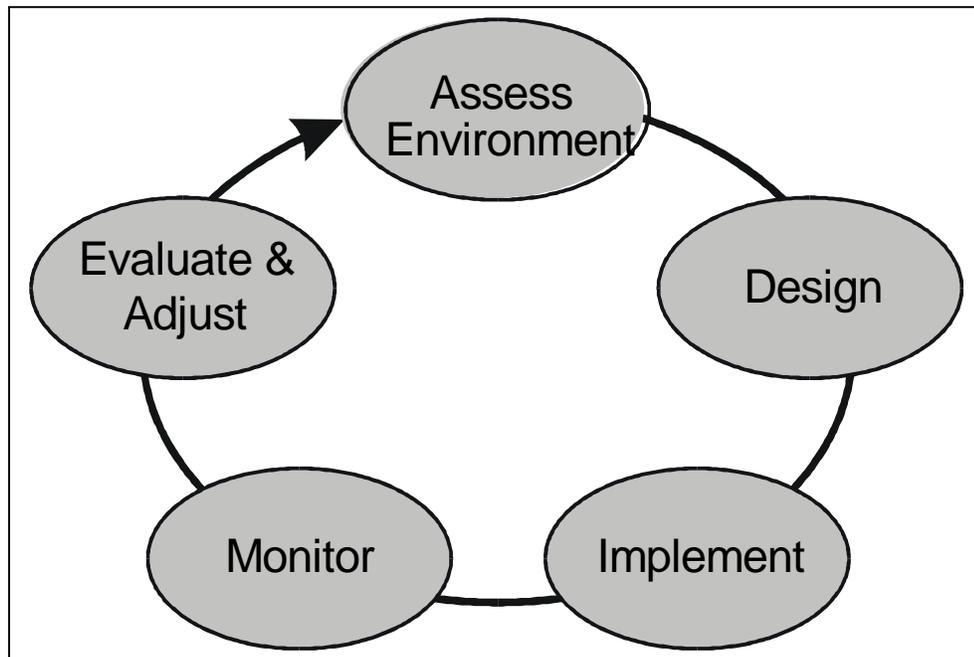


**BOISE NATIONAL FOREST  
LAND AND RESOURCE MANAGEMENT PLAN**

**MONITORING AND EVALUATION REPORT  
September 2004**

**Monitoring and Evaluation, a Key Component of the  
Adaptive Management Learning Loop**



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# **BOISE NATIONAL FOREST LAND AND RESOURCE MANAGEMENT PLAN**

## **MONITORING AND EVALUATION REPORT September 2004**

### **I. INTRODUCTION**

The Boise National Forest (NF) is located in west central Idaho (see figure 1), north and east of the capitol city of Boise. Parts of the Forest are located in Ada, Boise, Elmore, Gem, and Valley Counties. The Forest borders the Sawtooth and Salmon-Challis NFs on the east, and the Payette NF on the north. The Supervisor's Office is located in Boise. The Forest is comprised of five ranger districts—Mountain Home, Idaho City, Lowman, Emmett, and Cascade—with district offices located in each of those towns. The Forest is an administrative unit of the Intermountain Region (Region 4) of the Forest Service, U.S. Department of Agriculture.

In July 2003, the Boise NF completed the revision of their 1990 Land and Resource Management Plan (i.e., Forest Plan). The Record of Decision for the 2003 Forest Plan was signed July 25, 2003. Implementation of the 2003 Forest Plan began September 2003. The revised Forest Plan defines a strategy for the next 10-15 years 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.

The 2003 Forest Plan includes direction for the management of National Forest System (NFS) lands within the administrative boundary of the Boise NF. This includes two areas within the proclaimed boundaries of the Payette and the Sawtooth NFs (refer to figure 2). This plan does not include direction for NFS lands within the Boise NF proclaimed boundary that are not within its administrative boundary. There are three areas within the proclaimed boundaries of the Boise NF that are administered by adjacent National Forests (refer to figure 2). Management direction for these areas can be found within the Forest Plan prepared by each of those Forests.

One of the lessons learned from experience implementing original forest plans is that plans need to be dynamic to account for changed resource conditions such as large scale wildfire or listing of additional species under the Endangered Species Act, new information and science such as taking a systems approach, and changed regulation and policies such as the roads analysis policy. To accomplish this, the 2003 Forest Plan has embraced the principles of adaptive management.

#### **I-1. Purpose of Forest Plan Monitoring and Evaluation**

Monitoring and evaluation are critical to adaptive management. Monitoring and evaluation under the 2003 Forest Plan provide the knowledge and information to keep the Forest Plan viable. Monitoring and evaluation are intended to tell us how forest plan decisions have been implemented, how effective the implementation has proved to be in accomplishing desired outcomes, and how valid our assumptions were that led us to decide on the management strategy detailed in the Forest Plan.

Figure 1. Location Map – Boise National Forest

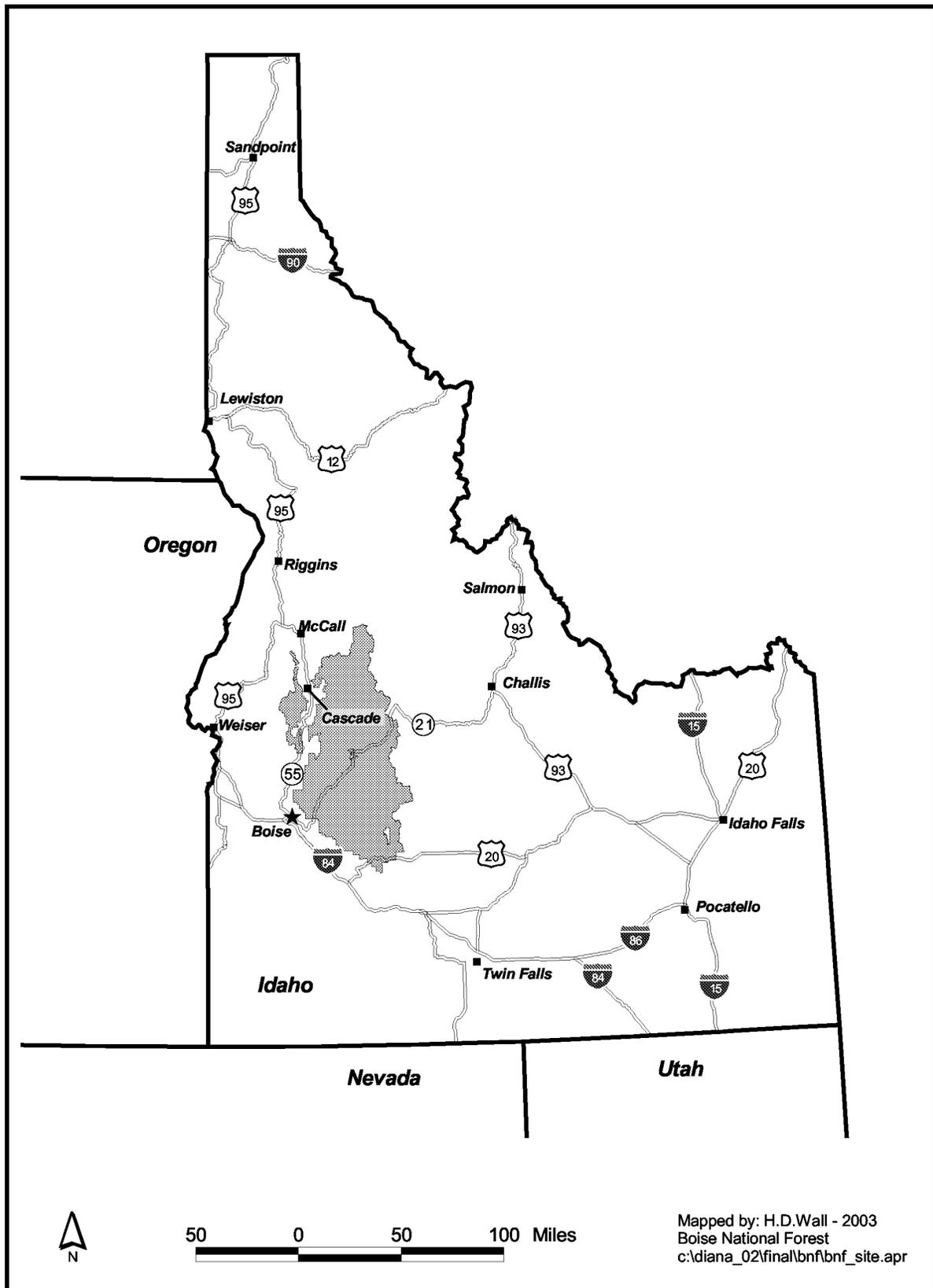
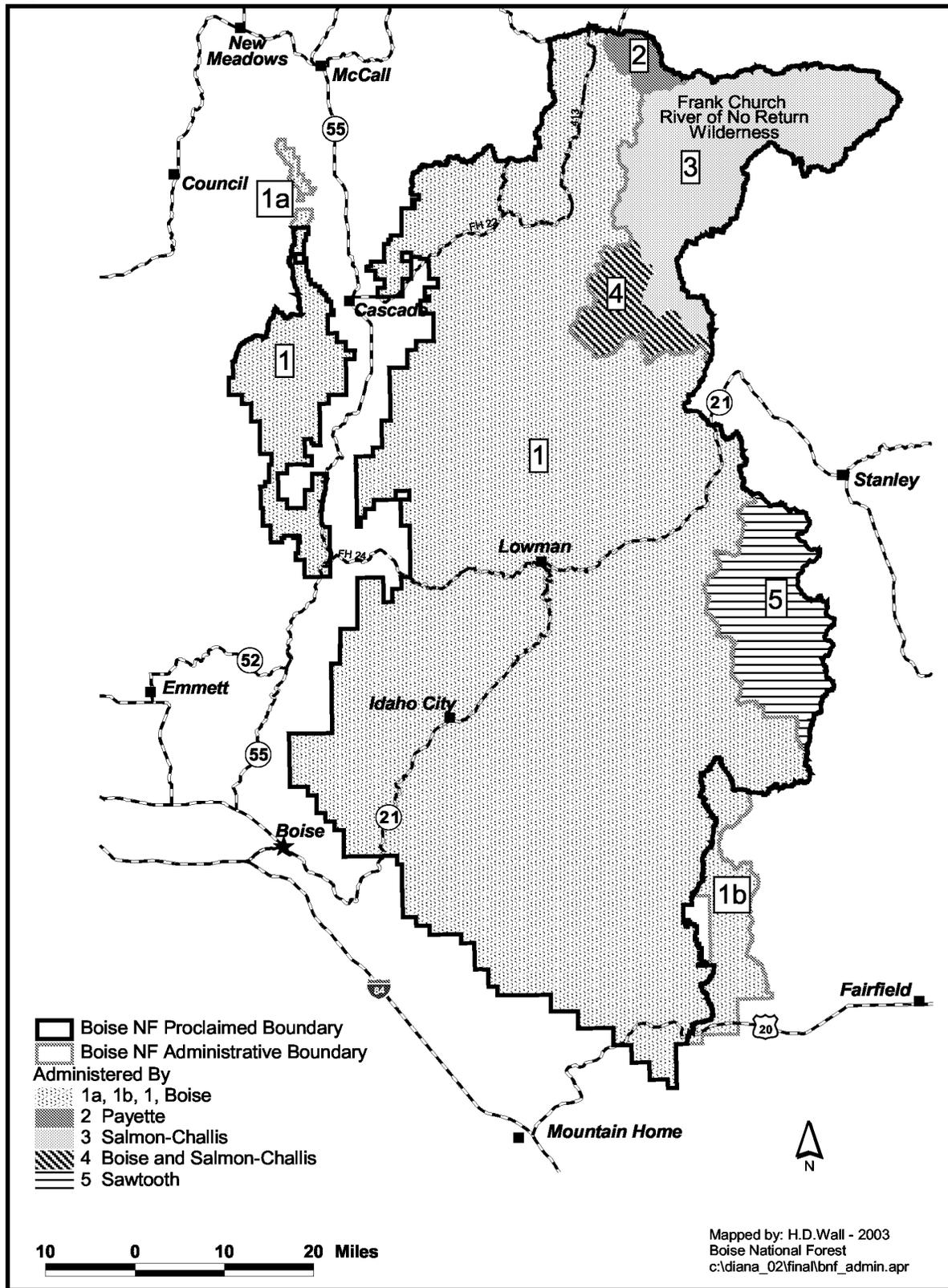


Figure 2: Boise National Forest Proclaimed and Administrative Boundaries



## **I-2. Strategy for Forest Plan Monitoring and Evaluation**

The Boise NF monitoring and evaluation strategy is straightforward and is described in detail in Chapter IV of the 2003 Forest Plan. Monitoring and evaluation of implementation of the Forest Plan have tightly focused on implementation success (i.e., achievement of plan objectives), and on decisions made in the 2003 Record of Decision for the Forest Plan. Monitoring elements also include requirements from the National Forest Management Act (NFMA), as well as other pertinent laws and regulations.

