

# Caribou - Targhee National Forest Forest Plan Monitoring and Evaluation Report

## Section 2—Accomplishment of Goals and Objectives

# Accomplishment of Objectives—Summary Table

Table 1: Summary of the percent of each objective that the Targhee has accomplished. Details of how each objective has been met follow in the section "Accomplishment of Goals and Objectives".

Resource Area	Objective	% Accomplished as of January 2005			
		25	50	75	100
PFC	By 2000, complete a PFC assessment within a selected subsection.	100%			
Fire	By 2007, develop at least one fire management plan for a priority area within each of the seven subsections.	100%			
	By 2005, initiate a program to burn a minimum 2,000 acres annually for habitat improvement, fuels management, and forest health, consistent with approved fire management plans.	100%			
Lands	Remove utility facilities located in avoidance or exclusion areas as it becomes practical to do so.	0% This will be amended to be a guideline			
Fish, Water, and Riparian	By 2007, complete watershed improvement needs backlog in the Lemhi/Medicine Lodge, Big Hole Mountains, and Caribou Range Mountains Subsections.	25%			
	By 2007, verify watershed improvement needs identified in the Teton Basin Study.	50%			
	By 2007, inventory watershed improvement needs on the Centennial Mountains, Madison-Pitchstone Plateaus, and Teton Range Subsections.	50%			
	By 1999, coordinate with ID & WY to reassess the health of native cutthroat trout populations within the Lemhi/Medicine Lodge, Centennial Mountains, Island Park, Madison-Pitchstone Plateaus, and Teton Range Subsections.	100%			
	Use the distribution information to further define species recovery needs and opportunities and to evaluate the effectiveness of the Native Trout Watersheds.	100%			

Resource Area	Objective	% Accomplished as of January 2005			
		25	50	75	100
Fish, Water, and Riparian	Determine which subwatersheds (drainages) within Native Trout Watersheds are vital to native cutthroat recovery.	100%			
	By 2001, coordinate with ID & WY to reassess the health of native cutthroat populations within the Big Hole Mountains and Caribou Range Mountains Subsections.	100%			
	Use this distribution information to further define species recovery needs and opportunities.	100%			
	Determine which subwatersheds (drainages) with designated Native Trout Watersheds are nonessential to native cutthroat recovery.	100%			
	Coordinate with sub-basin assessments for implementation of State water quality standards (Total Maximum Daily Loads, TMDLs).	100%			
Vegetation	By 2007, identify properly functioning condition (PFC) and systems at risk for forested landscapes.	75%			
	By 2002, complete a PFC assessment for the lodgepole pine community type and develop long term vegetation and density management strategies to reduce the risk of a future catastrophic bark beetle epidemic.	100%			
Ute Ladies'-Tresses	By 2000, map suitable Ute Ladies'-Tresses habitat.	100%			
	By 2002, complete intensive surveys of suitable Ute Ladies'-Tresses habitat to document presence of plants.	100%			
Cavity Nester Habitat	Determine the biological potential for cavity nesting habitat on a watershed basis to enable management of some areas at higher levels of biological potential and some at lower levels of biological potential.	25%	This will be deleted.		
Grizzly Bear	Meet recovery criteria in the current Grizzly Bear Recovery Plan.	100%			
	Implement guidelines developed by the Interagency Grizzly Bear Committee.	100%			

Resource Area	Objective	% Accomplished as of January 2005			
		25	50	75	100
Grizzly Bear	Provide safe, secure sites for nuisance bears as defined by Interagency Grizzly Bear Guidelines.	100%			
	Achieve the road density standards in the Bear Management Units (BMUs) within three years of the implementation of the ROD in coordination with USFWS and State Wildlife agencies.	100%			
	Develop a fire management plan that addresses wildfires and prescribed fires for the Bechler-Teton BMU by 1999.	100%			
	Develop a fire management plan that addresses wildfires and prescribed fires for the Plateau BMU by 2001.	100%			
	Develop a fire management plan that addresses wildfires and prescribed fires for the Henry's Lake BMU by 2003.	100%			
Bald Eagle	Continue current nest location and productivity monitoring.	100%			
	Identify bald eagle wintering and migration habitat and management needs for the Henry's Fork watershed by 2000.	100%			
	Identify bald eagle wintering and migration habitat and management needs for the South Fork of the Snake by 2003.	100%			
Gray Wolf	All wolves found in the wild on the Forest will be considered nonessential experimental animals as defined in the FEIS for The Reintroduction of Gray Wolves to Yellowstone National Park and Central Idaho.	100% This will be deleted.			
Wolverine Habitat	By 1999, complete a GIS inventory to identify potential wolverine natal den sites.	100%			
	By 2001, survey all potential wolverine natal den sites to document wolverine presence.	100%			
Spotted and Western Big-eared Bat Habitat	Develop management plans for any caves, mine shafts, and other suitable habitats where these bat species are known to be present.	100% This will be amended			

Resource Area	Objective	% Accomplished as of January 2005			
		25	50	75	100
Access	Achieve motorized access standards in each management prescription by 2000 in the BMUs.	100%			
	Achieve motorized access standards in each management prescription by 2007 outside of BMUs.	50%			
Winter Recreation	By 2000, establish a few nonmotorized winter recreation activity areas with easy access for users such as telemark skiers, snowshoers, and snowboarders.	100%			
Dispersed Recreation	By 2007, address soil, water, and vegetation impacts to maintain the desirable recreation setting on approximately 100 campsite areas of the 300 identified dispersed recreation sites on the Forest.	100%			
Trails	Complete an interdisciplinary review of five-ten percent of the system trails each year to determine rehabilitation needs.	100%			
Outfitters and Guides	Establish use capacities using the process outlined in the AMS for outfitter and guide recreation opportunities prior to issuing new permits.	75% This will be amended			
Range	By 2007, improve the ecological status of 1,200 acres of riparian habitat currently reported as not meeting DVC to meeting or moving toward DVC.	100%			
	By 2007, improve 26,400 acres of uplands (nonriparian and nontimber plant communities) currently reported as not meeting DVC to meeting or moving toward DVC.	100%			
	By 2007, implement grazing systems or AMPs designed to meet Range Goals on all grazing allotments.	100%			
	Establish utilization levels for key browse and grass species in either the AMP or the AOI for allotments within elk and deer winter ranges.	50%		This will be amended to be a guideline	
Timber	Design timber management projects to simulate natural patch sizes, patch shapes, connectivity, and species composition and age class diversity.	100% This will be amended to be a guideline			
Lemhi/Medicine Lodge Subsection	Improve stream channel stability ratings to good or excellent by 2007 on Divide Creek.	50%			

Resource Area	Objective	% Accomplished as of January 2005			
		25	50	75	100
Lemhi/Medicine Lodge Subsection	By 2007, reassess conditions on Webber Creek to determine needs for channel stability improvement.	100%			
	Assess opportunities to modify grazing allotment boundaries and permits to further separate winter domestic sheep grazing from bighorn sheep around Copper Mtn.	100%			
Centennial Subsection	By 2007, develop a fire plan which allows for prescribed natural and management ignited fire, where compatible with other resource objectives.	100%			
	Improve stream channel stability ratings to good or excellent by 2007 on Allan Canyon Creek, McGarry Canyon Creek, Moose Creek, Dairy Creek, Long Creek, E. Rattlesnake Creek, E. Threemile Creek and W. Dry Creek.	50%			
Teton Range Subsection	Improve stream channel stability ratings to good or excellent by 2007 where natural conditions allow on Teton Creek, N. Leigh, S. Leigh, Moose Creek, Trail Creek, Fox Creek, and Kiln Creek where instability is management-caused.	10%			
	Assess opportunities to modify grazing allotment boundaries and permits to further separate domestic sheep from bighorn sheep in the Teton Range.	100%			
Big Hole Mountains Subsection	By 2007, develop a fire management plan which considers summer home development and risk around the Palisades Reservoir.	100%			
	Improve stream channel stability ratings to good or excellent by 2007 where natural conditions allow on South Fork, Packsaddle, Horseshoe, Superior, North Fork Mahogany, Main Mahogany, Henderson, Patterson, and Murphy Creeks.	25%			
	Complete heritage resources inventory of the Big Hole Mtns subsection by 2007.	0% This will be deleted.			
Caribou Mountains Subsection	Complete heritage resources inventory of the Caribou Mtns subsection by 2007.	0% This will be deleted.			
Rx 1.1.6, 1.1.7, 1.1.8. Wilderness	Coordinate with the Wyoming Game and Fish Department to prepare a wilderness fishery management plan	50%			
	Implement a wilderness education program for all users.	100%			

Resource Area	Objective	% Accomplished as of January 2005			
		25	50	75	100
Wilderness	Install signs at wilderness trailheads advising users they may encounter a variety of other legitimate wilderness uses including sheep and cattle grazing, llama trekking, etc.	100%			
1.3 Recommended Wilderness	Within the grizzly bear recovery zone, an active education program will be implemented each year, including patrols during the fall hunt (Rx 1.3).	100%			
2.2 Research Natural Areas	By 2007, in cooperation with the Intermountain Research Station, develop a research plan and monitoring plan for each research natural area (Rx 2.2.).	25%	This will be amended		
2.3 Eligible Wild River	Insects and disease are allowed to play, as nearly as possible, their ecological role in the environment (Rx 2.3).	100% This will be deleted.			
2.5 Eligible Recreation River	Fish habitat improvement projects will emphasize recreational fishing opportunities (Rx 2.5).	100% This will be deleted.			
2.6.2 Grizzly Bear Core Area	A fire management plan will be developed (and will be coordinated with any adjacent wilderness fire plans) to address wildfires (Rx 2.6.2).	100%			
2.8.3 Aquatic Influence Zone	All existing roads, trails, culverts, fords and stream crossings within these lands will be inventoried and evaluated as to whether they meet prescription 2.8.3 goals.	50%			
5.3.5 Grizzly Bear Habitat	By 1998, develop a fire management plan for prescription area 5.3.5.	100%			
8.1 Concentrated Development Areas	Restrict development of concentrated development sites to the smallest area possible (Rx 8.1).	100% This will be amended to be a guideline			
	Obtain materials from commercial sources or borrow sites identified in the Forest "Compendium for Material Sources" (Rx 8.1).	100% This will be amended to be a guideline			

# Accomplishment of Goals and Objectives

*The Targhee RFP identified goals and objectives for forest management over the next decade. Goals describe desired conditions for the future; they are typically general, with no specific timeframe for achievement. In forest planning, one way to track goal achievement is through the measurement of objectives. An objective is a quantifiable statement of achievement expected within a determined time frame. The Targhee RFP specifies direction (goals, objectives, standards and guidelines) at three different geographic levels: Forest-wide, Ecological Subsection, and Prescription Area. In this Chapter, some of the goals for each resource area are described, followed by a discussion of how the overall program management is meeting or moving toward those goals.*

*This chapter also includes a discussion of the progress toward meeting the quantifiable objectives for all three geographic scales. Each objective is listed, followed by specific projects Forest employees have completed or information that was gathered to meet that objective. Instead of grouping the objectives by geographic area, they are grouped by resource area. For instance, objectives for road management in Prescription Area 2.8.3 Aquatic Influence Zone, are listed under "Fisheries, Water, and Riparian Resources" in this Chapter. Component descriptions in the RFP are used to track the achievement of goals, objectives and monitoring results to complement the synthesis of the information and findings. The goals and objectives discussed in the section beginning immediately below apply forest-wide, unless noted. Individual monitoring items are fully described in the Chapter entitled "Monitoring Items."*

## Ecological Processes and Patterns

### Properly Functioning Condition

#### DESIRED CONDITIONS AND GOALS

The overall goal of the RFP is that ecosystems and their components are maintained in properly functioning condition: dynamic and resilient to disturbances to structure, composition, and processes at appropriate landscape scales. Ecosystems are not at risk for disturbances that have the potential to degrade them beyond the point of resiliency and sustainability. Biodiversity is maintained or enhanced by managing as much as possible for a diverse array of habitats tied to natural occurrence and distribution of plant communities.

The predominant trend of vegetation types on the forest is to more shade-tolerant, mature community types. Longer-lived conifers are succeeding into associated community types such as seral aspen stands, mountain brush complexes, tall forb meadows and open grasslands with scattered sagebrush. The latter community types are generally shorter-lived and prone to more frequent disturbances such as fire. Timber stands are moving from lodgepole pine, Douglas fir, and open whitebark/limber pine stands to more shade-tolerant mixed conifer stands of Douglas-fir, subalpine fir, and Engelmann spruce. According to the GIS database, most of the timber on the Targhee is mature with less age class diversity than historically present in these habitat types. Due to the small extent of wildland fire use and lack of large-scale vegetation management projects, these habitat types are continuing to age.

Aspen, a vegetation community "at risk" due mainly to lack of disturbance, is important for wildlife and scenic diversity, but it is diminishing from the Forest landscape. Maps from the early 1900's indicate that over 20 percent of the Forest was dominated by aspen stands then. Currently, less than six percent of the Forest is dominated by aspen, and many of those sites are succeeding to shade tolerant conifers. Since the revision of the RFP, the Targhee has emphasized aspen restoration and regeneration projects. Numerous small timber sales and prescribed burns in the Centennial Mountain Range were conducted to improve the aspen component, after watershed or landscape assessments identified aspen as a community at risk. These projects have

generally had good success in increasing the aspen and mountain brush component. While the pre-treatment condition of the aspen and the quality of the site affect the potential for sprouting, the primary factor that influenced success on these sites appears to be the amount of competing conifer that was removed and how much the tree canopy was opened up. Aspen in this area rarely reproduces from seed; it regenerates almost exclusively by suckering from existing aspen roots close to the soil surface. Sunlight reaching the soil increases soil temperatures which stimulates the roots to sprout. The amount of suckering generally increases as more conifers are removed and more sunlight reaches the ground. Aspen regeneration and restoration projects have been monitored according to requirements in the site specific analysis documents. Third year survival surveys on the Thomas Draw regeneration project (Dubois Ranger District) indicate that the project was fully successful. Thomas Draw, part of the Beaver Creek Vegetation Management Project (VMP) called for removal of conifers to restore aspen, mountain brush and sagebrush to the site. The unit was harvested in 1999, according to 2003 surveys there are now approximately 2,500 aspen trees per acre present across the entire unit (See Figures 1-6, below). If only the aspen clones are considered, the stem densities would be much higher. Additional surveys are planned for other treatment areas associated with the Beaver Creek VMP and Camas Creek timber sale. In the Camas Creek watershed, stands of Douglas-fir were thinned in order to regenerate aspen. In these harvest units, observations indicate less aspen regeneration (Padian, Personal Communication). The difference appears to be in the amount of conifer removed from the site. The more the canopy was opened up, the better the aspen regeneration.

Aspen in this area matures at 60-80 years, followed by a rapid decline in vigor and health. According to Forest silviculturists, the majority of aspen stands on the Targhee zone are more than 80 years old and at least 1,500 acres of aspen need to be treated each year in order to maintain the amount of aspen that currently exists. The RFP includes a guideline to treat aspen communities to reduce encroaching conifers and maintain a balance of age classes for these communities. In order for the Forest to increase aspen, more than 1,500 acres should be treated each year. Since 1997, the Forest has treated a total of about 3,500 acres for the purpose of restoring or regenerating aspen. Thus, more emphasis needs to be placed on aspen treatments and more acres need to be treated. Treatments include commercial timber sales, personal firewood harvest, felling of trees with no removal, and prescribed burning. Aspen clones generally only burn when fire conditions are extreme and there is the risk of escape due to these extreme conditions. Creating additional fuels by pre-felling some of the conifers, can greatly extend conditions under which burning can occur.

*Figure 1, Figure 2: Thomas Draw Aspen regeneration sale area prior to harvest—May 5, 1999.*



Figure 3: Thomas Draw Aspen regeneration sale area prior to harvest—May 5, 1999.



Figure 4, Figure 5: Thomas Draw Aspen Regeneration Timber Sale after harvest.. On left, one year after—August 30, 2001. On right, two years after—August 22, 2002.



