GREATER YELLOWSTONE
COORDINATING COMMITTEE

2006 and 2007 Report

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2008

On the cover: View from Bozeman Pass, Montana. GYCC file photo

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GYCC File

Upper Sunlight Basin
Shoshone National Forest

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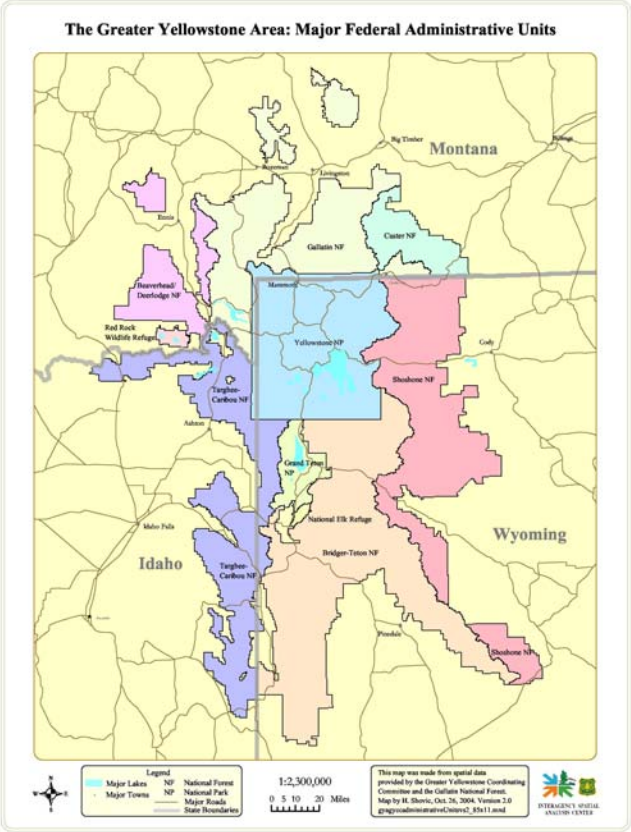
INTRODUCTION

The Greater Yellowstone Area (GYA) is a unique and special place. Home to the world's first National Park and to our first National Forest, it contains some of the nation's most treasured resources. Federal lands in the GYA, administered by six National Forests, two National Parks and two National Wildlife Refuges, are geographically contiguous, ecologically interdependent, and unalterably linked.

The Greater Yellowstone Coordinating Committee (GYCC) was established in 1964 between the National Park Service and the U.S. Forest Service. The U.S. Fish and Wildlife Service joined the committee in 2000. The GYCC allows representatives from the three agencies to communicate, coordinate and cooperate in federal land management in the GYA.



The GYCC consists of the Park Superintendents of Yellowstone and Grand Teton National Parks, the Forest Supervisors of the Beaverhead-Deerlodge, Bridger-Teton, Caribou-Targhee, Custer, Gallatin, and Shoshone National Forests and the Refuge Managers of Red Rock Lakes National Wildlife Refuge and the National Elk Refuge. Nearly 14 million acres of federal land are comprised in these ten management units.

In the early 1980's, small groups of resource specialists started working together on public land issues such as fire, weeds, and wildlife. Over time many of these groups formalized into GYA committees. Dedicated employees advance ecosystem priorities through the:

- Clean Air Partnership
- Fire Management Team
- Hydrologist Team
- Invasive Species Committee
- Recreation Visitor Use Group
- Sustainable Operations Committee
- Whitebark Pine Cooperative

Beginning in 2000, the GYCC units pooled funds for coordinated work that addresses eight resource priorities:

- improving land patterns
- watershed management
- invasive species management
- native cutthroat trout conservation
- whitebark pine conservation
- recreation management
- threatened and endangered species
- coordinated information and data management

This report summarizes the 2006 and 2007 accomplishments of the GYCC, their staff and many Greater Yellowstone Area-wide subcommittees dedicated to coordinated resource priorities. Appendices A and B summarize all GYCC funded projects in 2006 and 2007 respectively.

ACCOMPLISHMENTS

Land Patterns

Between 2000 and 2007 the population of twenty Greater Yellowstone Area counties grew by an estimated 54,000 people (source: www.census.gov). The richness of the natural amenities, proximity to public lands, and outdoor recreation opportunities draw people to the region. Technology and access to commercial air transportation allow people to make a living even if their work is derived outside of the region. In the same period, over 26,000 additional housing units were estimated by the U.S. Census. Development patterns on private lands near public lands can affect wildlife migration, air quality, water resources, and fire fighting on federal lands. The land patterns priority looks at the mosaic of land ownership with attention to ecological integrity, retention of public access, and management efficiencies.

Program goals of this priority are to:

- Establish logical and effective ownership patterns for public and private landowners.
- Protect critical habitat including big game winter habitat, rare and unique plant communities, and valuable riparian habitat.
- Protect critical open space, naturally appearing landscapes, and recreation opportunities including access to public lands.
- Share information, build program, and assist with development of partnerships that help protect critical habitat and open space.

A specific subcommittee does not work on land patterns in the Greater Yellowstone Area (GYA). Each agency has land specialists involved in projects that often become the focal point of coordination with other interested parties.

In FY2006, $284,000 of Land and Water Conservation Funds (LWCF) purchased 67.58 acres in the Duck Creek area north of West Yellowstone, Montana. In FY2007, $980,000 of LWCF purchased 245 acres in the Bozeman Pass area east of Bozeman, Montana.