Monitoring and evaluation of key results over time will help us determine if we are making satisfactory progress toward the desired conditions identified in the plan or if a “need for change” in the existing strategy is required in light of the conditions and/or circumstances at that time. As long as the knowledge and information gained from monitoring and evaluation from year to year determine that the management strategy outlined in the Forest Plan is resulting in acceptable progress toward Forest Plan desired conditions, then the conclusion would be that there is no need for change in that strategy. However, if monitoring and evaluation concluded that the Forest Plan strategy is not effective in light of conditions and circumstances at the time of the assessment, then the Forest Supervisor would make the determination as to what the “needs for change” are and whether errata, plan amendment, or revision would be needed to effect the change.

## **I-3. 2004 Forest Plan Monitoring and Evaluation Report Organization**

Chapter IV of the Forest Plan identifies the elements that will be reported in annual monitoring and evaluation reports each year. Table IV-1 identifies elements related to NFMA and other pertinent laws and regulations that are reported annually, and others that are reported every 5 years. Elements not reported each year are typically those that require the collection of information over multiple years before a meaningful evaluation is possible. Thus, in this first year monitoring report under the 2003 Forest Plan, only the five elements identified in table IV-1 with a “yes” in the “Annual Posting of Results” column will be discussed in section II-1 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 the various resources, and related social and economic environments, desired conditions. Similar to table IV-1, information pertaining to several indicators requires multiple years of collection before any meaningful evaluation of an element and its related question can be made. Therefore, only the four monitoring questions and their related indicators with “annually” in the “Report Period” column will be addressed in Section II-2 below.

Section II-3 below will describe the project level monitoring completed in 2004 that has been designed to collect the information needed to address both annual related monitoring elements found in tables IV-1 and IV-2, as well as the elements that have annual information needs that will be evaluated and reported every 2, 3 or 5 year monitoring periods.

Picture of ignition of prescribed burn

Picture of two big fish

Picture of person standing in stream fishing

**National Forests provide a variety of outputs and services that both promote maintenance and restoration of resources, as well as responds to social and economic interests.**

Picture of falling a tree

**Proactively adapting to changed conditions or circumstances through monitoring and evaluations is essential to resource sustainability in light of the demands placed on them.**

Picture of cows in pasture with mountains in background

Picture of crosscountry skier

## II. 2004 ANNUAL MONITORING AND EVALUATION REPORT

### II-1: Five Annual Monitoring Elements Found in Table IV-1 of the Forest Plan:

#### 1. ***A quantitative estimate of performance comparing outputs and services with those predicted by the Forest Plan (Forest Plan, p. IV-5)***

Forest Plan objectives (and in some cases goals) found under the various Forest-wide resource sections in chapter III provide the best projection of outputs and services to be provided through implementation of the Forest Plan. The following section summarizes the Forest's accomplishments for these objectives designed to provide for specific services or outputs on an annual basis. Other objectives found in the various sections of the Forest Plan that did not identify they had an annual reporting requirement or they were to be specifically accomplished within the first year of plan implementation (2004) are typically *not* discussed in this first year monitoring report. These objectives are discussed only in those cases where activities have been implemented that substantially contribute toward or fully accomplish the objective in the first year. Except in these circumstances, these objectives will be addressed in detail every 5 years, unless otherwise specified or warranted due to changed conditions or circumstances.

To maintain a "bridge" to Forest Plan, chapter III, the objectives addressed below will be organized by the resource section they are found in the Plan, as well as ordered in the same sequence as they would be found in the Plan. These resource sections in the plan that do not contain objectives that are reported on an annual basis will be noted below.

#### THREATENED, ENDANGERED, PROPOSED AND CANDIDATE SPECIES Objectives (Forest Plan, 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.*

#### **Accomplishments**

##### Northern Idaho Ground Squirrel Surveys

During May and June 2004, surveys for the Northern Idaho Ground Squirrel were conducted on portions of the Cascade and Emmett Ranger Districts in cooperation with the U.S. Fish and Wildlife Service (FWS). Surveys were completed on lands within the Probable Historic Distribution boundary as defined by the Northern Idaho Ground Squirrel Recovery Plan. No observations of Northern Idaho Ground Squirrels were made, although suitable habitat was present. Columbian ground squirrels occupied all sites surveyed.

##### Sage Grouse, Lek Sites Surveys

In April 2004, the Boise NF partnered with the Bureau of Land Management (BLM) and the IDFG to conduct aerial surveys on NSF and BLM lands for Sage Grouse lek sites. The Columbia Basin Greater Sage Grouse is currently a candidate species for Federal Listing. The purposes of this project were to search for active leks in areas where little or no information on Sage Grouse exists,

and to assess the presence of the species on existing leks. Aerial surveys were conducted in the Bennett Mountain and Danskin Mountain areas. Poor spring weather negatively affected the timing of the flights such that surveys did not get completed during the optimum survey period. The Forest did not have any known existing lek sites and no new leks were identified with the 2004 effort. A repeat of this project is planned for 2005 to ensure the Boise NFS lands are adequately evaluated.

Objective TEOB06: *Coordinate with research efforts for TEPC species to determine basic life history requirements and potential effects from management activities. Coordinate efforts and information with the Idaho Conservation Data Center, universities, Forest Service Research Stations, etc.*

**Accomplishment:** In 2004, the Boise NF continued work on three cooperative projects that will substantially contribute to accomplish of this objective as it relates to bull trout. The three projects are briefly discussed below.

#### **Boise River Bull Trout Cooperative Project**

**Objective/Purpose of Project:** This is a multiyear cooperative project [with the Bureau of Reclamation] designed to describe the life history, migration patterns, migration timing, and population (numbers) of adfluvial bull trout in the Boise River upstream of Lucky Peak Dam. Refer to Memorandum of Understanding 03-MU-11040214-029.

**Methods or Techniques Used:** Work in 2004 is the third year of this study, and used a three-person crew to gill net in Lucky Peak and Arrowrock Reservoirs, operate a screw trap in Crooked River, and operate a weir on the North Fork Boise River. Captured bull trout will be tagged and released. Data on recaptures will be used to determine growth, movement, and population. Genetic samples will also be collected.

**Realized/Expected Results:** This study will provide an accurate depiction of the migration patterns and timing, habitat use, and population and genetic composition of the bull trout population in the Boise River. This information will contribute to recovery planning.

#### **Bull Trout Cooperative Study - Deadwood Reservoir**

**Objective/Purpose of Project:** The Deadwood River basin contains a bull trout (*Salvelinus confluentus*) population that experiences some of the same threats to the species that have been described within numerous published papers (Dunham and Rieman, 1999; USFS, 1998; Rieman et al., 1997; Rieman and McIntyre, 1995). Historically, the Deadwood drainage likely supported a population of resident and fluvial bull trout (Jimenez and Zaroban, 1999). Presently, the Deadwood drainage has a diversity of habitats that resulted from the construction of the Deadwood Reservoir in 1931. These habitat changes have likely resulted in: (1) the fragmentation of the bull trout population within the Deadwood drainage, (2) the genetic isolation of fishes upstream of the dam, (3) the blockage of migration corridors for fluvial fishes, and (4) the modification of the timing of flows and temperatures downstream of the reservoir. The presence of the reservoir provided Idaho Department of Fish and Game (IDFG) an opportunity to establish a kokanee fishery within the reservoir. IDFG has managed Deadwood Reservoir for kokanee, at great expense (Grunder, 1999). In addition, several nonnative stream and lake fish species have been introduced into the reservoir over time.

Unfortunately, no studies were conducted prior to the completion of the reservoir to examine the condition of the bull trout population within the Deadwood drainage and few studies have been conducted since (Jimenez and Zaroban, 1999). Additionally, Deadwood Dam is operated primarily for irrigation and salmon augmentation flow water for the upper Snake River system. Spill from the dam is relatively sporadic and may cause temperature fluctuations below the dam that are harmful to aquatic fauna, especially thermally sensitive species such as bull trout. Anecdotal information provided by anglers suggests that a fluvial form of bull trout may use the river below Deadwood Dam for spawning (USBR, personal comm.).

Methods or Techniques Used: Electrofished throughout the basin, above and below the dam. Peterson, et al., 2002 sampling protocols were used in 2004 and will be used in future samples. Bull trout were also PIT tagged, fin clipped, and scale sampled.

Realized/Expected Results: Bull trout distributions varied throughout the basin, and the dominant subspecies was westslope cutthroat trout (above the dam). The presence and dominance of the cutthroat are a result of the heavy stocking of the species. A report of the summer survey will be compiled in the fall of 2004 and will be used to focus future sampling.

### **Bull Trout Cooperative Study - Boise Basin**

Objective/Purpose of Project: Boise Basin bull trout monitoring is a cooperative effort between Bureau of Reclamation, IDFG, and Boise NF. A new memorandum of understanding was signed with the objective to look at preferred spawning habitat and spawning migration patterns for bull trout.

Methods or Techniques Used: Fifty adult adfluvial bull trout were radio tagged with Lotek digitally encoded radio transmitters during the fall weir operations on the North and Middle Fork Boise Rivers. These fish were tracked overwinter and through the summer to determine trends in migration patterns and habitat selection for spawning using both ground and aerial tracking methods.

Realized/Expected Results: Twenty-five fish returned to the river sections of the North and Middle Fork Boise Rivers during the spring migration. Of these, nine entered spawning habitats and were visually observed. Fish not entering spawning habitats were observed and examined for physical condition and tag attachment. Two tributary streams were used by spawning fish on the Middle Fork Boise River (Queens River and Black Warrior Creek) and four tributary streams used on the North Fork Boise River (Johnson Creek, Ballentyne Creek, McLeod Creek, and Bear River). Fish appeared to migrate in groups and hold in habitats with large pools, undercut banks, or wood debris as a forming feature. Six of the nine fish that entered spawning habitats either expelled their tags or were killed. One fish was captured after it had recently expelled its radio tag. Generally, larger fish entered spawning habitats while smaller fish had a tendency to spend the summer in large pools in the mainstem rivers. Some fish were found dead from angler mortality. One particular fish had immature eggs and did not spawn during the summer. Data from this study will be analyzed and reported in final format later this year. Additional information will be added from tidbit temperature loggers deployed throughout the system as well as relationships between fish size, migration timing, and spawning.