Figure 6: Thomas Draw Aspen Regeneration Timber Sale. Three years after – June, 2003



#### OBJECTIVES

- Within three years, complete a PFC assessment within a selected subsection.
  - ☑ **This objective has been met.** *The Island Park and Madison Plateau Properly Functioning Condition Assessment was completed in 1997. The Teton Front PFC Assessment was completed in 1999.*
  - ☑ *Beginning in 2001, the Forest began completing watershed analyses following the national direction for Ecosystem Analysis at the Watershed Scale (EAWS). To date, Bear Creek, Fall Creek, Mahogany Creek, and Medicine Lodge Creek watersheds have been completed using the new process. The Dry Creek and Blue Creek watershed analysis projects are being conducted in the next few years..*
  - ☑ *If funding stays relatively constant, Forest employees will be able to do one or two watershed analyses each year on the Caribou-Targhee NF and Curlew National Grassland.*
- By 2007, develop a fire management plan which considers summer home development and risk around the Palisades Reservoir. (Big Hole Mountains Subsection)
  - ☑ **This objective has been met.** *The Caribou-Targhee Fire Management Plan was signed in 2004. By the summer of 2005, the Big Hole Mountains subsection will be incorporated into the Wildland Fire Use Guidebook.*

## Insects and Disease

#### DESIRED CONDITIONS AND GOALS

Another goal of the RFP is that insects and disease are allowed to play their natural role in ecosystem dynamics to the extent compatible with other resource objectives. Insects and diseases have increased across the Forest since the RFP was revised, in some areas reaching epidemic levels. A Western spruce budworm (*Choristoneura occidentalis*, Freeman) outbreak primarily in Douglas-fir and subalpine fir occurred in the Lemhi/Medicine Lodge ecological subsection in the late 1990's through 2003, however, it subsided considerably in 2004. Aerial surveys by the Forest Health Protection unit shows Douglas-fir bark beetle (*Dendroctonus pseudotsugae*, Hopk.) activity has increased throughout the Forest since 2000, with epidemic levels on the Dubois and Island Park Ranger

Districts (Table 2). Infestations of mountain pine beetle (*Dendroctonus ponderosae*, Hopk.) in lodgepole and whitebark pine and subalpine fir complex, a combination of insects, diseases and drought effects, are also increasing on most Ranger Districts. Mountain pine beetle has severely impacted areas dominated by whitebark pine on the Dubois Ranger District such as the Big Table Mountain, causing over 90 percent mortality of the mature trees. White pine blister rust (*Cronartium ribicola*, Fischer) has infected most stands of whitebark and limber pine in the Centennial Mountains and Teton Range subsections.

Approximately 15,000 acres were newly infested by Douglas-fir beetle in 2004. Douglas-fir is the primary host for this insect species. Stands that are most susceptible to attack have high densities of mature trees that are predominantly the host species, Douglas-fir. Approximately 10,500 acres of lodgepole and whitebark pine were newly infested by mountain pine beetle in 2004. Outbreaks of this insect are also characterized by high mature tree densities and composition of these tree species. Western spruce budworm, a leaf defoliating insect, weakens but seldom kills mature trees. However, during outbreaks larvae from overstory trees drop into the understory, completely defoliating and often killing seedlings and saplings. Localized outbreaks of Douglas-fir bark beetle, mountain pine beetle and subalpine fir complex are occurring in the Palisades, Bear Creek and Poker Peak Roadless Areas of the Palisades Ranger District. Where the insects have been active, managed stands are experiencing lower insect mortality levels than adjacent dense, mature unmanaged stands. This is because stand susceptibility in the managed stands has been reduced by creating younger age classes, reducing tree densities and/or promoting non-host species such as aspen.

Table 2: Acres newly infested by insects on the Targhee, 2000-2004.

Year	Douglas-fir Bark Beetle	Mtn. Pine Bark Beetle	Subalpine fir Complex	Western Spruce Budworm
2004	15,126	10,575	10,835	2,957
2003	20,268	5,481	6,251	71,772
2002	9,423	2,132	2,369	11,300
2001	4,939	3,850	854	800
2000	2,678	872	867	2,900

Trees killed by insects become part of the Forest's standing and down dead fuel component, adding to the fuel buildup and, eventually, to the accumulation of organic matter on a given site. Most mature trees defoliated by the Western spruce budworm recover a few years after the infestation ends, although they may suffer growth loss and encourage attacks from bark beetles when weakened by defoliation. In the Centennials, the McGarry salvage timber sale decision was signed which would remove dead and dying Douglas-fir trees. This sale is currently under litigation. Planning for other vegetation management projects is continuing, and with the new limited timber harvest categorical exclusions and direction in the Healthy Forests Restoration Act (HFRA), Forest managers expect to accelerate efforts to reduce the susceptibility of our forested stands to these forest pests. The Forest is currently conducting the planning and analysis for a timber sale project which would be authorized under the HFRA.

Dead trees are also important wildlife habitat, providing snags for woodpeckers, owls and a myriad of other species. In the McGarry salvage sale area, an average of 13 large (>12 inches dbh) snags will remain after the harvest. This is well above the number of snags needed to provide 100 percent biological potential for woodpeckers. While the insect activity can increase habitat for some species, it also reduces habitat quality for others. Farther east in the Centennial Range, the insect outbreak has dramatically reduced the number of live trees within a northern goshawk territory. Forest managers are unsure how or if this will impact goshawk occupancy and nest success within that territory.

Recognizing the need to inform the public of the insect epidemics and how they might be affected, the Forest collaborated with the State of Idaho Department of Lands to produce a brochure titled "*Bark Beetles, They're Back! Are Your Trees at Risk?*". The brochure was sent out to about 7,000 people via local newspapers and about 1,500 have been distributed from local offices of the Forest Service, Idaho Department of Lands, and County Extension Agency as well as from a booth at the Eastern Idaho State Fair. The brochure explains the current situation, what to do if you have beetles, prevention measures, fire hazard, what federal agencies are doing and where to go for help. It is currently posted on the Caribou-Targhee website: [www.fs.fed.us/r4/caribou-targhee/publications/](http://www.fs.fed.us/r4/caribou-targhee/publications/).

Figure 7: Aerial view showing insect killed trees in the McGarry Salvage sale area, Dubois Ranger District, August 31, 2004.



#### OBJECTIVES

- Insects and disease are allowed to play, as nearly as possible, their ecological role in the environment. (Rx 2.3: Eligible Wild River)
  - ☑ ***The Forest will propose to delete this objective. This is not measurable and has no timeframe; therefore, it is not an objective. This prescription already has two guidelines to govern conditions where insect and disease control may be used. In addition, this objective is worded similarly to the Forest-wide goal; therefore, it is not necessary to repeat it in this section of the RFP.***

## Fire

#### DESIRED CONDITIONS AND GOALS

The Targhee RFP included several goals for the fire program. First, the Forest should identify the historic role of fire and restore fire as an ecological process, where appropriate, to achieve multiple-use and ecosystem management objectives. Prescribed fire and wildland fire use<sup>1</sup> should be allowed to achieve desirable soil and habitat characteristics, improve forest health, and create or maintain diversity in vegetative structure, composition, and patterns as described in PFC analyses. In addition, the Forest should suppress fire in a safe, cost-effective manner, where necessary, to protect human life and safety, developments, structures, and sensitive resource values. To aid this, fuel accumulations are reduced and managed within their historic range.

<sup>1</sup> At the time the Targhee RFP was developed, prescribed natural fire and managed fire were terms used to describe wildland fires resulting from natural ignitions that are allowed to burn under specific parameters as identified in a Wildland Fire Use Guidebook. At the time of this Report, this type of fire is termed "wildland fire use." Thus, references to "prescribed natural fire" and "managed fire" in the RFP and this Report are synonymous with the current definition of "wildland fire use."

These goals were developed prior to the escalating number and acres of wildland fires that led to the National Fire Plan, Healthy Forests Initiative, and Healthy Forests Restoration Act of 2003. The Caribou-Targhee fire management group has emphasized fuels management and wildland fire planning in several ways over the last eight years, including the development of the Wildland Fire Use Guidebook that will eventually address wildland fire use for each ecological subsection on the Forest. The Guidebook, developed by an Interdisciplinary team, provides guidance for situations where lightning caused fires are managed to achieve resource benefits, based upon the forest-wide, subsection, and prescription area direction from the RFP. In the summer of 2005, the Forest incorporated all seven ecological subsections into the Guidebook. The entire Targhee portion of the Caribou-Targhee National Forest has now been evaluated for wildland fire use.

Map 2 (pg 16) shows the areas on the Targhee zone of the Caribou-Targhee where Wildland Fire Use may be allowed. It is important to note that wildland fire use may be permissible in an area but many other factors play into the determination allowing a lightning ignition to burn. These other factors include risks to life and property, time of year, seasonal moisture trends, fire severity during that year, other fires currently burning, available resources, social and political concerns, etc. In 2003, the first three "wildland fire use" fires were allowed to burn on the Teton Basin (Fox Fires 1 and 2) and Ashton/Island Park Districts (Hominy Fire). These fires burned a total of 27 acres. In 2004, three wildland fire use fires burned a total of 6.5 acres in three separate fires. More information on Wildland Fire Use on the Caribou-Targhee can be found at <http://www.fs.fed.us/r4/caribou-targhee/fire/fireuse/>

Table 3: Acres by subsection where wildland fire use is allowed.

Subsection Name	Acres where WFU is allowed	Percent of Subsection
Lemhi-Medicine Lodge	183,548	66
Centennial Mountains	93,444	32
Island Park	23,601	7
Madison-Pitchstone Plateau	98,746	68
Teton Range	163,841	80
Big Hole Mountains	211,463	62
Caribou Range Mountains	98,767	50
<b>Total Targhee</b>	<b>873,409</b>	<b>49</b>

Figure 8: Hominy Wildland Fire Use fire on the Ashton/Island Park District, 2003.



In 2003, fire and vegetation managers mapped fire condition classes of the vegetation on the Caribou-Targhee. Using the definitions from the National Fire Plan, this interdisciplinary group classified vegetation in terms of its departure from historic fire cycles. In short, fire Condition Class (CC) 1 means vegetation is within the natural fire regime; CC 2 means communities have missed one fire cycle; and CC 3 indicates vegetation is two or more fire

cycles out of historic ranges<sup>2</sup>. Forest managers mapped these conditions at the 6<sup>th</sup> level Hydrologic Unit Code (HUC). This draft map is being refined using the newly developed national protocol. Over half of the Forest is in CC 2 and 3, meaning at least one fire cycle has been missed. For more information on CC's and the National Fire Plan, see the Forest Service website at <http://www.fs.fed.us/fire/> or <http://www.fireplan.gov>.

Figure 9: Tyler Peak Wildland Fire Use Fire, Dubois Ranger District, 2004.



To support efforts in fuels management as an integral link to fire suppression, the Forest has hired a fuels management specialist and a fire ecologist. The Forest is a member of the Greater Yellowstone Area Clean Air Partnership and recently participated in an Air Quality Assessment process for southeastern Idaho. When the 1997 RFP was first implemented, the priority for fuels management was to move landscapes closer to their historic range of variation. Since the National Fire Plan (2000), the emphasis has been on reducing fuels in the wildland urban interface (WUI)<sup>3</sup>. The Forest is currently integrating both fuel emphases WUI and non-WUI into the fuels management program. The reduction in total acres treated reflects the trend towards treatment in the WUI which is generally more costly and requires more resources.

Table 4: Acres treated by year on the Caribou-Targhee NF. Beginning in 2001, the Forest began tracking acres in both zones together. The WUI was not defined in 1997 so acres could not be separated.

Year ↓ Zone →	WUI			Non-WUI			Total
	Targhee	Caribou	C-T	Targhee	Caribou	C-T	
1997	n/a	n/a	n/a	1,210	2,652	n/a	3,862
1998	230	250	n/a	3,720	5,595	n/a	9,795
1999	320	300	n/a	8,150	4,630	n/a	13,400
2000	75	150	n/a	3,075	2,129	n/a	5,429
2001	n/a	n/a	2,100	n/a	n/a	3,570	5,670
2002	n/a	n/a	1,049	n/a	n/a	1,750	2,799
2003	n/a	n/a	1,440	n/a	n/a	991	2,431
2004	n/a	n/a	2,709	n/a	n/a	691	3,400
<b>Total '97-'04</b>			<b>8,623</b>			<b>38,163</b>	<b>46,786</b>

<sup>2</sup> The condition class descriptions were developed by the Forest Service Rocky Mountain Research Station in the general technical report entitled "Development of Coarse-Scale Spatial Data for Wildland Fire and Fuel Management" (RMRS-87), dated April 2000. These are the same classifications approved in the Healthy Forests Restoration Act of 2003.

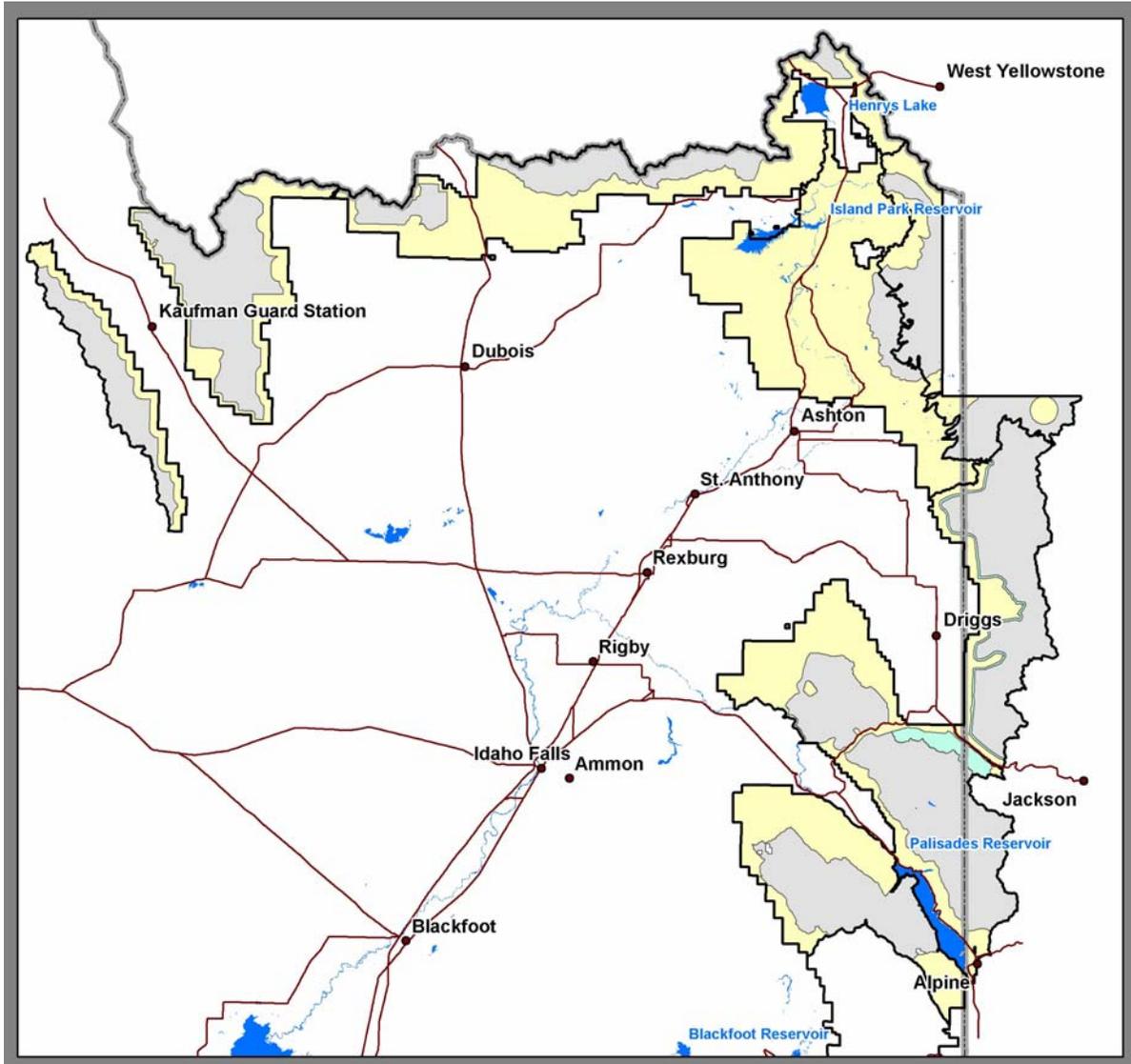
<sup>3</sup> As part of the National Fire Plan, several federal agencies published a list of "Urban Wildland Interface Communities Within the Vicinity of Federal Lands That Are at High Risk From Wildfire". According to this Federal Notice, an urban wildland interface community exists where humans and their development meet or intermix with wildland fuel (Federal Register, Vol. 66, page 751+, dated January 4, 2001). There are three types of wildland interface communities: interface, intermix, and occluded, defined on page 753 of the Federal Register Notice. These definitions are also used in the Healthy Forests Restoration Act of 2003 (HFRA/H.R. 1904) to determine "authorized" fuels reduction projects. Wildland Urban Interface is defined in Section 101,(16) of the HFRA.

While these efforts are a beginning, the Forest needs to increase the number of fuel reduction projects and/or design projects to improve forest health to meet Forest Plan DFCs, to move vegetation toward historic ranges of variation, and to meet federal direction for fuels, such as through the National Fire Plan and Healthy Forests Restoration Act. In the next few years, more interagency fuels reduction projects will be proposed and conducted. These efforts encourage collaboration with a variety of local, state, and federal interests to reduce fuels in the vicinity of Communities at Risk identified by the States and included in the state or local community's fire hazard reduction plans. To fully address the issue of fuel hazard build-up and maintaining ecological sustainability, the Forest has now completed the Wildland Fire Use Guidebook for the entire Forest. Through the implementation of wildland fire use, prescribed fire and mechanical vegetation treatments, Forest managers can move vegetation toward historic patterns.