GYCC File

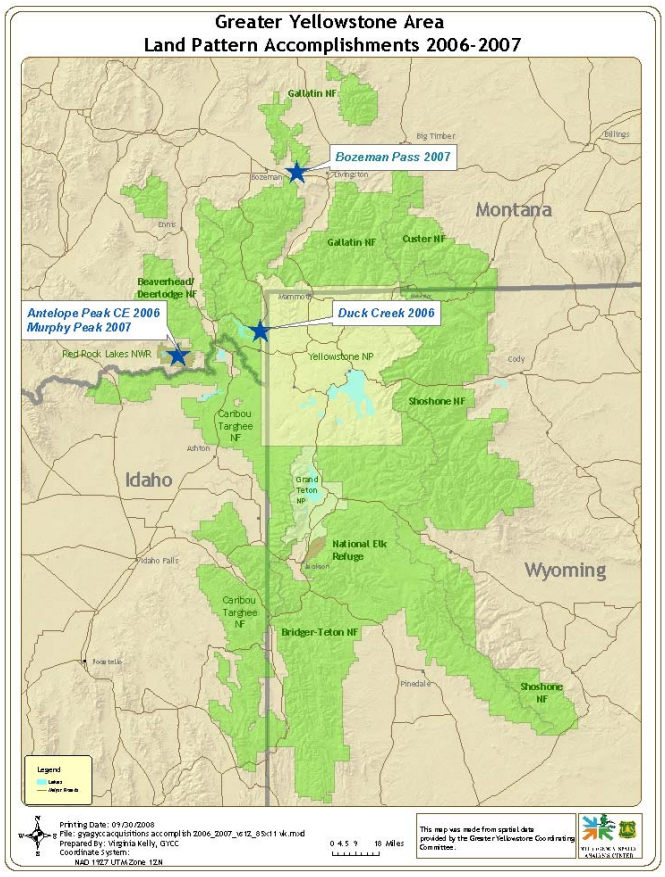
Bozeman Pass, east of Bozeman, Montana

Red Rock Lakes National Wildlife Refuge accomplished over 5,500 acres in fee title acquisition and conservation easements in 2006 and 2007. In 2006, the Refuge acquired the 3,346 acre “Antelope Peak” conservation easement for $480,000 from private foundations. The Refuge holds over 20,000 acres in conservation easements.

In 2007, the Refuge acquired 2,158.75 acres in the Murphy Creek purchase, using $2.1 million in Federal Land Transaction Facilitation Act (FLTFA) funds and $1.4 million from the Migratory Bird Conservation Commission

RRL NWR

Murphy Creek wetland. Red Rock Lakes NWR



Clean Air Partnership

The Greater Yellowstone Area Clean Air Partnership (GYACAP) consists of air resource program managers and specialists for the National Park Service, U.S. Forest Service, BLM, U.S. Fish and Wildlife Service, Wyoming, Montana, and Idaho Departments of Environmental Quality, and the Idaho National Energy Lab. GYACAP serves as technical advisors on air quality issues to the GYCC, provides a forum for communicating air quality information and regulatory issues, and coordinates air quality monitoring between states and federal agencies in the GYA.

In 2005, the GYCCAP updated its 1999 Air Quality Assessment, updating information \o the following four primary air quality issues within the GYA:

- urban and industrial emissions,
- oil and gas development in SW Wyoming,
- prescribed and wildfire smoke, and
- snowmobile emissions.

The full report is available at: http://www.fs.fed.us/r1/gallatin/resources/air/gyacap/.

Air quality in the GYA remains generally excellent, as the GYA is largely undeveloped, with limited emissions sources and predominantly robust dispersion. Emissions in Yellowstone NP have dropped dramatically since the requirement of snowmobile Best Available Technology for air and sound emissions. Oil and gas development in southwestern Wyoming is expected to increase.

In 2007, Class 2 air quality plans were completed for Montana's Lee Metcalf and Absaroka-Beartooth Wilderness Areas. See: http://www.fs.fed.us/r1/gallatin/resources/air/aq_plans/

Watershed Management

The GYA is the headwaters to several of America's most prominent rivers; the Missouri, Yellowstone, Snake and Green. GYA headwaters are important to fish, wildlife and recreation, while downstream communities depend on these waters for domestic, agricultural and industrial use.

In 1990, an ad hoc group of professional hydrologists formed a Greater Yellowstone Hydrologists (GYH) Subcommittee. This subcommittee coordinates watershed management across GYA federal units and serves as technical advisors on watershed issues to the GYCC. In 2001, the GYH Subcommittee completed the "*Watershed Management Strategy for the Greater Yellowstone*", focusing on coordinated implementation of effective stewardship practices for GYA watersheds and aquatic ecosystems.

The GYH completed a strategy update in 2006 which builds on the original strategy by adding focus to the current five most important regional watershed issues:

- water rights and water supply
- water quality protection and compliance
- watershed, riparian area, and geomorphic integrity
- interagency cooperation on a watershed scale

View the 2001 Strategy and 2006 update at http://fedgycc.org/gycc_subcommittees.htm#Hydros

In 2006 and 2007, the GYCC supported seven watershed restoration projects, a Culture of Water Symposium and a riparian workshop. An example restoration project from the Caribou-Targhee National Forest is described below.

Allan Canyon Road and Stream Restoration, Caribou-Targhee National Forest 2007

Caribou-Targhee NF

Before-- Flood waters from Allan Canyon were captured by an old road creating gully erosion. Floodwater traveled down a swale which intersected the road; flood water overwhelmed the culvert on the main road.

Caribou-Targhee NF

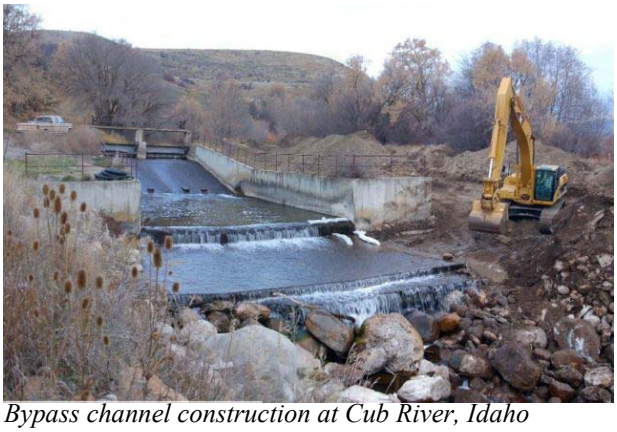
After—Natural floodplain topography reconstructed and gully filled. Barrier boulders repositioned to exclude future travels and disperse recreation down the old road.

Native Cutthroat Trout Conservation

In 2006, *The Range-Wide Status of Yellowstone Cutthroat Trout* was updated, with funding support from the GYCC. The last status report was completed in 2001. The document may be viewed at: http://www.fedgycc.org/documents/YCTStatusUpdate2006.pdf

GYCC funding supported 15 fisheries projects in 2006 and 2007. They include a range of projects related to fish occupancy and habitat utilization surveys, mapping, and habitat restoration.

For example, the Caribou-Targhee NF and many partners restored fish passage around a full-spanning irrigation diversion structure on Cub River, a Bonneville cutthroat trout stronghold stream.



Trout Unlimited

Bypass channel construction at Cub River, Idaho diversion site in 2006.

The Custer National Forest created the Crooked Creek fish passage barrier to protect and expand an isolated genetically unaltered Yellowstone cutthroat trout (YCT) population from nonnative trout invasion by re-creating a natural barrier destroyed by a 2002 debris flow.

Custer NF

Crooked Creek Fish Passage Barrier. 2007

Invasive Species

The Invasive Species Working Group (subcommittee) first met in 1993 after a core group had developed the "Guidelines for the Coordinated Management of Noxious Weeds in the Greater Yellowstone Area" in 1991. Over the past 15 years the working group has built a broad base of cooperators in the fight against invasive terrestrial species in the GYA. The Committee won a national Special Achievement Award by the Federal Interagency Committee for the Management of Noxious and Exotic Weeds in 2007.