Objective TEOB06: *Develop an agreed-upon process with NOAA Fisheries and USFWS for project-level consultation that addresses multiscale analyses and tracking of environmental baselines.*

**Accomplishment:** The Boise NF, NOAA Fisheries, and USFWS agreed on August 26 to a “Framework” for implementation of the 2003 Forest Plan that will inform project level consultation. The process agreed to, which was developed in coordination with Rocky Mountain Research Station, addresses multiscale analyses of risks and threats to species and their habitat and tracking of habitat environmental baselines. In 2005, the agreed-to process will be applied to one to two subbasins.

Objective TEOB23: *Develop operational resources (maps, keys, desk guides, etc.) within 1 year of signing the ROD, to coordinate TEPC species concerns and practical mitigations, and include these resource tools in the Fire Management Plan. Consult with NMFS and USFWS on operational resources on an annual basis. As part of this process consider the following relative to initial attack:*

- a. *Guidelines on how resource tools will be provided to initial attack personnel.*
- b. *Locations or identification of occupied TEPC plant habitat, TEPC fish-bearing streams, surface water with direct delivery to TEPC fish-bearing streams and associated RCAs.*
- c. *Criteria and potential mitigation concerning decisions to place incident bases, camps, helibases, helispots, and other centers for incident activities within occupied TEPC plant habitat or RCAs.*
- d. *Criteria and potential mitigation concerning decisions to use draft hoses in TEPC fish-bearing streams that do not have appropriate screening.*
- e. *Criteria and potential mitigation concerning decisions to use chemical retardant, foam, or other additives in RCAs where surface waters have direct delivery to TEPC fish-bearing streams.*
- f. *Criteria and potential mitigation concerning decisions to use heavy equipment in RCAs*

**Accomplishment:** Operational resources were finalized on the Boise NF in March 2004; “Fire Suppression Operations Guidance 2004 Fire Season (Initial and Extended Attack). NMFS and USFWS reviewed the guidance on February 23, 2004, during a level 1 consultation team meeting. The level 1 team reached consensus that the “Fire Suppression Operations Guidance 2004 Fire Season (Initial and Extended Attack)” would be adequate to avoid or minimize adverse effects on TEPC species from fire suppression.

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

This section contains no annual reporting requirements to be included in this first year’s report.

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

Goal SWGO09: *Promote integration of planning, analysis, implementation, and monitoring efforts that support ESA, Magnuson-Stevens Act, and Clean Water Act requirements.*

**Accomplishment:** In 2004, Boise NF personnel worked with Rocky Mountain Research Station to implement, or continue implementation of, research studies designed to provide information concerning consequences to soil and water resources that may result from decisions related to fuels management. These include:

### **Fuel Treatment Effects on Erosion and Sediment Delivery at the Watershed Scale in the Boise Experimental Forest.**

Personnel from the Boise NF continued work with Dr. Russell Graham and Dr. Teri Jain, research silviculturalists located at the Rocky Mountain Research Station in Moscow, Idaho in investigating the effects of several fuels management practices on erosion and sedimentation at the outlet of several small watersheds 10–30 acres in size. The fuel management practices being examined at the small watershed scale are: (1) thinning, (2) thinning with prescribed fire, (3) high intensity fire (simulated wildfire), (4) high intensity fire with salvage logging, (5) control – no treatment. High intensity fires are not fuel management practices, but may be the consequences of no action. They are included to evaluate the effects of runoff and erosion. This investigation will occur over a 5 to 10-year period.

### **Soil Disturbance Monitoring of Tracked “Brush buster.”**

A 40-acre section of a thinning project on the Boise Experimental Forest within the Idaho City Ranger District was treated using a 235 Cat tracked excavator with a brush buster head. Dr. Russell Graham and Dr. Teri Jain, research silviculturalists located at the Rocky Mountain Research Station in Moscow, Idaho are testing this method of fuels reduction, termed “chunking.” Soil disturbance data was collected to determine if Boise Land and Resource Management Plan standards were met using this method of treatment. This investigation will occur over a 5 to 10-year period. This research is also within a Wildland Urban Interface and BAER subwatershed.

*Objective SWOB05: Cooperate with the State, Tribes, other agencies and organizations to develop and implement Total Maximum Daily Loads (TMDLs) and their implementation plans for 303d impaired water bodies influenced by National Forest System management.*

**Accomplishment:** In 2004, the Boise NF entered into a partnership with the Environmental Protection Agency (EPA) and Idaho Division of Environmental Quality (DEQ) to assess the major sources of sediment within the South Fork Payette River subbasin (SFPR). There are approximately 35 subwatersheds within the SFPR subbasin, including several that are Forest Plan Aquatic Conservation Strategy<sup>1</sup> priority subwatersheds<sup>2</sup>. This project will provide important information to DEQ in support of developing a TMDL. The SFPR is included for sediments on the 1998-303(d) list for TMDL development for Idaho. The SFPR has mixed ownership along most of its watershed area. Headwaters and tributaries of the SFPR are predominately within NFS lands. The Idaho DEQ is currently developing a subbasin assessment and TMDL, which is scheduled to be completed by the end of 2004.

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<sup>1</sup> The Forest Plan **Aquatic Conservation Strategy** (ACS) strategy contains eight components, which collectively provides management direction (integrated throughout resources sections of the Plan), analysis and treatment priorities/strategies to maintain and restore characteristics of healthy, functioning watersheds, riparian areas, and associated fish habitats. How these components are applied at the subwatershed and site-specific levels will affect the types and outcomes of management actions and will, therefore, be an overriding factor that influences potential effects for SWRA resources. (Forest Plan, Appendix B, ACS).

<sup>2</sup> **ACS Priority Subwatersheds:** This restoration priority rating, in conjunction with the restoration type and overall priority watershed classification, provides the focus for the long-term ACS recovery of listed fish species and TMDL watersheds. (Forest Plan, Appendix B, ACS, Component 7)

Research indicates that roads are the major producer of sediment in the SFPR, especially in forested areas. Therefore, this project focused on collecting site-specific information on nearly 600 miles of roads within the SFPR. Forest Service sponsored crews identified major sources of sediment tied to roads and road corridors, and delineated transport routes from roads to receiving streams. The accurate estimate of management-induced sediment delivered to a stream system directly pertains to developing a TMDL that can be implemented successfully, regardless of ownership. In addition to this information, the Idaho DEQ collected the BURP<sup>3</sup> data necessary to initiate this TMDL.

The Boise NF Service completed the inventory with internship students through the Student Conservation Association (SCA). Teams of SCA interns gathered watershed information on the ground to meet TMDL resource needs. Interns were trained before project initiation to collect pertinent information for the project. Use of these teams not only educated the interns, but also provided information in the proper format, coded and ready for analysis. SCA team leaders were under direct supervision of the USDA Forest Service personnel.

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 nonnative fish and aquatic species.*

**Accomplishment:** The Forest Fishery Biologist attended a coordination meeting entitled “Management of Fish and Wildlife in Wilderness” with IDFG on December 4, 2003, at the Red Lion Inn at Park Center, Boise. This meeting included representatives from several National Forests in the Northern (R-1) and Intermountain (R-4) Regions of the Forest Service that manage wilderness areas in Idaho. These meetings constituted an initial step toward greater coordination between IDFG and the Forest Service regarding fish stocking in alpine lakes on NFS lands. The Boise NF Fishery Biologist has also begun working with IDFG on a lakes database that will house related data and support future coordination efforts.

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

Objective WIOB01: *During fine-scale analyses, identify and prioritize opportunities for restoration of habitat linkage to promote genetic integrity and wildlife species distribution (see Appendix E).*

**Accomplishment:** In 2004, the Boise NF continued to cooperatively work with the Idaho Bird Observatory to conduct migration monitoring of diurnal raptors, forest owls, and passerines along the Boise Front. This information provides an index to migratory bird population trends, as well as information on migration timing, abundance, habitat use, and stopover ecology on both NFS and State lands in the Boise Front area. Approximately 100 species of migratory landbirds, short and long-distance migrants, over 15 species of diurnal raptors, and 2 species of migratory forest owls are monitored through this project. An understanding of key characteristics of migratory stopover habitat is needed by land managers to inform decisions regarding land uses and project design. The conservation of migratory habitat is an important component to maintaining wildlife distributions both on the Boise NF, as well as across the range of these migrant species. The final report for the 2004 migratory season will be completed in December 2004.

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<sup>3</sup> **Beneficial Use Reconnaissance Project (BURP):** The DEQ is responsible for implementing the 1972 Federal Clean Water Act and ensuring whether a person, entity, or discharge is in compliance with state Water Quality Standards and Waste Water Treatment Requirements for protection of aquatic life and other beneficial uses. Section 303(d) of the Clean Water Act requires states to develop a list of water bodies that do not meet water quality standards. The DEQ conducts biological and physical habitat surveys of water bodies under the Beneficial Use Reconnaissance Project (BURP), the primary purpose of which is to determine the support status of designated and existing beneficial uses.

Objective WIOB04: *Coordinate animal damage management with the Animal and Plant Health Inspection Service (APHIS), in compliance with USDA Wildlife Services' most current direction for southern Idaho.*

**Accomplishment:** The Forest Wildlife Biologist meets annually with the Animal and Plant Health Inspection Service (APHIS) to review actions taken over the prior year and to review the annual operating plan for the current year. This year, the meeting took place in March 2004.

Objective WIOB06: *Enhance public awareness of wildlife habitat management and species conservation through educational and interpretive programs.*

**Accomplishments:**

International Migratory Bird Day Event

In May 2004, the Boise NF hosted an International Migratory Bird Day event with IDFG and the Golden Eagle Audubon Society at the MK Nature Center in Boise, Idaho. International Migratory Bird Day is an annual celebration intended to increase public attention on the need for action to conserve birds and their habitats. Over 300 people participated in this year's event, which included: naturalist led bird walks, live bird presentations, children and adult activities such as learning bird songs, owl pellet dissection, or constructing bird mobiles, and information on shade-grown coffee, backyard habitats, and backyard birding. Personnel from the Boise NF helped organize and staff this event.

Bear-Proof Containers

In 2004, in an effort to avoid potential problems with black bears foraging in refuse containers at two Forest Service administrative sites, sanitation facilities were improved by providing bear-proof containers at each facility. The District Wildlife Biologist placed the containers at the sites and reviewed the importance of minimizing conflicts with wildlife species such as bears by reducing attractants such as easily accessible garbage.

Objective WIOB08: *Continue to map locations of species occurrence and habitat for MIS and Region 4 Sensitive species during fine- and site/project scale analyses. Incorporate information into a coordinated GIS database, including FAUNA, and coordinate with the Idaho Conservation Data Center.*

**Accomplishment:** During FY 2004, new species locations for the following MIS and Region 4 Sensitive species were documented and mapped: Northern Goshawk, White-headed Woodpecker, Pileated Woodpecker, Flammulated Owl, Boreal Owl, and Bald Eagle. Information is aggregated at the end of the fiscal year and provided to Idaho Conservation Data Center (CDC).