#### OBJECTIVES

- By 2007, develop at least one fire management plan for a priority area within each of the seven ecological subsections.
  - ☑ *In August of 2003 the first version of the Wildland Fire Use Guidebook was approved and covered the Madison-Pitchstone and Teton Range ecological subsections. This Guidebook directs implementation of the RFP direction regarding wildland fire use. At the time of this report, all seven of the ecological subsections have been analyzed and incorporated into the Guidebook.*
  - ☑ *An assessment of fuels in the Island Park wildland urban interface has been completed.*
- By 2005, initiate a program to burn a minimum of 2,000 acres annually for habitat improvement, fuels management, and forest health, consistent with approved fire management plans.
  - ☑ ***This objective has been met.*** *Between 1997 and 2000, the Targhee zone burned a total of 16,780 acres for big game habitat restoration, rangeland diversity, watershed improvement and fuels reduction. Six hundred twenty-five of these acres (3%) were in wildland urban interface (WUI) and the rest were outside of the WUI. In 2001, the Caribou and Targhee zones began reporting burn acres together. From 2001 to 2004, the C-T treated a total of 14,300 acres; over half of the acres treated were in the WUI. This reflects the shift in management direction towards reducing fuels as directed by the National Fire Plan and Healthy Forest Initiative.*
  - ☑ *Between 1997 and 2004, the combined Caribou-Targhee NF has treated an average of 5,846 acres per year.*
- A fire management plan will be developed (and will be coordinated with any adjacent wilderness fire plans) to address wildfires. (Rx 2.6.2: Grizzly Bear Core Area)
  - ☑ ***This objective has been met.*** *The Wildland Fire Use Guidebook covers the Lemhi/Medicine, Caribou Range, Madison-Pitchstone, Teton, Centennial, Big Holes, and Island Park subsections.*
- By 1998, develop a fire management plan for this prescription area. (Rx 5.3.5: Grizzly Bear Habitat)
  - ☑ ***This objective has been met.*** *The first version of the Wildland Fire Use Guidebook, approved in August of 2003, covered the Madison-Pitchstone and Teton Ecological Subsections.*

Map 1. Areas on the Targhee zone of the Forest where Wildland Fire Use may be allowed. Gray shaded areas would allow Wildland Fire Use under specified conditions; white areas are where fires would be suppressed.



## Physical Elements

### Soils

#### DESIRED CONDITIONS AND GOALS

The RFP goal for the soil resource is that long-term soil productivity is sustained by retaining fine organic matter and woody residue on activity areas. Early soil compaction monitoring in timber sales (after the RFP was signed) showed exceedence of the Regional guideline for detrimental soil disturbance. Upon review, soil scientists determined that it was due to incorrect interpretation of data. Since 2000, monitoring of soil parameters defined in the RFP—down woody debris, detrimental soil disturbance, Best Management Practices (BMPs), and fine organic matter—has been completed. Monitoring results from 2000 to 2004 show that soil conservation practices, mitigation measures and Revised Forest Plan, and Regional Standard(s) and Guideline(s) have effectively limited detrimental changes in soil properties. Data also indicates that long-term soil productivity is being sustained/maintained on management activity areas throughout the Forest.

In 2005, the Caribou-Targhee soil program manager, John Lott, was recognized by the Chief of the Forest Service as the National Soil Scientist of the Year. This prestigious award was given to Lott for his leadership and outstanding dedication to maintaining soil resources on the Caribou-Targhee.

There are no RFP objectives for soils.

### Caves

#### DESIRED CONDITIONS AND GOALS

There are no RFP objectives or monitoring items for this topic. Baseline monitoring is necessary to determine cave resources in need of protection. Since the RFP was signed, five caves have been designated as significant under the Federal Resource Protection Act of 1988 (16 U.S.C. 4301-4309).

Management Plans are needed to protect the significant resources in these and other caves determined to be significant.

### Lands

#### DESIRED CONDITIONS AND GOALS

The RFP goals for the lands program address only energy corridors. The primary goal is in keeping with the current national energy policy. According to the RFP, the goal is to provide a well planned system of reliable and technically feasible energy corridors to serve existing and future regional and local energy needs, compatible with other resource needs and objectives. These corridors may be either designated (Rx 8.1) or nondesignated (other prescriptions). The Western Regional Corridor Study (1998) did not identify any additional corridor needs on the Forest. In 1998, the Forest issued a special use permit allowing the Bonneville Power Administration to update and augment its lower Teton Valley line which crosses the Forest on the Palisades and Teton Basin Ranger Districts.

The Forest has completed three land exchanges since the signing of the RFP. Two of the exchanges are part of the RFP direction to acquire a large parcel of private land in Squirrel Meadows. This property, important grizzly bear habitat and a unique wetland, was under several different ownerships. In 2003, the Forest completed the environmental analysis to acquire 400 acres of Squirrel Meadows in exchange for 120 acres at the base of the Grand Targhee Ski Resort. This exchange, while controversial, will protect grizzly bear habitat from development. Currently, Forest personnel are analyzing the environmental effects of the final Squirrel Meadows acquisition. The Yale Creek Exchange with Brigham Young University (BYU)-Idaho would allow the Forest to

acquire the final 21 acres at Squirrel Meadows. In addition to the Squirrel Meadows land exchanges, the Forest also completed the Spencer-Stoddard exchange. This project was first proposed almost a decade ago and was finalized in the spring of 2003. In this exchange, the Forest exchanged a disjunct parcel of sagebrush habitat dominated by the noxious weed leafy spurge (*Euphorbia esula*) for an equally valued parcel of sagebrush habitat adjacent to Stoddard Creek.

There are no RFP objectives or monitoring items for this topic.

## Minerals

### DESIRED CONDITIONS AND GOALS

The goal of the minerals program, according to the RFP, is to implement leasing decisions, including identification of lands available for leasing made in the Forest Oil and Gas Leasing EIS and its associated Record of Decision. After many years of analysis and public involvement, the Forest released its Final EIS for Oil and Gas Leasing in May and the Record of Decision in July of 2000. The preferred alternative would only allow leasing on areas with moderate and high development potential. As a result of this analysis and decision, the BLM issued one oil/gas lease in the Big Hole Mountains.

In 1999, work at a new opal mine in the Lemhi/Medicine Lodge Subsection was authorized. In 2003, nine opal mining claims were patented in the opal mountain area near Spencer.

There are no RFP objectives or monitoring items for this topic.

## Biological Elements

## Fisheries, Water, and Riparian Resources

### DESIRED CONDITIONS AND GOALS

The RFP identifies an extensive list of goals for fisheries, water and riparian resources. The two most encompassing goals are that the Forest will:

- maintain or restore water quality, to a degree that provides for stable and productive riparian and aquatic ecosystems and
- maintain or restore stream channel integrity, channel processes, and the sediment regime (including the elements of timing, volume, and character of sediment input and transport) under which the riparian and aquatic ecosystems naturally developed

Specific to fisheries and aquatic biota, the Forest will:

- maintain or restore aquatic habitats necessary to support overall biodiversity, including unique genetic fish stocks such as native cutthroat trout that evolved within the specific geo-climatic regions and
- maintain or restore habitat to support populations of well-distributed native and desired nonnative plant, vertebrate, and invertebrate populations that contribute to the viability of riparian-dependent communities

### Water Quality

The Forest has collaborated with several Federal, State, Tribal and local government entities, as well as non-government organizations, to assist the State with subbasin assessments, containing National Forest System lands. These assessments are an important step for the State in complying with the Clean Water Act. First the state identifies waterbodies which may not have sufficient water quality to support their beneficial uses; these are called water quality limited segments (WQLS). Then the State conducts subbasin assessments to compile additional information upon which the total maximum daily loads (TMDLs) of the identified pollutants are developed. Assessments covering 90 percent of the Forest have been completed or are ongoing. Although TMDLs have been developed for streams in three subbasins so far (Teton, Palisades, and Medicine Lodge), the assessments have shown that the majority of the waterbodies on the Forest have good water quality and are not in need of TMDLs. To support the subbasin assessments and identification of TMDLs, the Forest has monitored

most of the WQLS. In those areas Forest management practices generally are modified to provide added protection for water quality. For example, grazing management may be more restrictive on water quality limited streams and their tributaries. In Fall Creek on the Palisades Ranger District several projects are being conducted to reduce impacts to water quality, such as moving the road away from the aquatic influence zone, relocating the OHV trail, and restricting livestock access to the stream in affected places.

Channel stability was measured for 166 segments on 48 streams between 2000 and 2004. Nine percent of the streams had poor channel stability, forty-five percent were fair; thirty-one percent were good; and fifteen percent had excellent channel stability. Proper Functioning Condition (PFC) was evaluated on 37 segments on 21 streams in 2003 and 2004. Twenty-six segments were at PFC, ten were functional at risk, and only one was non-functioning. At this time, the Forest has not compiled enough data to establish *actual*<sup>4</sup> trends on these streams. Based on *apparent* trend data and improvements detailed below, it appears that RFP standards, guidelines and other management direction for Aquatic Influence Zones are leading towards improving trends in channel stability and riparian vegetation conditions.

### **Fisheries**

Yellowstone cutthroat trout distribution surveys began on the Forest in 1997 with the survey of twelve major streams on the Dubois Ranger District. In 1998, seventeen major streams were surveyed for Yellowstone cutthroat trout on the Teton Basin Ranger District. In 1999, eighteen major streams were surveyed for Yellowstone cutthroat trout on the Palisades Ranger District. Work on tributaries of the South Fork Snake River in the Palisades Ranger District has continued through the implementation of the RFP. By 2004, at least one fish distribution survey has been completed on all fish-bearing streams on the Forest. These surveys provide an excellent baseline database that includes fish distribution, population density, species presence/absence, degree of introgression of the Yellowstone cutthroat trout populations, channel stability indexes, water temperatures, and general notes on aquatic and riparian habitat condition observations. Of the 190 hydrologic units that were historically in the range of Yellowstone cutthroat trout on the Targhee side of the Forest, seventy-seven were identified as Yellowstone cutthroat trout strongholds; fifty-four were identified with depressed Yellowstone cutthroat trout populations; and fifty-nine were identified as areas where the species once occurred but are now absent. The concentration of the native trout stronghold populations occur in tributaries of the South Fork Snake River with other pockets of stronghold<sup>5</sup> populations distributed around the Forest. The timely completion of fish distribution surveys would not have been possible without the support of our partners, including U.S. Bureau of Reclamation, Jackson Hole One Fly, Idaho Department of Environmental Quality, Federation of Flyfishers, Trout Unlimited, Henrys Fork Foundation, and Idaho Department of Fish and Game.

In 1999, an intensive habitat survey using the R1/R4 stream survey methodology was performed on Rainey Creek, a tributary of the South Fork of the Snake River. Burns and Pine Creeks, two additional main tributaries to the South Fork, were surveyed in 2000. Rainey, Burns, and Pine Creeks are perhaps the most important producers of Yellowstone cutthroat trout on the Forest. Several projects have been conducted to improve habitat for fisheries in the streams. Due to the increasing threat of non-native fish, particularly rainbow trout, a partnership of agencies and organizations with interest in the conservation of Yellowstone cutthroat trout constructed fish weirs across four major tributaries of the Snake River in 1999-2001. These fish weirs are designed to prevent migration of non-native fish into the stream while allowing upstream and downstream passage of native fish.

In another cooperative project conducted in 2003, the Forest reclaimed an old dam and reservoir bed in Pritchard Creek. The old dam site and stream banks were recontoured and stabilized by planting native vegetation. Cattle have been excluded from the site to accelerate riparian and aquatic habitat recovery. A similar project will be conducted in Garden Creek, also on the Palisades Ranger District. In this project, several organizations are working together to restore the stream channel of Garden Creek through the Conant Valley Ranch, reconnecting the stream with the South Fork of the Snake River. This project will re-establish a connection between the Garden Creek cutthroat trout and the Snake River. In Sawtell Creek on the Ashton/Island Park District, Yellowstone cutthroat trout have been re-introduced to this tributary of the Henry's Fork of the Snake River. These, and other, efforts are moving the water, riparian and fisheries resources on the Forest toward desired

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<sup>4</sup> Actual trend is determined based on comparing survey data from two or more different points in time. Apparent trend is determined based on soil, vegetation and stream channel indicators at one point in time.

<sup>5</sup> The Forest defines stronghold populations as those in which all life histories that historically occurred in the watershed are still present, the numbers of fish are apparently stable or increasing, and more than fifty percent of the total salmonid community consists of native fish.

conditions of the RFP. For additional information, please refer to the Caribou-Targhee website, Fisheries Program at <http://www.fs.fed.us/r4/caribou-targhee/>.

*Figure 10: Pritchard Creek fisheries habitat improvement project area in 2005, two years after rehabilitation. Photograph shows Matt Woodard of Trout Unlimited standing in a seeding of native (cultivar) grasses planted in the uplands at Pritchard Creek.*



#### OBJECTIVES

- By 2007, complete watershed improvement needs backlog in the Lemhi/Medicine Lodge, Big Hole Mountains, and Caribou Range Mountains Subsections. Verify watershed improvement needs identified in the Teton Basin Study. Inventory watershed improvement needs on the Centennial Mountains, Madison-Pitchstone Plateaus, and Teton Range Subsections.
  - ☑ *Since 1997, Yellowstone cutthroat trout distribution surveys conducted in the Centennial Mountains, Madison-Pitchstone Plateaus, and Teton Range Subsections have identified aquatic and riparian habitat restoration needs.*
  - ☑ *Watershed improvement projects, upgrading trail crossings and bridges, were completed in the Big Hole Mountains Subsection in 1999, 2000 and 2003. More crossing improvements are planned subject to the availability of funding.*
- Within two years after the ROD is signed [1999], coordinate with the States of Idaho and Wyoming to: 1) reassess the health of native cutthroat trout populations within the Lemhi/Medicine Lodge, Centennial Mountains, Island Park, Madison-Pitchstone Plateaus, and Teton Range Subsections; 2) use this information to further define species recovery needs and opportunities and to evaluate the effectiveness of the Native Trout Watersheds; and 3) determine which subwatersheds (drainages) within Native Trout Watersheds are vital to native cutthroat recovery.
  - ☑ ***This objective has been met.*** *Yellowstone cutthroat trout populations have been inventoried in major streams within the subsections listed above. The surveys also identified restoration opportunities and stronghold populations. In addition, a rangewide status assessment of Yellowstone cutthroat trout was conducted in 2002. This interagency effort that included USDA Forest Service, Idaho Department of Fish and Game (IDGF), and Wyoming Department of Game and Fish, covered the waters within the subsections identified in the Forest Plan.*

- Within four years after the ROD is signed [2001], coordinate with the States of Idaho and Wyoming to: 1) reassess the health of native cutthroat populations within the Big Hole Mountains and Caribou Range Mountains Subsections; 2) use this information to further define species recovery needs and opportunities; and 3) determine which subwatersheds (drainages) with designated Native Trout Watersheds are nonessential to native cutthroat recovery.
  - ☑ **This objective has been met.** Streams within the Big Hole Mountains Subsection were inventoried in 1999 and 2000. Streams in the Caribou Mountains Subsection were inventoried in 2000 and 2001. These surveys and their survey reports identify restoration opportunities and stronghold populations. In addition, a rangewide status assessment of Yellowstone cutthroat trout was conducted in 2002. This interagency effort that included USDA Forest Service, Idaho Department of Fish and Game, and Wyoming Department of Game and Fish, covered the waters within the subsections identified in the Forest Plan.
  - ☑ In the Big Holes Mountains Subsection, four fish weirs were constructed in Burns Creek, Pine Creek, Palisades Creek, and Rainey Creek to stop migration of nonnative trout upstream into these native trout stronghold streams. Stream bank stability and riparian vegetation has been restored in Rainey Creek by relocating roads and dispersed campsites out of the riparian area, placing brush bundles on the stream sides, and planting. Interpretive signs were placed at the weirs and the Rainey Creek restoration area. The Forest, IDFG, and Trout Unlimited (TU) are currently working cooperatively with the private land owners on lower Rainey Creek to assist in their efforts to restore the stream.
  - ☑ Fish distribution surveys on all streams in the Big Holes and Caribou Range Subsections have identified several restoration opportunities. Physical habitat surveys have been conducted on Pine, Burns, Rainey, and Moody Creeks. They have also recommended restoration actions.
  - ☑ All streams in these subsections are inhabited by Yellowstone cutthroat trout and these streams collectively make up the core Yellowstone cutthroat trout stronghold metapopulation. These subsections, as a whole, are essential to the recovery of Yellowstone cutthroat trout throughout their range. There are no "non-essential native trout watersheds."
- Coordinate with sub-basin assessments for implementation of State water quality standards, particularly Total Maximum Daily Loads (TMDLs).
  - ☑ **This objective has been met.** The Forest has been involved in seven sub-basin assessments: Upper Henrys Fork (1998), Teton River (2000), South Fork of the Snake River (2000), Medicine Lodge (2000/2001), Willow Creek (2000/2001), Fall Creek (2001) and Palisades Basin (2002). These assessments provide the foundation upon which the TMDL(s) are developed.
  - ☑ Idaho Division of Environmental Quality receives copies of all survey reports prepared. In addition, they have frequented Forest stream survey files for data to use in their sub-basin assessments and development of their TMDLs.
  - ☑ TMDLs have been established for the WQLS in three subbasins: Teton, Medicine Lodge, and Palisades. The streams listed for each subbasin are listed below. Not all of the WQLS are within the Forest boundary, however.
    - ☑ Teton Subbasin (listed for sediment, nutrients, or temperature): Teton River, Badger, South Leigh, Packsaddle, Darby, North Fork Teton, Spring, Fox, and Moody Creeks.
    - ☑ Palisades Subbasin: Antelope (sediment), Bear (sediment), and Fall Creeks (sediment and temperature).