In 2006, GYCC units and partners began coordinating efforts for management of aquatic nuisance species. The GYCC awarded funds in 2006 and 2007 to support seventeen terrestrial and one aquatic invasive species inventory, treatment, mapping and education projects. The GYCC continued to support the GYA wide weed database and mapping.

Threatened and Endangered Species

The GYCC contributes to Threatened and Endangered Species recovery by assisting on-going efforts for federally listed species and agency-designated species, such as sensitive or globally rare species. GYCC units provide management, communication and coordination, additional funding, and data sharing and expertise.

The year 2007 was an important year in threatened and endangered species recovery. In March 2007, the U.S. Fish and Wildlife Service removed the threatened Yellowstone grizzly bear from the endangered species list. This population of grizzly bears had increased from estimates as low as 136 individuals when listed in 1975 to more than 500 animals as of 2006.
Yellowstone grizzlies will continue to be managed under a comprehensive Conservation Strategy that includes intensive monitoring of Yellowstone bears, their food and habitat. The GYCC agencies formally incorporated the Conservation Strategy's habitat and population standards into the six National Forests' Land Management Plans and into Yellowstone and Grand Teton National Park Compendiums.

The GYCC agencies, partner Tribes and federal, state, and county agencies will continue to monitor the population and manage habitat to ensure continued recovery of Yellowstone grizzlies. These partners cooperate together via the Yellowstone Grizzly Coordinating Committee (YGCC), a subcommittee of the Interagency Grizzly Bear Committee. More information for the YGCC can be found at: http://www.igbconline.org/html/yellowstone.html

The GYCC contributed to an update of the Grizzly Bear Cumulative Effects Model (CEM) Model in 2006, and awarded funds to four projects around the GYA in 2006 and 2007 to foster bear safe food storage, study grizzly bear management areas, and for public education and outreach on human/grizzly bear co-existence.

In June 2007, the U.S. Fish and Wildlife Service announced the recovery of the Bald Eagle and removed it from the list of threatened and endangered species. The Service will work with state wildlife agencies to monitor the status of bald eagles for a minimum of five years, as required by the Endangered Species Act.

The GYCC contributed to studies and management plans for three additional species. In 2006, the GYCC contributed to a Yellowstone National Park study of habitat requirements of at-risk wolverines in the Absaroka Mountain Range, and a Northern goshawk conservation assessment which included the Caribou-Targhee and Bridger-Teton National Forests. In 2007, the GYCC contributed to a master plan for the Western Wyoming Pronghorn Migration Corridor.

Whitebark Pine Conservation

Whitebark pine is a "keystone" species throughout the Greater Yellowstone Ecosystem (GYE). Its seeds are a major food source for wildlife, including grizzly bears and Clark's nutcracker. Mountain pine beetles and the introduced white pine blister rust have decimated white-bark pine stands throughout its range.

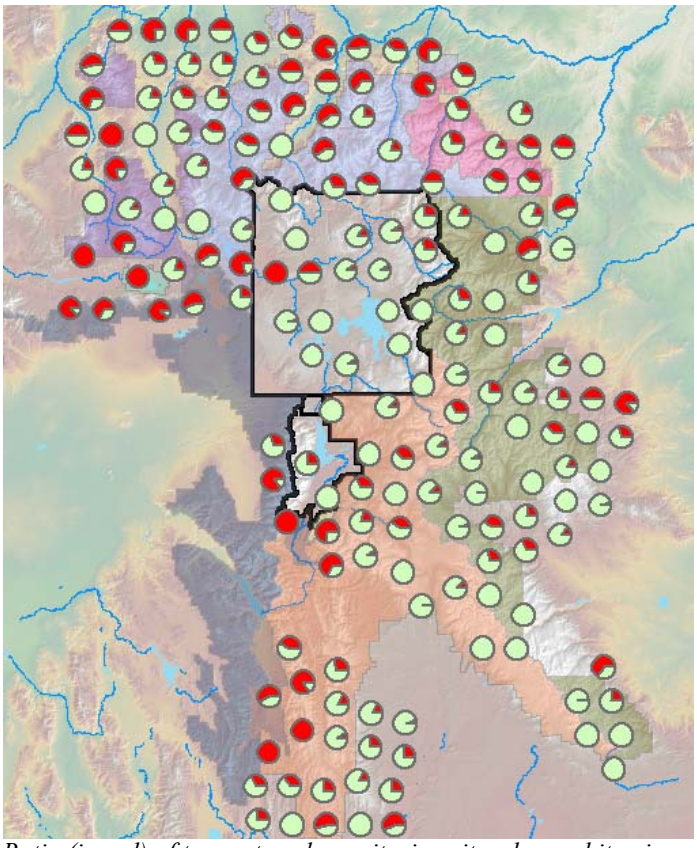
The health of whitebark pine populations in the GYE is threatened by a variety of factors, including: 1) white pine blister rust,

an introduced pathogen; 2) the endemic mountain pine beetle; and 3) changing fire and climate regimes. Monitoring the status and trends of whitebark pine populations provides managers an understanding of subalpine ecosystem health and the availability of a major food supply for grizzly bears.

The mission of the Greater Yellowstone Whitebark Pine Cooperative (subcommittee) is to help ensure the long-term viability and function of whitebark pine in the Greater Yellowstone Area. The subcommittee is comprised of federal land management staff, university and agency researchers, and non-governmental groups interested in the long-term viability of whitebark pine.

A GYA monitoring program with NPS, USGS, and Montana State University began in 2004 to understand the status and trends in whitepine blister rust infection. Between 2004 and 2005, a total of 127 transects were established and 100 whitebark pine stands were surveyed. The GYCC contributed funds to this effort in 2007.

In 2007, 16 new blister rust transects were established to complete a panel of 177 plots in GYE (with 4,731 individual tagged whitebark pine trees). The new transects were primarily on the Bridger-Teton and Shoshone National Forests. In 2007, individual tree mortality and indications of mortality from mountain pine beetle were also recorded. Researchers preliminarily estimate that about 20% of live trees in the GYA are infected with whitepine blister rust. About 86% of the blister rust cankers were detected on tree branches, rather than the tree's main bole.



Ratio (in red) of trees at each monitoring site where white pine blister rust was recorded during ground-based surveys from 2004 through 2007 (provisional data). For readability pie charts may not be placed on the actual survey location. Source: http://greateryellowstonescience.org/files/pdf/Whitebark_Brief_GYE.pdf

More information on the status of whitepine blister rust and mountain pine beetle infestation can be found at: http://www.greateryellowstonescience.org/topics/biological/vegetation/whitebarkpine

Additional GYCC contributions to whitebark pine conservation include completing a GYA whitebark pine map in 2006, and in 2007 a study of the availability of native mycorrhizal fungi to whitebark pine planted at Dunraven Pass in Yellowstone NP.