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

Objective VEOB05: *Promote partnerships and cooperation with state and federal agencies, tribal governments, and with other interested groups through coordination, cost sharing, and cross-training for assistance with vegetation inventory, classification, monitoring, and other activities as needed.*

**Accomplishment:** The Boise NF has continued vegetation inventory and classification work within riparian and sagebrush habitats in partnership with the CDC (IDFG). These efforts, and their importance to future forest plan project implementation decisions, are briefly discussed below:

### Riparian Habitat Inventory and Classification Project

In partnership with the CDC, we are implementing a large-scale Riparian Habitat Inventory and Classification Project on the Boise NF. Data collection for this project, initiated as a pilot study in 2002, will continue through 2006. This project will contribute to further understanding of wetland and riparian resources on the Forest, including habitats that may support special status species or unique plant communities. It will also serve to support a habitat predictive model developed by the CDC for the federally listed species *Spiranthes diluvialis* (Jankovsky-Jones and Graham 2001). In addition to documenting wetland and riparian plant associations, information on condition, management needs, and opportunities for protection is also being noted.

### Sagebrush Habitat Inventory and Classification Project

In partnership with the CDC and the Sawtooth NF, we are implementing a Sagebrush Habitat Inventory and Classification Project on both the Boise and Sawtooth NFs. Work on this project was initiated in 2002, and will continue through 2006. Although approximately one-fourth of the Boise NF and half of the Sawtooth NF are composed of non-forested upland plant communities, these habitats have previously received little attention. This project will increase our knowledge of the location and composition of sagebrush habitats on the two Forests, including areas that may support special status species such as sage grouse. Information on habitat condition, threats, and management opportunities is also being collected.

### Riparian Habitat Suitability for Mountain Quail Project

In 2004, in partnership with the CDC, the Boise NF began implementation of a project to predict the distribution and relative suitability of riparian habitats for the mountain quail, on the Boise NF. The mountain quail is a Regional Forester's sensitive species and is one of the least known quail native to North America. Populations in the northern Great Basin have experienced significant declines and range reduction over the past 50 years. In Idaho, mountain quail are classified as state imperiled. Most recently, survey efforts in 2003 indicate mountain quail populations on the Boise NF are very nearly extirpated. With this project riparian and adjacent upland vegetation data is being collected in habitats where mountain quail have been recently detected. Vegetation data is being collected using standard ecological sampling techniques. In addition, a portion of streams recently surveyed for mountain quail, but where no mountain quail were detected, will also be sampled. The intent of this project is to assess the distribution and relative suitability of riparian habitats for mountain quail on the Boise NF. Habitat suitability will be determined by quantifying the likelihood (e.g., probability) of occurrence directly related to underlying environmental and vegetative variables. Predictive maps will be produced by compiling spatial data on the occurrence of mountain quail and the habitat variables on the Forest; building a statistical model of the variables at plots of known occurrence, and mapping the model via GIS on the Forest. This project was initiated in 2004 and will continue through 2006.

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

Objective BTOB07: *Maintain annually a list of Forest Watch plants that identify species of concern (see appendix C for list of species).*

**Accomplishment:** As of September 2004, the Boise NF made the following additions to the Forest Watch plants list:

- *Botrychium crenulatum* – scalloped moonwort
- *Botrychium lunaria* – common moonwort
- *Botrychium multifidum* – leathery grapefern
- *Botrychium virginianum* – rattlesnake fern
- *Carex flava* – yellow sedge
- *Epilobium palustre* -- marsh willowherb
- *Hierochloa odorata* – vanilla grass
- *Triantha occidentalis* ssp. *brevistyla* (*Tofieldia glutinosa* ssp. *brevistyla*) – sticky tofieldia

There were no deletions of plant species for the Watch list.

Objective BTOB12: *As a means of proactive management, seek funding for, prioritize preparation of, and prepare Conservation Agreements and Strategies to maintain or restore habitats of Sensitive plant species.*

**Accomplishment:** In 2004, the CDC completed a conservation assessment for *Douglasia idahoensis* (Idaho douglasia), a Intermountain Region (R-4) sensitive species. Boise NF and Idaho CDC staff visited numerous Douglasia sites on the forest, and documented population size, area and condition, range expansions, habitat quality and potential, threat potential and imminence, associated species and plant communities, physical site description. Suggestions for future *Douglasia* conservation needs were identified, which will be incorporated into a revised conservation strategy in the future. A conservation strategy for this species is expected to be completed in 2005. Key conservation needs and strategy recommendations will be discussed in the 2005 Monitoring and Evaluation Report.

Objective BTOB13 and BTOB14: *Cooperate with researchers, ecologists, geneticists, and other interested parties to develop seed zones or breeding zones for native plants (BTOB13). Collect seeds of native plants to be used in rehabilitation and restoration activities. Collect seed in accordance with seed zones or breeding zones. Develop long-term storage facilities for collected seeds such as the seed bank at the Lucky Peak Nursery (BTOB14).*

**Accomplishment:** The Boise NF has continued its native seed collection project in partnership with the CDC and Lucky Peak Nursery. These efforts, and their importance to future forest plan project implementation decisions, are briefly discussed below.

In partnership with the Idaho Conservation Data Center and Lucky Peak Nursery, we are implementing a native seed collection project on the Boise NF. Dozens of IDFG volunteers have contributed to the success of this project. Since the project was initiated in 2002, we

have collected over 500 pounds of seeds, which are being stored at Lucky Peak Nursery. In addition, several acres are being cultivated to increase the amount of seed for selected species of native forbs, grasses, and shrubs. This project is expected to continue through 2006. By collecting and propagating local native species and then using these materials in revegetation, we are helping to maintain biodiversity and control the invasion of exotic species on the Forest.

**NONNATIVE PLANTS Objectives (Forest Plan, pages III-35 to III-36)**

**Objective FMOB04:** *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 Boise NF falls primarily within three Cooperative Weed Management Areas (CWMAs): Boise Basin, South Fork Boise River, and Upper Payette. Coordinated accomplishments for CWMAs are reported in the winter following the field season of work. Information concerning programs and accomplishments by participating partners within the various CWMAs in which the Boise NF falls within, as well as throughout Idaho, can be found at [http://www.fs.fed.us/r4/boise/local-resources/weed\\_index.shtm](http://www.fs.fed.us/r4/boise/local-resources/weed_index.shtm).

In 2004, the Boise NF continued to cooperate with multiple partners involved in Coordinated Weed Management Area (CWMA) strategic priorities, and in locating and treating noxious weeds and nonnative invasive species on NFS lands within the administrative boundary of the Boise NF. The species with the greatest number of acres infested on the NFS lands on the Boise NF include Canada thistle, Dalmation toadflax, Rush skeletonweed, Spotted knapweed and Houndstonque.

The final report for acres infested and treated during the 2004 field season will not be available until mid to late fall of 2004. A detailed report of the 2003 field season accomplishments is located at <http://www.fs.fed.us/r4/boise/local-resources/noxious-weeds/documents/Boise2003WeedReport.pdf>.

Summarized below are the acres infested and treated by Ranger District on the Boise NF in 2003. The infestation acres provide an indicator as to the level of infestation known at the time the 2003 Plan was implemented (September 2003). How these acres increase or decrease over the 10-15 year time period of the 2003 Plan will provide an indication of success of prevention and control measures important to contributing to Forest Plan goal achievement. Treatments completed in 2004 will be compiled in the fall of 2004 and reported in the 2005 Monitoring and Evaluation report. The 2003 data will be retained in future reports for comparative purposes.

**Table 1: Noxious Weed Acres Infested and Treated in 2003, by District**

	<b>Mountain Home</b>	<b>Idaho City</b>	<b>Cascade</b>	<b>Lowman</b>	<b>Emmett</b>	<b>Lucky Peak</b>	<b>Totals</b>
<b>2003</b>							
Infested	76,396	11,115	5,574	3,702	11,979	10	108,766
Treated	2,567	3,399	247	837	2,850	10	9,900

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

Objective FMOB04: *Schedule and complete at least 100,000 acres of fuels management through prescribed fire and mechanical treatments in the next decade to achieve desired vegetation attributes and fuel reduction goals. Focus on wildland/urban interface and areas in Fire Regimes 1, 2, and 3 (non-lethal, mixed1, mixed2) in Condition Classes 2 and 3 (moderate to extreme hazard rating).*

**Accomplishment:** Thus far in 2004 (as of September), the Boise NF fully completed hazardous fuel reduction on approximately 8,200 acres of NFS lands using funding specifically allocated for hazardous fuels reduction. Treatments were focused in wildland/urban interface area, where wildlands and communities meet, and in areas where fire regimes have been moderately or significantly altered from what happened historically. Over 80 percent of the hazardous fuels funding in FY 2004 was directed to projects in the wildland urban interface. The Southwest Idaho Resource Advisory Committee also provided funding for wildland urban interface treatments. Hazardous fuels were reduced around the communities of Idaho City (including surrounding areas, such as the Duquette Pines subdivision and the Highway 21 intermix of homes, Garden Valley and surrounding subdivisions, Placerville, Yellow Pine, and Warm Lake.

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

Objective TROB01: *Provide timber harvest and related reforestation and timber stand improvement activities, to contribute toward the attainment of desired vegetation conditions. Annually, during the next 10 to 15 years:*

- a) *Harvest timber, other than by salvage, on an average of approximately 4,500 acres,*
- b) *Reforest an average of approximately 2,000 acres; and*
- c) *Complete timber stand improvement activities on an average of approximately 5,500 acres.*

**Accomplishment:** Thus far in 2004 (as of September), the Boise NF:

- a) Harvested timber, other than by salvage, on approximately 4,750<sup>4</sup> acres;
- b) Reforested 1,961 acres; and
- c) Completed timber stand improvement activities on 5,712 acres.

Objective TROB02: *Make available an estimated 450 million board feet of timber for the decade, which will contribute to Allowable Sale Quantity (ASQ).*

**Accomplishment:** Thus far in 2004 (as of September), the Boise NF made available (i.e., offered) approximately 17.5 million board feet (MMBF) of timber (3.5 MMBF of salvage and 14.0 MMBF of green), which contributed to the ASQ.

Objective TROB03: *Utilize wood products (e.g., fuelwood, posts, poles, houselogs, etc.) generated from vegetation treatment activities, on both suited and not suited timberlands, to produce an estimated 217 million board feet of volume for the decade. This volume, when combined with ASQ, is the Total Sale Program Quantity (TSPQ). The TSPQ for the first decade is estimated to be 667 million board feet.*

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<sup>4</sup> 3,300 acres is an estimate generated by dividing the total TSPQ volume by the average volume per acre projected to be generated in the spectrum model used in Forest Plan revision.

**Accomplishment:** Thus far in 2004 (as of September), the Boise NF made available (i.e., offered) 6.5 million board feet (MMBF) of wood products (e.g., fuelwood, posts, poles, houselogs, etc.). When combined with the 17.5 MMBF contributing to ASQ (i.e., TROB02), the Boise NF made available 24.0 MMBF that contributed to the Total Sale Program Quantity (TSPQ).

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

This section contains no annual reporting requirements to be included in this first year's report.

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

Objective MIOB02: *Develop and implement within 1 year standardized inspection, monitoring, and reporting requirements for minerals activities to provide for environmentally sound exploration, development, and production of mineral and energy resources.*

**Accomplishment:** Thus far in 2004 (as of September), the Boise NF utilized its standardized inspection/monitoring report to review mineral development areas to determine consistency with management direction in the 2003 Boise National Forest Plan. Developments determined not to be consistent were provided the information and requirements to bring the operation into compliance and the timeframe in which changes must occur. Followup consistency reviews will be completed based on the timeframes allowed for corrective measures to be taken.