- ☑ *Medicine Lodge Subbasin (listed for sediment and/or temperature): Indian, Middle, Medicine Lodge, Edie, Irving, Warm, Horse, Fritz, Webber, Deep, and Crooked Creeks.*
- Improve stream channel stability ratings to good or excellent by 2007 on Divide Creek. (Lemhi-Medicine Lodge Subsection)
  - ☑ *Watershed improvement projects were implemented on Divide Creek. One stream reach was fenced to exclude cattle and approximately three miles of motorized trail was moved out of the aquatic influence zone (AIZ). The majority of the stream remains in stable condition with an upward trend. One third of the stream has met this objective as of 2003. This is the only major tributary to Medicine Lodge for which TMDLs were not established by IDEQ.*
- By 2007, reassess conditions on Webber Creek to determine needs for channel stability improvement. (Lemhi-Medicine Lodge Subsection)
  - ☑ ***This objective has been met.*** *According to 2003 surveys, this stream has recovered and stream conditions are now good to very good.*
- Improve stream channel stability ratings to good or excellent by 2007 on Allan Canyon Creek, McGarry Canyon Creek, Moose Creek, Dairy Creek, Long Creek, E. Rattlesnake Creek, E. Threemile Creek and W. Dry Creek. (Centennial Mountains Subsection)
  - ☑ *Watershed improvement projects have been implemented on Allan Canyon Creek and Moose Creek. In the past five years over 100 miles of road have been decommissioned in the West Camas and East Beaver watersheds. This decommissioning is expected to have a direct, positive impact on stream conditions in McGarry Canyon, Dairy Creek, Rattlesnake and Threemile Creeks.*
  - ☑ *Allan Canyon Creek—conditions remain fair but they are very close to a rating of good. Substantial improvements have been made since the 1989 survey. New streambanks have formed in front of the old, eroding banks and the stream is now a willow-dominated riparian complex. (2003)*
  - ☑ *McGarry Canyon Creek—the main stream reach is in fair condition with an upward trend. The upper reaches are in good to excellent condition. (2002)*
  - ☑ *Moose Creek—the upper reaches have been highly impacted by natural watershed instability including several historic slumps and gullies. While a substantial amount of recovery has occurred, these features are still the primary sediment producers in this watershed. Sheep grazing is a secondary sediment producer, with most impacts occurring as sheep climb in and out of the incised channel. While conditions below the Moose Creek road are improving, sediment produced above the road is impacting substrate conditions. (2003)*
  - ☑ *East Rattlesnake Creek—the lower ¾ mile of this stream remains in poor condition with declining trends. Most impacts are related to unauthorized cattle use but permitted sheep are contributing to the existing conditions. Above this point conditions greatly improve. The valley bottom narrows and the channel and riparian areas are in very good condition with static trends. This is consistent with the 1989 survey. (2003)*
  - ☑ *East Threemile Creek—while conditions remain fair, trends are improving (from the 1989 survey) as gravel bars and new banks are vegetating. In several areas, old eroding banks are visible behind newer vegetated banks. (2003)*
  - ☑ *Dairy Creek, Long Creek, and West Dry Creek conditions have not been reassessed as of 2004.*

- Improve stream channel stability ratings to good or excellent by 2007 where natural conditions allow on South Fork Packsaddle, Horseshoe, Superior, North Fork Mahogany, Main Mahogany, Henderson, Patterson, and Murphy Creeks. (Big Hole Mountains Subsection)
  - ☑ *Trail Creek—this stream remains in fair condition. (2001)*
  - ☑ *South Fork of Packsaddle Creek—the stream is in good condition from Mikesell to Pintar mines. However, from the enclosure to Mikesell mine high sediment loads have degraded conditions to fair. A 2003 watershed improvement project was constructed to eliminate the primary sediment source. This should improve channel conditions.*
  - ☑ *Henderson Creek—this stream remains in fair-poor condition. (2002)*
  - ☑ *Patterson Creek—this stream remains in fair-poor condition. (2002)*
  - ☑ *Major trail reconstruction has occurred on the Mahogany and Horseshoe trails.*
  - ☑ *Horseshoe, Superior, North Fork Mahogany, Main Mahogany, and Murphy Creeks have not been reassessed as of 2004.*
- Improve stream channel stability ratings to good or excellent by 2007 where natural conditions allow on Teton Creek, N. Leigh, S. Leigh, Moose Creek, Trail Creek, Fox Creek, and Kiln Creek where instability is management-caused. (Teton Range Subsection)
  - ☑ *In 2006, the Teton Basin Ranger District will begin implementation of the Moose Creek Trailhead Relocation project, which would relocate and decommission the trailhead and portions of the trail and road outside of the AIZ.*
- Within five years of the ROD [2002], all existing roads, trails, culverts, fords and stream crossings within these lands will be inventoried and evaluated as to whether they meet management prescription goals. Those that do not meet management prescription goals will be scheduled for restoration or obliteration. (Rx 2.8.3: Aquatic Influence Zone)
  - ☑ *Inventories are ongoing and those road segments not meeting management goals are being addressed through the Forest travel plan or site-specific NEPA. For example: In the proposed East Beaver / Miners Creek Timber Sale, 15.2 miles of road within AIZs have been identified for obliteration and 4.5 miles have been identified for graveling (restoration/upgrading). Several smaller site-specific areas have also been addressed.*
  - ☑ *The Mahogany Creek Watershed analysis evaluated roads, trails and crossings.*
  - ☑ *During the analysis for the Henry's Lake and Plateau Travel Plan Implementation EAs, stream crossings were inventoried in those areas.*
  - ☑ *In the trail condition surveys, which are conducted every year, crews inventory and evaluate stream crossings. All trails should be surveyed and evaluated by 2010. As the Districts conduct routine trail maintenance, stream crossings are upgraded as needed and allowed by budget and staffing constraints.*
  - ☑ *In the summer of 2005, the Forest will hire three field-going personnel to conduct a comprehensive inventory of all road stream crossings to evaluate fish passage.*
- Fish habitat improvement projects will emphasize recreational fishing opportunities. (Rx 2.5: Eligible Recreation River)
  - ☑ ***The Forest will propose to delete this objective. As written, this does not meet the definition of an objective.***

## Vegetation and Plant Species Diversity

### DESIRED CONDITIONS AND GOALS

#### **Forested Vegetation**

Vegetation management is the cornerstone of the Targhee RFP. The overall goal of the vegetation resource is to maintain and restore healthy, diverse forested and nonforested ecosystems through time, including appropriate components of dead and down woody material. Forest managers are to use vegetation management to achieve a broad array of multiple-use and ecosystem management objectives, including maintenance, improvement and restoration of:

- Forest health;
- Scenic viewsheds and corridors;
- Wildlife habitat effectiveness and quality;
- Hazardous fuels reduction;
- Biological diversity of plant and animal communities;
- Riparian and watershed health and function;
- Vegetation structure, composition, and distribution in larger landscapes.

In order to maintain and restore diverse ecosystems through time, managers have to step back and look at management on a larger scale. The Forest now conducts watershed or landscape analyses before proposing vegetation management projects. In these assessments, historic conditions across the landscape are reviewed and compared to current conditions. Landscape assessments also look at changes that have occurred at much larger scales, such as the Columbia River Basin. The Forest follows the interdisciplinary process outlined in Ecosystem Assessments at the Watershed Scale. In these assessments, Forest resource specialists have been finding that overall forest vegetation is moving toward more shade-tolerant species, such as Douglas-fir and subalpine fir. Several NEPA analyses that are (or were) based on large-scale analyses include, Camas Creek Aspen Restoration EA, Big Holes Vegetation Management Plan, Beaver Creek Vegetation Management Plan EA, East Beaver-Miners Creek Timber Sale and Prescribed Burn EIS, Big Bend Ridge Vegetation Management Project and Timber Sale EIS and Packsaddle-Rammell Hollow EIS. Early seral communities, such as aspen and lodgepole pine, are being replaced through succession without disturbance. See the section on “properly functioning condition” for more information.

One of the difficult-to-replace habitats identified in the RFP is whitebark pine (RFP III-13). Whitebark pine is a high elevation species that is declining throughout its range due to a combination of 1) mountain pine beetle mortality, 2) an introduced pathogen called white pine blister rust and 3) succession to more shade tolerant species. Many species depend on whitebark pine as a food source, including the grizzly bear which is listed as Threatened under the Endangered Species Act (ESA). Whitebark pine restoration efforts under the RFP have included 50 acres of planting, 550 acres of prescribed burning to reduce competing conifers and create Clark's nutcracker seed caching sites, and 40 acres of mechanically reducing competing subalpine fir in whitebark pine stands. A genetic restoration project which involves collecting cones from trees with phenotypic resistance to blister rust is also underway. Thirteen rust resistant “plus trees” have been identified on the Forest. Cones from these trees were collected in 2003 and the seeds are being used in a rust-resistance screening process and subsequent genetic rust-resistance breeding program. In cooperation with the two National Parks and the five other National Forests in our seed zone, the goal is to produce rust resistant seedlings for outplanting in 10-15 years. Caribou-Targhee Forest Silviculturist, is currently developing guidelines for whitebark pine restoration to be used within the Greater Yellowstone Ecosystem.

*Figure 11: Whitebark pine/Idaho fescue habitat type on ridge between Webber and Fritz Creeks. Photograph taken by Bob Mosely and C.A. Wellner in ca. 1970's-1980's.*



*Figure 12: Whitebark pine (center) during the Willow Creek prescribed burn. A project conducted by the Forest Service to reduce subalpine fir competition and promote whitebark seedling establishment.*



### **Rare plants and unique landforms**

Another desired condition of the Targhee RFP is that conditions are sufficient to preserve unique formations within a landscape and provide necessary protection and management to conserve listed threatened, endangered and sensitive plant species. The Targhee has nine established Research Natural Areas (RNA), each having unique features representing some of the Forest's diversity. RNA's are part of a national network of ecological areas designed to be managed in perpetuity for research and education and/or to maintain biological diversity on National Forest System lands. Stewardship of the RNA network requires an ongoing management commitment. To date, management of RNA's nationwide has typically been a "hands-off" approach. In some cases, this approach has resulted in RNA values being compromised by incompatible uses, establishment of non-native invasive plants and lack of natural processes, such as fires. The Forest is periodically visiting each RNA to ensure that the values for which it was established are being protected, and to make recommendations

for management actions when necessary. In 2003, the Forest contracted with the Idaho Conservation Data Center to complete stewardship monitoring of the Copper Mountain RNA. The RNA was found to continue to support an alpine ecosystem of high ecological integrity. No noxious weeds or other aggressive weed species were observed. Tracks from off-road vehicles (OHVs) were observed in the northern portion of the RNA, however there was no evidence of accelerated erosion associated with the tracks, only a few crushed plants.

*Figure 13: Looking east-southeast to southern portion of Copper Mountain RNA and its mix of talus and alpine meadow vegetation. The scattered green clumps dotting the rocky upper slope is alpine prickly currant (*Ribes montigenum*).*



*Figure 14: Looking north to very northern part of Copper Mountain RNA and the Italian Peaks Proposed Wilderness Area. Note the ORV tracks along the ridge, to the north of the RNA.*



The Targhee has only one known plant species listed as threatened or endangered under the ESA—the Ute Ladies'-Tresses which occurs on the South Fork of the Snake River. Complete surveys of the known populations of Ute Ladies'-Tresses have been conducted each year; this is over and above the RFP requirement to do grid surveys. The monitoring shows that short-term trend is up but long-term trend is unknown. The monitoring has pointed out some problems, which were resolved, such as changing the time of use within a grazing allotment. Livestock grazing standards appear to not conflict with managing for the long-term existence of the plant. In order to provide additional protection, however, 1,200 acres cottonwood bottoms on the South Fork of the Snake River, including the Ute Ladies'-Tresses habitat, were excluded from livestock grazing beginning in 2004.

Fourteen plants listed as "Sensitive" by the Regional Forester are known or suspected to occur on the Targhee. The following is a summary of their status on this zone of the Forest:

**Pink agoseris (*Agoseris lackschewtzii*)** is a regionally endemic plant has been found to be more common than originally thought within its range and will likely be removed from the sensitive species list in the future. In the last five years, forest botanists have found additional populations on the forest.

**Sweet-flowered rock jasmine (*Adrosace chamaejasme* var. *carinata*)** has been listed as potentially occurring on the forest for a while. In 1999, botanists found the plant to occur on a mountain summit within the Jedediah Smith Wilderness. This population appears to be secure.

**Lost River milkvetch (*Astragalus amnis-amissi*)** and **Lehmi milkvetch (*Astragalus aquilonius*)** are endemic plants known to occur on the Salmon-Challis National Forest. The plants are listed as potentially occurring on the Targhee. In 2003 the Targhee funded a project with the Idaho Conservation Data Center to conduct surveys within potential habitat for the species. No populations were found. A formal report documenting the surveys was prepared by the Idaho Conservation Data Center.

**Meadow milkvetch (*Astragalus diversifolius*)** is a regional endemic plant that is only known to occur on the Targhee at the Birch Creek Fen on the Dubois District (Kaufman Guard Station area). As a plant mostly associated with areas that are alkaline and generally hummocky at relatively low elevations in sagebrush valleys is it unlikely that other populations occur on the Forest.

**Payson's milkvetch (*Astragalus paysonii*)** is a regionally endemic plant with two distinct areas where it is known to occur – east-central Idaho and western Wyoming. General habitat for the species is burned areas and other open disturbed sites (i.e. clear cuts and road cuts) in lodgepole pine and mixed forests on sandy or mineral soils. Forest botanists for many years have searched for this plant within project areas but have never found a population of the species on the Targhee. The only documented occurrence of the plant is on the Palisades District in the area of a developed, but now unused campground area. The habitat of the known occurrence is overgrown (in mid to late seral condition) and the plant was not relocated for many years, but was found to still exist at the known site in 2004. The population is likely to become extirpated without disturbance that maintains or creates habitat for the species. Also this population is suspected to have been accidentally introduced either when the campground was constructed or by campers and may not have existed in the area prior to the construction of the campground. The Forest is hoping to work with the Wyoming Natural Diversity Database to conduct surveys and evaluate whether or not the plant should continue to be a Targhee Sensitive species.

**Centennial rabbitbrush (*Chrysothamnus parryi* ssp. *Montanus*)** is a very narrow endemic plant only known to occur associated with the Beaverhead Red Conglomerates on the Dubois District. This is the rarest identified species on the Targhee. No human-caused threats to the species are known and the population is within a proposed wilderness area. Current management on the Forest appears to be consistent with the persistence of the species.

**Douglass-wavewing (*Cymopterus douglassii*)**, **Welsh rockcress draba (*Draba globosa* (*D. densifolia* var. *apiculata*))** and **Weber's saussurea (*Saussurea weberi*)** are all Region 4 sensitive plants listed as suspected to occur on the Targhee. They all occur in relatively secure high alpine habitat. Future surveys and additional information is likely to indicate that they should not be listed as sensitive for the Targhee.

**Payson's bladderpod (*Lesquerella paysonii*)** is known to occur on the Palisades and Teton Basin District. The species is a regional endemic but can be common when found. Few threats exist and both the Idaho Conservation Data Center and the Wyoming Natural Heritage Database have indicated that that plant does not warrant being listed as a Forest sensitive species.

**Marsh's Bluegrass (*Poa abbreviata* ssp. *marshii*)** is a rare disjunct species known to occur within the Lemhi Range on the Dubois District. The plant's habitat is high alpine rocky slopes and ridgelines where there are few threats.

**Lemhi penstemon (*Penstemon lemhiensis*)** is a regional endemic plant that had been suspected to occur on the Targhee in the upper Birch Creek Valley on the Dubois District. However research and surveys for the plant within its known range indicates that the species does not occur on the Forest.

**Alkaline Primrose (*Primula alcalina*)** – The only known occurrence of this plant on lands administered by the Targhee is at Kaufman Guard Station on the Dubois District within a horse pasture that is grazed during the winter. The horses are removed each spring prior to the timing that alkaline primrose begins to grow. The habitat for the species is very unique and primarily exists on lands managed by the BLM. There is no suspected habitat elsewhere on lands managed by the Targhee NF.