Recreation Management

The GYCC supported winter recreation visitor use monitoring on the six GYA National Forests for 6 consecutive years, from the winter of 1999/2000 through the winter of 2004/2005. A primary objective of the monitoring was to understand levels of use and emerging trends as the National Parks undertook winter use planning. The monitoring was also considered useful for forest plan revisions, for the grizzly bear conservation strategy amendment to forest plans, and for the continued evaluation of winter recreation use effects on other users and natural resources, particularly lynx, wolverine and grizzly bear denning.

In 2006, a five year report for the 1999-2004 monitoring concluded that only in Montana's Hebgen Basin area did the uncertainly of the NPS winter rules appear to have an overall effect on snowmobile use on the Forests. Other overall trends for winter visitor use were reported as:

- A general trend of increased winter foot traffic (cross country skiing, snowshoeing and even walking) despite marginal snowpack for these five winters.
- Snowmobile use changes were more difficult to discern and were compounded by low snowpack.
- New technology allows snowmobile access to previously inaccessible areas.
- Snowmobile trespass into closed areas is an issue for most, if not all, Forests.
- Overflights of winter recreation use areas appear to be a marginal and expensive technique for the data acquired in this manner.
- It is difficult to obtain high quality recreation use data that is comparable across years and across units. Some units have had better luck with traffic counters while trailhead vehicle counts seem to provide better in other locations.

Overall trends in wildlife impacts from winter visitor use were reported as:

- New technology allows snowmobile access to previously inaccessible areas; although this access was not a major factor in these five years due to low snowpack.
- A gradual increase in foot traffic, especially near towns, was noted despite low snowpack.
- Overflights were not very reliable to gather use data. Overflights may be valuable in determining the extent of trespass into closed areas and possible increased area of snowmobile use.
- The continued support of the Wildlife Conservation Society wolverine study may help to determine some of the potential effects of winter use on this carnivore species.
- No conflict between denning and emerging grizzly bears was observed. Grizzly bears tend to den where snowmobiles cannot travel, whether or not the area is legally open.

In the winters of 2005/2006 and 2006/2007, the GYCC contributed to winter use monitoring on three National Forests who requested continued support for this effort. The GYCC also contributed to a recreation site inventory in the Absaroka Beartooth Wilderness in 2006, and ATV trail and use monitoring on the Shoshone National Forest in 2006 and 2007.

Fire Management

The Greater Yellowstone Fire Management Team coordinates fire management planning within the GYA, provides specific operating principles and procedures to ensure effective interagency coordination and management of GYA fires.

The *Greater Yellowstone Area Interagency Fire Management Planning and Coordination Guide* was revised in 2006. Updates occur on a 5-6 year cycle. In 2007, a Fire Use Brochure was printed and distributed among GYA units.

Data and Information Sharing

The objective of this priority is to collaborate in collection and management of resource data that enhances and facilitates coordination; to gather better representative information for a particular resource or management question (sensitive to scale); and to efficiently manage information across the Greater Yellowstone region.

In 2006, the GYCC contributed to developing a Relational Database from Legacy Elk Radio Telemetry Data at the National Elk Refuge. In both 2006 and 2007, the GYCC supported development of a database compiling natural resource data of value to Native Americans. The GYCC also supported the 8th Biennial Scientific conference in October 2005. The conference theme was *Greater Yellowstone Public Lands, A Century of Discovery, Hard Lessons, and Bright Prospects*. The proceedings from this conference, as well as conferences dating back to 1997, may be found at: http://www.nps.gov/yell/naturescience/conferencearchive.htm

The GYCC also continues to support the GYA invasive species GIS mapping project, managed by Fremont County, WY.

The GYCC's website at www.fedgycc.org provides information on the GYCC's roles, participants, history, subcommittees, projects, and meetings and events. GYCC project reports may be found on the website, beginning with the 2007 GYCC project reports.

Sustainable Operations

The GYCC chartered a new subcommittee in 2005 to facilitate overall coordination, collaboration, technical advice and guidance for sustainable operations practices throughout the GYA public lands. In 2006, the committee developed an action plan with nine key focus areas:

1. Expand waste -stream reduction, with an initial focus on propane cylinder recycling.
2. Expand alternative fuel use.
3. Fuel, fleet and transportation management.
4. Purchase and use biodegradable materials (e.g. cleaning products, recycled paper).
5. Increase energy efficiency and renewable energy actions.
6. Communicate the importance of sustainable operations internally.
7. Standardize public messages/ interpretation on sustainable operations endeavors.
8. Explore needs and opportunities to reduce federal agency footprint with shared housing, administrative and public-contact facilities.
9. Increase technology applications that implement sustainable practices.

In 2007, the committee developed and distributed a GYA all-employee letter with sustainable fleet and transportation management expectations. This letter was signed by all of the GYCC managers, and was distributed well beyond the GYA.

The committee expanded the propane cylinder recycling program pioneered in Yellowstone in 2005. With GYCC support in 2007, nine small and five larger collection bins were fabricated and distributed throughout the GYA. In addition, the

Bridger-Teton National Forest offices in Jackson, WY began separating and composting grass and yard clippings.

GYCC File

Propane Cylinder Recycling Bin

The Madison Ranger District Office in Ennis, Montana installed solar panels in a first-ever Forest Service/Northwestern Energy grant partnership under the company's alternative energy grant program. The GYCC also contributed funding to this project.

Beaverhead-B=Deerlodge NF

Two Photovoltaic arrays along the south facing side of the Madison District office, Ennis, MT. October 2007.

Many of the projects reported on in this document have a more comprehensive report of the method, findings and referenced materials. The 2007 GYCC project reports may be found at http://www.fedgycc.org/GYCCProjectReports2007.htm. For additional contacts or information on the 2006 GYCC projects please contact Virginia Kelly at vkelly@fs.fed.us. 406-587-6704.

