



2006 Monitoring Report

Mt. Baker-Snoqualmie National Forest

Introduction

This document covers Mt. Baker-Snoqualmie National Forest stewardship activities, Forest Plan implementation, and monitoring for 2006. After the general introduction and overview sections, the document is organized by resource area. Each section presents information about the resource areas of the forest, and focuses on three major aspects: a brief background of the resource area, challenges management is facing, and resource area opportunities. Within each section readers may find additional information about more specific areas of interest within the resource area. This report differs from other monitoring reports of the past, and is meant to give readers more insight into what the state of the forest is, what we are accomplishing, and to share our thoughts and understandings about opportunities and areas that will receive emphasis in the future.

FOREST STEWARDSHIP

Forest stewardship remains the central organizing theme for assessing, evaluating, and documenting the activities and accomplishments of the Mt. Baker-Snoqualmie. We are responsible for the stewardship of the physical, biological, and cultural resources of your national forest. It is also our responsibility to provide for the variety of human uses of these resources—within the goals of the Forest Plan, under law, regulation, and the health and sustainability of forest ecosystems.



FOREST OVERVIEW

The Mt. Baker-Snoqualmie National Forest (MBS) includes about 1.7 million acres of federal land, located in western Washington State, along the Cascade Mountain range. Forest boundaries range from the U.S. – Canadian border, on the north, to Mt. Rainier National Park, on the south, a distance of about 140 miles. The landscape is diverse and complex—all within a one to two hour drive of a major metropolitan area (6 million people reside in the Forest's zone of influence, which includes southwest British Columbia). Management of this large forest, with its variety of natural resources within the urban setting of Puget Sound, is challenging.

The north half of the Forest is often rugged and steep. Vertical distances may exceed 4,000 feet from the valley floors to the adjacent peaks. Many mountains are over 6,500 feet in elevation and contain perennial snow and ice. South of Interstate 90, the mountains are primarily volcanic, and while often steep and dissected, they are generally lower in elevation, though many reach over 5,500 feet in elevation. The influence of glacier activity is evident Forest-wide, especially north of Interstate 90.

Management emphases include designated wilderness, the protection and restoration of riparian and aquatic ecosystems, management for late-successional and old-growth habitat, and providing the public with a wide spectrum of developed and dispersed recreation opportunities.

Roughly 36 percent of the Forest is allocated to Riparian Reserves (including area within wilderness and Late-Successional Reserve). Riparian Reserves include over 4,000 miles of streams and over 2,000 lakes. The diverse vegetative communities on the MBS are a result of the large variation in elevation, aspect, soil depth, and climate. There are three primary vegetation zones—western hemlock, Pacific silver fir, and mountain hemlock—along with parkland, alpine, and non-forested areas.



A variety of terrestrial and aquatic species resides in this forest ecosystem, including eight federally listed threatened species: chinook salmon, bull trout, bald eagle, Northern spotted owl, marbled murrelet, grizzly bear, gray wolf, and lynx. Late Successional Reserves (LSR – 644,411 acres, or 37% of the Forest) are managed to serve as habitat for many late-successional and old growth species, such as the spotted owl.

The Forest administers eight wildernesses (711,956 acres or 41% of the Forest), four ski area complexes, 1,700 miles of trails, and 31 campgrounds. Summer and winter recreation uses are many and varied, with current recreation use estimated at about 5.1 million visits per year. That use is expected to increase by at least 50 percent in the next 20 to 25 years, as the population in the Puget Sound area and southwestern Canada grows. There are about 2,600 miles of roads on the Forest; roughly 2,100 miles are currently intended to be open and drivable. Driving for pleasure continues to be a major use of this national forest.

Four municipal watersheds and five hydroelectric power-generating facilities are located within the Forest boundary.

Developing and maintaining partnerships (80 to over 100 annually over the past several years) is vital to Forest management, as is coordinated planning and consultation on a government-to-government basis with 14 federally recognized Indian Tribes.

RESOURCE AREA: VEGETATION MANAGEMENT

Background:

The timber sale program dropped from 250-300 MMBF in the late 1980s to 20 MMBF by 1994, now the five year forecast is for approximately 10 MMBF per year (). Most of the timber harvested for nearly two decades has come from commercial thinning, salvage sales, and special selection harvests such as hazard tree removal from roadsides, campgrounds, or administrative compounds. There has been no new road construction. Activities are mostly limited to Matrix Land Allocation; which comprises only 10 percent of MBS (including AMAs).

Challenges:

- Maintain sustainable program in light of a complex of physical environment
- Developing efficiencies in the NEPA process and improved document quality
- Limited land base – Matrix < 10 percent of land, LSR younger than 40 and greater than 80 years; high percentage in Riparian Reserves, visual objectives, listed and sensitive species.
- Cost efficiency and timeliness in meeting strategic budget objectives and targets.

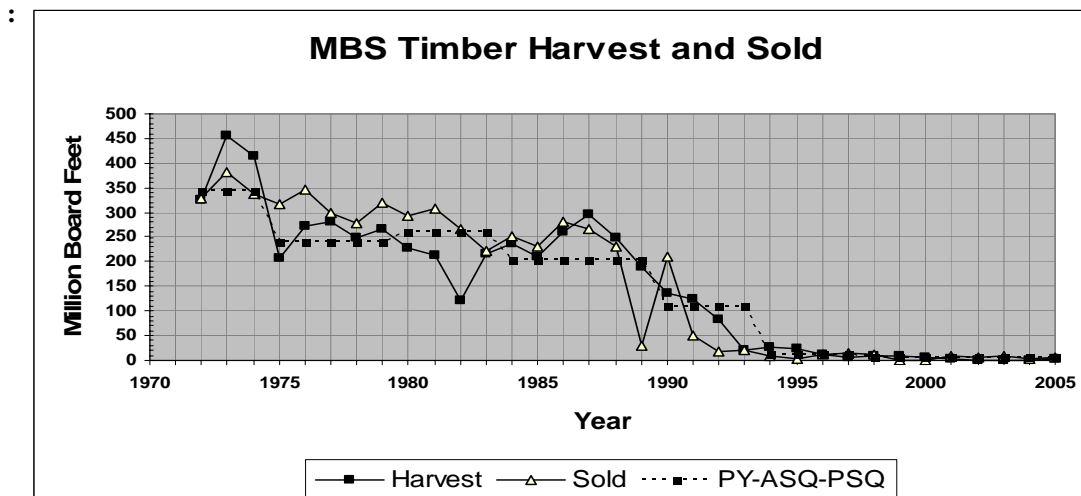
Opportunities:

- Support other resource objectives: habitat enhancement, road maintenance or reduce road miles, visual management, watershed and habitat restoration, LSRA management, hazard tree objectives.
- Align the program with wood market and special forest products demands
- Develop our wood niche: Unique wood products? Size of wood, species mix–alder?
- Promote ecological sustainability -MBS has tremendous tree-growing lands
- Take advantage of stewardship authorities and AMAs

Partnerships

Friends of the Forest, numerous interest groups desire to participate in a variety of management.

Figure 1 Timber Harvest Forecast



RESOURCE AREA: BOTANY**Background:**

The MBS Botany program has been recognized regionally and nationally for program organization, innovative projects, and forging strong external partnerships to leverage their very limited dollars. Their three-year Botany Action Plan, tiered to the Strategic Budget, is available on-line.

**Accomplishments:**

Celebrating Wildflowers curriculum and teacher workshops (above right), developed in partnership with North Cascades Institute, Washington Native Plant Society, and National Fish and Wildlife Foundation. Used by hundreds of teachers state-wide.

Active member of five Cooperative Weed Management Areas. This enables us to leverage funding (in 2006, the ratio of partner to USFS funds for weed treatments is 3:1).

“Appeal-free” noxious weed EA’s, with strong public support, in 1999 and 2005.

Rare plant populations continue to be monitored through a partnership with University of Washington’s RareCare program.

Challenges:

Targets are often measured in acres. Because of the rugged topography of the MBSNF, most of sites are relatively inaccessible, and very small. Therefore our cost per acre is very high, especially in relation to other national forests.