The Regional Forester is planning on revising the Sensitive species list for the region. Some rare plants that occur on the Targhee but are not currently listed as Sensitive are proposed to be added to the list. The Forest, primarily in cooperation with the Wyoming Natural Diversity Database (WNDD) and the Idaho Conservation Data Center (CDC), has conducted surveys and reviews of these species to establish baseline data for many of these plants. Of note is a report concerning the status of Plant Species of Special Concern in Region 4 provided by the WNDD and plant surveys for Idaho sedge (*Carex idahoensis*) and other rare plants conducted by the CDC in 2003.

### **Invasive Species**

Forest managers have been battling noxious weeds and invasive species for decades. By definition, invasive species are alien<sup>6</sup> species whose introduction does or is likely to cause economic or environmental harm or harm to human health. The Forest Service policy defines noxious weeds as “those plant species designated as noxious weeds by the Secretary of Agriculture or the responsible State official. Noxious weeds generally possess one or more of the following characteristics: aggressive and difficult to manage, poisonous, toxic, parasitic, a carrier or host of serious insects or disease and being native or new to or not common to the United States or parts thereof” (FSM 2080). In the RFP, the Forest reported nine species of noxious weeds occupying about 19,000 acres of land (FEIS Table III-15). Despite efforts to control the spread of weeds, infestations have increased. Recently, the expanding resource problem has received national attention. In 1999, President Clinton signed an Executive Order on Invasive Species (No. 13112), which states that federal agencies cannot undertake or authorize actions that “it believes are likely to cause or promote the introduction or spread of invasive species.” In 2003, Chief Bosworth of the Forest Service identified invasive species as one of the four threats to national forest system lands. The Caribou-Targhee manages noxious weeds using an integrated pest management approach. In integrated pest management, a variety of methods are used to treat noxious weed invasions, including biological agents, pesticides, and mechanical or hand treatment.

Another way the the Caribou-Targhee Noxious Weed Program is gaining momentum is by participating with other land owners in Cooperative Weed Management Areas (CWMA). The entire Forest is now covered by CWMA. Forest managers believe that weed infestations need to be viewed much like a wildfire. When an infestation is found, resources and people are used to bring the infestation under control before it becomes a threat to other land owners. If noxious weed infestations are not controlled or eliminated when they are small, they can turn forest or rangelands into a monoculture of weeds. This outcome is costly in terms of lost production and often, too expensive to restore. CWMA provide an opportunity to focus people, dollars and equipment in high risk areas that can still benefit from treatment.

In 2001, Forest managers adopted a Noxious Weed Strategy to increase emphasis on weed management and to improve the Forest’s capability to deal with weed management issues. This plan is being implemented through priority setting, education, and public awareness with the assistance of the CWMA. Activities include promoting awareness and prevention activities through special work days and cost sharing agreements, and promoting monitoring and project evaluations. In 2005, the Forest initiated a proposal to update the noxious weed program to include additional methods of treatment and the concept of adaptive management. This proposal is being analyzed in an environmental document done in accordance with the National Environmental Policy Act.

The Weed Free Hay Program requires the use of certified weed free feeds on public lands in the state. This has been a requirement since 1996. Citations now are issued to people who are found without weed free feed on public lands. This program is generally accepted by the public, although some counties do not have an adequate number of local weed free hay growers, and the product can be difficult to purchase in some locations. The Forest sponsors a Challenge Cost Share Program for noxious weeds to supply “seed” money for outside matching funds for projects. A pool of money is set aside for project proposals that compete against one another for a portion of the pool. This money is in addition to the money allocated for noxious weed treatment to each Ranger District. The local Resource Advisory Committee (RAC) has also provided money for weed treatment through their grant process.

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<sup>6</sup> Alien species means, with respect to a particular ecosystem, any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem. *From: Executive Order on Invasive Species.*

### **Ashton/Island Park District**

The Ashton/Island Park areas are covered by the Henry's Fork CWMA. In 2003, the District sponsored a "public weed pulling day" targeting spotted knapweed at Last Chance. The District maintains a contract with the county weed crew and is obtaining a better inventory of weeds and their locations. All known sites have been recorded using global positioning systems (GPS), so the location and size can be monitored over time.

The overall trend is a reduction in the acreage of leafy spurge as biological controls (insects) become established. However, observations indicate that these same infestations are then becoming overgrown with yellow toadflax. It appears that birds are spreading noxious weeds by eating the seeds. Spotted knapweed is becoming more common in the Highway 20 right-of-way and is spreading from the highway to the fish access parking places.

### **Teton Basin**

This District is covered by the Upper Snake River CWMA in Idaho and the Jackson Hole CWMA in Wyoming. They are active in using biological controls for leafy spurge, spotted knapweed, and musk thistle. A joint multi-year project with the local CWMA included treating Highway 33 and the Victor railroad grade for spotted knapweed. The District and the towns of Victor, Driggs and Teton bought spray equipment for a wash station, and they are currently developing a cooperative use agreement for washing equipment moving throughout the county. The CWMA has done some cooperative test plantings with a native seed company in Swan Valley in an attempt to find native plants that will compete with noxious weeds. The company has also provided chemical for District labor matches.

More weeds are being found along highways and trails around the District. While yellow toadflax is showing up, leafy spurge and spotted knapweed are still the biggest threats. The primary pathways for introduction of weeds are roads, trails, infested private lands and dispersed campsites. People are spreading weeds through the use of ATVs, bikes, walking, and pets. Serious problems exist with newly graveled roads spreading new weed sources from infested gravel pits.

### **Palisades**

This District is covered mostly by the Upper Snake River Valley CWMA, but the portion in Wyoming is covered by the Jackson Hole CWMA. For the last four years the District has shared a workday with the Upper Snake River Valley CWMA to treat leafy spurge in Dry Canyon off the South Fork of the Snake River. This year participants included Bonneville County, Idaho Fish and Game, BLM, INL, Teton Basin Ranger District, and private interests. The Dry Canyon site lost the only road access due to a wash out about ten years ago. Forest personnel now have to pack in to treat the site. Using backpack sprayers and insects, the density of weed plants have been reduced.

Biological control is applied to musk thistle annually, and on Canada thistle, yellow toadflax, spotted knapweed and leafy spurge depending on the availability of the insects. Inventories are improving and more accurate. In the past the District received a grant to inventory sites using Global Positioning System (GPS). In 2003, the emphasis was on the backcountry areas where musk thistle and Canada thistle are very common. The District also began treatment on two remote dispersed horse camping sites where yellow toadflax and leafy spurge were becoming established.

The use of better chemicals has been positive to the program but knapweed appears to be gaining ground. It is cropping up along roads, especially those undergoing new graveling and in subdivisions in Swan Valley. The biggest threat to the Forest is coming from the invasion of spotted knapweed off private land onto the District.



Figure 15, left: Releasing Biological control agents in spotted knapweed at Palisades Dam.

Figure 16, below: *Urophora cardui*, an insect released for the control of Canada thistle.

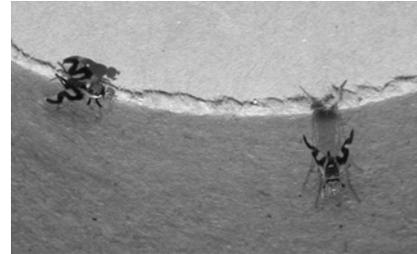


Figure 17: Spraying herbicide with the sprayer acquired through the Upper Snake CWMA.



### Dubois

This District is a partner in the Continental Divide CWMA. Each June, District employees participate in annual spray days where members of the CWMA gather to spray weeds. The first priority area is from Monida Pass south to Dubois along the Interstate-15; in 2003, the second workday focused on the area from the mouth of Medicine Lodge Canyon to Highway 22.

The District has had an active biological control program for a decade. Forest employees collect insects annually from established weed stands and redistribute the insects in areas needing more control. This year an additional 80,000 insects were obtained from Montana for distribution on leafy spurge. The District is actively pursuing a Challenge Cost Share (CCS) agreement between the District, State of Idaho, Soil Conservation District, CWMA and Backcountry Horsemen to do monitoring in the more remote areas. The goal is to prevent leafy spurge from spreading east beyond Three Mile Creek. A contract has been

established to map, monitor, and treat the backcountry. The CWMA provides horse spray packs for this effort.

Figure 18: Participants on the Dubois Workday filling horseback backpack sprayers for treating the backcountry. From left to right: Kevin Small-local rancher, Keith Bramwell-County Extension Agent, and Keith Tweedie-Dubois City Mayor.



The overall trend in invasive species on the Dubois District is static. As new infestations are located they are mapped and added to a GIS layer. The biggest threat is from leafy spurge. *Plateau* is a relatively new chemical that has proven to be effective when applied in the fall. Treatment is now season-long. However, private land in Spencer and Medicine Lodge are providing large seed sources, and the seed is being spread by mourning doves and other birds. New infestations are springing up along fence lines and around the edges of aspen stands. Spotted knapweed is being identified along roadsides and is being spread by vehicles and maintenance equipment. Houndstongue is increasing, and yellow toadflax is just becoming established.

#### OBJECTIVES

- By 2007, identify properly functioning condition (PFC) and systems at risk for forested landscapes.
  - ☑ ***This objective is being met through the watershed assessment process.***
  - ☑ *The Big Bend Ridge Watershed Analysis, conducted by an interdisciplinary team of Continuing Education in Ecosystem Management students, was completed in 1998. This landscape-scale analysis begins with a modified PFC assessment and provides more detailed information. (Ashton/Island Park District)*
  - ☑ *A landscape analysis of the Mahogany Creek Watershed (#022) has been completed. This analysis determined PFC for a variety of vegetation types. This watershed analysis identified potential projects to maintain or improve ecological conditions in the watershed. (Teton Basin District)*
  - ☑ *In 1999 the East Beaver Landscape Analysis was completed. Several forested vegetation communities were assessed: Douglas-fir, whitebark pine, and aspen. The East Beaver-Miners Creek Timber Sale EIS further refined the information in this assessment.. (Dubois Ranger District)*

- ☑ *In 2001, the Fall Creek watershed analysis was completed. (Palisades Ranger District)*
- ☑ *In 2002, the Bear Creek watershed analysis was completed. (Palisades Ranger District)*
- ☑ *In 2003, the Medicine Lodge watershed analysis was completed. (Dubois Ranger District)*
- ☑ *In 2005, Forest is working on the Blue Creek (Ashton/Island Park District) and Dry Creek (Dubois Ranger District) watershed analyses.*
- Within five years [2002], complete a properly functioning condition assessment for the lodgepole pine community type and develop long term vegetation and density management strategies to reduce the risk of a future catastrophic bark beetle epidemic.
  - ☑ ***This objective has been met.*** *The Island Park and Madison Plateau Properly Functioning Condition Assessment was completed in 1997. The assessment was used to develop the Proposed Action for the Outyear Precommercial Thinning Project on the Island Park/Ashton and Teton Basin Districts. This project was scheduled for completion by 2000, but due to the listing of the Canada lynx, the timeframe changed.*
  - ☑ *In 1998, an "Assessment of Lodgepole Pine Conditions on the Targhee" was completed.*
  - ☑ *In 2003 the Caribou-Targhee hosted a field meeting of research and agency experts on Canada lynx management. The group reviewed the Plateau area lodgepole pine stands to determine if this area should be considered lynx habitat and how to manage the area for silvicultural health and wildlife habitat. In the fall of 2003, the Forest cooperated with the Rocky Mountain Research Station to install and read several hundred vegetation plots in the Island Park Caldera and Centennial Mountains. This information was used to determine what forested stands were capable of supporting the dense populations of snowshoe hares needed to support lynx. After this project, the Forest proposed a new map of Lynx Analysis Units which was approved by the U.S. Fish and Wildlife Service in the spring of 2005.*
- By 2007, in cooperation with the Intermountain Research Station, develop a research plan and monitoring plan for each research natural area. (Rx 2.2: Research Natural Areas)
  - ☑ ***The Forest will propose to reword this objective*** *so that it reflects the need to conduct basic stewardship monitoring for each RNA by 2010.*
  - ☑ *The Forest contracted with the Idaho Conservation Data Center to complete stewardship monitoring of the Copper Mountain RNA. The RNA was found to continue to support an alpine ecosystem of high ecological integrity.*
  - ☑ *Using cooperative funding, the Forest surveyed 2300 acres in and around the Willow Creek RNA to determine if the area was being invaded by leafy spurge, a noxious weed. The 2002 survey found 23 leafy spurge infestations on 37 acres. In 2003 these areas were treated using biological control agents. The treatment appears to be reducing the spread of leafy spurge in the RNA.*
  - ☑ *A site visit indicated that year round elk use is impacting the springs in the Thurman Creek RNA. The Forest will conduct additional monitoring to determine if the area still meets the objective for the RNA and whether we need to recommend a replacement area.*
- Map suitable habitat for Ute Ladies'-Tresses (*Spiranthes diluvialis*), generally within wetland/riparian/floodplain areas below 7,000 feet elevation, on the Forest within three years of implementation of the ROD [2000].

- ☑ **This objective has been met.** *The Idaho Conservation Data Center completed a model for predicting the distribution of potential habitat on National Forests in Idaho for Ute ladies'-tresses. In its monitoring, the Forest and cooperators have found no populations on the Forest other than those associated with the floodplain of the Snake River. In addition, all available information indicates that the plant is a species of valley bottoms or major river floodplains. To date, no populations have been found that are associated with the types of streams and habitat types (i.e. coniferous forest, relatively narrow willow communities) that predominate on the forest.*
- ☑ *Ute ladies'-tresses is listed now only by the United States Fish and Wildlife Service for the Palisades District of the Caribou-Targhee. To date, no populations or definable suitable habitat has been found on the Forest that are not associated with the floodplain of the South Fork of the Snake River. Based on this information, known suitable habitat for the species is restricted to known occurrences and similar habitat on the Palisades District within the floodplain of the Snake River, eliminating the need to map the entire Forest for the species.*
- Complete intensive surveys of suitable habitat to document presence of Ute ladies'-tresses within five years of implementation of the ROD [2002].
  - ☑ **This objective has been met.** *Surveys for Ute ladies'-tresses have been conducted since 1997 within potentially suitable habitat, totaling over 1,500 acres. All riparian areas, along streams considered the most likely to have habitat for the species, have been surveyed. Additional surveys of suitable habitat may be needed as more information becomes available about potential habitat for the species. Ground-disturbing projects within or containing potentially suitable habitat for Ute ladies'-tresses are surveyed prior to implementation; known occupied habitat is monitored each year.*

## Wildlife

### DESIRED CONDITIONS AND GOALS

The overall goal of the wildlife program defined by the RFP is to maintain and enhance wildlife biodiversity by managing for a diverse array of habitats and distribution of plant communities. The Forest also strives to provide habitat to support the wildlife and hunting goals of the States of Idaho and Wyoming. As discussed in the vegetation and properly functioning condition sections, the diversity of forested ecosystems has been diminishing, and the Forest now is emphasizing diversity in vegetation management projects. The Caribou-Targhee wildlife program has been very active in seeking partnerships to accomplish its objectives.

Challenge-cost-share partnerships have been developed for monitoring, inventory, and habitat improvement projects. Federally listed species have been increasing steadily:

- Grizzly bears have exceeded all recovery targets. In 2003 the Conservation Strategy for the Yellowstone Ecosystem Grizzly Bear Population was approved. Completion of the Strategy was a major milestone on the path towards delisting the bear in the Yellowstone Ecosystem. Forest employees Jerry Reese and Mark Orme, along with the other members of the Interagency Conservation Strategy Team, received national recognition for their efforts in completing the Strategy at the North American Wildlife and Natural Resources Conference in Washington, D.C.
- Bald eagles have exceeded all recovery targets and continue to increase on and adjacent to the Caribou-Targhee.
- Peregrine falcons were delisted in 2000 and the number of occupied peregrine territories on and adjacent to the Forest has grown from one to a high of ten in 2000.
- Wolf sightings are increasing and Forest personnel suspect a den was established on the Forest in 2004-5.

- Canada lynx analysis units (LAUs) have been mapped across the Forest and the Caribou-Targhee has completed hair snare grid surveys across the entire Forest.

In addition to federally listed species, the Caribou-Targhee provides quality habitat for a myriad of other focal species. Seven of the state's 25 active trumpeter swan nests are on the Caribou-Targhee. Monitoring for forest owls and furbearers indicates that these species are all well distributed across the Forest, and they are being found in their expected habitats. New goshawk nest territories are being found as a result of an extensive monitoring program for this species. Forest personnel are cooperating with state, federal and private individuals in sage and Columbia sharp-tailed grouse management plans. Riparian conditions are protected with Aquatic Influence Zone prescription standards. More detailed information on the wildlife program can be found in the monitoring and evaluation section (Section 3) of this document.