APPENDIX A. Summary of 37 FY 2006 GYCC Projects – Ordered By Project Type

Project Type: Land Patterns. One Project.				
Unit	**Project**	**Description**	**Benefits**	**External Partnerships**
Gallatin NF	Bozeman Pass fee and conservation easement purchase	Cost share land survey, appraisal, title and deed work.	Protect vital wildlife crossover area for wide ranging carnivores/ungulates.	Craighead Research Institute, Gallatin Co., TPL, American Wildlands, Gallatin Valley Land Trust, local residents.
Project Type: Watershed Management. Four Projects.				
Unit	**Project**	**Description**	**Benefits**	**External Partnerships**
Caribou-Targhee NF	Sheep Driveway trail - ATV use restoration	Restore trail; limit sediment into Pine Creek, a significant tributary of South Fork Snake River and home to YCT.	Watershed restoration, Yellowstone Cutthroat Trout.	None identified.
Custer NF	Aspen restoration program	Regenerate 50 acres of aspen. Cut 4-10 acre patches of aspen.	TES wildlife and watershed management value.	Ruffed Grouse Society, MT FWP, volunteers.
Gallatin NF	Gardiner Basin restoration demonstration	Restore 155 acres of cultivated/irrigated hay lands back to natural vegetation.	Watershed management, wildlife habitat improvement potential.	Nat. Fire Restoration, RMEF, CIPM - CWMA support.
Shoshone NF	Buffalo Bill Historical Center "Culture of Water Symposium"	Host "watering the West" symposium: evolution of water ownership, control and conflict in the west. Venues: Cody, WY, NYC Newberry Library or Chicago Field Museum of Nat. History.	Watershed management, public education/information sharing. Inform and build public land stewards amongst the citizenry on public land natural resources.	Buffalo Bill Historical Center
Project Type: Native Cutthroat Trout Conservation. Seven Projects.				
Unit	**Project**	**Description**	**Benefits**	**External Partnerships**
Bridger- Teton NF	Colorado cutthroat trout survey and distribution mapping.	Survey trout populations, migration trends, and habitat in Green River drainage.	Declining populations but rate is unknown.	WY Game and Fish, BLM, Trout Unlimited.
Caribou-Targhee NF	Cub River fish passage project	Provide fish passage over a Cub River full span irrigation dam; Bear River tributary.	Bonneville trout spawning habitat– species of concern.	Cub River Irrigation district, Bear River SA ECC, FRIMA
Gallatin NF	Upper Yellowstone and Missouri River drainage cutthroat trout mapping, monitoring and restoration.	Survey previously unsampled locations, resurvey sites to determine population status, remove non-native salmonids to restore Westslope and Yellowstone CT.	Listing status of both Westslope and Yellowstone cutthroat trout is in litigation.	Turner Foundation, MT FWP
Grand Teton National Park	Investigate use of water rights to protect native cutthroat trout.	Determine legality of converting existing rights into resource protection uses.	Watershed management, native cutthroat trout conservation.	Trout Unlimited
Grand Teton National Park	Spring Snake River cutthroat trout spawning migration.	Develop restoration plan for improving spring migration habitat on Spring Cr.eek.	Native cutthroat trout conservation.	One Fly, NFWF, WY Game and Fish Dept.

Unit	Project	Description	Benefits	External Partnerships
Yellowstone National Park	Inventory Yellowstone, Snake River fine-spotted cutthroat trout in the Upper Snake River.	Describe seasonal distribution of YCT and fine-spotted cutthroat trout in Upper Snake River drainage and remote YNP headwaters	Baseline information for cutthroat trout conservation plans.	NPS Intermountain Region Inventory and Monitoring program.
Greater Yellowstone Area (GYA)	Native cutthroat trout initiative of the GYA	Update YCT status review report. Identify restoration opportunities, resource data needs, partnership niche. First step to a GYA Native Campaign Trout Campaign.	Useful to initiate a campaign and draw in additional partners and resources. Data also needed for FWS status review of YCT	USFWS; MT, WY, ID fish and wildlife agencies
Project Type: Invasive Species. Eleven Projects.				
Unit	**Project**	**Description**	**Benefits**	**External Partnerships**
Beaverhead-Deerlodge NF	Madison watershed noxious weed risk assessment/ prioritization analysis.	Use GYCC weed map to develop watershed level weed risk assessment. Develop analysis protocol to prioritize weed treatment.	Weed treatment through integrated practices in significant watershed and waterway.	MT FWP, BLM, Madison CWMA, Madison Valley Ranchlands, Counties.
Beaverhead-Deerlodge NF	Madison flying weed blivits (multifunctional vinyl water tanks)	Test the practicality of helicopter support water supply for ground weed treatment in remote terrain.	Weed treatment in remote areas with high potential for success and for source spread.	BLM, Madison CWMA, Madison Valley Ranchlands, Madison Weed District.
Bridger- Teton NF	Front line assistance program – weed management program in Lincoln County, WY	Implement Front Line Assistance Programs in public/private land interface.	Program known to be successful in communicating private land weed management needs.	Highlands CWMA, Lincoln Co Weed & Pest, State & Private Forestry, NFWF
Caribou-Targhee NF	Dubois District weed discovery and mapping update	Update current information, GIS weed data layer, survey and map new weed infestations. Test use of remote sensed imagery & predictive weed risk models.	Cooperative noxious weed management work using NASA imagery and models that predict weed risks.	ISU, NASA, Bonneville Co.
Custer NF	Beartooth Front off road noxious weed control.	Monitor, map, treat weeds. Prevent spread from main travel ways into backcountry.	Improve watershed and elk winter range habitat.	Private landowners and allotment permittees.
Custer NF	Upper Stillwater River corridor noxious weed treatment.	Treat, monitor, map Dalmatian Toadflax, spotted knapweed, leafy spurge across 7,500 acres of private and public land.	Improve erosion and watershed, bighorn sheep winter range and other wildlife habitat.	Beartooth CWMA; Stillwater Mining Co, MT FWP, Stillwater Co., landowners
Grand Teton National Park	Snake River salt cedar control.	Inventory, map and control salt cedar along the Snake River in GRT NP.	Important to overall integrity of watershed	Teton Co. Weed and Pest
National Elk Refuge	Early detection of invasive species and evaluation of focus areas on the Refuge.	Map noxious weed infestations on Gros Ventre & Flat Creeks, waterways, roads, trails. Develop integrated weed projects.	Improve critical elk, bison & antelope habitat on the Refuge. Stop weed spread.	Teton Co. Weed and Pest, Teton Conservation. District
Shoshone NF/ GYA	Invasive species education, outreach, program development and coordination.	Implement subcommittee working groups, BMP development, and costs for "*Why Should I Care*" brochure.	Supports weed education, outreach, mapping & collaboration.	Multiple Cooperative Weed Management Areas, county weed and pest staff in GYA.
GYA	County based sand and gravel pit inspection program in GYA.	Test sand and gravel pit inspection program of 6 GYA counties.	Contain weed dispersal from sand and gravel materials.	Madison, Gallatin, Park MT; Park, Teton WY; Fremont ID