With seven major portals into the Forest (State and Interstate Highways), the spread of invasive plants can be rapid and extensive.

Opportunities:

Noxious weed funding is going up, allowing control of the highest priority sites (usually small infestations high in the watersheds) to keep these pristine areas weed-free.

National initiatives for restoration with native species may provide additional sources of funding for this exciting but nascent program on the MBSNF.

RESOURCE AREA: FOREST WILDLIFE PROGRAM**Background:**

The Forest wildlife program consists of one forest biologist and four district biologists. The program provides guidance for habitat management of six federally listed species and seven Forest Service sensitive species. A Forest-wide programmatic BA with US Fish and Wildlife Service to address the majority of the Forest workload was completed in 2002. An interagency working group addresses issues around elk management in the White River drainage. The Forest participates in a multiple forest mountain goat study with numerous non-federal partners.

Accomplishments:

Habitat improvement over past five years has averaged over 2,500 acres per year. Most of this is through road closures for elk and grizzly bear core habitat. The forest biologists make 16 interpretation and education presentations per year.

Challenges:

- Ability to effectively manage the vegetation in LSRs
- Decline of early-successional habitat and their dependent species
- Large geographic area to cover with long driving times
- Increasing intrusions into habitats and impacts from recreating public
- Declining budgets for many programs and decreased need for support work
- Future program viability

Opportunities:

- The Forest has a large amount of potential thinning in the LSRs, particularly with stewardship projects.
- Creation of early seral habitat to improve conditions for deer, elk and other early seral species
- Continue elk working group in the south and possibly expand to the north
- Continue mountain goat study and become a regional leader in their management
- Urban setting has numerous opportunities to develop an interpretation and education program

RESOURCE AREA: AQUATICS (SOIL, WATER, FISH)**Background:**

The Cumulative Effects Assessment in the MBS LRMP in 1989 elevated watershed to a Forest priority. To develop and implement an effective, multi-year program, strong internal and external partnerships were required. These relationships have been strengthened and expanded.

Adoption of the 1994 Northwest Forest Plan and listing of Chinook salmon gave emphasis to watershed scale restoration. The most important elements of this restoration program have been to:



- control and prevent forest road-related runoff and sediment production,
- recover riparian vegetative conditions,
- restore passage, and
- rehabilitate in-stream fish habitat complexity.



In 2002, the Aquatics group developed an Aquatic Ecosystems Strategic Plan (2003-2007) that provides the framework for the Aquatics program.

Programmatic BAs were developed through long and difficult negotiations with the FWS and NOAA. These BAs will expire in 2008 and 2009, and the potential listing of Puget Sound steelhead will open these agreements for renewed consultation.

Under the Regional Aquatic Restoration Strategy Puget Sound rates as “Highest Priority”. Local watershed plans are being developed that tier to the Regional Strategy and Puget Sound Salmon Recovery.

Challenges:

- Attracting and maintaining quality partners at the local level with little matching funds.
- Funding sources continue to evolve and change, requiring diligence in identifying and accessing appropriate sources.
- Streamlining “streamlined” consultation.
- Obtaining soil expertise to support Forest programs.
- Finding funding for ATM assessments to allow broad-scale road treatments.

Opportunities:

- Salmon recovery efforts can focus efforts and resources to restore watersheds.
- Engage Puget Sound partners in sharing costs and expertise to assist in restoration efforts.

Resource Area: Aquatics (Soil, Water, Fish) continued

Figure 2. Resource Improvement on the Mt. Baker-Snoqualmie National Forest

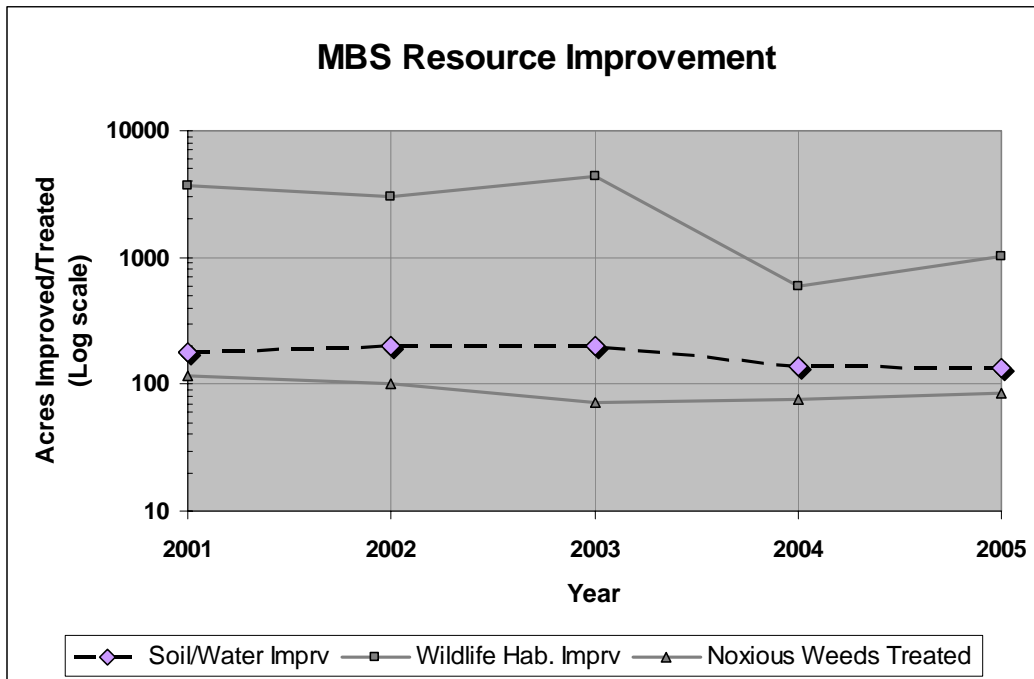
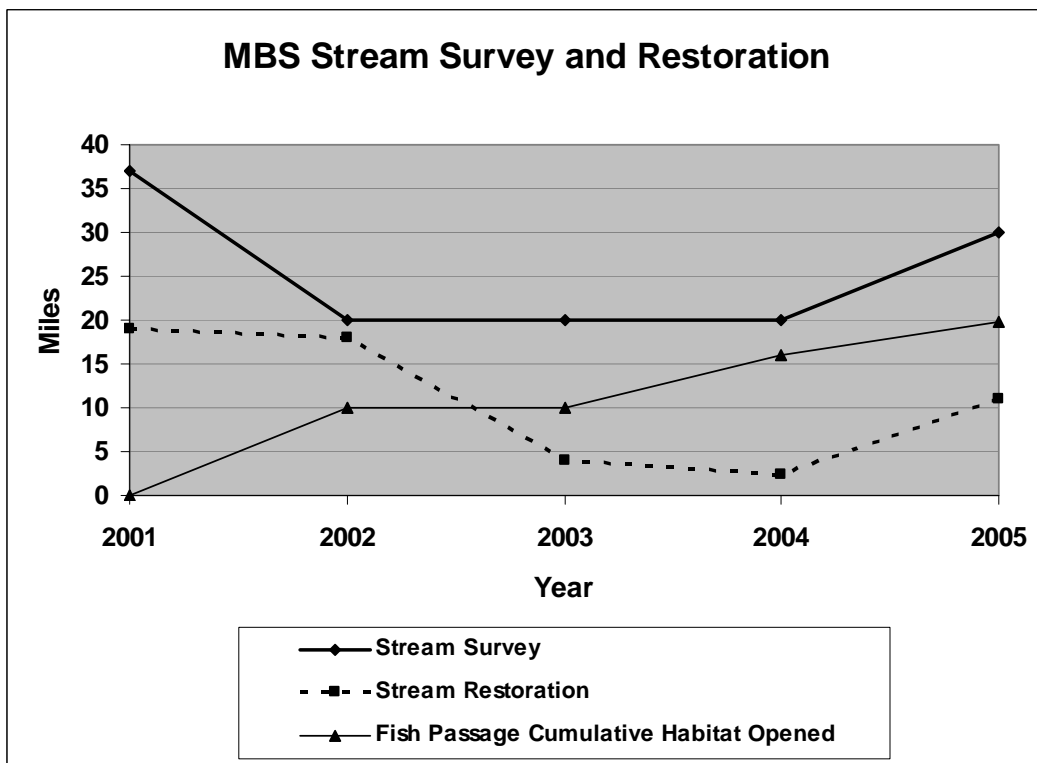


Figure 3. Stream Survey and Restorage Miles per Year



RESOURCE AREA: INFORMATION MANAGEMENT**Background:**

The Mt. Baker–Snoqualmie National Forest faces many challenges in managing its information resources to support its mission of caring for the land and serving the people. Information management will continue to play a major role in the success of this forest. Information management is one critical, integrated part of the forest’s general management framework that makes a difference by:

Enhancing decision-making at all levels by providing better quality, more relevant, and timelier data and information delivered to the right people at the right time;

Driving the simplification and automation of processes, tasks, and transactions to increase speed, lower costs, and improve productivity and quality; and

Improving the integration of employees and customers by connecting them in new ways over large geographic areas and organizational boundaries.