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

This section contains no annual reporting requirements to be included in this first year's report.

#### 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:** Established agency policy for analyzing road and bridge system needs (do that meet design standards and meet road management objectives) and whether they provide for public safety are found in Forest Service Manual (FSM 7700) and Forest Service Handbook (FSH 7709).

The Boise NF transportation system includes 158 bridges. These bridges are on a 2-year inspection cycle, and thus, approximately 50 percent of the bridges were inspected to determine if they still support design uses (i.e., Road Management Objectives) and legal highway limits. Other than minor maintenance needs (e.g., replace object markers), all bridges except for one that crossed Trout Creek on the Cascade Ranger District were determined to still support design uses and legal highway limits. The bridge at Trout Creek was determined to be unsafe and not to standard and was removed. Alternative routes are available to access those areas that the Trout Creek bridge connected. Future replacement of the Trout Creek bridge or other improvements on alternative routes is still to be determined.

Beginning in 2000, the Boise NF initiated road condition surveys of the classified road system. The purpose of these surveys is to define the extent of deferred maintenance<sup>5</sup> backlogs. The identified maintenance items pertain to both those needed to address public safety, as well as resource protection. Needs are based on road management objectives (FSM 7712.5) identified for each road surveyed. Currently the Boise NF has 859 miles of maintenance level 3<sup>6</sup>, 4, or 5 roads, 2,457 miles of maintenance level 2 roads, and 1,536 miles of maintenance level 1 roads. Over the last 4 years, including in 2004, 100 percent of the maintenance level 3, 4, and 5 roads were surveyed to determine maintenance needs, itemizing those that were critical versus noncritical. All identified maintenance needs were placed into the deferred maintenance backlog until such time as they are addressed through future programs of work.

Road condition surveys were completed on a sub-sample of the total miles of level 1 and 2 roads each of the last 4 years. In 2004, 8 miles of level 1 roads and 7 miles of level 2 roads were surveyed. Similar to that for maintenance level 3-5 roads, all identified maintenance needs were placed into the deferred maintenance backlog until such time as they are addressed through future programs of work.

Deferred maintenance backlog items, critical and noncritical items, are carried forward for consideration in annual programs of work. Based on funding, backlog items are addressed, and once addressed removed from the deferred maintenance backlog.

*Objective FROB05: Coordinate transportation systems, management, and decommissioning with other federal, state and county agencies, tribal governments, permittees, contractors, cost-share cooperators, and the public to develop a shared transportation system serving the needs of all parties to the extent possible.*

**Accomplishment:** Thus far in 2004 (as of September), the Boise NF attended the annual spring meetings with Boise Cascade Corporation and the State of Idaho to coordinate matters relating to cost share agreements forestwide. The purpose of the meeting was to result in a more efficient use of resources and funds to manage road systems in common.

We also worked with the State of Idaho to provide a design for road realignment on the Idaho City Ranger District that would benefit both the Forest and a state project. This project is described in detail in documents related to the Amber Project which is currently listed on the October 2004 Boise NF Schedule of Proposed Actions (SOPA).

Finally, numerous meetings were held throughout the year with the Tamarack organization to address potential access and transportation issues that could affect management needs for the Cascade Ranger District, as well as the private development plans associated with the Tamarack operations north and west of the town of Cascade.

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<sup>5</sup> **Deferred Maintenance** - Maintenance that was not performed when it should have been or when it was scheduled and which, therefore, was put off or delayed for a future period. When allowed to accumulate without limits or consideration of useful life, deferred maintenance leads to deterioration of performance, increased costs of repair, and decrease in asset value. Deferred maintenance needs may be categorized as critical or noncritical at any point in time. Continued deferral of noncritical maintenance will normally result in increase in critical deferred maintenance.

<sup>6</sup> A description of maintenance levels 1-5 are located in FSH 7709.58, section 12.3. Generally speaking, maintenance level 3-5 roads are the main arterial and collector road system; where as level 1 and 2 roads are local roads that feed into the level 3-5 roads.

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

**Accomplishment:** Administrative facilities not needed are identified on the Boise NF Facilities Master Plan. In 2004, three obsolete mobile homes and two buildings were removed from administrative sites based on a master plan analysis that determined they were no longer needed.

In 2003, approximately 44 miles of classified roads were decommissioned and removed from the Forest transportation system. Miles decommissioned during the 2004 field season, which ends typically in November 2004, will be reported in the 2005 Monitoring and Evaluation Report.

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:** The Boise NF conducted comprehensive culvert inventories in 2003 and 2004. This inventory effort was accomplished using the San Dimas protocol, which was a condition for funding. The Intermountain Region of the Forest Service allocated funds for culvert inventories to four Idaho Forests that have anadromous fisheries. The Boise NF received \$40k in each of the last 2 years for culvert inventory. Working together, the Sawtooth and Boise NFs established partnerships with the SCA and local Resource Conservation and Development Offices (RC&D) to facilitate the culvert inventories. The SCA provided student interns to collect the data. The RC&D Offices provided logistical support, including laptop computers, GPS equipment and digital cameras. In addition to this logistical support, the RC&D Offices obtained permission to survey culverts on private property near the Boise NF boundary. The Boise NF crews completed 142 full assessments (culverts) and 169 partial assessments (fords and bridges) in 2003, and 170 full assessments and 240 partial assessments in 2004. These inventories were conducted based on priorities identified by the Intermountain Region. Priority 1 was culverts on streams with anadromous fisheries; priority 2 was culverts on bull trout proposed critical habitat streams; priority 3 was culverts on streams with cutthroat trout. The Boise NF completed all priority 1-3 culverts in 2003 and 2004.

The data obtained through this inventory was analyzed using specially developed software to identify fish passage barriers. In 2003, data collected was analyzed and incorporated into the 2003 annual report that was released in the fall of 2003 (refer to attachment 1). The 2003 analysis identified the ten culverts that blocked access to the most habitat upstream and this information was used in the development of annual program of work. In August 2004, the Boise NF awarded a contract to replace four of the barrier culverts that were identified through the 2003 inventory. Implementation of this contract is currently under way. The analysis and evaluation of the data collected in 2004 will be available later this fall and discussed in the 2005 Forest Plan Monitoring and Evaluation Report.

## 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 selected developed recreation sites, recreation buildings, concentrated use areas (CUAs) and trails according to an established schedule. The schedules for these inspections were created approximately 6 years ago and are based on inspecting approximately 20 percent of each recreation element every year.

The INFRA developed site and buildings databases were then updated with the results of the 2004 deferred maintenance surveys, which includes repair and replacement needs for each improvement for each site and building. At this point, there is no current INFRA module to store CUA survey data so survey information is currently maintained in hardcopy format at the District offices.

The INFRA trails module is new this year. As a result, forest trail managers were completing the initial data entry requirements. Complete trail data entry is not scheduled for completion until September 30, 2005. In 2004, all NFS trails are required to have 100 percent core data for all trails and the 2004 condition survey results entered as stipulated in the 2004 Trails Deferred Maintenance Protocols. Core data includes data elements such as completed condition survey dates, trail jurisdiction, trail status, and length.

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:** In 2004, the Boise NF took its first step toward achieving this objective. The OHV Travel Management Project decision was issued in July 2004. This decision, which had a broad cross section of support with the public, will avoid future resource impacts and social conflicts resulting from increasing use of OHVs on nearly 525,000 acres of NFS lands on the Boise NF that had been available to cross-country travel. Snow machines were not affected by this decision.

## SCENIC ENVIRONMENT Objectives (Forest Plan, page III-67)

This section contains no annual reporting requirements to be included in this first year's report.

## HERITAGE PROGRAM Objectives (Forest Plan, pages III-69 to III-70)

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

**Accomplishment:** In 2004, one project was added: the Basque Arborglyphs: Culture in Carvings. This project was hosted as a Passport in Time (PIT) project.

Objective HPOB07: *Evaluate cultural resources to determine their eligibility as historic properties for listing on the National Register of Historic Properties.*

**Accomplishment:** In 2004, 215 sites were evaluated for their National Register eligibility in consultation with the Idaho State Historic Preservation Office (SHPO). Twenty of the 215 sites remain unevaluated pending further documentation, and therefore were protected as significant cultural resources for project planning and implementation pending final determinations.

Objective HPOB09: *Protect historic properties through stabilization and monitoring efforts. Monitor historic properties that may be adversely affected by management activities.*

**Accomplishment:** In 2004, two sites were rehabilitated under NHPA Section 110. These included the Elk Creek Ranger Station (completed through a preservation maintenance workshop) and Dutch Creek Guard Station Recreation Rental (completed through a rehabilitation project).

Thirty-three sites were monitoring for NHPA Section 106 compliance following project implementation.

Objective HPOB10: *Curate artifacts and records, and make them available for study by qualified researchers.*

**Accomplishment:** In 2004, artifacts from 144 sites were entered into the Boise NF's curation database (hosted as PIT projects) and are available for study by qualified researchers.

Objective HPOB15: *Expand heritage experiences and opportunities, including interpretive services, heritage tourism, environmental education and volunteer programs such as Passport in Time to provide positive heritage experiences.*

**Accomplishment:** In 2004 three Passport in Time projects occurred and 5 additional public outreach events took place including school, club, and rock & gem show presentations on the Chinese Legacy in Idaho and Atlanta: Life in a Mining Camp.

Objective HPOB16: *Expand partnerships with individuals, local communities, and academic and private sector institutions to protect cultural resources and involve and educate the public.*

**Accomplishment:** Two partnerships were developed in 2004. These included partnerships with the (1) Idaho City Historical Foundation, and (2) Cenarrusa Center for Basque Studies, and Basque Museum and Cultural Center.

#### TRIBAL RIGHTS AND INTERESTS Objectives (Forest Plan, page III-71)

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:** Three Federally recognized Native American tribes have expressed interest in management activities on the Boise NF:

- Nez Perce Tribe
- Shoshone-Bannock Tribes
- Shoshone-Paiute Tribes

In 2004, the Boise NF met with designated tribal representatives of the Shoshone-Paiute Tribes to coordinate tribal uses of NFS lands at regular monthly consultation meetings. The Boise NF consults with the Shoshone-Paiute tribes through the “Wings and Roots” process (FS Agreement No. 00-MU-11040206-054).

In June 2004, the Boise Forest Supervisor met with the Nez Perce Tribal Executive Committee in Lapwai, Idaho, to discuss, in part, the need to establish a mutually agreed to consultation process protocol that would result in effective coordination of tribal uses on the Boise NF, as well as the identification and understanding of tribal rights and interests that may be affected by proposed activities on the Forest. A followup meeting is scheduled for October 2004.

In September 2004, the Boise Forest Supervisor met with the Shoshone-Bannock Business Council in Fort Hall, Idaho to discuss, in part, the need to establish a mutually agreed to consultation process protocol that would result in effective coordination of tribal uses on the Boise NF, as well as the identification and understanding of tribal rights and interests that may be affected by proposed activities on the Forest. Discussions are to continue in 2005.

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

This section contains no annual reporting requirements to be included in this first year’s report.

#### WILD and SCENIC RIVERS Objectives (Forest Plan, page III-75)

This section contains no annual reporting requirements to be included in this first year’s report.

#### RESEARCH NATURAL AREAS Objectives (Forest Plan, page III-76)

This section contains no annual reporting requirements to be included in this first year’s report.