Unit	Project	Description	Benefits	External Partnerships
Greater Yellowstone Area (GYA)	Support GYA weed mapping and coordinated data management program.	Support regional consortium focused on development of annual weed map of 52 top GYA invasive species.	Pro-active weed control effort; critical tool for invasive species prevention work.	13 Cooperative Weed Management Areas, 19 counties.
Project Type: Data Management and Information Sharing. Two Projects.				
Unit	**Project**	**Description**	**Benefits**	**External Partnerships**
Yellowstone National Park	Natural resources significant to American Indians.	Compile database of natural resource data of value from a tribal perspective, using consultations and oral history interviews.	Data useful for adding all dimensions of natural resource values.	None identified.
GYA	Biennial Scientific Conference	Sponsorship of 8th Biennial Scientific conference on GYE, October 2005.	Forum for information sharing on all GYCC priorities.	WY University
Project Type: Whitebark Pine Conservation. One Project				
Unit	**Project**	**Description**	**Benefits**	**External Partnerships**
Bridger- Teton NF	Whitebark pine map (WbP) – digitizing survey data	Digitize half of Forest's timber survey maps with WbP information for GYA map	Data useful for Forest planning and project management.	USGS –Northern Rocky Mountain Science Center
Project Type: Threatened and Endangered Species. Five Projects.				
Unit	**Project**	**Description**	**Benefits**	**External Partnerships**
Beaverhead-Deerlodge NF	Spring-summer implementation of bear-safe food storage regulations	Multi-year project to improve back-country food storage practices. Install structures that facilitate bear-safe food storage, patrols and education outreach.	Safe food storage practices are significant to human safety and grizzly bear conservation.	Gravelly Range Grizzly Project, Defenders Wildlife, Tread Lightly, A.B.Schultz Foundation Ruby-Madison Grizzly Team
Shoshone NF	Grizzly bear interpretation and education	Public education/outreach on human/grizzly bears co-existence at Draper Museum and at North Fork Shoshone campgrounds.	Safe human co-existence is critical to grizzly bear conservation in the GYE.	Draper Museum
Greater Yellowstone Area (GYA)	Grizzly bear habitat analysis model update (CEM and Access)	Grizzly bear modeling coordinator to reprogram models to work on desktop environment, and training in model use.	CEM and motorized access analysis as required in Grizzly Bear Forest Plan Amendments.	Interagency Grizzly Bear Study Team (IGBST)
Yellowstone National Park	Habitat requirements of at-risk wolverines in the Absaroka Mountain Range	5-year study to determine population, den site attributes, habitat status and characteristics, connectivity, mortality sources. Describe recreation intensity and distribution.	Conservation support, understanding recreation use on wolverine and in high elevation habitats. Public outreach on wolverine conservation needs.	Yellowstone Park Foundation, USFS Rocky Mtn Research Station, NPS CESU, University of Montana.
Caribou-Targhee NF	Northern goshawk conservation assessment.	Conservation Assessment for 7 National Forests, including Caribou- Targhee and Bridger-Teton.	Lawsuit may have implications to other GYA forests with goshawk as MIS species.	None identified.

Project Type: Recreation Management. Five Projects.				
Unit	**Project**	**Description**	**Benefits**	**External Partnerships**
Beaverhead-Deerlodge NF	Winter recreation use monitoring	Continue to collect winter visitor use information in key locations, coordinate w/ Wildlife Conservation Society monitoring.	Information for TES wildlife and recreation management.	Wildlife Conservation Society
Caribou-Targhee NF	Winter recreation use monitoring	Continue to collect winter visitor use information in key locations, to identify trends in use as NPS winter use changes.	Information for recreation and wildlife since 2002; useful trend data emerging.	Fremont Co. ID Parks and Recreation, Tri-county grooming committee.
Shoshone NF	Winter recreation use monitoring	Continue to collect winter visitor use information in key locations to identify trends in use as NPS winter use changes.	Information for wildlife and recreation management.	None identified
Shoshone NF	ATV trail and use monitoring	Monitor and document ATV use, identify resource damage; prioritize restoration.	Assess watershed conditions, manage motorized recreation use	WY State ATV trail crews.
Gallatin NF	Absaroka Beartooth Wilderness recreation site inventory and weed mapping	Collect site attributes and human effects data at all camps and recreation sites completed in 1995/2000 and 40% of sites in 2004. Complete inventory of remaining 60% of campsites, map weeds, report data.	Recreation management; needed for wilderness and forest planning; contributes to FS national datasets – INFRA wild	Montana State University, volunteers, RMEF, MT FWP
Project Type: Sustainable Operations. One Project.				
Unit	**Project**	**Description**	**Benefits**	**External Partnerships**
Greater Yellowstone Area (GYA)	Sustainable Operations Subcommittee Program	Initiate new GYCC charted subcommittee. Travel, preparation of foot-print assessment of the GYE and leverage other funding.	Build on NPS sustainable practices; extend sustainable practices around the region.	None identified.

Partner Acronyms:

BLM: Bureau of Land Management
CIPM: Center Invasive Plant Management
CWMA: Cooperative Weed Management Area
ISU: Idaho State University
MT FWP: Montana Fish Wildlife and Parks
NFWF: National Fish and Wildlife Foundation
RMEF: Rocky Mountain Elk Foundation
TPL: Trust of Public Lands
USFWS: US Fish and Wildlife Service
NPS CESU: National Park Service Cooperative Ecosystems Studies Unit