**Challenges:**

Like many units in the Forest Service, the MBS has experienced mixed results with implementing the vision of an integrated information environment. Integrated, shareable, and accessible information is critical to operating a healthy forest and for operating successfully within the Forest Service business areas. Numerous information management activities are occurring throughout the forest and throughout the Forest Service; some that are well coordinated, some with limited coordination, some with no coordination. It’s not always clear what information management priorities are, how they will be accomplished, when they are required, who’s responsible, or how resources will be allocated to these efforts.

Opportunities:

The information systems and applications the MBS is implementing and developing today are starting to show much more about what is going on within the program areas and are starting to be more integrated across functional areas. These newer systems are often more complex, but do a better job of helping show management what the data mean and how they can be used to make a difference in the management of the forest. Despite downsizing and loss of specialists through retirement, the forest is doing a good job of populating, and maintaining both our corporate, and local database applications. The forest has been successful in moving legacy data into newer systems like FACTS, NRIS and IWEB. The forest has recognized the opportunities that come from good information management, and continues to put effort into keeping abreast of application updates and in developing an understanding of how our databases are being used to report and display our accomplishments, and consequently, how they will be instrumental in future budget allocations and performance accountability.

AREA OF INTEREST: MOUNTAIN GOAT RESEARCH UPDATE

Surveys of the Mount Baker area mountain goats (a management indicator species) continued in 2006. In July 324 individual goats were seen, which is comparable to the 331 seen in 2005. Correction factors have not been developed yet to estimate the population accounting for animals that were present, but not seen by observers. In 1995, only 33 goats were seen in the same area. Fewer than 300 animals were seen in 2004.

Five new mountain goat captures occurred in 2006. These animals were captured along the Cascade Divide in the Glacier Peak Wilderness. As with the other goats captured in this area, most animals crossed the divide by late summer. These animals use two National Forests and two WDFW Game Management Units. This information will be helpful in redesigning Game Management Units to better reflect actual herd ranges and enable improved harvest management.

In the summer of 2006, Western Washington University published a thesis that included coarse-scale, seasonal habitats (in GIS format) developed from collared mountain goats. This information will be used to identify the adequacy of LRMP allocation mapping for mountain goat winter range.

AREA OF INTEREST: WATERSHED AND RIVER RESTORATION

“We cannot do it alone. The issues are too broad, the land base too large, and the resources too scarce.”
Mike Dombeck, former Chief of the Forest Service.

Background:

Since the mid 1980s watershed restoration has been a priority for the Forest; culminating in a cutting edge Cumulative Effects assessment in the MBS LRMP in 1989. Adoption of the 1994 Northwest Forest Plan and listing of Chinook salmon gave emphasis to watershed scale restoration, on both sides of the legal boundary. Most of the work done on the Forest is accomplished with external grant funds and/or with partners.

Over last ten years, partners have addressed the Forest Service backlog of road drainage deficiencies for the North Fork Nooksack and funded channel restoration. The Forest is using tools such as the Wyden Amendment to work across boundaries. As part of Chinook recovery, State Hwy 542 was identified as impacting critical fish habitat in the N. F. Nooksack River. By working collaboratively, Washington State DOT’s “Chronic Environmental Deficiencies” program has initiated projects along SR 542 to resolve chronic, high impact maintenance problems.

To fully restore watersheds we can and must work across boundaries.

Partnerships are not always easy, but can benefit all aspects of our work

Monitoring and feedback is essential.

Challenges:

Many major roads follow rivers and create numerous and expensive problems. The geologic setting can be very complex and unforgiving.

Finding funds and getting agreement on actions and priorities with other groups and agencies is essential but challenging and time-consuming.

Trust, professional expertise, respect and time are vital to success.

Opportunities:

Working with multiple partners can be very powerful once agreement is reached. The multiple authorities, expertise and ownership can be very useful in getting resources to complete actions.

Partners:

Washington Department of Transportation, Lummi Nation Natural Resources, Nooksack Tribal Natural Resources, American White Water, Nooksack Salmon Enhancement Association, Whatcom Land Trust, Whatcom County River and Flood are a few of the critical players.

AREA OF INTEREST: FISH PASSAGE CULVERT REPLACEMENT MONITORING 2006

Road 1122000, Four culverts were replaced in 2003, two with substrate-filled culverts and two with bridges.



Figure 4. Photos showing fish barrier culvert Road 1122000, MP 0.45; inventoried in 2001. Inlet–left; Outlet–right

	Structure	Gradient (%)	Perch (ft.)	Span: Bankfull Ratio	Culvert Substrate
Before	24-inch round cmp	8.4	0.27	0.50	Bare metal
After	72" x 54" pipe-arch	5.6	none	1.5	100% Cobble/gravel

The twenty-four inch culvert (left side Figure 5) was replaced with a 72" x 54" pipe arch in 2003. Three years later, in 2006 (right side Figure 5) the culvert showed good retention of gravels. However, excavation around the inlet during installation exposed bedrock that has scoured bare to create a three-foot step that is a barrier at low flows (Figure 6).

Figure 5. Road 1122000, MP 0.45; Pipe-arch three years after installation. Inlet – left; outlet – right



Approximately six inches of gravel depth remain in the culvert. The re-measurement was made at a very low flow (near record dry summer) and the bedrock ledge upstream of the inlet would be a barrier.

Figure 6. Upstream of the culvert, the channel has exposed a bedrock ledge that is a low flow passage barrier.



This culvert is on a gradient lower than the upstream channel but close to the downstream gradient. The culvert is no longer a barrier; however, the bedrock ledge above the inlet is a barrier at low flows. Juvenile coho were observed at the inlet. The depth on substrate in the culvert does not meet the evaluation criteria for the R6 Fish Passage Inventory, but the installation appears to otherwise be appropriate and functioning with passage.

Road 1122000, Milepost 0.49

The 48-inch round pipe (Figure 7) was replaced with a 121” x 78” pipe-arch in 2003 (Figure 8). Considerable scour occurred during the October 2003 flood, but the installation seems to have fared adequately.



Figure 7. Fish barrier culvert Road 1122000, MP 0.49; inventoried in 2001. Inlet – left; Outlet – right

	Structure	Gradient (%)	Perch (ft.)	Span:Bankfull Ratio	Culvert Substrate
Before	48-inch round cmp	8.4	2.16	0.57	Bare metal
After	121” x 78” pipe-arch	9.6	none	1.4	100% Small Boulder/gravel



Figure 8. Road 1122000, MP 0.45; Pipe-arch three years after installation. Inlet – left; outlet – right

Substrate has moved and eroded within the culvert, leaving a gradient break about midway. The substrate maintains passage through the break in grade. Several large boulders in the upstream half of the culvert hold back small boulders and cobbles. Substrate depth is approximately three feet at the inlet and 1.5 feet at the outlet. Substrate scour at the grade break is as much as 2.5 feet. The channel thalweg is well established in the culvert.

Figure 9. Substrate scour within the pipe. Fluorescent orange paint marks level of substrate when installed. Depth of scour on right is 2.5 feet.



This culvert meets the evaluation criteria for a green culvert.