#### SOCIAL and ECONOMIC Objectives (Forest Plan, pages III-77)

This section contains no annual reporting requirements to be included in this first year’s report.

### **2. *Documentation of costs associated with carrying out planned management prescriptions as compared with the costs estimated in the Forest Plan (Forest Plan, p. IV-5).***

As described in chapter IV of the Forest Plan, carrying out the intent of the Forest Plan is dependent on the funding allocated by Congress. During the implementation period of the original Forest Plan (1990-2003), funding was consistently lower than projections for most program areas. Consequently, the 1990 Forest Plan was implemented more slowly than projected.

To predict what was hoped to be a more realistic rate of implementation, the budget level used to develop the revised Forest Plan was based on average allocations to projects (does not include cost pools) from 2001 to 2003 for all programs except timber management (NFTM and SSSS) and hazardous fuels (WFHF). Timber management and hazardous fuels reduction were based on a 10 percent increase over average service level constraints from the Forest Service Budget Formulation and Execution System [BFES] for FY 2003.

Table 2 illustrates how the actual allocation for FY 2004 compares with the predicted Forest Plan budget level, by program area.

**Table 2. Boise NF – Predicted Forest Plan Budget Level v. FY 2004 Actual Allocation**

<b>Fund Code</b>	<b>DESCRIPTION</b>	<b>Predicted Forest Plan Budget Level</b>	<b>FY 2004 Actual Allocation</b>	<b>Percent Change</b>
BDBD	Brush Disposal	128,400	156,300	+21.7%
CNFC/ CMII	Facility Construction and Maintenance	2,114,800	1,787,700	-15.5%
CMRD	Road Construction and Maintenance	224,000	225,200	+0.5%
CMTL	Trail Construction and Maintenance	1,666,500	1,379,700	-17.2%
CWKV	Sale Area Improvement	1,666,500	1,379,700	-17.2%
NFIM	Inventory and Monitoring	845,900	582,343	-31.2%
NFLM	Landownership Management	360,100	207,500	-42.4%
NFMG	Minerals and Geology Management	403,000	374,200	-7.1%
NFPN	Land Management Planning – Maintenance level	297,000	250,500	-15.7%
NFRG	Grazing Management	309,200	461,300	+49.2%
NFRW	Recreation/Heritage Resources/ Wilderness Management	1,104,100	851,500	-22.9%
NFTM	Timber Management	3,300,000	1,570,900	-52.4%
NFVW	Vegetation Management (Forest and Range)/Watershed Improvements/Soil, Water, Air Management	3,262,000	2,058,800	-36.9%
NFWF	Wildlife/Fish/Threatened and Endangered Species Habitat Management	931,100	681,600	-26.8%
RBRB	Range Betterment	26,800	42,500	+58.6%
SSSS	Salvage Sale	1,985,000	1,155,000	-41.8%
RTRT	Reforestation Trust Funds	1,165,600	971,600	-16.6%
WFHF	Hazardous Fuels	1,899,000	1,934,200	+1.9%
WFPR	Fire Preparedness	6,544,700	4,749,100	-27.4%

Notes: The FY 2004 (October 1, 2003 to September 30, 2004) figures are for this specific fiscal year only. 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 Congress.

Substantial differences in predicted allocations versus actual were seen in several funding areas in FY 2004. During Forest Plan revision, the Boise NF received land management planning funds at a level needed to revise the Forest Plan. Now that the revision process has been completed, the Forest is being funded at a maintenance level that is less than the previous years when revision was ongoing. Reductions or additions in other funding areas reflect, in part, current National and Regional priorities of work for the Forest Service as well as reductions due to competing funding needs for other domestic and national security programs. Though funding for the first year of plan implementation appears to be well below the average anticipated for most funding areas, it is unknown at this time whether this trend will continue. Thus, the key measure of the success of obtaining funding to achieve Forest Plan objectives must be looked at and monitored over multiple years (5+ years) before an assessment can be made as to the implications to achieving objectives in the 2003 Forest Plan and their contribution to Forest Plan.

**3. Population trends of the management indicator species will be monitored and relationships to habitat changes determined (Forest Plan, p. IV-6).**

Table 3 below shows the management indicator species (MIS) selected by the Boise NF in their 2003 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 Boise National Forest, 2003 Forest Plan**

Type	Common Name	Habitat	Management Concerns
<b>Bird Species</b>	Pileated Woodpecker	PVGs 2-9	Sufficient large trees, snags, and down logs
	White-headed Woodpecker*	PVGs 1, 2, 3, 5	Sufficient snags, and large trees with low crown density
<b>Fish Species</b>	Bull Trout	Perennial streams	Sediment in spawning and rearing areas, water temperature, habitat connectivity

\*MIS for Management Areas 1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 13, 14, 15, and 16 only.

**Population trend monitoring for bull trout**

An approach to monitoring bull trout as a management indicator species was developed with the Sawtooth NF, Regional Office, Rocky Mountain Research Station, IDFG, and Bureau of Reclamation in 2004.



For aquatic species, trend is typically monitored using relative abundance estimates over time in a select set of streams. However, the challenge with abundance data is that it is often influenced by sampling error and natural interannual variation in abundance (Platts and Nelson 1988; Maxell 1999; Ham and Pearsons 2000; Dunham, et al., 2001). Previous work on bull trout and other salmonids highlight several limitations to monitoring abundance for detecting trends, including (1) low statistical power (Maxell, 1999; Hamm and Pearsons, 2000), (2) errors in estimating abundance (Dunham et al., 2001; Peterson et al., 2004), (3) high natural variability in populations (Platts and Nelson, 1988), (4) lack of a connection between abundance and habitat (Fausch et al., 1988), and (5) the high cost of estimating population abundance using rigorous methods, such as mark-recapture.

Given these well-known limitations, an alternative trend monitoring approach was needed. The alternate approach selected for bull trout is monitoring the spatial patterns of occurrence (distribution) through time. Monitoring distributions can be particularly appropriate for bull trout because it has very specific habitat requirements. Specifically, bull trout distribution is limited to cold water (Dunham et al., 2003), and suitably cold habitats are often patchily distributed throughout river networks (Poole et al., 2001). Dunham and Rieman (1999) found that bull trout populations in the Boise River basin were linked closely to available habitat “patches” or networks of cold water. A patch is defined for bull trout as the contiguous stream areas believed suitable for spawning and rearing (Rieman and McIntyre, 1995). Rieman and McIntyre (1995) analyzed bull trout in the Boise River and found occurrence to be positively related to habitat size (stream width) and patch (stream catchment) area, as well as patch isolation and indices of watershed disruption. Patch size (area) was the single most important factor determining bull trout occurrence.

Spatial patterns can also provide information on population persistence, local extinction and recovery (recolonization). The stability and persistence of metapopulations are related to the number, size, and relative distribution of populations (Dunham and Rieman, 1999). Bull trout populations in larger, less isolated, and less disturbed habitats appear more likely to persist and these habitats may prove critical as long-term refugia or cores for changing environments and future recolonization of restored habitats (Rieman and McIntyre, 1995). Large patches may persist because the populations are larger and because they support more diverse habitats for bull trout allowing some internal stability in the face of variable environments (Rieman and McIntyre, 1995; Dunham et al., 2003; Miller et al., 2003).

Based upon the above approach the following metrics for determining trend will be used:

1. The proportion of habitat patches that bull trout occupy within each subbasin across time.
2. The spatial pattern of occupied bull trout patches within each subbasin across time.
3. In the future, we will explore indices of abundance and distribution within individual streams as a metric useful for developing relationships with or exploring the linkages to local management.

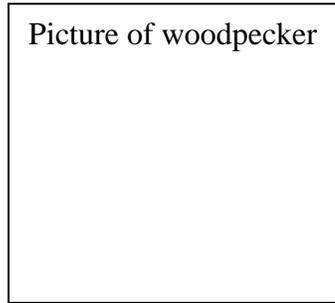
#### 2004 Monitoring Accomplishments

In 2004, the Boise NF completed MIS protocol surveys in 21 patches. Bull trout presence was confirmed in seven patches, habitat was determined to be suitable but no bull trout were detected in nine patches, and five patches were determined to be unsuitable.

Data collected in 2004 will be assessed against data collected in future years to establish trend relationships within the planning unit.

#### **Population trend monitoring for pileated and whiteheaded woodpeckers**

The primary goal of the Boise National Forest Management Indicator Species/Landbird Monitoring Program is to estimate the overall population trends on the Forest for specific avian management indicator species, namely the pileated woodpecker and the white-headed woodpecker. The secondary goal of this monitoring strategy is to conduct an assessment of habitat relationships as they relate to population trends for those two species.



The monitoring strategy adopted by the Boise NF is modeled on standardized bird monitoring methods (i.e., Hamel et.al., 1996 and Ralph et.al., 1993), which is being applied on the National Forests in Idaho in Region 1, as well as the Payette and Sawtooth NFs in Region 4 (adjacent to the Boise NF). As such, the data collected from any one unit becomes not only relevant to its particular Forest, but contributes to larger data sets which allows monitoring trends to be evaluated at multiforest scales, state-wide scales, or regional scales. The Region 1 protocols have been in place for 10 years and are well tested as to achieving their goal for establishing population trend data.

Picture of white-headed woodpecker

The adopted monitoring strategy is a population-based approach to bird monitoring that spreads survey locations randomly across the Forest, irrespective of habitat to determine an overall population trend for the Forest. Hutto and Young (2002) stated region-wide, long-term trends in population abundance can be achieved by sampling in a geographically stratified but otherwise random and unbiased manner using population-based monitoring designs. The ability to implement a purely random placement of points, however, can become labor intensive leading to high costs for implementation, and may require some modification in order to effectively implement the strategy. Additionally, while a completely random stratification provides a general view of bird populations in an area, rare habitats may be undersampled (Hutto and Young, 2002). Strictly habitat-based monitoring designs are not necessarily the solution either since they, too, can produce biased estimates of population trends since the sampling effort is concentrated only in habitats of interest. It appears then that a monitoring design that uses both geographically random stratification for transect identification and additional points to increase coverage in undersampled habitats would compensate for the weaknesses in following either one design wholly (Howe et al., 1995 in Hutto and Young, 2002).

The survey design for the Boise NF samples both potential and existing suitable habitat across the historic range of the pileated woodpecker and the white-headed woodpecker. Permanent monitoring points were established on each Ranger District in 2003. Points were initially mapped by the Forest and District Wildlife Biologists and individual points were then later marked in the field by the District Wildlife Biologists. During implementation of the survey in 2004 it was discovered that some points could not be monitored due to logistical problems (access, water noise, etc.). Those points were relocated and surveys completed by the District Wildlife Biologist during the appropriate timeframe.

Each year, a series of 50 transects, each consisting of 10 sampling points, are monitored across habitat suitable for these two species (total monitoring points equal 500 points). A number of points are capable of detecting either species due to the changes in habitat from historic to current. Points were set up to geographically stratify the monitoring across the Forest while making sure a minimum of 250 points occurred across the range of each species. Points fell in various cover types, landscapes, managed habitats, and heterogeneous mosaics, however, the adequate sampling of habitat types of interest, particularly for the white-headed woodpecker, was tracked and figured into the final selection of the transects. As long as the points are sampled over a specified period of time, overall population trends are relatively simple to calculate and are robust (Hutto and Young, 2002).

### 2004 Monitoring Accomplishments

All transects (500 points) were surveyed in 2004. Pileated woodpeckers were detected at 14 points and white-headed woodpeckers at 5 points.