#### OBJECTIVES

- Determine the biological potential for cavity nesting habitat on a watershed basis to enable management of some areas at higher levels of biological potential and some at lower levels of biological potential and meet the overall management prescription objectives.
  - ☑ *Due to the very low level of timber harvest over the past eight years, the increase in snags across the entire Forest, and changes in Forest Inventory **the Forest will propose to delete this objective.** The Forest will continue to use Forest Insect and Disease reports and continue to keep track of timber harvest and wildland fire activity to continue to assess snag trends on the Forest.*
  - ☑ *This is reviewed during project analysis. Since the approval of the Targhee RFP, the Forest has experienced an increase in bark beetle activity. These beetles generally attack larger trees resulting in many more large snags than at the time the RFP was signed. Research conducted subsequent to the RFP indicates that approximately 4 snags per acre should maintain habitat for viable populations of cavity nesters (Bull et al. 1997). That is the lower limit of snag densities allowed by the Targhee RFP. See also Insects and Disease and Cavity Nesters sections.*
  - ☑ *In the McGarry Salvage Sale analysis area, located in the West Camas drainage of the Dubois Ranger District, pre-cruise and cruise data showed that 13 snags per acre greater than 12 inches dbh would remain in the cutting units after harvest.*
- Meet recovery criteria in the current Grizzly Bear Recovery Plan.
  - ☑ ***This objective has been met.** The Forest continues to meet the requirements in the Grizzly Bear Recovery Plan. All three of the Bear Management Units on the Forest are occupied by females with young. Monitoring and verification of observations occurs annually and the information is shared with the Interagency Grizzly Bear Committee (IGBC).*
  - ☑ *Until 2002, no grizzly bear mortalities had occurred on the Targhee NF since 1984; this is the best record in the Greater Yellowstone Ecosystem. In 2002 two bears were killed by a group of non-resident hunters; the deaths were in no way associated with Forest management activities. The forest participated in the investigations that lead to the identification and prosecution of the hunters.*
  - ☑ *In 2001 the Forest issued a Special Order requiring compliance with the "Food Storage Guidelines" in the Recovery Area in areas of expanding grizzly populations.*
  - ☑ *Along with the other Forests in the Greater Yellowstone Area, the Targhee NF is proposing to amend the RFP to comply fully with the "2003 Conservation Strategy for the Grizzly Bear in the Greater Yellowstone Area". A DEIS was released in 2004 and the Forests are currently preparing the FEIS and decision document.*

- Implement guidelines developed by the IGBC.
  - ☑ **This objective has been met.** See road density accomplishments detailed below.
- Provide safe, secure sites for nuisance bears as defined by Interagency Grizzly Bear Guidelines.
  - ☑ **This objective has been met.** Forest personnel have identified several release sites for nuisance bears. These are reviewed by all the affected agencies annually. The Ashton/Island Park Ranger District has provided release sites in the Recovery Area for bears trapped by the Idaho Fish and Game and Wyoming Game and Fish annually.
- Achieve the road density standards in the Bear Management Units (BMUs) within three years of the implementation of the ROD [2000] in coordination with USFWS and State Wildlife agencies.
  - ☑ In the summer of 1998, about 384 miles of roads in the BMUs were decommissioned using ripping, seeding and earthen berms to comply with the Interagency Grizzly Bear Committee Guidelines and USFWS Biological Opinion, requiring that the road "no longer function as a road or trail." **This objective has been met in the Henry's Lake and Plateau BMUs.**
  - ☑ A lawsuit and Teton County Ordinance prevented completion of the roadwork in the Bechler-Teton BMU. Further NEPA analysis was completed, and the remaining roads were expected to be decommissioned in 2005.
- Develop fire management plans for each of the three BMUs to address wildfires and prescribed fires, as follows: Bechler-Teton 1999, Plateau 2001, Henry's Lake 2003.
  - ☑ The first version of the Wildland Fire Use Guidebook covering the Madison-Pitchstone and Teton Range Ecological Subsections was approved in August of 2003. **This objective has been met in the Bechler-Teton and Plateau BMUs.**
  - ☑ The Henry's Lake BMU was addressed in 2005 when the Centennial Mountain Subsection was incorporated into the Wildland Fire Use Guidebook.
- Continue current nest location and productivity monitoring of bald eagles.
  - ☑ **This objective has been met.** Since the RFP analysis, two more nest territories have been located on the Forest. Productivity has been slightly lower for the past several years, likely due to cold, wet springs and water levels in streams and reservoirs.
- Identify bald eagle wintering and migration habitat and identify appropriate management needs: For the Henry's Fork watershed, within three years of the ROD for the Revision [2000] and the South Fork of the Snake by the year 2003.
  - ☑ **This objective has been met.** Bald eagles winter along the Henry's Fork and South Fork of the Snake River. Both of these areas have special management direction in the RFP which maintain bald eagle wintering habitat.
- All wolves found in the wild on the Forest will be considered nonessential experimental animals as defined in the FEIS for The Reintroduction of Gray Wolves to Yellowstone National Park and Central Idaho (USDI Fish and Wildlife Service 1994 a and b).
  - ☑ **The Forest will propose to delete this objective.** This is mandated by law and, as written, does not meet the definition of an objective.
- Within two years of the ROD complete a GIS inventory to identify potential wolverine natal den sites [1999].
  - ☑ **This objective has been met.** In 1999, the Forest mapped potential natal den sites using GIS which was used to determine survey areas. These areas were surveyed during February and again during an expanded survey in February and March of 2000. See the Furbearer monitoring section for additional information.

Figure 19: Tracks leading to the natal den of wolverine F404. Taken in 2004.



- Within 4 years of the ROD [2001], survey all potential wolverine natal den sites to document wolverine presence.
  - ☑ **This objective has been met.** In 1999 and 2000, the potential natal dens sites were surveyed by helicopter. All potential sites have been flown at least once. Wolverine tracks were found in the Lemhi/Medicine Lodge, Centennial Mountains, and Teton Range Ecological Subsections. The forest has been a cooperator with Wildlife Conservation Society in wolverine research since 2001. This research aims to identify habitat use by wolverines as well as define reproduction and survival values for the species in the Yellowstone Ecosystem.
- Develop management plans for any caves, mine shafts, and other suitable habitats where spotted and western big-eared bat species are known to be present.
  - ☑ As worded, this is not an objective. **The Forest will propose to reword this objective** to state "Within three years of finding a cave or mine shaft inhabited by spotted or big-eared bats, develop a management plan for the site."
  - ☑ Currently, these species are not known to reside on the Targhee NF; therefore, **this objective has been met.** One radio-transmitted female big-eared bat was tracked leaving the INL and flying to an unknown location in the Lemhi Range where she then disappeared.

## Forest Use and Occupation

### Access

#### DESIRED CONDITIONS AND GOALS

According to the RFP, the overall goal for access is that the Forest road and trail system is cost effective and integrates human needs with those of other resource values, particularly grizzly bear, elk, and native cutthroat trout. Specifically, elk vulnerability is decreased and grizzly bear security is increased. In addition, native cutthroat trout habitat is restored through effective road closures, obliterations, reclamations, redesign, and improved maintenance practices.

Access management has been one of the most contentious issues of the past decade. In the RFP, the Forest made a decision to close over 93 percent of the Targhee NF to cross-country motorized travel. The amount of motorized roads and trails are limited by open road and open motorized trail route densities (OROMTD's) established for each prescription area. To bring current OROMTD's into compliance with the RFP, the Forest's Travel Plan was revised in 1997. Approximately 1,100 appeals were received on this first Travel Plan decision under the RFP. After a Regional Office review, the Forest's decision was reversed, based on inadequate public involvement and effects disclosure. Travel Plan II was issued in October, 1999, and it was also appealed. The appeal decision affirmed the Targhee NF on which roads and trails were closed and which were open. Thus, OROMTD's limits for the RFP have been met administratively.

In the Travel Plan II appeal decision, the Forest was reversed for additional analysis and public disclosure on the methods used to physically close roads and trails. Since that decision, Forest personnel have been analyzing closure methods through different avenues. The Henry's Lake Travel Plan Implementation EA, Plateau Travel Plan Implementation EA and Jackpine Area Travel Plan Implementation EA have disclosed the impacts of decommissioning efforts in the Henry's Lake, Plateau and Bechler-Teton Bear Management Units. Decommissioning analyses have also been included in other project-level environmental documents, such as those listed below.

In January of 2001, the Forest Service issued the final National Forest System Road Management Rule. This rule revises regulations concerning the management, use, and maintenance of the National Forest Transportation System. Across the nation, National Forests are laced by more roads than individual forests can manage and maintain, given current budgets and staffing. The transportation policy directs National Forests to review their road systems and reduce them to levels that can be maintained and are necessary to support forest management activities. This roads analysis is designed to provide decision-makers with information to manage road systems that are safe and responsive to public needs and desires, are economically and efficiently managed, and have minimal negative ecological effects on the land. The Targhee NF conducted this type of review while revising the forest plan and the travel plan. In 2002, Forest personnel completed the required a forest-wide roads analysis, which tiered heavily to the analysis performed during the RFP and the revised travel plan.

#### OBJECTIVES

- Motorized access standards in each management prescription will be achieved as soon as practicable: Within three years of the ROD for BMUs [2000], by the year 2007 for all other areas.
  - ☑ *In the summer of 1998, about 384 miles of roads in the BMUs were decommissioned using ripping, seeding and earthen berms to comply with the Interagency Grizzly Bear Committee Guidelines and USFWS Biological Opinion, requiring that the road "no longer function as a road or trail." The Henry's Lake and Plateau BMUs were completed, but a lawsuit and Teton County Ordinance prevented completion of the roadwork in the Bechler-Teton BMU. Further NEPA analysis will be completed in 2005 and the remaining roads in the BMUs are expected to be decommissioned later in the 2005 season.*
  - ☑ *Prescription area road densities for the RFP have been met administratively.*
  - ☑ *In 2002, approximately 90 miles of roads were decommissioned in the East Beaver watershed on the Dubois District.*
  - ☑ *In 2004, 13 miles of unclassified roads were decommissioned in the Big Bend Ridge area.*
  - ☑ *Several project analysis documents have proposed decommissioning. These include Big Bend Ridge Vegetation Management Project and Timber Sale EIS; Anderson Mill Timber Sale E; Moody, South Fork, Burns Allotment Management Plan Revisions; and McGarry Salvage Sale EA. Approximately 70 miles of road would have been decommissioned as a result of these analyses, however, due to litigation, all but 15 miles of decommissioning has been delayed.*

## Recreation

### DESIRED CONDITIONS AND GOALS

The desired conditions for recreation on the Forest are described in terms of goals for the separate recreation program areas. Winter recreation is an emphasis item with the goal of providing a quality winter recreation experience while minimizing conflicts between motorized and non-motorized use and wintering big game. Another goal of the recreation program is to provide an adequate network of trails for motorized and non-motorized users, both winter and summer while minimizing impacts to resources. Improved trail maintenance for motorized and mechanized use would be achieved within subsections in the following sequence: Big Hole Mountains, Caribou Range Mountains, Lemhi-Medicine Lodge, Centennial Mountains, Madison-Pitchstone Plateaus, Island Park, and Teton Range. Trails for non-motorized/mechanized use would be sufficient to sustain use over long periods of time with minimal requirements for maintenance or reconstruction in the following sequence: Teton Range, Big Hole Mountains, Centennial Mountains, and Caribou Range Mountains. Developed site capacity would increase slightly through the life of the RFP.

Recreation continues to increase across National Forest System lands. For example, the Lewis and Clark National Forest in Montana has more than a thousand unplanned roads and trails reaching for almost 650 miles.<sup>7</sup> That is typical for many of the national forests, and monitoring shows that unplanned recreation is increasing. Across public lands, unauthorized motorized use is causing more erosion, water degradation, and habitat destruction.<sup>8</sup> In addition, conflicts between users are occurring more frequently. Damage to cultural sites and sites sacred to American Indians is increasing nationwide. To combat these negative impacts, the Chief of the Forest Service has developed a national Recreation Agenda<sup>9</sup>.

The Forest Service Recreation Agenda concentrates on five key areas: improving outdoor recreation settings, improving visitor satisfaction with facilities and services, improving educational opportunities, strengthening relationships with private entities, volunteer and non profit organizations and establishing professionally managed partnerships and intergovernmental cooperative efforts. The Regional Recreation Strategy mirrors the Recreation Agenda while addressing the niche of the Region and Forests. The Caribou-Targhee has worked on defining its niche within the framework of the Regional Strategy. This continues to be challenging as the public seems to demand more services and facilities in a climate of decreasing budgets. Progress is being made as the Forest recognizes that within the recreation program it must focus on doing several things well instead of many things mediocre.

### Snow-Free Season Recreation

The Caribou-Targhee has worked for many years to reduce its backlog of maintenance needs and health and safety problems at developed recreation facilities and on trails. This has been accomplished through a wide variety of partnerships with state agencies, volunteers and private organizations. The Forest has updated basic amenities by installing "sweet smelling toilets", replacing water distribution systems, and other activities. Trail maintenance is accomplished by District trail crews largely funded by state grants, individual volunteers and volunteer organizations. The Forest works with Idaho Parks and Recreation trail rangers each year to reconstruct and maintain trails. These efforts are well received by the public.

The Caribou-Targhee is very active in travel plan education and enforcement, having established a solid partnership with Idaho Fish and Game to conduct patrols during the fall season. Several districts have extended this effort to other seasons of the year. Wilderness managers have worked closely to prevent motorized encroachment into the wilderness. Districts with high snowmobile use have established partnerships with adjacent states and local counties to provide information and education on available trails and Caribou-Targhee travel plan regulations. OHV management has been identified as an emerging issue in the Forest Service and the Caribou-Targhee proactively manages motorized use within the constraints of budgets and time. Several

<sup>7</sup> The forest estimates 1,348 unplanned roads and trails reaching for 646 miles. Ruth Roberson, personal communication (Resource Information Manager, Lewis and Clark National Forest, USDA Forest Service, 3 March 2003).

<sup>8</sup> Patricia A. Stokowski and Christopher B. LaPointe, "Environmental and Social Effects of ATVs and ORVs: An Annotated Bibliography and Research Assessment" (unpublished paper; 20 November 2000, School of Natural Resources, University of Vermont, Burlington, VT); Richard B. Taylor, "Literature Review: The Effects of Off-Road Vehicles on Ecosystems" (Certified Wildlife Biologist, Texas Parks and Wildlife [<http://www.tpwd.state.tx.us/texaswater/rivers/>]).

<sup>9</sup> From Chief Dale Bosworth's Earth Day Speech, 2003.

problem areas are being addressed on a case by case basis through detailed analysis and travel plan changes and implementation.

Trail use monitoring on the Targhee found some areas are showing moderate to significant effects on soils, vegetation, and water. The areas that exceed soil quality standards have been scheduled for rehabilitation or maintenance. All monitored dispersed campsites met soil quality standards at the site. Ruts on the entrance roads and streambank disturbance were noted as problems. Impacts of recreation on wildlife have proven difficult to assess. A research project is in progress that is studying the effects of recreation use on wolverine in the Teton Subsection, including the Jedediah Smith Wilderness, Grand Teton National Park and portions of the Bridger-Teton National Forest. Monitoring has shown that area closures to motorized travel are being violated, but it is unclear if this is affecting wildlife.

The Forest Service has developed a National Visitor Use Monitoring (NVUM) process to better understand the use of, importance of, and satisfaction with recreation opportunities on the National Forests. The Caribou-Targhee National Forest participated in the NVUM project from January 1 through December 31, 2000. According to the study, over 2 million national forest visits occurred in 2000. The top five recreation activities of forest visitors are viewing scenery, viewing wildlife, snowmobiling, general relaxation and hunting. Facilities and specially designated areas most used by surveyed visitors included forest roads (36% of visitors), hiking, biking or horseback trails (23% of visitors), motorized developed trails (15% of visitors), and developed campgrounds (15% of visitors). Visitors were asked to rate their overall satisfaction with specific resource and facility conditions. Ratings were predominantly good and very good, particularly for developed day use sites. The resources that visitors were least satisfied with were the condition of forest roads and trails, lack of adequate signage, and the availability of information on recreation, especially in the "general forest areas." In addition, most of the specific comments identified the need for more signs, better maps, more information on the forest, improved road conditions, and more trail maintenance (NVUM, Caribou-Targhee, August 2001). The information from the NVUM (detailed in the "User Satisfaction" section) will be used to prioritize and direct future recreation facility improvement projects. In 2005, the NVUM project will again be conducted on the Targhee portion of the Caribou-Targhee.

#### **Snow Season (Winter) Recreation**

In 2005, the Forest completed a Five-year report on winter recreation use and trends entitled "Winter Visitor Use Management: A Multi Agency Assessment". This report examines all of the winter recreation monitoring information available from 1999 through the spring of 2004 and makes comparisons with the findings in the 1999 "Winter Visitor Use Management: A Multi-Agency Assessment" done for the Greater Yellowstone Area. The following information is an excerpt from the May 2005 Report. For more information, contact Lisa Klinger, Recreation Program Manager on the Caribou-Targhee NF.