APPENDIX B. Summary of 36 FY 2007 GYCC Projects – Ordered By Project Type

Project Type: Land Patterns. Two Projects.				
Unit	**Project**	**Description**	**Benefits**	**External Partnerships**
Gallatin NF	Rigler (Slip 'n Slide Ranch) Land Acquisition	Land purchase staff work, LWCF requests and other purchase funding, and pursue public and political support.	Critical grizzly bear and wolf habitat; bison, elk, mule deer winter range, YCT streams.	Rocky Mountain Elk Foundation, MT Fish Wildlife and Parks
Gallatin NF	Royal Teton Ranch – Geothermal/Hydrothermal Conservation Easement	Prepare Geothermal Conservation Easement, prepare baseline monitoring report, develop RMEF agreement to facilitate annual easement monitoring	CE prohibits development and exploitation of GYE geothermal/ hydrothermal resources.	Church Universal and Triumphant, Rocky Mountain Elk Foundation
Project Type: Watershed Management. Five Projects.				
Unit	**Project**	**Description**	**Benefits**	**External Partnerships**
Beaverhead-Deerlodge NF	Primitive Road Stabilization	Stabilize 2-track roads being expanded into 3-5 tracks. Use signing and drainage work.	Reduces sedimentation, soil loss and invasive species spread.	Resource Advisory Committee (RAC), 4x4 clubs
Caribou-Targhee NF	Allan Canyon Stream Restoration and Sediment Reduction	Restore bank stability, address dispersed recreational use, plug portion of old road bed, upgrade 4 culverts.	Addresses dispersed recreational use, reduces erosion, improves water quality.	ID Department of State Lands, Clark County ID
Custer NF	Beartooth District Aspen Restoration Program	Regenerate 50 acres of aspen.	TES wildlife and watershed management value.	Ruffed Grouse Society MT Fish, Wildlife and Parks
Gallatin NF	Cutler Meadow Restoration Strategy	Restore 150 acquired acres previously irrigated hay fields. Re-establish a sustainable native vegetation.	Major demonstration project for other "difficult to establish" restoration projects.	Rocky Mountain Elk Foundation
Greater Yellowstone Area (GYA)	Riparian Vegetation and Stream Relationship Investigation – Strategic Planning Workshop	Conduct 3-day workshop to develop science-based strategy to investigate the ecological interaction between riparian vegetation and stream channels.	2006 GYA Watershed Strategy: "Better define relationship be-tween physical stream health and riparian vegetation health."	Invitations extended to Federal and State agencies, universities, and GYA partners and sponsors.
Project Type: Native Cutthroat Trout Conservation. Eight Projects.				
Unit	**Project**	**Description**	**Benefits**	**External Partnerships**
Beaverhead-Deerlodge NF	Ruby River Fluvial Arctic Grayling Spawning Habitat Restoration	Restore low-gradient water habitat with gravel substrate for high-quality spawning habitat.	Petition for listing pending.	MT Fish, Wildlife and Parks American Wildlands
Bridger-Teton NF	Colorado Cutthroat Trout Survey and Distribution Mapping	Confirm streams supporting Colorado River trout (CRCT), extent of occupancy, and connectivity of adjacent populations.	State and federal biologists will use this CRCT information in 2005 Conservation Agreement.	WY Game & Fish Department, WY DEQ Grant through Trout Unlimited
Caribou-Targhee NF	Horseshoe Creek Sediment Reduction and Yellowstone Cutthroat Trout Enhancement	Improve 3 road segments putting sediment into creek in storm events. Fish friendly passage. Eradicate brook trout.	Watershed and native cutthroat.	Bureau Rec, Trout Unlimited Friends Teton River, Jackson Hole One Fly, USFWS

Custer NF	Crooked Creek Fish Passage Barrier	Construct barrier to protect core aboriginal YCT population from nonnative invasion. Allows 2.5 miles downstream expansion from historic barrier site.	Maintains physical isolation, prevents competition and non-nonnative hybridization for YCT population at risk of extinction.	MT Fish, Wildlife and Parks, BLM, Trout Unlimited, Fish Carvers Association.
Gallatin NF	Upper Yellowstone and Missouri River Drainage Cutthroat Trout Mapping, Monitoring and Restoration Project	Nonnative trout removal in three creeks, habitat restoration. Inventory unsampled streams, assist broodstock development; resurvey previously sampled populations to evaluate current population status; update distribution / threat maps.	Aid cutthroat recovery across the GYA and across the range of cutthroat trout in North America. The ESA listing status of both cutthroat subspecies is in litigation.	Turner Enterprises MT Fish, Wildlife and Parks
Shoshone NF	Yellowstone Cutthroat Trout GIS Mapping Project	Link G&F stream reach level population and habitat information with Forest geo-spatial data. Show native and non-native species distribution overlap.	Contributes to GYE-wide YCT status assessment, addresses large/small scale YSC and other fisheries management issues.	Wyoming Game and Fish YSC Range Wide Team
Grand Teton National Park	Native Cutthroat Trout Habitat Utilization and Spawning in a Managed Hydrological Regime, on Snake River, Buffalo Fork & Pacific Cr.	Examine trout movement/spawning relative to Jackson Lake dam management; water release schedules/sediment transport influence on spawning. Determine timing and extent of migration and spawning	Determine whether cutthroat spawning is impeded in the Snake River and tributaries as a consequence of water release schedules at Jackson Lake dam.	Wyoming Game and Fish USGS, USFWS, Bureau of Reclamation, Teton Water Conservation District, Army Corp of Engineers.
Yellowstone National Park	Replicate a Genetically-Pure Westslope Cutthroat Trout Population in an Isolated Drainage	Complete spawning for collection. Culture fertilized eggs at broodstock facility. Remove nonnative fish; restore WCT into Specimen Creek watershed.	Reduces WCT extinction risk within YNP. Benefits state and federal partner efforts for Upper Missouri River WCT restoration.	MT Fish, Wildlife and Parks Yellowstone Park Foundation
Project Type: Invasive Species. Eight Projects.				
Unit	**Project**	**Description**	**Benefits**	**External Partnerships**
Bridger-Teton NF	Coordinated Early Detection – Rapid Response within National Forest Lands – Snake River Headwaters	Systematic searches in high potential locations. Bring daily survey findings to Forest Service and Weed and Pest Districts for rapid response decision.	Addresses rapid response and prevention of establishment of species.	Highlands/Jackson Hole CWMA, Lincoln/Teton Co, NRCS, WY G&F, RMEF, Star Valley Sportsmen Fish/Wildlife.
Caribou-Targhee NF	Mesa Falls Aquatic Invasive Species and Yellowstone Cutthroat Trout Education	Incorporate educational displays on aquatic invasive species prevention and native Yellowstone cutthroat history into Mesa Falls interpretive boardwalk.	Contributes to ANS prevention message across GYA.	Eastern Idaho Resource Advisory Committee (RAC) Snake River Cutthroat Trout Unlimited.
Caribou-Targhee NF	Early Detection - Rapid Response within Highland CWMA and U&I CWMA	Verify and incorporate existing GIS data. GIS model and prioritize potential weed susceptibility areas. Predict future infestation sizes.	Enhances ability to effectively and efficiently eradicate/ control invasive species. Informs effectiveness of past control.	Highland, U&I CWMA, 5 Idaho Counties, RMEF, ID F&G, DOL &DOT, Union Pacific Railroad, NRCS, FSA
Caribou-Targhee NF	Early detection- Rapid Response – Dubois Ranger District	Inventory and map new weed infestations; eradicate new infestations, follow-up visit and treatment in the same year.	Eradicates small infestations in the Kilgore area. Local CWMA highest priority.	Continental Divide CWMA Eagle Rock Back Country Horsemen