Data collected in 2004 will be assessed against data collected in future years to establish trend relationships within the planning unit.

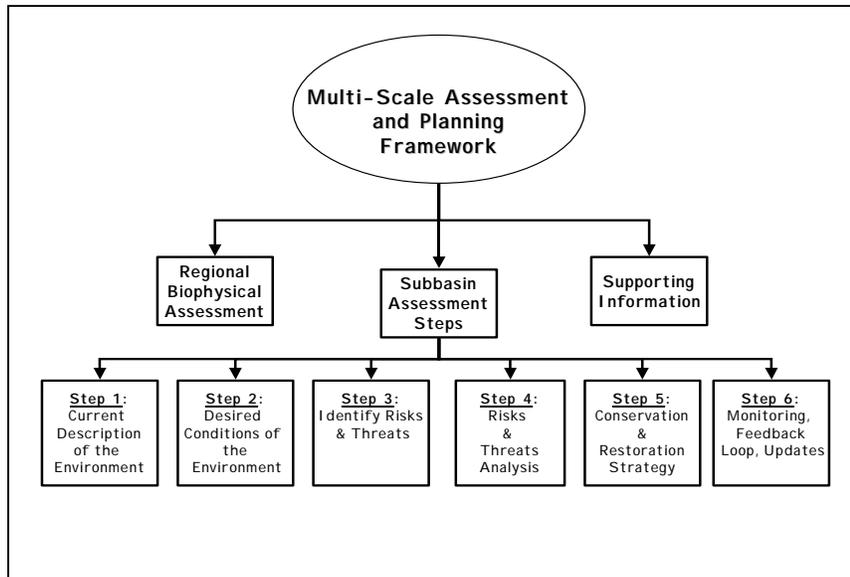
### **Relating changes in habitat for management indicator species to changes in population trends**

In 2004, the Boise NF, in cooperation with Rocky Mountain Research Station, NOAA Fisheries, and FWS developed a “Framework for Implementation of the 2003 Forest Plan.” The focus of the current prototype process is threatened and endangered fish and wildlife species, including bull trout. Over time, framework will also be used in the process of building relationships between population trends and changes in habitat for the terrestrial MIS, and pileated and white-headed woodpeckers.

Framework contains six steps (refer to figure 3) envisioned to be a dynamic and iterative process for:

- maintaining up-to-date baselines (i.e., current conditions) for various resources,
- identifying the various threats and related risks to baselines for various fish and wildlife species of interest, and
- based on analyses of the probable influence of the various threats and risks to species and habitat, identify key conservation and restoration needs that are likely to provide the greatest strides toward the maintenance or improvement of species habitat and population numbers and distribution (i.e., desired conditions).

**Figure 3: Six Step Process for “Framework for Implementation of the 2003 Forest Plan”**



Specific to MIS species population trend and habitat relationships, the Boise NF “Framework” process will be used to correlate population monitoring transects or patches and their associated habitat information (both step 1 - existing baselines and step 2 - desired conditions). The Risk Analysis step (step 4) will then be used to predict positive or negative population responses of the species’ of interest given changes in baseline conditions and/or modeled habitat variables.

**4. Accomplishment of ACS priority subwatershed restoration objectives (Forest Plan, p. IV-6).**

**Table 4: Restoration completed in ACS Priority subwatersheds, as of September 2004**

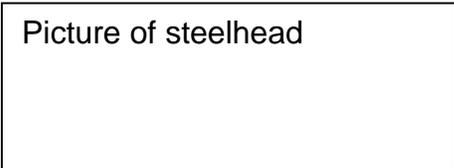
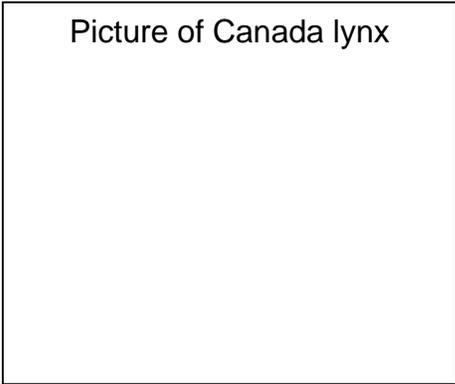
ACS Priority Subwatershed	FW or MA Objective(s) Addressed in 2004	2004 Work Completed (as of September 2004)
Upper Bear Valley Subwatershed	<p>Forest-wide (FW) Objectives SWOB12, SWOB13, SWOB14, SWOB16, SWOB18, TEOB03, TEOB09, TEOB10</p> <p>Management Area (MA) Objectives - 1221, 1222, 1225, 1228</p>	<p>Contracted replacement of Cub and Casner Creek culverts to restore fish passage to 4 miles of stream habitat..</p> <p>Sedge/shrub planting, a cooperative project with IDFG to enhance streamside vegetation and improve streambank stability, 2 acres.</p>
Lower Deadwood Subwatershed	<p>FW Objectives - TEOB03.</p> <p>MA Objectives – 1321, 1326, 1350.</p>	<p>Streambank and slope stabilization reduce erosion and sedimentation associated with road work 3 acres.</p> <p>Pidgeon Flat seeding for soil erosion/sedimentation stabilization, 1 acre.</p>
South Fork Boise Subbasin – Bear Creek Subwatershed	<p>FW Objectives – SWOB16, MIOB01, MIOB08</p>	<p>Removal of old 12-inch diameter water quality monitoring well that was being used by the public as a garbage disposal site, 1 acre</p>
Third Fork Subwatershed	<p>FW Objectives -- SWOB12, SWOB13, SWOB14, SWOB16, SWOB18, SWOB19, TEOB03, TEOB09, TEOB10</p> <p>MA Direction Objectives – 1608, 1609, 1612, 1615</p>	<p>Replacement of Rammage Meadows culvert with open bottom structure. 7 stream miles improved + 1 acres of disturbed area seeded.</p> <p>Replacement of Wilson culvert with open bottom structure. 6.1 stream miles improved + 1 acres of disturbed area seeded.</p> <p>These replacements were part of the Third Fork culvert replacement project and were jointly funded by the Forest Service (\$35,000), US Fish and Wildlife Service (\$15,000 Grant), and the RAC (\$70,000 Grant). Currently being implemented.</p>

**5. Terms and conditions or reasonable and prudent measures that result from consultation under Section (a) of the Endangered Species Act (Forest Plan, p. IV-6).**

Both NOAA Fisheries and the FWS 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 nondiscretionary 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.



Three terms and conditions related to the three RPMs in the NOAA Fisheries biological opinion require annual reporting. They are identified below, along with the 2004 accomplishments related to them.

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

Terms and Conditions “a-c, e and f” under RPM 1 do not have annual reporting requirements pertaining to this report.

d) Fire Management timelines for fire operational resource guidance

To clarify this sideboard, the Boise NF was to develop operational guidance prior to the 2004 fire season. As described earlier under TEOB23, operational resources were finalized on the Boise NF in March 2004; “Fire Suppression Operations Guidance 2004 Fire Season (Initial and Extended Attack).” NMFS and FWS reviewed the guidance on February 23, 2004, during a level 1 consultation team meeting. The level 1 team reached consensus that the “Fire Suppression Operations Guidance 2004 Fire Season (Initial and Extended Attack)” would be adequate to avoid or minimize adverse effects on TEPC species from fire suppression.

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

Terms and Conditions “b” under RPM 2 does not have an annual reporting requirements pertaining to this report.

- a) 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 Interagency Implementation Team (IIT) conducts monitoring at the level of the Forest Service Forest Plan or BLM Resource Management Plan for the salmon, steelhead, and bull trout listed in the Upper Columbia and Snake River Basins. Both implementation and effectiveness monitoring are conducted annually by the Forest Service and BLM administrative units, including the Boise NF, in a sample of sixth field hydrologic units (HUs).

The 2003, Forest plan monitoring (Forest Plan Chapter IV) was built with the current IIT monitoring being conducted across the planning unit in mind. However, because the IIT *implementation* monitoring process is based on the specific direction found in Pacfish and Infish, it cannot be tied directly to the direction found in the Boise National Forest Plan. However, it is clearly possible to use the same or similar monitoring protocols to allow the Forest Plan *implementation* monitoring protocols to be aggregated to the basin level with the rest of the implementation monitoring data conducted on other administrative units. In calendar year 2005, the Boise NF will work with the IIT monitoring task team to provide greater alignment between Plan and IIT monitoring to make them as complementary as possible. Progress of this effort will be reported out in the 2005 monitoring report.

IIT *effectiveness* monitoring is conducted annually by a centralized unit across a sample of sixth field HUs within the basin on a 5-year cycle. IIT effectiveness monitoring involves collection and analysis of data on the channel and stream processes to assess how baselines are changing, for the better or worse. Data collection for this effort is not dependent on specific direction, but is intended to answer the question “Are key biological and physical components of aquatic and riparian communities maintained, degraded, or restored in the range of steelhead and bull trout?: Essentially, this monitoring is intended to provide an indicator as to whether management strategies being implemented across the basin are resulting in the desired maintenance or improvement of the key biological and physical components considered. Data for the IIT effectiveness monitoring is stored in a database at the Forest Service Fish Ecology Unit, Logan, UT, and is available to the administrative units and Services.

As Boise NF and IIT personnel evolve the “bridge” between *implementation* monitoring efforts, the Forest continued to participate in the *effectiveness* monitoring program in 2004. The report pertaining to this activity will be available the spring of 2005. In the winter of 2004, the report pertaining to work on the Boise NF in 2003 was completed. This report is provided as attachment 2.

In addition to work in the IIT process, Boise NF personnel participated in the Northwest Power and Conservation Council subbasin assessments in Boise-Payette-Weiser and the Salmon River and bull trout 5-year status assessments. The data exchange involved in these efforts helped participating agencies and groups to further characterize threats to ESA listed species, share new habitat and population data on these species, and identify restorative actions that could be taken to reduce threats to populations and habitat at the subbasin scale.

**RPM 3: Minimize the likelihood of incidental take by implementing subbasin-specific direction as outlined for the ... South Fork Salmon River subbasins. To implement RPM 3 the Boise National Forest is required to:**

Terms and Condition “a” under RPM 3 does not pertain to the Boise NF. Term and Condition “c” does not have an annual reporting requirement pertaining to this report.

- b) In the South Fork Salmon River, (2) Continue its current sampling, analysis, and annual reporting of sediment levels (core, free matrix/pebble count, and cobble embeddedness) in the mainstream and tributaries for the duration of the Revised LRMPs.

Boise NF personnel, in coordination with the Payette NF (the lead Forest for this effort) continued its sampling of sediment levels in the mainstream and tributaries of the South Fork Salmon River in 2004. The report pertaining to this activity will be available the winter of 2005. In the winter of 2004, the report pertaining to work on the Boise NF in 2003 was completed. This report is provided as attachment 3.

**II-2: Four Monitoring Elements Found 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 toward meeting the desired conditions identified in the Forest Plan. Following is a summary of the findings for those elements required to monitor and evaluate on an annual basis:

**Safety of Administrative Facilities**

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

**Work Completed and Summary of Findings:** Sanitary surveys were performed on approximately 20 percent of the administrative sites, focusing on those that were opened in 2004. Sanitary surveys are required every 5 years at a minimum to assess the overall operational quality, function, and maintenance of supporting systems.

The drinking water systems for all 15 sites opened in 2004 were inspected monthly. Monthly samples collected from these water systems during the months the systems were open for use determined each of these systems were compliant with the Safe Drinking Water Act standards.