Road 1122000, Milepost 0.51

The 36-inch culvert (Figure 7) was replaced with a 40-foot bridge (Figure 8) in 2003.

Figure 10. Fish barrier culvert Road 1122000, MP 0.51; inventoried in 2001. Inlet – left; Outlet – right



2006 Monitoring Report	Area of Interest
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	Structure	Gradient (%)	Perch (ft.)	Span:Bankfull Ratio	Culvert Substrate
Before	36-inch round cmp	8.7	0.58	0.47	Bare metal
After	40-foot bridge	7.6	NA	1.3	100% Small Boulder/gravel

Figure 11. (Below) Bridge three years after installation



This installation is functioning well. The bridge span is 40 feet (effective opening of 35 feet between abutments). Protective riprap was placed at two or three to one, leaving a low flow channel width of only eight feet. While this is greater than bankfull channel, width (6 feet) a wider opening would allow the channel to move and adjust more naturally.

Road 1122011

Road 1122011, Milepost 0.18

A 60-inch round culvert was replaced with a 60-foot bridge in 2003. This site is in deep alluvium on the flanks of Baker Lake. The flood of October 2003 undermined the east abutment, so the bridge was replaced in 2004 and protected with larger riprap.

	Structure	Gradient (%)	Perch(ft.)	Span:Bankfull Ratio	Culvert Substrate
Before	60-inch round cmp	-	3.00	0.47	Bare metal
After	60-foot bridge	2.1	NA	3	Gravel

Figure 12. Bridge on Road 1122011 MP 0.18 looking downstream two years after installation.



Re-measurement was done at very low flows. Beaver Creek is quite flashy and this channel is very unstable because of the small material that makes up the alluvial fan where Beaver Creek enters Baker Lake. The effective low flow channel left between the protective riprap slopes is approximately 28 feet. A deep pool that existed downstream of the bridge was filled during or after installation; however, several fish were observed downstream of the bridge during re-measurement.

Road 1100000; Baker Lake Highway

Road 11, MP 23.7

Two fish passage barrier culverts, on separate forks of Shannon Creek, were replaced in 2004 with a single bridge (Figure 9) at the junction of the two channels.

	Structure	Gradient (%)	Perch (ft.)	Span:Bankfull Ratio	Culvert Substrate
Before	48-inch round cmp	9.4	1.0	-	Bare metal
	120-inch round cmp	7.0	4.0	0.5	Bare metal
After	100-foot bridge	4.7, 9.5	NA	3	Cobble/Sm. Boulder

The bridge spans the two steep channels, but the large substrate in the channel provides a step-pool channel that allows passage upstream. The upstream gradients are 11 % in the left channel (right in Figure 9) and 20 % in the right channel. The disturbed area between the old culvert locations and the new bridge has seeded into alder such that within the next 5-10 years, the alder will provide considerable summer shade to the site.

Figure 13. Road 1100000, MP 23.7. Bridge replaces two culverts that were located in each channel where there is sunlight in the photo. Channel gradient under the bridge is 7 percent; the left channel upstream is 20 % gradient; the right channel is 11 %. The large center boulder sits under the bridge.



AREA OF INTEREST: SKAGIT WILD & SCENIC RIVER SYSTEM**Background:**

On November 10, 1978, Congress designated 158.5 miles of the Skagit River and portions of its Cascade, Sauk, and Suiattle tributaries, as part the National Wild and Scenic Rivers System. The Skagit WSR is managed by the Forest Service to protect and enhance the free-flowing condition, water quality and outstandingly remarkable values; of fish, wildlife and scenery, for which the river was designated, while providing for public recreation and resource uses that do not adversely impact or degrade those values.

**Challenges:**

Over fifty percent of the land in the Skagit WSR corridor is in private ownership. In this complex and dynamic system, river management is effected through collaboration with over 25 different agencies, landowners, tribes and other organizations who are concerned with various issues affecting river-related resources.

As WSR managers the Forest is involved in all aspects of management in the Skagit System:

- Basin-wide watershed restoration and protection
- Monitoring of natural and cultural resources and public use
- Management and recovery of threatened endangered species
- Community education and outreach
- Public concern with floodplain management, flood damage and control
- Demand for various recreation opportunities, access, visitor services ,and facilities
- Demand for hydropower production
- Need to protect public infrastructure.

Opportunities:

The Skagit WSR is a model for resource stewardship through partnerships. The Forest Service has no regulatory authority and so must work through the authorities of other agencies. (On private land, we must be invited to participate if there is no other federal involvement). Collaborative solutions often produce the best outcome for people and for the resource. Because of our over-arching responsibility, and our work on the federal level, there is an expectation that we take a leadership role to facilitate consensus among those with divergent views. This capacity takes time to build and maintain. (We work with multiple players (ever-rotating cast) within each of approximately 35 agencies and organizations. The Settlement Agreement with Seattle City Light has been a boon to the resources and visitors in the Skagit WSR. In the last 10 years, we have implemented Wildlife Fish and Recreation projects directly benefiting the system. The City has been an important resource partner for many agencies and organization in addition to the Forest. Their contributions are a positive example of responsible hydropower generation and collaborative resource stewardship.

AREA OF INTEREST: NOOKSACK RIVER STEWARDS: PUBLIC EDUCATION & AWARENESS**Background:**

The high levels of public use on the Forest coupled with habitats of eight listed species provides for many opportunities for conflict between people and habitats. One such interaction is the use of riparian areas by people and stream habitat for bull trout and Chinook salmon. Often people are simply unaware they are creating a problem. Restrictions are sometimes necessary to protect key areas, but educating people can allow more full use of the Forest. The Nooksack River Stewards program was started in 1998 as a partnership with Washington Department of Fish and Wildlife. In 2005, WDFW and USFS agreed that it would be better if the USFS collaborated with the Nooksack Salmon Enhancement Association (NSEA) in order to further leverage the effort and increase the education/outreach component. NSEA is a non-profit organization working on salmon conservation and recovery in the basin, who already had a Stream Stewards program in the lower river. With NSEA, the program is largely volunteer-based. Steward tasks include: interacting with the recreation public; conducting formal and informal public presentations; developing, reviewing and distributing public information/education brochures; posting fish/habitat protection signing; monitoring recreation use and impacts; and documenting cases of disturbance to salmonids and redds.

Challenges:

Funding has been the primary challenge of the program. With a 50 percent match from WDFW, the Region 6 Challenge Cost-Share Program provided funds in 1998–2004. Centennial Funds were used with a 50 percent match from NSEA in 2005. For 2007, the program has applied for 50 percent RAC funding. No funding was provided for 2006. NSEA's matching funds have been grant based, and as with most grant based programs, funds must be constantly sought after. NSEA provides supervision, training, and coordination of volunteers, and maintaining consistency among numerous volunteers takes time and strong leadership. Safety of individuals making public contacts is always a concern, and all stewards complete training with WDFW law enforcement personnel on personal safety.

Opportunities:

As with any third party collaboration, the ownership base in the management of the Forest is increased in both the volunteers and the contacts made.

Partnerships:

Nooksack Salmon Enhancement Association, Washington Department of Fish and Wildlife, North MBS Resource Advisory Committee.

RESOURCE AREA: RECREATION RESOURCES

In 1983, the MBS had 74 available developed campgrounds and operated 61 sites that year. In 1986, as a result of the “CHUNK” study, the forest had 38 campgrounds available and operated 28; 36 campgrounds were converted to dispersed sites or eliminated. This current year, we are operating 40 sites under concession agreement and 3 non-concession sites. The MBS completed the “first round” of facility master planning 20 years ago.

Ski Area management is a major program on the MBS. The recently completed seven-year master planning process with Crystal Mountain has given way to an ongoing effort at Snoqualmie Pass. Stevens Pass will initiate their planning effort in FY07. Close to 1.5 million recreationists visit the ski areas annually, producing Gross Receipts of \$45 million dollars. The impact of the four ski areas located on the Forest to the local economy is in excess of \$220 million dollars (2004).