#### **Use Levels**

The 2000 National Visitor Use Monitoring results for the Caribou-Targhee National Forest show that approximately 28 percent, or 620,000 visitors, participate in snowmobiling. For 26 percent of Forest visitors, or 575,000 visitors, snowmobiling is their primary reason for visiting the Caribou-Targhee National Forest. Snowmobiling is the most popular activity after viewing wildlife and natural features on the Forest. The first several years of winter monitoring on the Targhee National Forest provided little useable information due to logistical problems. Later information provides some insight into winter use trends:

- Outfitter and guide operations providing snowmobile trips had use peak the winter of 2000-2001 with a gradual decline each year since then. Speculation is that declines are related to the changes in Yellowstone National Park regulations, varying quality and quantity of snow and increased gasoline prices.
- County snowmobile registrations continue to increase overall with the exception of Teton County, Idaho although, anecdotally, snowmobile use seems to be increasing in Teton Valley, Idaho. It appears that snowmobile registration compliance is increasing because patrols checking for registrations have increased.
- The Forest Service, in cooperation with the Counties and Idaho Fish and Game, periodically operate check points to check registrations and provide information to recreationists. One check point operated on February 1, 2003 resulted in 80 warnings for unregistered machines and 17 citations. This has been a very effective program.

- Cross-country ski use has increased since 2001-2002 in Teton Canyon with use leveling off in recent years. It is likely that the use in Teton Canyon has stayed static because there are now more groomed trails elsewhere in Teton County. Observations indicate that cross-country skiing on the rest of the forest has remained stable. The Idaho Falls Ski Club has a very active cross country ski trail grooming program in the Kelly Canyon area, making the area a popular destination for Idaho Falls residents. User numbers at Kelly Canyon have remained stable.
- Information from the three monitoring sites identified in the 2000 Winter Monitoring Strategy show that snowmobile numbers have been declining on the Targhee. Typically, March use has been higher than other months because the snow sets up and allows for better riding conditions. During this period, however, the snowfall has been less than average and this may affect use by destination visitors. It is believed that snowmobile regulations in Yellowstone and Grand Teton National Parks do impact the amount of use on National Forests. Details of individual site monitoring are available in the Teton Basin Ranger District Multi-Year Summary and Ashton/Island Park Ranger District Five-Year Winter Monitoring Report.

### **Winter Recreation Use Management**

The Forest has very successful cooperative agreements with Counties and the State of Idaho to enhance the winter recreation program. Bonneville, Madison, Fremont and Teton Counties provide all of the snowmobile grooming that occurs on the Ashton/Island Park, Palisades and Teton Basin Ranger Districts. The counties groom approximately, 495 miles of snowmobile trail each winter. The Counties and State have also provided funding to the Forest Service for purchasing and maintaining equipment and supplies as well as increasing their own snowmobile patrols. In particular, Fremont and Bonneville counties have increased patrol efforts in the last five years. This has resulted in a higher compliance rate of snowmobile registrations and has made the Counties close partners with the Forest Service.

Communities within the Targhee National Forest may have an opportunity to market a National Forest snowmobile experience that is unique from the Yellowstone/Teton National Park experience because of the changes to winter use in the Parks. It is not yet evident that communities have completed marketing beyond the local area although there have been several articles in SnoWest magazine. Winter use has definitely changed since the Assessment was written in 1999 believed to be because of changes to National Park management and poor snow years. It does not appear that communities within and around the National Forests have responded fully to this change and may not until the National Park Service finalizes winter regulations. In 2004, the Targhee amended the RFP to allow each district ranger, based on local conditions, to determine the date the winter travel regulations go into effect. This helps insure that the access management is tailored more to conditions on the ground rather than an arbitrary date. This should enable communities to market their areas in response to local snow conditions for winter activities.

There are two significant visitor issues on the Targhee. The first conflict area is where cross country ski trails and snowmobile trails are located in close proximity, ski trails are frequently ruined by snowmobile tracks. This occurs on the portion of the Mesa Falls trail that parallels the snowmobile trail and on the Moose, Buffalo and Fall River Ridge ski trails. Signing and education efforts have generally not been effective in reducing conflicts.

The second area of visitor conflict is motorized use of the Jedediah Smith Wilderness Area. New, high technologically advanced machines allow less skilled riders to access more rugged terrain than in the past contributing to access into the Wilderness. Illegal snowmobile use in the Jedediah Smith Wilderness has been documented using aerial surveys and exceeds the Revised Targhee Forest Plan standards for Indicator 6 (violations) in all Prescription Areas. Violation notices for illegal snowmobiling in the Jedediah Smith Wilderness were issued as follows: 2001 – 5 citations, 2003 – 13 citations, 2004 – 4 citations. These violation notices represent a significant amount of effort to enforce the closures. Law enforcement patrols and occasional aerial flights indicate that snowmobile use of the Wilderness is holding steady. Wilderness and forest wide patrols during 1999, 2000, and 2001 did occur but were limited because of poor condition of equipment. In 2002 the forest law enforcement officer for the northern portion of the forest was able to acquire a snowmobile designated to winter patrols. Since 2002, patrols have occurred forest wide by the north end law enforcement officer on the Caribou-Targhee National Forest 3 to 4 times a week with the majority of his patrols occurring on the Targhee portion on weekends. Wilderness boundary patrols have increased since 1999. From January to March 2004, the Forest conducted nine wilderness boundary patrols. Over half of these the patrols recorded fresh

snowmobile tracks. It appears that simply knowing that the Forest Service conducts these patrols serves as a deterrent for some snowmobilers contemplating riding into the wilderness.

#### OBJECTIVES

- Within three years [2000], establish by prescription, travel plan designation or other method a few non-motorized winter recreation activity areas with easy access for users such as telemark skiers, snowshoers, and snowboarders. Conform to results anticipated from the Greater Yellowstone Winter Visitor Use Management (GYWVUM) Assessment currently underway.
  - ☑ **This objective has been met.** *The following areas are now closed to motorized use in the winter:*
    - ☑ *Ashton/Island Park District—Harriman Refuge, Bear Gulch cross-country ski trail, Fall River Ridge cross-country ski trail, Buffalo cross-country ski trail, and Grey Wolf Retreat.*
    - ☑ *Teton Basin District—Prescription area 2.1.2 along the Teton Pass Corridor was closed to motorized vehicles through the Teton Pathways EA.*
    - ☑ *Palisades District—An area in Kelly Canyon is closed to motorized use.*
- By 2007, address soil, water, and vegetation impacts to maintain the desirable recreation setting on approximately 100 campsite areas of the 300 identified dispersed recreation sites on the Forest, which are in greatest need of monitoring. These sites would have limited development facilities.
  - ☑ **This objective has been met.** *Between 1997 and 2004, site conditions have been assessed in 108 dispersed sites; this exceeds the objectives. Most of the sites have been monitored more than once. The sites are located on the Districts as follows:*
    - ☑ *Dubois—23 sites*
    - ☑ *Ashton/Island Park—15 sites*
    - ☑ *Palisades—51 sites*
    - ☑ *Teton Basin—19 sites*
  - ☑ *In 2002, the Palisades addressed impacts to resources in six sites in Rainey Creek and one site in Fall Creek. Eleven more sites are planned for rehabilitation in Fall Creek if funding can be secured.*
- Complete an interdisciplinary review of five-ten percent of the system trails each year to determine rehabilitation needs.
  - ☑ **This objective is being met each year.** *The Forest has completed intensive trail condition surveys on 536 miles of trail. This is 42 percent of the 1322 miles of summer trails on the Forest. An additional 330 miles have been surveyed using less intensive survey methods.*
- Establish use capacities using the process outlined in the AMS for outfitter and guide recreation opportunities prior to issuing new permits.
  - ☑ *The Forest is working on a Wilderness-wide Outfitter and Guide Capacity Assessment in response to requests for outfitting permits.*
  - ☑ *The Teton Basin Ranger District completed an Outfitter and Guide Capacity Assessment District-wide outside the Jedediah Smith Wilderness.*
  - ☑ *The Palisades District completed outfitter and guide capacity studies in three analyses between 1991 and 1995.*
  - ☑ *Ashton/Island Park Ranger District completed winter outfitter capacity study.*
  - ☑ **The Forest will propose to reword this objective** *to establish use capacities using a process currently tried and accepted by the land managing*

*agencies. The method used shall be suitable for the complexity of the issues and be reasonable within time and budget constraints.*

- Restrict development of concentrated development sites to the smallest area possible (Rx 8.1)
  - ☑ ***This direction has been met but it is not worded as an objective. The Forest will propose to change this objective to a guideline.***
- Obtain materials from commercial sources or borrow sites identified in the Forest “Compendium for Material Sources.”
  - ☑ ***This direction has been met but it is not worded as an objective. The Forest will propose to change this objective to a guideline.***

## Wilderness

### DESIRED CONDITIONS AND GOALS

The goal for the wilderness program on the Targhee is to maintain wilderness character for the Jedediah Smith and Winegar Hole Wildernesses as specified in the enabling legislation and RFP management prescriptions. The Targhee uses six indicators called “Limits of Acceptable Change (LAC),” to measure impacts from recreation use on wilderness character. Standards are defined for each of the three wilderness management prescriptions in Chapter V of the RFP. According to the 1997-99 Monitoring and Evaluation (M&E) Report, Wilderness monitoring occurred on approximately 663 acres in South Leigh Lakes Basin. During 2000-2003, a monitoring protocol was finalized, and additional monitoring was completed on approximately 30,000 acres in the Jedediah Smith Wilderness. Forest Service employees, permitted outfitters, and the Resort Naturalist at Grand Targhee recorded the number of parties encountered while traveling in the Wilderness. The standard was exceeded for Indicator 1 (campsite density) and for Indicator 2 (area of bare ground) at all sites that were monitored. Overall, standards were met for Indicators 3, 4, and 5: trail width, visitor encounters, and complaints of conflicts with other uses. Illegal snowmobile use in the Jedediah Smith Wilderness has been documented using aerial surveys and exceeds the standards for Indicator 6 (violations) in all Prescription Areas. Thirteen violation notices were issued during the winter of 2002-2003 and four were issued in 2003-2004.

According to the National Visitor Use Monitoring (NVUM) project, of the 2.2 million visits to the Caribou-Targhee NF in 2000, approximately 21,270 visits were to the Jedediah Smith and Winegar Hole Wilderness Areas. Visitor satisfaction with the scenery and condition of the environment was very good for Wilderness Areas. As with the general recreation visitors, many of the people visiting the Wilderness were only somewhat satisfied with the condition of Forest roads and trails and the adequacy of signage. Visitors were the least satisfied with the availability of information on Wilderness recreation opportunities. While this is an issue the Forest can address, increasing the amount of information on Wilderness opportunities may also lead to increases in visitor days. This could, in turn, compromise the Wilderness character of the area, especially in the heavily-visited Leigh Lakes area of the Jedediah Smith Wilderness Area. Illegal motorized use of the Wilderness in the winter continues to occur. The Forest has launched a concerted effort to patrol the Wilderness boundary. This effort has resulted in issuance of multiple citations and appears to have deterred many others from entering the Wilderness on snowmachines. See the Recreation program summary for more information.

Current Wilderness monitoring efforts have emphasized recreation impacts. Nationally, the Agency is moving towards increasing emphasis on monitoring ecological processes in relation to maintaining wilderness character. Monitoring data from the Forest’s Wilderness areas indicate that recreation use is on the rise, and the established limits of acceptable change are being exceeded in some areas. To address these issues, the Forest is putting more emphasis on managing Wilderness Areas to national standards. Emphasis is being placed on monitoring activities in the Jedediah Smith WA, even though it is a Priority Group 3 item.

**The Forest will propose to shift the Jedediah Smith Wilderness monitoring from a Priority Group 3 item (RFP V-35) to Priority Group 1.**

One of the many popular attractions in the Jedediah Smith Wilderness is Darby Wind Cave. An estimated 10,000 people visit the entrance to the Wind Cave each summer. As many as 80 people have been recorded at one time in the vicinity. The quarter-mile of trail that accesses the cave entrance is on an extremely steep slope

and past attempts to fix the worst areas never held up. In 2004, Teton Basin Recreation Technician Mike McFaddin proposed building a trail almost entirely from rock. Because this trail was in the Wilderness, Mike and his crew had to devise methods to move and place large rocks on steep slopes using primitive tools. Using a high-lead cable rigging system, grip hoists, chisels and other primitive tools, the crew built 74 overlapping stone stairs, 57 stone steps (step and run), 143 linear feet of crib wall, and 211 square feet of retaining wall; developed 20 feet of bed rock into tread and made other improvements. For this impressive effort, Mike McFaddin was awarded the Intermountain Region's 2004 Primitive Skill-Minimum Tool Leadership Award.

*Figure 20: High-lead cable rigging system used to transport large limestone rocks to trail.*



*Figure 21: Teton Basin Ranger District employee and a volunteer the building retaining wall and steps below the cave.*



#### OBJECTIVES

- Coordinate with the Wyoming Game and Fish Department to prepare a wilderness fishery management plan within five years of implementation of the ROD [2002], with consideration of the State's existing fishery management plan for wilderness fisheries. (RX 1.1.6, 1.1.7, 1.1.8: Designated Wilderness—Opportunity Classes I, II, and III)
  - ☑ *The Forest is currently drafting a fishery management strategy for both the Jedediah Smith and Winegar Hole Wildernesses*
- Implement a wilderness education program for all users, which could include: yearly contacts with local schools; yearly programs with organizational camps; information available at Forest and District offices for distribution to the public; periodic contacts at trailheads by Forest Service personnel with wilderness users; ethics orientation for wilderness use presented to permittees and Forest Service personnel; and information about grizzly bears. (Rx 1.1.6, 1.1.7, 1.1.8: Designated Wilderness—Opportunity Classes I, II and III)
  - ☑ ***This objective has been met.*** *A wilderness education program is ongoing and includes visitor contacts by wilderness rangers in the Jedediah Smith and Winegar Hole Wilderness areas, signage at 10 trailhead bulletin boards, visits to organization camps and schools. The Resort Naturalist Program at Grand Targhee Ski and Summer Resort also includes a wilderness education element.*
- Install signs at wilderness trailheads advising users they may encounter a variety of other legitimate wilderness uses including sheep and cattle grazing, llama trekking, etc. (Rx 1.1.6, 1.1.7, 1.1.8: Designated Wilderness—Class I, II, III; Rx 1.3: Recommended Wilderness)
  - ☑ ***This objective has been met.*** *Signs are posted annually at trailheads accessing portions of the Jedediah Smith Wilderness where livestock grazing is allowed.*
- Within the grizzly bear recovery zone, an active education program will be implemented each year, including patrols during the fall hunt.
  - ☑ ***This objective has been met.***

## Inventoried Roadless Areas

#### DESIRED CONDITIONS AND GOALS

The Targhee RFP does not establish separate management for Inventoried Roadless Areas (IRAs). Instead, during the revision process, Forest personnel reviewed the characteristics of the 16 IRA's on the Targhee. Based on the resource conditions and wilderness characteristics, the Forest applied management prescriptions to these IRAs. For example, parts of the Italian Peaks IRA in the Lemhi/Medicine Lodge Subsection are managed under a recommended wilderness prescription. Other parts of this IRA are managed under a range management prescription, because it is the main resource use in the area. IRA's cover approximately 841,000 acres on the Targhee zone of the Caribou-Targhee National Forest.

Over the past several years, the Forest Service has been wrestling nationally with management of IRAs. The Roadless Area Conservation Rule (RACR) of 2001 prohibited timber harvest and road building in IRAs, with some exceptions. After several lawsuits were filed, the RACR was enjoined nation-wide. For the past three years, IRA's have been managed in accordance with the July 7, 2001 letter from the Chief of the Forest Service in which the Chief reserved all road construction and timber harvest decisions to himself, except where a Forest Plan revision had carefully considered the management of IRAs. Since the Targhee RFP considered IRA characteristics, road construction and timber harvest activities can be conducted in IRAs, if allowed by the RFP management prescription. In May of 2005, the Forest Service issued a new final rule for IRA management. This Rule retains the earlier direction that the IRA's will be managed according to Targhee RFP direction. The new rule also will establish administrative procedures to allow Governors to petition the Secretary of Agriculture to undertake future rulemaking for the management of inventoried roadless areas within their specific states.

Unless Governors choose to initiate a change through the petition process, existing inventoried roadless area management requirements contained in individual land management plans will remain unchanged.

Despite the legal ability of the Forest to harvest timber in IRA's where the management prescription allows it, no timber harvest or road construction has occurred over the last eight years in any of the Inventoried Roadless Areas. The Box Canyon Timber Sale decision, issued in 2000, would allow timber harvest on 525 acres or one half of one percent of the 97,775-acre Bear Creek IRA. No road construction, reconstruction, or temporary roads are authorized in the IRA by the Box Canyon decision. This sale, however, has been offered twice and has not been purchased. Since the RFP was signed, the Forest has conducted timber harvest activities in roaded areas, and emphasis has been on road decommissioning to meet RFP route density standards.

## Tribal Coordination and Heritage Resources

### DESIRED CONDITIONS AND GOALS

The Targhee RFP does not include any goals or desired conditions for the heritage resource program or tribal relations. Tribal relations have been addressed outside of the forest planning process. Tribal relations are being fostered, and the Forest recently developed an agreement allowing free use gathering of posts and poles in two areas on the Forest. In addition, the Forest is working with the Shoshone-Bannock Tribes to develop a consistent protocol to achieve consultation and better integrate tribal concerns into projects and activities. Working closely with the Tribal technical staff, the Forest has developed a template for analyzing impacts of forest management activities on tribal treaty rights.