Unit	Project	Description	Benefits	External Partnerships
Custer NF	Cooperative Weed Management at the Headwaters of the Stillwater River	Treat all weeds on 1,000 plus NFS acres. Dovetail with Stillwater CO Weed District 9,000 acre weed treatment along Stillwater and West Fork Stillwater Rivers.	Retains native plant species to support wildlife diversity found on Bighorn Sheep winter range in Stillwater River drainage.	Beartooth CWMA; Stillwater Mining Co., Stillwater Co Weed and Pest, landowners, NRCS, MT FWP
Gallatin NF	Weed control in the Absaroka-Beartooth Wilderness	Continue weed treatment in remote portions of AB Wilderness with species- specific combination of mechanical and chemical controls. Update existing weed maps.	Top priority on the Chief's 10-year challenge and is a wilderness BFES target item.	RMEF, Sikes Act and R1 match, Hells-a-Roarin' Outfitters, Silver Tip Ranch, volunteers/student interns.
Grand Teton National Park	Understand the Distribution and Potential Spread of Cheatgrass: Tools to Assess Vulnerability, Early Detection, and Control	Understand cheatgrass distribution, identify vulnerable areas, create future expansion prediction/ detection framework. Define probable native species impacts.	Tool to understand invasive species status, potential spread.	WY Game and Fish Dept. Teton County Weed and Pest
GYA	GYA-wide Invasive Species Mapping	Map priority weed species with focus on "new invaders".	Most useful and cost-effective mapping effort; benefits GYA.	Fremont County, WY Weed and Pest unit.
Project Type: **Data Management and Information Sharing. Two Projects.**				
Unit	**Project**	**Description**	**Benefits**	**External Partnerships**
National Elk Refuge	Developing a Relational Database from Legacy Elk Radio Telemetry Data	Merge elk telemetry and related data into single relational database. Evaluate Bison and Elk Management Plan/EIS actions.	Data can be incorporated into NPS, FS and USFWS databases and information programs.	None identified.
Yellowstone National Park	Document & Inventory Natural Resources Significant to American Indians (Ethnographic Resources)	Complete collection and documentation of tribally significant natural resources information. Captures complex data. Can link with other NPS and federal databases.	GYA historical ecology dimension. Informs planning, research, decision-making, compliance and management.	None identified.
Project Type: Whitebark Pine Conservation. Two Projects				
Unit	**Project**	**Description**	**Benefits**	**External Partnerships**
Yellowstone National Park	Availability of fungi in Whitebark Pine seedlings on Dunraven Pass, YNP:	Determine if whitebark pine seedlings planted on Dunraven Pass have access to, and effectively associate with, native fungi.	Adds to the information base pertaining to restoration of on whitebark pine in the GYE.	Montana State University Rocky Mountain Research Station (FS)
GYA	GYA Whitebark Pine Monitoring Project	GYA-wide whitebark pine monitoring program - 4th year.	Significant source of whitebark pine monitoring information.	Greater Yellowstone Network, USGS
Project Type: Threatened and Endangered Species. Three Projects.				
Unit	**Project**	**Description**	**Benefits**	**External Partnerships**
Shoshone NF	North Fork Corridor Bear Jam Management	More effectively manage people at bear jams to prevent approaching and/or feeding bears. Increase funding to Sheriff's Dept. for bear jam response, traffic management.	Educate public regarding proper wildlife behavior as they enter YNP. County law enforcement likely to increase compliance.	Park Co. Sheriffs Dept. Wyoming Game and Fish

Bridger-Teton NF	Master Plan for the Western Wyoming Pronghorn Migration Corridor	Compile master plan with:-corridor location and use, -ongoing, past wildlife movement projects, - future long-term projects, - compare ideal and existing conditions, - steps to optimum migration conditions	Interagency effort to benefit the corridor. Information could become basis for administrative special area designation as a regionally important corridor.	Wyoming Game and Fish, Wildlife Conservation Society, Wyoming Wildlife Federation; Land Trusts; and communities
Yellowstone National Park	Develop Techniques to Evaluate the Effectiveness of Grizzly Bear Management Areas (BMA) in YNP.	Determine if Bear Management Areas meet their primary objectives. Determine potential conflict areas and if BMAs are working to protect both bears and humans.	BMA's are critical for grizzly bear recovery. Evaluation method can be used elsewhere with grizzly bears.	Interagency Grizzly Bear Study Team (IGBST) Yellowstone Park Foundation NPS CESU.
Project Type: Recreation Management. Four Projects.				
Unit	**Project**	**Description**	**Benefits**	**External Partnerships**
Beaverhead-Deerlodge NF	Winter Recreation Use Monitoring	Continue to collect winter visitor use information in key locations, coordinated with Wildlife Conservation Society monitoring.	Designed to detect changes in winter use of the area.	Wildlife Conservation Society, Montana Snowmobile fund
Caribou-Targhee NF	Winter Recreation Use Monitoring	Continue to collect winter visitor use information in key locations, to identify trends in use as NPS winter use changes.	Useful information for wildlife and recreation management, trend data emerging	Fremont Co, ID Parks and Recreation, Tri-county grooming committee
Shoshone NF	Winter Recreation Use Monitoring	Continue to collect winter visitor use information to identify use trends.	Useful information for wildlife and recreation management.	None identified
Shoshone NF	ATV Trail and Use Monitoring	Monitor and document ATV use, identify resource damage; prioritize restoration.	Assess watershed conditions, manage motorized recreation use	WY State ATV trail crews.
Project Type: Sustainable Operations. Two Projects.				
Unit	**Project**	**Description**	**Benefits**	**External Partnerships**
Greater Yellowstone Area (GYA)	Sustainable Operations Subcommittee Program	Implement SOS Strategy. Set up green-product purchasing program. Initiate award program for noteworthy SOS practices.	GYCC identified target of GYA-wide purchase of green product to be purchased for entire GYA.	None identified.
Beaverhead-Deerlodge NF	Office Alternative Energy Update at Forest Service Ennis, MT Office and Compound.	Add a grid-tied photovoltaic system to produce electrical power. Solar panels, 6KW inverter (to allow future upgrade), all wiring, mounting, materials, installation.	Expected cost saving $5-10,000 over 25-years. Initial installation provides 10% annual use; 6 KW target system to provide 30%.	Northwestern Energy. First NWE grant partnership with FS under its alternative energy grant program.

Partner Acronyms:

CWMA: Cooperative Weed Management Area
FSA: Farm Services Agency
MT FWP: Montana Fish Wildlife and Parks
NPS CESU: National Park Service Cooperative Ecosystems Studies Unit
NRCS: Natural Resource Conservation Service
RMEF: Rocky Mountain Elk Foundation
USFWS: US Fish and Wildlife Service
USGS: United States Geological Survey
WY G&F: Wyoming Game and Fish
ID F&G, DOL &DOT: Idaho Fish and Game, Idaho Department of Lands, Idaho Department of Transportation