The population of the Seattle metropolitan area participates in a broad spectrum of outdoor recreation activities defying simple categorization. Seattle residents generally take part in nature-based tourism activities at the higher rate relative to other Western metropolitan areas. The activities with exceptionally high participation rates compared to Western U.S. averages are: primitive camping, coldwater fishing, backpacking, rafting, canoeing, developed camping and cross-country skiing.

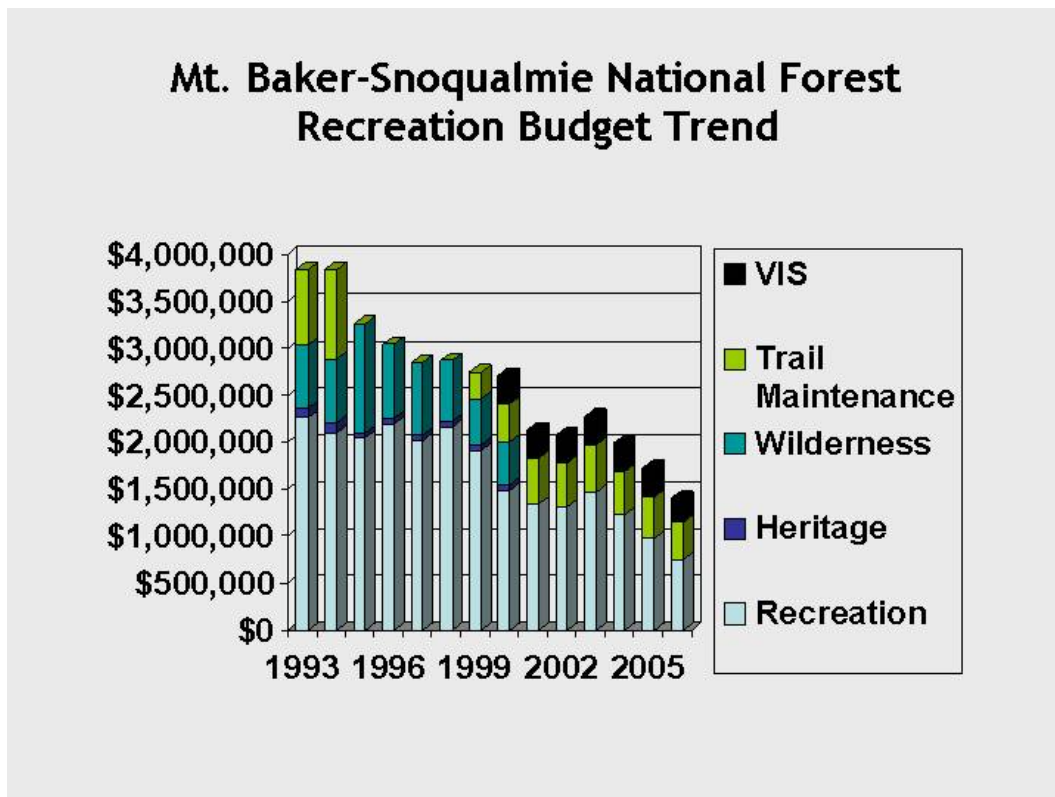


Figure 14 Recreation Budget Trends

RESOURCE AREA: TRAIL PROGRAM**Background:**

- 1,500 miles of trail
- 600 miles in Wilderness
- Heavy use on many trails. 95 percent of use is by hikers.
- Thirty-seven percent of all Forest visits are for the purpose of hiking or walking.
- Over two dozen partners help with maintenance
- One of largest volunteer maintenance programs in US-about 60,000 hours annually.
- About 125 miles of motorized trail, mostly on one district.
- Strong contracting organization annually puts out about \$500,000 in work (CIP, Grants, Rec Fee). About 80 percent are reconstruction contracts.
- Strong relationships with partner organizations allow forest to greatly leverage available funding.
- Forest has done very well competing for Regional CIP dollars. Most are matched with State IAC or volunteer component.

**Challenges:**

- Program dependent upon district staff to collect \$'s through fee program, apply for grants, cultivate and process partnerships. None of this done 10 years ago to current level.
- Loss of Forest staff to help handle above.
- Expensive and difficult maintenance due to terrain, vegetation, precipitation, and use levels.
- Many miles of low elevation trails make maintenance cost among highest.
- Major flood event on north end of Forest in 2003 caused over \$4.2 million in damage. Effectively cut off use of nearly ½ of Glacier Peak Wilderness.
- Since the flood, the Forest has “found” nearly \$2.3 million in resources to help repair damage. Region has provided \$300,000 so far.
- Managing workforce to handle workload created by flood and dollars received.
- Getting contractors and partners paid in a timely manner. Avoid double payments.
- OHV planning rule. Likely a large undertaking for minor changes.

Opportunities:

- Forest has received first ever ERFO funding to repair a trail (PCT).
- In excellent position to receive grant from IAC. Ability to leverage Rec Fee Dollars to obtain matching grants from IAC.
- Major partnerships with IAC, VOW, WTA, BCH, Mountaineers
- “Hybrid” contracting utilizing combination of contract and volunteer crews on projects. (Ira Spring)
- Work closely with partners to simplify processes for each other. (Earth Corps, WTA, Spring Trust).

RESOURCE AREA: WILDERNESS MANAGEMENT**Background:**

- 42 percent of MBS is designated Wilderness (712,000 acres)
- More Wilderness visits (700,000) than any other Forest in US.
- More glaciers than any other Forest outside Alaska (about 50 sq mi) with complex geology and diverse vegetation attracting researchers far and wide.
- Annual precipitation between 100 and 200 inches.
- More trail bridges than other wildernesses in Region.
- Two heavily glaciated major volcanoes, Mt. Baker and Glacier Peak are upstream from heavily populated areas.
- Adjacent to larger wilderness complexes in North Cascades, Mt. Rainier National Parks, and Okanogan-Wenatchee National Forest.
- Five Lookouts within Wilderness Areas.
- Large Outfitter and Guide program.
- Large Volunteer Ranger program, especially Alpine Lakes and Mt. Baker.
- Wilderness areas north of Interstate 90 in Grizzly Bear Recovery Area.

**Challenges:**

- Lack of uniformed (FPO) Rangers. Little presence in the field.
- Chiefs 10-Year Challenge. No wilderness areas managed to standard. Significant progress unlikely in near term.
- NEPA costs and little funding opportunities have about halted restoration work.
- Many miles of low elevation trails make maintenance cost among highest.
- User created trails–Alpine Lakes and others .
- Sanitation at high use areas.
- USGS Research Station at South Cascade Glacier.
- Snowmobile trespass–Mt. Baker.
- Outside requests for motorized/mech tools-USGS, State Dept of F&W, Tribes, Lookout maintenance.
- Internal requests for motor/mech for various trail projects, mine site clean up, etc.
- Major flood event (2003) has limited access to parts of Glacier Peak and Mt. Baker Wildernesses.
- SAR coordination with five counties all with different processes.
- Current staffing has likely exceeded ability to maintain existing partnerships at current levels.
- International Border Issues.
- Wild Sky Wilderness Proposal.
- Retention of volunteers can be difficult. Much more difficult to train people as volunteer rangers than those that might work with a trail maintenance group.

Opportunities:

- Large and active user base could support many partnership efforts.

Partners:

- IAC, North Cascades Institute, American Alpine Institute, RAC's, NOLS, SCA, many individual volunteers.

RESOURCE AREA: RECREATION FEE PROGRAM**Background:**

- Forest has been in the program since 1997
- Initially about 150 trailheads, picnic sites, rustic camps in the Trail Park program.
- Heather Meadows had its own Fee Program initially. Northwest Forest Pass combined Heather Meadows and Trail Park programs in 2000
- Forest added Christmas Trees to program in 1999
- Two Cabins available for rental, Evergreen Mtn LO and Suiattle Guard.
- Passes sold by about 66 vendors in the Puget Sound area (10% retention fee) and the Northwest Interpretive Association – about 50 percent each. Minor sales by Forest collection officers through vending machines.
- \$1,100,000 collected in 2005. An additional \$125,000 shared with OKW.
- Forest Trail and Trailhead maintenance program virtually entirely dependent on Fee dollars for leveraging all work.
- Cabin Rentals bring in about \$10,000 per year.
- Christmas Tree program about \$80,000
- Recreation Special Uses about \$50,000

**Challenges:**

- Forest has tried to keep all sites in NW Forest Pass program to make simple for public to understand.
- REA has caused number of sites to decrease due to lack of amenities at Trailheads. Nine (9) High Impact Recreation Areas approved on the Forest.
- Public wants trails maintained, not garbage cans or interpretive signs at trailheads.
- Charging fees for anywhere within a HIRA will be a public relations disaster for the Forest.
- Disincentive for Forest to hire seasonal workers due to associated OH cost back to NFRW or CMTL funds that have limited to no flexibility.