Administrative facility safety conditions are reviewed annually and safety inspection checklists are completed as part of the forest's safety and health program. Accessibility guides are met when existing facilities undergo renovation or new buildings are constructed. Two new bunkhouses were completed and placed in service in 2004, both of which meet all accessibility requirements.

### **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?

**Work Completed and 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 65 recreational facilities were open for use in 2004. Monthly samples collected from these water systems during the months the systems were open for use, determined that each of these systems were compliant with the Safe Drinking Water Act standards. In 2004, all developed recreation water systems met all standards established under this act and agency regulations.

### **Protection of Historic Properties**

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

**Work Completed and Summary of Findings:** As of September 2004, 105 projects were reviewed for their potential to affect historic properties. Where needed, project avoidance or mitigation measures were applied to protect historic properties.

Thirty-three projects were monitored following project implementation to determine whether NHPA Section 106 compliance had been met per specified project implementation design requirements. Projects reviewed were determined to be consistent with project design requirements and NHPA Section 106 compliance met.

### **Watershed Restoration and Conservation Activities**

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

**Work Completed and Summary of Findings:** In 2004, restoration activities were emphasized in ACS priority watersheds as well as active high and moderate priorities. Restoration activities, other than those already specified for ACS Priority Watersheds discussed earlier (Section II-1, Question 5), are listed in the table below. Where the subwatershed name occurs in more than one subbasin, the subbasin is specified.

**Table 5: Other ACS Restoration completed in subwatersheds, as of September 2004**

Subwatershed in Where 2004 Restoration Occurred	FW or MA Objective Addressed	Summary of FY 2004 Work Accomplished (as of September 2004)	WARS Restoration Strategy and Priority	ACS Priority Sub-watershed Yes or No
Big Pine Creek subwatershed	FW Direction SWOB03 SWOB16 SWOB18  MA Direction Objectives – 1117, 1118	Seeding of disturbed areas associated with the debris torrent, road blowout road and channel reconstruction), 2 acres	Active/Moderate	No
Bridge-Bryan subwatershed	FW Direction SWOB03 SWOB16 SWOB18  MA Direction Objectives – 1522, 1528, 1539, 1548, 1550	Seeding of disturbed areas associated with the new MFPR trailhead and reconstruction of Boiling Springs CG, 1 acre	Active/High	No
Cache subwatershed and Wyoming subwatershed	FW Direction SWOB16  MA Direction Objectives – 1221, 1222,1225, 1228	Sedge/shrub planting, a cooperative project with IDFG to enhance streamside vegetation and improve streambank stability, 1 acre	Passive/High	No
Cascade Reservoir subwatershed	FW Direction FROB06 SWOB03 SWOB16 SWOB18  MA Direction Objectives – 1826, 1842, 1844	Decommissioning of unclassified user developed dispersed recreation road to reduce soil erosion and sedimentation, 1 acre.	Active/High	No
Fir Creek subwatershed	FW Direction REOB1, REOB11, SWOB16, TEOB07, TEOB09	Installed fencing along Bear Valley Creek at Fir Creek Campground to eliminate foot traffic from 900 feet of streambank. Labor provided by Trout Unlimited volunteers.	Active/High	No

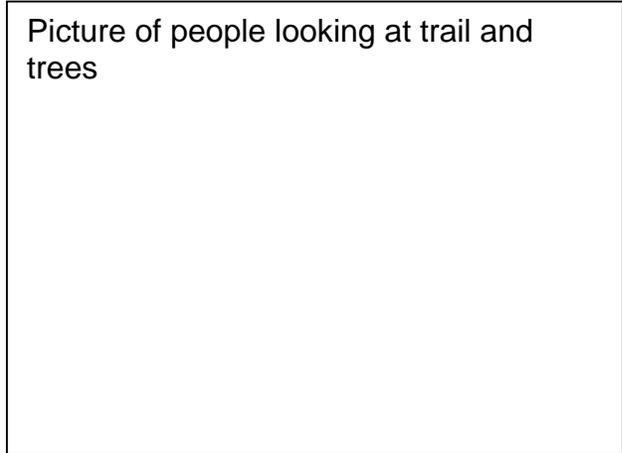
Subwatershed in Where 2004 Restoration Occurred	FW or MA Objective Addressed	Summary of FY 2004 Work Accomplished (as of September 2004)	WARS Restoration Strategy and Priority	ACS Priority Sub-watershed Yes or No
Lower Bear Subwatershed within the North and Middle Fork Boise Subbasin	FW Direction SWOB03 SWOB18 REOB05  MA Direction Objectives – 0723, 0725, 0728, 0761	Ten miles of road was converted to ATV Trail to reduce overall watershed impacts to the 40 acres directly affected by the road prism.	Active/Moderate	No
Lower Clear Creek subwatershed	FW Direction SWOB16  MA Direction Objectives – 1027,1028,1032, 1036,1047	Dispersed campsite restoration, 4 acres, including shrub planting to improve riparian vegetation and increase streambank stability.	Active/Moderate	No
Rabbit Creek subwatershed and Trapper-Trail subwatershed	FW Direction SWOB03 SWOB12, SWOB13, SWOB14, SWOB16, SWOB18, FROB04, FROB06.  MA Direction Objectives – 0723, 0725, 0728, 0761	Decommissioned 43.9 miles of road and eliminated one culvert that presented a barrier to fish passage in Rabbit Creek. Restored access to 0.4 mile of stream habitat.  Road decommissioning resulted in 120 acres being put back into production.	Active/moderate	No
Sagehen subwatershed	FW Direction REOB05 SWOB03 SWOB16 SWOB18  MA Direction Objectives – 1608, 1632, 1640	Seeding of disturbed areas on Sagehen ATV trail associated with new construction and decommissioning of 4 miles of trail.	Active/Low	No
Taylor-Lodgepole subwatershed	FW Direction SWOB12, SWOB13, SWOB14, SWOB16, SWOB18, FROB04, FROB06,	Eliminated one culvert that presented a barrier to fish passage in Hunter Creek. Restored access to 0.7 mile of stream habitat.	Active/moderate	No

Subwatershed in Where 2004 Restoration Occurred	FW or MA Objective Addressed	Summary of FY 2004 Work Accomplished (as of September 2004)	WARS Restoration Strategy and Priority	ACS Priority Sub-watershed Yes or No
Two Bit Roaring subwatershed	FW Direction SWOB03 SWOB16 SWOB18  MA Direction Objectives – 1929, 1930, 1932, 1953	Rehabilitation of user developed recreational fishing access trails to South Fork Salmon River 19 acres.	Active/High	No
Upper Willow subwatershed within the South Fork Boise Subbasin  And  Lower Willow subwatershed within the South Fork Boise Subbasin	FW Direction SWOB16 REOB05  MA Direction Objectives – 0144	Erosion/sedimentation control 2.5 miles/10 acres of new ATV trails.	Active/Moderate	No

### II-3: Project Level Monitoring that Contributes to Forest Plan Monitoring Requirements

Project-level monitoring is designed to evaluate implementation and effectiveness of Forest Plan direction pertaining to achievement of resource objectives, proper use and effectiveness of management practices, assess impacts on site-specific resources of concern, and gather information affecting resource baseline conditions to assist in maintaining up-to-date baselines.

As part of the monitoring efforts, project level monitoring is scheduled each year on all Districts on the Boise NF. Field monitoring scheduled for completion in calendar year 2004 field season was designed to respond to all applicable “required Forest Plan monitoring questions” listed below, as well as all, or some, of the optional Forest Plan monitoring questions listed.



#### **Required Questions for ALL projects**

- 1) How well did the project meet its objectives?
- 2) Were the effects to other resources within the expected range?
- 3) Was the project design and mitigation effective?
- 4) Are actions proposed and associated effects being adequately disclosed in NEPA documents?

- 5) Have prescriptions, projects, and activities been implemented as designed and in compliance with the Forest Plan?

**Questions to be addressed if applicable to the project type/history**

- 6) Are management activities changing the ROS settings?
- 7) Are Forest management activities adequately designed (including delineation of RCA's) to maintain or improve riparian functions and ecological processes important to furthering Forest Plan goals and objectives?
- 8) Are management actions providing for or moving toward the extent of vegetation components necessary to meet the needs of MIS and TEPC species?
- 9) Are management actions and forest plan direction effectively maintaining or restoring long-term soil productivity?
- 10) Are snags and coarse woody debris at, or moving toward, desired conditions as described in appendix A of the Forest Plan?
- 11) Have restoration and conservation activities been focused in priority watersheds identified by the WARS process?
- 12) Are management actions and forest plan direction effectively maintaining WCIs when currently in the range of desired conditions, and restoring WCIs when outside the range of desired conditions over multiple spatial scales?
- 13) Are consulting agencies part of the process, and are concerns being raised about implementation of the Forest Plan?
- 14) Are Forest management actions being designed and implemented to meet Visual Quality Objectives (VQOs)?
- 15) Are historic properties being affected by project activities?
- 16) Are Forest management actions affecting known sensitive species or watch species habitats at the project level?
- 17) Are Forest management strategies effective in preventing, controlling or eradicating targeted populations of noxious weeds?
- 18) Are established utilization levels (livestock) providing for desired ground cover, soil stability, plant vigor and composition?

The following projects were monitored prior to the end of calendar year 2004 field season:

Mountain Home Ranger District:

- Anderson Ranch Recreation Management Project

Idaho City Ranger District:

- Bear-Hunter Watershed Restoration/Road Decommissioning Project
- Ten-mile Fuel Reduction Project

Cascade Ranger District:

- Brush Boulder Timber Sale

Lowman Ranger District:

- Wapiti Project
- Five-Mile Timber Sale

Emmett Ranger District:

- Sagehen ATV Trail

During the fall and winter of 2004/2005, project assessments and evaluations will be completed for these projects. Summaries of findings pertinent to 1 and 2-year monitoring requirements will be presented in the 2005 monitoring report. In addition, based on assessments completed the winter of 2004/2005, any improvements that will be implemented to monitoring questions or procedures for project monitoring during the 2005 field season will be summarized.

### **III. FUTURE MONITORING AND EVALUATION REPORTS AND SCHEDULE**

Beginning in 2005, the Boise NF will issue the Forest Plan Monitoring and Evaluation report in the late spring or early summer of each year. The report will describe findings from monitoring data collected through the prior year's field season and evaluated the winter of the reporting year. As described in this report, 2004 data collections will not all be completed until late fall of 2004 and the evaluations of the data collected, in many cases, will not occur until late fall or winter 2004/2005. As a result, this 2004 report does not include complete evaluations some data sets due to timing of this first year monitoring and evaluation report. Thus, moving publication date of the monitoring and evaluation report to the late spring/early summer period (May through June) will allow a complete display of both prior fiscal year (October 1 to September 30) related information (e.g., budget, etc.) as well as resource monitoring and evaluations of data collected during the prior field season (data collected from April through November, evaluated from November through February).

Also, the Forest Plan Monitoring and Evaluation report is intended to be a "living" document, meaning there will not be separate year-to-year reports, rather addendums to the existing report. It also means information displayed in the 2005 report will be added to the 2004 report. Much of what we learn is based on how things evolve from year to year, rather than what we learn at a single point in time. For example, trends associated with several of the questions found in table IV-1 (Section II-1) and IV-2 of the Forest Plan are more apparent with the greater succession of yearly data collected.

#### IV. LIST OF PREPARERS

The following members of the Boise NF interdisciplinary team developed this monitoring report. Team members are listed alphabetically by last name, along with their title, education, and work experience.

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