canyon prescribed fire resulted in a mosaic burn of different intensities across much of the project area. Some areas within the Sawmill Canyon, Right Fork Onemile, Jones, and Barnes drainages burned at moderate/high intensity meeting the objective of 80% or greater conifer mortality. This included several high intensity/severity pockets within riparian areas in the Sawmill Canyon drainage (Figure 1). In high intensity areas the fire completely consumed

the conifer canopy and ground cover. These moderate/high intensity areas have the potential to increase runoff and sediment to streams below due to increased soil water repellency, loss of surface cover and steep adjacent hillslopes.

Figure 1 – High intensity burn in upper Sawmill Canyon.

The only direct sediment inputs from the fire into Sawmill Canyon came from an intermittent draw and bank erosion from fallen streamside trees. The lack of erosion is likely due to ridgetop and headwater conifers burning at low to moderate intensities, some headwater areas remaining unburned, and the abundance of rock that armors the soil's surface from raindrop erosion. Future risks from increased hillslope sediment should decrease within two to three years as vegetative ground recovers. However, localized inchannel sediment increases may continue for several years as streamside conifers continue to fall and streambanks erode as flows move around fallen debris.

Larger and long-term sediment concerns are from continued grazing along burned streambanks. Cattle were allowed to graze within the burned allotment for five days in 2012. This caused localized streambank trampling in portions of the burn in Sawmill Canyon below the fish barrier (Figure 2). Streambanks within this area will remain susceptible to erosion until enough vegetation can recover. Therefore, it is essential that streambank vegetation be assessed prior to turn-out and cattle grazing in this area be curtailed if possible.

Figure 2 – Fallen trees and cattle trampling

While it appears many of the terrestrial objectives were achieved, it should have been anticipated that the fire could burn at high intensities in riparian areas given the excessive fuel loading. The fire also proved harder to manage once lit resulting in several streamside areas upstream or within YCT habitat burning at high intensity. In hindsight riparian or other aquatic objectives and potential post-fire effects to YCT should have been identified prior to treatment.