Opportunities:

- Funds provide nearly the only method for the Forest Service to have field presence.
- Public has been generally supportive of the fee program on the MBS. Prices have not gone up and most people can see where their dollars are spent.
- Partners are interested in being selected for seats on the new Recreation RAC's.
- Funds are more flexible than appropriated funds. Can help lend program stability from year to year.
- Leveraging, starting with Rec Fee as the base dollars help to leverage an additional \$852,000 in State IAC grants in 2004. This and Recreation Fee dollars generated \$1.29 million in contributions from partners.

Partners:

- Funds Cost Share and Participating Agreements with several organizations including VOW, WTA, PNTA, SCA, MBS Friends, NYC and others

Resource Area: Heritage

Tribal Relations and Government-to-Government consultation, a major component of all resource areas, is integrally tied to the Heritage Program. The MBS is ceded lands under two treaties, and influenced by the interests of 16 federally recognized Indian Tribes, and one tribal group actively seeking federal recognition. Each project of the Forest's program of work involves consultation with several tribes, depending on the location, scope and scale of the undertaking, and many involve on-site visits to the project area. In addition, a few tribes have large Culture Departments and staff, and are actively involved in planning and completing cultural resource surveys and project monitoring. This year Forest is working on a Huckleberry Management Plan and three MOAs to address Tribal interests. Several of our habitat management and enhancement projects also have Tribal partnerships.

The MBS manages over 1500 Heritage Assets. This year, the Forest completed the inventory and evaluation of historic significance for its recreation residence tracts, including 232 individual summer homes (currently in consultation with the SHPO for the Recreation Residence Permit Continuance Process). All of the Forest's heritage assets are entered into INFRA, and the Forest has developed a GIS spatial data layer for Heritage, currently being verified.

The Heritage program involves a number of volunteers programs and partnerships. We have several significant site stewardship/site maintenance programs for historic properties (Stevens Pass Historic District and Monte Cristo Site Stewards, Monte Cristo Preservation Association, Lookout "Friends" groups and the Northwest Underground Exploration—a group interested in documenting historic mines). In recent years, we have partnered with Pacific Lutheran University and Earthwatch for research/educational projects focused on Historic Logging and Settlement, and the Sauk-Suiattle Tribe for site recordation. This is the second year that Darrington High School's building construction class is doing repairs on a CCC building in Darrington. The value of contributions provided by partners and volunteers is over \$144K (2004).

In addition, the Forest has a number of large-scale Heritage partnerships including a Federal Highway Administration Scenic Byway Enhancement Grant, a portion of which (approximately \$160K in 2007 and



\$300K in 2009) is for Historic Interpretation and adaptation of a Historic Ranger Station to better accommodate visitor services. Additional project-driven partnerships include Puget Sound Energy, Interagency Committee on Outdoor Recreation, Washington State Department of Transportation, and Ski Lifts, Inc., which are contributing inventory, evaluation and management dollars to the Heritage Program.

AREA OF INTEREST: WHITE WATER RAFTING AND SALMON RECOVERY**Background:**

The North Fork of the Nooksack River is popular with white water boating enthusiasts. Kayakers commonly run this reach and run a slalom competition each fall. The Forest has four Commercial Outfitter and Guide rafting permittees who run a segment that starts on National Forest and ends on private land downstream. In August, as water levels drop, Chinook salmon move into the river to spawn and the presence of boaters resulted in a concern from fisheries managers over the disturbance of a listed species. The Forest has restricted permitted and public boating since August 2000. The closure starts on the second Monday of August, which provides adequate resource protection and consistency for boaters. Originally, the closure was ended after monitoring in the spring of the following year. In response to questions from the kayak community it was determined that the closure could be shortened to cover just the fall spawning period and that reopening the river to floating by the public during winter high flows would not affect the Chinook population.

Challenges:

Closure of the river has not been popular with the permittees or with the local kayak community. The closure has also caused economic impacts to the communities of Glacier and Maple Falls which support the Outfitter and Guide operations by providing logistical support and catering. The Forest worked closely with National Marine Fisheries Service, the permittees, and Washington Department of Fish and Wildlife to arrive at a solution to protect the fisheries resource.

**Opportunities:**

The conflict has provided opportunities for education of the O&G community and their clientele regarding the needs of fish and Chinook in particular. The private boating community raised concerns about the length of the closure and they proposed alternatives for resource protection. The Forest met with the Nooksack Salmon Enhancement Association, American Whitewater and private boaters to discuss the issue. The Forest developed suggested education and conservation measures that the boating community agreed to in principle and offered to post at river access points and promote among their membership.

Partners:

Washington Department of Fish and Wildlife, NOAA Fisheries, Commercial Rafting Outfitters and Guides, Nooksack Salmon Enhancement Association, American Whitewater.

AREA OF INTEREST: HEATHER MEADOWS OPERATIONS**Background:**

The Heather Meadows recreation area is located at terminus of SR 542, Mt Baker Scenic Byway. It is a destination for over 115,000 visitors and represents one of the few opportunities in the Northwest to drive to a sub-alpine setting. Mt Shuksan from Picture Lake is one of the most photographed vistas in North America.

Due to the deep snowpack, the season typically goes from early July to mid October.8 more than 1,000 visitors can recreate on peak summer weekends.

The area is popular for sightseeing, day hiking, backpacking, wildlife viewing, and fall colors, and is a portal to the Mt Baker Wilderness with over 20 miles of trails.

The Heather Meadows Visitor Center built by the CCC is listed on the National Register of Historic Places.

HMVC is staffed with FS volunteers, student interns and NWIA employees during the summer season and it averages 15,000 walk-in visits annually.

Interpretive programming (about 23 programs/season) offered during summer season with FS staff and local “guest speakers”

Heather Meadows operations funded out of proceeds from recreation fees under REA.

The area becomes the Mt Baker Ski area in the wintertime with over 260,000 visitors. This area holds a world record for snowfall (in 1999) with over 1120 inches of snow.

Challenges:

- Weather and snow pack heavily impact facilities. Signs have to be installed and removed each season or they are buried under 15 feet of snow. This is a high cost area to manage, maintain and operate.
- Concentrated visitor use at Heather Meadows requires significant management. Urban day use visitors are within one-half mile of the wilderness, which heavily impacts nearby wilderness resources and destinations.

Opportunities:

- The scenic draw and high visitation provide opportunity for many contacts with the public. Volunteers have contributed to several aspects of the Heather Meadows operations, including restoration of alpine vegetation, education programs and operation of the Heather Meadows visitor center.

Partners:

WSDOT, NCI, IDHA, Mtn. Stewards, volunteers, and Mt. Baker Ski Area (winter).

AREA OF INTEREST: MT. BAKER-SNOQUALMIE INITIAL ATTACK CREW**Background:**

Eighty percent of the U.S. population is urban and most of the country's diverse communities are found in urban areas. The Puget Sound Basin is a major U.S. urban center and the MBS is uniquely positioned to partner with the diverse communities of the Puget Sound region.

What is the MBS-IA Crew?