Traditionally, Forest personnel surveyed cultural resources during project-level analyses and developed mitigation to eliminate impacts. A strong program for cultural resources was not considered during the Forest's Forest Plan revision efforts in 1997. Since that time, however, the heritage resource program on the Forest has been rebuilding. Surveys have been conducted on a backlog of projects. Forest managers have emphasized a more proactive approach to these important resources by avoiding potential sites during project planning instead of mitigating effects afterwards. The Forest Archeologist has developed an informal predictive model which shows project planners where sites are likely to be found. Thus, sites and potential sites can be avoided early in the planning process. Caribou and Targhee NF cultural resource records are being consolidated, and a field crew has been conducting surveys for the past eight years. Each year, hundreds of acres across the Forest are surveyed for the presence of cultural resources.

In 1998, the Dubois Ranger District completed an analysis to stabilize the Birch Creek Charcoal Kilns, an important historic site on the Dubois District. The structure repairs began in the summer of 2000 with District personnel scraping old mortar off the bricks and other preparatory work. In 2001, an Interagency team of historic architects, masons, and archeologists converged on the site to restore two kilns and stabilize another as a ruin. In another cooperative effort, the Targhee restored historic Big Falls Inn at Mesa Falls on the Henry's Fork of the Snake River. Both of these sites are on the National Register of Historic Places.

### OBJECTIVES

- Complete heritage resources inventory of the Big Hole Mountains subsection by 2007.
- Complete heritage resources inventory of the Caribou Mountains subsection by 2007.
  - ☑ ***The Forest will propose to delete these objectives. Heritage resource surveys are completed in areas where ground disturbing projects are planned. It is not necessary or efficient to survey areas as large as an ecological subsection if ground disturbing projects are not planned there. Instead, efforts should be applied to surveys in areas with potential ground disturbing activities, refinement of the predictive model, and maintenance or restoration of sites eligible for listing on the National Register of Historic Places.***

## *Production of Commodity Resources*

### **Range**

#### DESIRED CONDITIONS AND GOALS

The goals for the livestock grazing program is that domestic livestock grazing is managed to meet desired vegetative conditions for site specific areas in upland and riparian plant communities, and various resources including maintenance of adequate plant and litter ground cover, nutrient recycling, forage for wildlife species, seed production, and the restoration and maintenance of riparian communities.

As a whole, the rangeland vegetation trend is upward, except where high sagebrush densities are affecting understory species. Upland vegetation is generally under-utilized by livestock, although some sheep allotments continue to experience heavy grazing in localized areas. Actual livestock use on the Forest is lower than the amount permitted. For example, in 2004 there were 240,320 HM (Head Months) permitted on the National Forest and only 204,996 actually ran; this is almost a 15 percent reduction. This reduction is due to a variety of factors and reflects the grazing permittees' willingness to be flexible in order to maintain and improve range conditions. Permittee monitoring is increasing; some Districts have been monitoring cooperatively with their permittees since the early 1990's while others are just beginning with the Forest's Permittee Monitoring Guide and INFISH's "2000 Implementation Monitoring Module." Forest rangeland managers read key area utilization transects on about 46 percent of the total number of open allotments each year. These are the allotments which are a high priority for monitoring, due to environmental conditions, livestock management, or many other factors. On the Palisades Ranger District, about 75 percent of open allotments are monitored each year using RFP methods. Rangeland managers conduct other forms of monitoring throughout the grazing season, as well. For the past eight years, 98 percent of the open allotments on the Forest have met RFP grazing standards. About 96 percent of the monitored riparian areas and upland sites were grazed at or lower than the maximum allowable use level.

Rangeland managers are revising and updating allotment management plans in accordance with the Recission Act schedule agreed to by the Forest Service and Congress. In this process, the Forest is disclosing the effects of grazing to the public through the National Environmental Policy Act (NEPA) process. Of the 135 Caribou-Targhee allotments that were placed on the schedule in 1995, 85 (63%) are now NEPA sufficient. These analyses disclose the site-specific impacts of livestock grazing to RFP utilization levels. Some NEPA analyses also propose structural improvements such as fences and water developments to further improve allotment resource conditions. In 2003, the Palisades District completed the Moody, South Fork, Burns AMP Revisions. This decision included fences which would facilitate rest-rotation grazing and eventually exclude livestock from about 1,400 acres of riparian habitat. In addition to using Forest Service funds, money for materials and installation of the fences was garnered from many partners, including the Eastern Idaho Resource Advisory Committee (RAC), Greater Yellowstone Coordinating Committee (GYCC), Trout Unlimited (TU), and McGarry Ranch. On the North Moody allotment, the Fish Creek Meadows enclosure was completed in 2004 and the Graham Hollow enclosure is scheduled for completion in 2005.

Figure 22: Fish Creek Meadows fence created an enclosure one half mile long in the riparian area.



On the Burns allotment, the boundary fence was reconstructed and cattle guards installed to prevent cattle from straying off the allotment and accessing portions of Burns Creek, which is closed to grazing. Funding partners for this project included: Idaho Department of Parks and Recreation, Greater Yellowstone Coordinating Committee (GYCC), and Eastern Idaho RAC. Range and recreation programs of the Palisades District jointly constructed the project.

Figure 23: Crossing device to allow ATV's and motorbikes to cross the fence without having to open and close gates.



OBJECTIVES

- By 2007, improve the ecological status of 1,200 acres of riparian habitat currently reported as not meeting Desired Vegetation Condition (DVC) to meeting or moving toward DVC.
  - ☑ **This objective has been met.** *Approximately 7,972 acres of riparian habitat on nineteen allotments have been permanently closed to grazing since 1997. Since the signing of the RFP, another 42 allotments, affecting about 328,608 acres, have had allotment management plan revisions, analyzed through the NEPA process, which are designed to maintain or improve vegetative conditions. These allotments contain about 13,144 acres of riparian habitat. As a result of the closures and revisions, approximately 21,116 acres of riparian habitat show improved ecological status since the signing of the RFP.*
  - ☑ *In 1999, 50 acres were improved through installation of watershed improvement structures in Beaver Creek (Dubois Ranger District).*
  - ☑ *The Moody, South Fork, Burns AMP Revisions excluded livestock from approximately 1,200 acres of cottonwood bottoms along the South Fork of the Snake River and from an additional 200 acres of riparian habitat elsewhere on these allotments. This management action is expected to improve the ecological status of these acres.*
- By 2007, improve 26,400 acres of uplands (nonriparian and nontimber plant communities) currently reported as not meeting Desired Vegetation Condition (DVC) to meeting or moving toward DVC.
  - ☑ **This objective has been met.** *Approximately 199,311 acres of upland vegetation have been improved by closing nineteen allotments<sup>10</sup>. Since the signing of the RFP, another 42 allotments have had allotment management plan revisions, analyzed through the NEPA process, which are designed to maintain or improve vegetative conditions. These 61 allotments contain about 527,919 acres of upland habitat, both forested and non-forested. Using the average ratio of forested to non-forested vegetation on the Forest (68 : 32), approximately 184,770 acres of rangeland vegetation are improving due to closure and restrictions on livestock grazing.*
  - ☑ *Between 1999 and 2002, approximately 7,500 acres of sagebrush/grasslands not meeting DVC were treated by prescribed fire and an herbicide to meet DVC in the Beaver Creek drainage (these are perimeter/affected acres, not "black" acres).*
- By 2007, implement grazing systems or Allotment Management Plans (AMPs) designed to meet Range Goals on all grazing allotments.
  - ☑ **This objective has been met.** *In accordance with Forest Service policy, AMP revisions are being analyzed and the effects disclosed to the public through the National Environmental Policy Act (NEPA) process. In the past eight years, sixty-one allotments have become NEPA sufficient through allotment management plan analyses or closures. A total of 85 of the allotments (63%) on the Forest are NEPA sufficient.*
  - ☑ *In 1997 and 1998, all grazing permits were modified to include the forage utilization and stubble height standards and guidelines from the Targhee RFP. These standards are designed to improve upland and riparian vegetation conditions where livestock grazing has been determined to be the cause of less than satisfactory conditions. Even on the allotments without recent NEPA analysis, grazing management is designed to meet the forest-wide range goals.*
  - ☑ *The Forest has been analyzing grazing at a large scale. The 2004 Caribou Subsection Range Analysis covered eight sheep allotments west of Palisades*

<sup>10</sup> Actual acres and degree of improvement depends on if grazing was causing the less than satisfactory conditions.

*Reservoir. The Porcupine Pass East Grazing Analysis, scheduled for completion in 2005, is analyzing the effects of grazing on nine allotments in the Centennial Mountains Subsection.*

- Establish utilization levels for key browse and grass species in either the Allotment Management Plan or the Annual Operating Plan for allotments within elk and deer winter ranges.
  - ☑ *All livestock grazing permits were modified in 1998 to include Forest-wide and Prescription 2.8.3 Aquatic Influence Zone utilization standards. In addition, thirteen of the 25 allotments containing some areas of elk and deer winter range have been analyzed using the NEPA process. Where winter range forage was an issue, it was addressed in the allotment management plan revision. These allotments covered 43,818 acres (52%) of the elk and deer winter range on the Targhee zone.*
  - ☑ ***This is not worded as an objective. The Forest will propose changing this to a guideline in Prescription area 2.7.1 and 2.7.2.***
- Within three years of signing the ROD [2000], assess opportunities to modify grazing allotment boundaries and permits to more effectively use natural barriers, change grazing patterns, adjust seasons of use, administratively close some additional areas, etc.; to further separate winter domestic sheep grazing in the Medicine Lodge portion of the subsection from bighorn sheep. (Lemhi-Medicine Subsection)
  - ☑ ***This objective has been met.*** *Approximately two thirds of the Scott and Mahogany Canyon sheep allotments were closed to grazing, and the remaining portion has been converted to cattle grazing. This area is being used in conjunction with a BLM allotment. This eliminates two of the four domestic sheep allotments near the bighorn population. As a result, approximately 18,756 acres have been closed to sheep grazing to better improve bighorn sheep habitat in this subsection since 1997.*
  - ☑ *One of the two remaining allotments grazed by domestic sheep is used only in the winter. Bighorn sheep experts believe there is little potential for interaction. The other allotment, grazed in both summer and winter, has a high potential for interaction between domestic sheep and bighorns, particularly dispersing bighorn males. The Dubois District is developing a management plan to identify alternatives to alleviate the potential conflict.*
  - ☑ *In 2003, the Dubois District invited bighorn sheep experts to evaluate bighorn habitat in the Heart Mountain area. In addition to providing direction regarding domestic sheep grazing (see bullet above), they recommended habitat improvements. These recommendations include installing more wildlife water catchments, such as "guzzlers," and using fire or mechanical treatments to open the vegetation on north slopes. Bighorns require open country for security which is determined by site distance. Timber on many of the north slopes has become so dense that the area would not be used by bighorns (Bighorn Sheep Habitat Monitoring on Dubois Ranger District).*
- Within three years of signing the ROD [2000], assess opportunities to modify grazing allotment boundaries and permits to more effectively use natural barriers, change grazing patterns, adjust seasons of use, administratively close some additional areas, etc.; to further separate domestic sheep from bighorn sheep. (Teton Range Subsection)
  - ☑ ***This objective has been met.*** *The Forest has been working with the Foundation for North American Wild Sheep (FNAWS), National Wildlife Federation (NWF) and the grazing permittees to phase out domestic sheep grazing on the West Slope of the Tetons. All four domestic sheep bands previously grazing this subsection have been removed, eliminating domestic sheep from approximately 161,767 acres of the subsection.*
- In addition to the objectives listed above, three standards are related to closure of livestock grazing allotments, as follows: Island Park Subsection—better manage grizzly bear habitat by closing some specific sheep allotments to grazing (page III-48); Centennial Subsection—better manage grizzly bear

habitat and watershed conditions by closing some specific sheep allotments to grazing (page III-44); and Caribou Range Subsection—better manage watershed conditions by closing one sheep allotment to grazing (page III-64).

- ☑ **This direction has been met:**
  - ☑ *In the Island Park subsection all sheep allotments that were scheduled to have grazing phased out have been closed to manage grizzly bear habitat. These four allotments were closed in 1997 and cover approximately 69,718 acres on the Ashton/Island Park Ranger District.*
  - ☑ *In the Centennial Mountain subsection, approximately 2,700 acres were closed to grazing for watershed protection in 1997. On the Ashton/Island Park District, 12 allotments were to be closed to grazing (either immediately or by phasing out when opportunities arose). To meet this direction, three domestic sheep allotments covering approximately 16,500 acres were closed in 1997. Four other sheep allotments have been vacant (ungrazed) since 2000. Two of the 12 allotments remain open to grazing. To date, of the possible 69,012 acres scheduled for closure, approximately 29,017 acres (42%) are closed, 27,967 acres (41%) are vacant and not likely to be grazed and 12,028 acres (17%) remain open to grazing.*
  - ☑ *In the Caribou Range subsection, one sheep allotment (6,500 acres) on the Palisades Ranger District was closed to grazing in 1997 to improve watershed conditions.*

## Timber Management

### DESIRED CONDITIONS AND GOALS

The RFP goal for timber management is to use silvicultural techniques as a tool to manage or manipulate vegetation for the purpose of achieving Forest Plan resource objectives. Emphasis will be placed on restoration of ecological function, structure, and composition. The Targhee NF should make available a sustainable level of fuelwood and insure that fuel loading on activity areas meets site productivity objectives for soils and wildlife objectives while not contributing to excessive fire hazards. The RFP includes goals for precommercial thinning aimed at restoring ecological structure, function, and composition while mimicking natural patch sizes and tree densities occurring across the landscape.

To meet these goals, timber management projects have evolved from merely providing lumber to local mills into ecological restoration projects. This concept is described in the preceding sections on “properly functioning condition” and “vegetation”. When a stand is identified for harvest, commercially or non-commercially, a certified silviculturist must write or review a “silviculture prescription” for the stand. This prescription describes how the stand must be managed in order to meet vegetative objectives. To write prescriptions, foresters use predictive models, such as the forest vegetation simulator (FVS), a computer model which predicts how a given stand will grow under different management regimes. The FVS is an invaluable tool for managers who are trying to achieve a diversity of stand structure and composition across the landscape. Silviculture prescriptions may use either even or un-even aged systems. The prescriptions are tied directly to the stands and where possible should simulate natural patch size and patch shapes. The prescriptions take into account the analysis from the NEPA document pertaining to connectivity and how the relationship of the stand fits within the project area. Because such a large part of the Forest, about 80 percent, is in mature conditions, prescriptions on the Forest are generally designed to favor early seral species by removing conifers from aspen stands and regenerating aspen where possible or removing the subalpine fir and mature lodgepole to favor lodgepole regeneration. Commercial thinning in Douglas-fir has been done to increase the vigor of the stands and lower insect susceptibility. .

According to the RFP, the Allowable Sale Quantity (ASQ) for the decade is 80 million board feet (mmbf), or 8 mmbf per year. From 1997 through 2004, the Forest has offered 21 mmbf, of timber for sale. This includes the Miners Creek Timber Sale, which sold in August, 1996 and is currently being re-analyzed as directed by Court

Order. The Forest has offered approximately 26 percent of the decadal ASQ and sold about 12 MMBF or 15 percent in the first seven years of the RFP. In 2004, an additional 6.2 MMBF of the decadal ASQ was offered but not awarded due to litigation. This is far below the expected output and far below what is needed to meet RFP goals for creating a diverse array of stand structure, age, and composition. The following table shows the completed and projected timber offerings through the first decade of the Forest Plan.

Table 5: Completed and projected timber offerings for the Targhee portion of the Caribou-Targhee National Forest for the first decade of the Targhee RFP.

Year	1998	1999	2000	2001	2002	2003	2004	2005 <sup>1</sup>	2006 <sup>1</sup>	2007 <sup>1</sup>	Total <sup>1</sup>
Volume Offered (MMBF)	8.5 <sup>2</sup>		2.3	0.7	0.3	3.0 <sup>3</sup>	6.2 <sup>4</sup>	7.0	7.0	4.0	40.8
% Total ASQ for decade	10		3	<1	<1	4	8	9	9	5.0	51

1: Figures for these years (2005, 2006, 2007 and Total) are projected.

2: This includes Miner's Creek Timber Sale, which was sold and then enjoined by the Courts and as of 2004 has not been cut.

3: 2.8 MMBF of this was in the Box Canyon Timber Sale, which was offered but not purchased.

4 : 5.4 MMBF of this volume is included in the Hale Canyon and McGarry Salvage timber sales, which are both currently under litigation and have not yet been awarded.

OBJECTIVES

- Design timber management projects to simulate natural patch sizes, patch shapes, connectivity, and species composition and age class diversity.

- ☑ *As worded, this is not an objective. **The Forest will propose rewording this objective and changing it to a goal. The goal proposal would be "Timber management projects simulate natural patch sizes, patch shapes and connectivity. Forest vegetation management moves stands towards more natural species composition and age class diversity."***