- An organized U.S. Forest Service wildland fire suppression crew
- A reciprocal program that provides a link between the Forest Service and Puget Sound communities
- A career gateway for under-represented communities
- A vehicle for promoting diversity in F&AM and the agency

**A Model for Success**

- Location–Darrington is a model rural FS community
- Support–MBS Fire, District, Forest and Regional
- Achieving a Standard–Type 2 IA Standard
- Crew Leadership–Diverse, experienced, motivated and competent
- Outreach–Organizations with the shared values of leadership and advancement
- Recruitment–Focused on urban diverse communities
- Selections–Motivated career-oriented leaders
- Retention–Training, mentorship, experience and opportunities through Fire Apprentice Program and the R-6 F&AM community

Challenges:

- Building relationships and sustaining commitments.
- Maintain a Solid Foundation–Stable support, leadership and funding
- Fulfilling Commitments–Sustain commitments with communities and crewmembers
- Creating a Career Path–Requires strong links to other units
- Build agency wide support–Create a network of opportunity
- Retention –Support for entry level employees on other units
- What is success?–Community partners, placements, career opportunities

Opportunities:

- Provide varied fire management and fire leadership experience through the MBS IA Crew, Engine and Baker River Hotshot Crew programs.
- Establish a links with the Okanogan-Wenatchee and other Forests to provide PSE opportunities to experienced crewmembers,

AREA OF INTEREST: MSF FIRE AND AVIATION 5-YEAR SUMMARY**Background:**

Over the last 5 years, the Mt. Baker-Snoqualmie NF (MSF) Fire and Aviation Management (F&AM) organization has undergone a restructuring to better address the full range of complexity associated with this urban forest. Large spans of wilderness and unroaded areas, heavy timber fuel types, steep slopes and complex terrain provides unique challenges on a forest where over 50 percent of fire starts are human caused. Average annual fire starts is 42 with 1009 acres burned per year. The Forest currently has no Hazardous Fuel Reduction program.

Current Organization:

The MSF fire organization is centralized, lead by the Fire Staff Officer that reports directly to the Forest Supervisor. Reporting to the Fire Staff Officer are an Asst. Fire Staff Officer, two Zone FMOs and the Interagency Dispatch Center Manager. Each zone has one AFMO and two engine modules. The North Zone hosts the Baker River IHC and the MBS-IA crew. In addition to two engine modules, the South Zone FMO supervises the forest Prevention Tech. Each Zone has established interagency IA dispatch organizations in cooperation with adjoining Washington DNR regions. The Forest also provides 40 percent of the funding to support Puget Sound Interagency Communications Center (PSICC) in conjunction with eight additional federal and tribal entities.

MSF F&AM 5 Year Accomplishments:

- Reorganized F&AM leadership commensurate with forest fire program complexity.
- Successfully suppressed 209 fires for 5045 acres without serious accident or injury.
- Utilized the full range of appropriate suppression responses, effectively the Forest effectively providing for firefighter and public safety while minimizing resource damage and suppression costs.
- Strengthened cooperative/reciprocal working relations with neighboring WA DNR Regions including establishing interagency IA dispatch.
- MBS-IA Crew –established partnerships with community groups to effectively outreach and recruit from diverse communities within the Puget Sound Basin.
- Consistently achieved Fire Fighter Production Capability (FFPC) preparedness target within WFPR allocation.
- MSF averages 661 resource dispatches to incidents annually including 10 individuals on type I and II IMTs.

**Opportunities:**

- Numerous large wilderness areas provide a unique opportunity to successfully manage Wildland Fire Use with adjacent federal land management partners.
- Establish links with other forests to provide PSE opportunities to experienced MBS IA crew members.

AREA OF INTEREST: ROAD PROGRAM**Background:**

The Forest has 2600 miles of system roads, the legacy of past timber management. With the reduction of timber harvest generated road maintenance dollars, allocated maintenance dollars are stretched thin. Using NWFP Watershed Restoration funds, the Forest pursued an aggressive program to decommission roads. As those funds dwindled and partnership dollars replaced them, the emphasis has been more on stabilizing and storing. Many of our roads, esp. Maintenance Levels 3 to 5, lead to recreational destinations such as trailheads or campgrounds. Due to the steep and rugged topography of the N. Cascades, roads are located in close proximity to major rivers, and cross numerous streams and avalanche chutes. This frequently results in road damage during major flood events. Since the Nov. 1990 flood, the Forest has worked with FHWA to make the “correct” repairs rather than “replace-in-kind”.

The 2003 flood event on north end of Forest caused \$10 million in damage; effectively cutting off use of nearly ¼ of the Darrington District – portions of the Sauk, Suiattle and White Chuck River drainages; and caused a large shift in Forest staff workload: six ID teams and 2 years of EA preparation. Two of the repairs have had appeals and been upheld in regional review, but this resulted in additional time and expense in meeting those concerns.

**Challenges:**

- Repeated flood occurrences. We are slowly storm-proofing our road system, but much work remains.
- The Forest has 162 bridges to inspect and maintain.
- Roads are difficult and expensive to maintain due to rugged terrain, aggressive vegetation, high precipitation, and use levels.
- We now contract our most work. Our strong contracting organization handles \$3-5MM in annual work (CIP, Grants, RAC, SRFB), but they too are at capacity.
- The Forest has lost Forest engineering and specialist staff to help handle above. Retirements have left huge holes in the workforce.
- Staff shifting to respond to ERFO has impacted other work.
- Getting contractors and partners paid in a timely manner.
- Working in ATM planning to Forest program of work
- Erosion and sediment concerns often result in formal consultation with FWS and NMFS. Interest groups with varying agendas scrutinize Road projects.

Opportunities:

- Major partnerships with tribes and other groups result in grants to upgrade culverts, and store or decommission roads.
- Forest has done very well competing for Forest Highway Enhancement dollars

Mt. Baker-Snoqualmie National Forest-Engineering Accomplishments

Year	FS Funds Construction/ Reconstruction	Miles	Decommissioned	Miles	Rd Mtc \$ to the ground	Outside Funds	Miles	ERFO	Facility Projects
2001	\$1,390,000	16.81	\$62,000	6.2	\$1,015,872	\$736,650	27.2	\$477,600	\$105,000
2002	\$40,000	0.5	\$192,000	21.4	\$1,007,110	\$479,000	48.3		\$296,000
2003	\$541,000	3.6	\$105,000	25.2	\$1,195,797	\$770,000	54.7		\$144,000
2004	\$1,861,000	4.1	\$31,000	5.2	\$1,287,434	\$646,000	16.5		\$1,494,000
2005	\$815,000	4.4	\$5,000	1.1	\$918,009	\$325,000	25.8	\$375,000	\$275,000
Total	\$4,647,000	29.41	\$395,000	59.1	\$5,424,222	\$2,956,650	172.5	\$852,600	\$2,314,000

Total 5 years Project Work to the Ground: \$16,589,472

Notes: Baker Lake & Middle Fork Snoqualmie ATM's Completed 2005

Outside funds are a combination of RAC, FHWA and Partnerships. Our partners include Mountains to Sound, Skagit River Systems Coop, Nooksack Salmon Enhancement, Seattle City Light, Washington Dept of Fish & Wildlife, Washington Dept. of Ecology, Skagit Conservation District, Skagit Watershed Council and Stilligumish Tribe of Indians.

Proposed 2006 and 2007 ERFO Contracts \$2,652,000

		ERFO History 1990-2004						
		Year	Total Amount Approved					
		1990	\$6,483,713					
		1995	\$134,375					
		1996	\$6,986,111					
		1997	\$1,162,636					
		1999	\$302,259					
		2004	\$4,790,911					
		Total	\$19,860,005					

Condition Surveys completed in the last 2-3 yrs.

Type	Number of	Complete					
Facilities	128	100%					
Watersystems	26	100%					
Wastewater Septic Systems	79	100%					
Deferred Road Maintenance	911 Miles	99%					

Note: Some required roads were inaccessible due to flood damage.

District Road Mileage Summary By Objective Maintenance Level

	1	2	3	4	5	Decommission	Convert to Trail	Total	
Mt. Baker	67	165	176	41	6	290	0	744	
Darrington	173	172	237	33	10	98	0	724	
North Bend	18	100	103	10	15	38	8	293	
Skykomish	32	125	90	9	16	56	0	328	
White River	71	184	138	10	34	52	0	489	
Total	361	746	745	103	81	535	8	2578	

District Road Mileage Summary By Operational Maintenance Level

	ML 1	ML 2	ML 3	ML 4	ML 5			Total	
Mt. Baker	235	278	197	29	6			744	
Darrington	212	216	252	33	10			724	
North Bend	21	64	196	6	6			293	
Skykomish	40	143	132	6	8			328	
White River	28	218	222	3	17			489	
Total	537	919	999	76	46			2578	

District Bridges Summary by Classification

	Open	Temp. Inaccessible	Total if all were open	Perm. Closed	Total on System	Excess/Removed	Total on Inventory	# with Load Restrict.	Open Log Stringers
Mt. Baker	50	1	51	3	54	1	55	3	7
Darrington	27	7	34	11	45	2	47	1	4
North Bend	25	2	27	0	27	0	27	0	0
Skykomish	41	0	41	2	43	1	44	0	0
White River	19	0	19	0	19	4	23	2	0
Total	162	10	172	16	188	8	196	6	11

Notes:

- 1) MBS has 28 log stringer bridges on the total inventory but only 11 are open to traffic, and of these, 2 have been submitted for the CIP program for replacement, and another 2 are funded for replacement with outside funds. The other 7 will probably have to be closed soon.
- 2) MBS has 105 bridges that were approved for inspection interval extensions, which is 61% of the planned open bridges.
- 3) FY05 inspections were 76% up to date, and should be 100% up to date by the end of this FY, with extra inspection help planned, and with benefit of the interval extensions (thanks to Kathy Van Hecke's work in the RO).

AREA OF INTEREST: MT. BAKER NATIONAL FOREST SCENIC BYWAY, WA 542**Background:**

Washington State highway 542 stretches 62 miles from Interstate 5 to its end at Artist Point. It was designated a National Forest Scenic Byway in 1989. About 25 miles are located on the Forest. Federal Highway funds have enabled a number of improvements to be made in and along the route. In the early 1990s a number of improvements were made along the route including reconstruction of the Glacier Public Service center, the Heather Meadows Visitor Information Services Center, and paving of the last several miles of the road and parking area.

The road is the primary access route into the Forest areas of the North Fork of the Nooksack River. Numerous trailheads, climbing routes, campgrounds and dispersed recreation areas are accessed by this road. The Mt. Baker Ski Area and Heather Meadows area lie at the end of the road. Artist Point at the very end of the road provides one of the best drivable viewing areas into the rugged north cascades, with excellent views of Mt. Baker and Mt. Shuksan.

**Challenges:**

The road follows along the North Fork of the Nooksack River and alters the river's course at several points. The end of the road lies in a very high snowfall area (established new world record in 2003) which limits the season of use and is hard on developments. Most of the National Forest portion of the route lies in a Late Seral Reserve (LSR) allocation, which complicates new developments and modifications.

Opportunities:

Being a Forest Highway qualifies the route for Federal Highway betterment funds. Designation as a Forest Scenic Byway fosters a more aesthetic management conducive to the setting.

Partners:

Washington Department of Transportation, Mt. Baker Ski Area, North Cascades National Park, North MBS Resource Advisory Committee.

AREA OF INTEREST: LAND EXCHANGE AND PURCHASE OVERVIEW OF INTERSTATE 90 CORRIDOR**Background:**

The Northwest Forest Plan identified the area along Interstate 90, especially near Snoqualmie Pass as critical habitat for connectivity for the Northern Spotted Owl and other T & E Species. The land pattern was mainly in checkerboard ownership. In addition, Mountains to Sound, an organization of diverse groups such as Sierra Club, Weyerhaeuser, Microsoft, Plum Creek Timber Company, Key Bank, etc. established the Mountains to Sound Greenway that runs from downtown Seattle to Thorp near Ellensburg. Their objective was to keep this area in working Forest and farms, rather than it all being subdivided for development along major highway corridors.

We have worked with many partners to acquire over 100,000 acres on both the Mt. Baker-Snoqualmie and Okanogan/Wenatchee National Forest by using land exchanges, land purchase and the Forest Legacy Program to acquire key lands along Interstate 90 to meet the objectives of the Northwest Forest Plan and to keep the area in working Forests.

We have had outstanding public support that has resulted in Congressional appropriations of over \$20,800,000 in Land and Water Conservation Funds and \$5,000,000 in Forest Legacy Funding for the Interstate 90 checkerboard lands.

We have accomplished about 90 percent of what we have identified as critical lands to acquire and are working on the remainder, mainly along the Pacific Crest Trail and areas such as Stampede Pass, which is in danger of being subdivided and sold for development.

Challenges:

Working within our policy not to acquire lands where the minerals are outstanding. Most of these lands have minerals outstanding and we have not been able to purchase the mineral estate. However, in most cases, the mineral potential has been low, the risk of logging and subdivision has been high, and we have been able to acquire. A lot of energy has gone into this effort.

Being able to acquire lands in a timely manner when we do not have appropriations.

A major lawsuit on the Huckleberry Land Exchange with Weyerhaeuser Company in Federal Court that was appealed to the Ninth Circuit Court of appeals, which reversed the Federal District Court decision. We went thru exhausting settlement negotiations and a major supplemental EIS, which resulted in a dismissal with prejudice decision from the appeals court.

Rapidly escalating land prices, limits how far funding will go to purchase lands.

Threat of lands being subdivided and developed before we can secure funding.

Limited amount of Federal lands available for exchange that meets Forest plan objectives and that the public will support us trading.

Opportunities:

- Opportunity to work with a great variety of partners such as Mountains-to-Sound, Trust for Public Land, The Nature Conservancy, Plum Creek Timber Company, Cascade Conservation Partnership.
- Opportunity to gain the support of a large segment of the urban population who does not often identify with the Forest Service.
- Opportunity to leave a legacy for generations to come
- Opportunity to have our partners either get an option or purchase land and hold until we have funding to purchase.



AREA OF INTEREST: SKAGIT WILD & SCENIC RIVER LAND ACQUISITION**Background:**

The Skagit Wild and Scenic River designation includes the authority to purchase selected lands within the river corridor to protect and enhance the free-flowing characteristics, water quality and Outstandingly Remarkable Values of wildlife, fisheries, and scenery. The Forest has worked with a number of partners to identify and acquire key parcels along the river to meet our mutual resource stewardship objectives.

The land acquisition program in the Skagit W&SR began in 1991. Since that time, the Forest Service has spent \$7,710,500 to acquire 4,742 acres in and adjacent to the Skagit W&SR corridor. Priority for acquisition is lands that: 1) are threatened with development, 2) provide recreation access for the public, and 3) protect and enhance the Outstanding Remarkable Values

Skiyou Island was acquired by Skagit Land Trust (SLT) in 2001 (facilitated by a loan from The Nature Conservancy) and subsequently acquired by the Forest in 2003. A restoration plan was developed with the Natural Resource Conservation Service and Skagit River Systems Coop.

Challenges:

The acquisition process can take several years during which time circumstances may change. While the acquisition of the parcel by the Forest from SLT was nearing completion, the funds for the acquisition were pulled under the fire-borrowing program. Forest funding for restoration and management of acquired lands is not readily available. We have no mechanism to buy private land threatened by flooding or erosion, which do not meet WSR or LWCF criteria. Under current USDA policy, we cannot purchase lands outside the proclaimed National Forest boundary.

Opportunities:

The land acquisition program in the Skagit WSR has been a cooperative effort between the Forest Service and other organizations, including: The Nature Conservancy, Skagit Land Trust, Seattle City Light, River Network, Washington Department of Fish and Wildlife, Skagit Conservation District, three local Tribes, and others. Often third parties can react more quickly than the federal government, as properties come on the market. The Forest Service feels that the WSRA never intended for the federal government to be the sole owner of lands acquired to protect natural resource values. We carry out our responsibility in cooperation with other organizations, as encouraged in the WSRA, to assure wherever possible, that the priority for acquisitions is consistent throughout the Skagit W&SR corridor.

The conservation partner organizations have worked through the Skagit Watershed Council to identify priorities for restoration and protection. In particular, the Skagit Land Trust conducted the Middle Skagit Assessment for systematically identifying the best remaining key habitat for protection in one of the “target areas” in the Skagit mainstream. It was also intended to serve as a model, and pilot project, for possible application in other target areas within the Skagit watershed and elsewhere.