

GREATER YELLOWSTONE
COORDINATING COMMITTEE



2010 Annual Report



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Greater Yellowstone Coordinating Committee

2011



American Pika

Photo: NPS

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On the cover: Fall Color and Mt Moran, Grand Teton National Park (Bowman)

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Photos and maps are from GYCC files or as indicated.

INTRODUCTION

The Greater Yellowstone Area (GYA) is a unique and special place. Home to the world's first National Park and to our nation's first National Forest, the GYA is widely viewed as the largest intact ecosystem in the lower 48 United States. Federal lands managed 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) formed 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 fosters communication, coordination and cooperation in GYA federal land management.

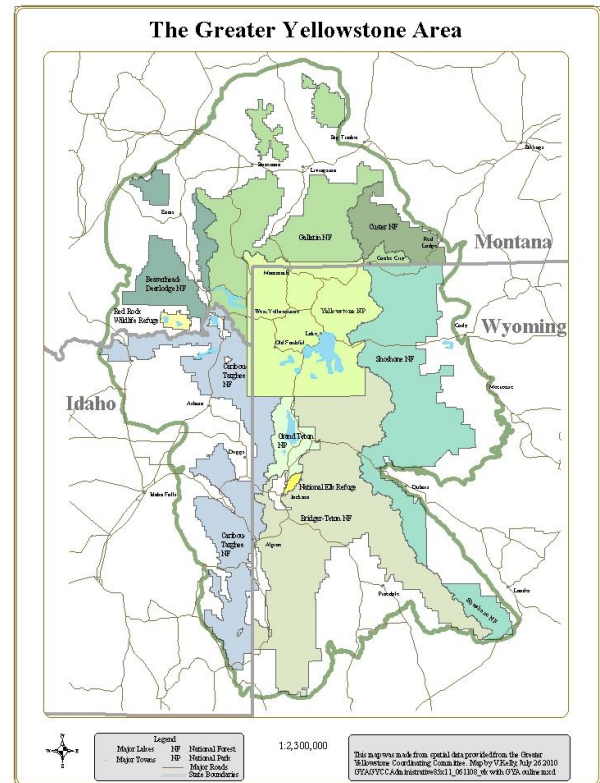
The GYCC consists of the top leaders of ten federal management units, which together comprise nearly 14 million acres.

- Park Superintendents of Yellowstone and Grand Teton National Parks.
- Forest Supervisors of six National Forests: Beaverhead-Deerlodge, Bridger-Teton, Caribou-Targhee, Custer, Gallatin, and Shoshone National Forests,
- Refuge Managers of Red Rock Lakes National Wildlife Refuge and the National Elk Refuge.

GYCC managers set regional level priorities and assign financial and staff resources to achieve those priorities. The GYCC units pool funds for coordinated work addressing these resource priorities.

In 2009, the GYCC affirmed its priorities as:

- Sustainable operations.
- Protect greater Yellowstone landscape integrity.

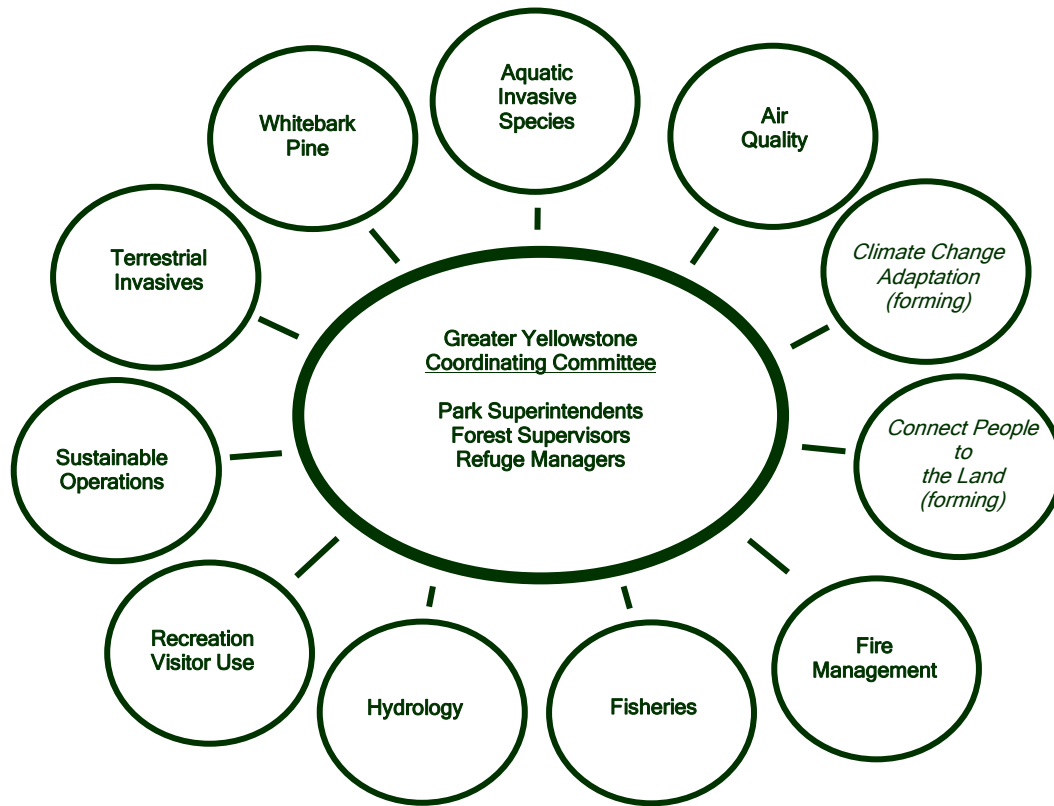


- Ecosystem health, in particular climate change, air quality, invasive species and disease, species on the brink, and water quality and flow.
- Connect people to the land.

The GYCC subcommittees displayed on page 2 carry out the on-going coordination of GYA management activities. Subcommittees include agency staff and partners. More subcommittee detail can be found at: http://www.fedgycc.org/gycc_subcommittees.htm

This report summarizes 2010 accomplishments of the GYCC, their staff and many GYA-wide subcommittees. The GYCC allocated about \$273,000 to projects advancing their priorities. Appendix A describes 2010 GYCC projects.

GYCC Subcommittees



ACCOMPLISHMENTS

Protect Landscape Integrity

Development patterns on private lands near public lands can affect wildlife migration, water resources, public access and fire fighting on federal lands. In the context of rapid land development over the past decade, the landscape integrity priority looks at land ownership patterns with attention to ecological integrity, retention of public access, and management efficiencies.

With Land and Water Conservation Funds (LWCF) and Sisk Act account funds, the Gallatin and Custer National Forests purchased another

772 acres of the Reeb Estate near Cooke City, MT, in addition to 697 acres acquired in 2009.



Reeb Estate Acquisition

Sustainable Operations

The Sustainable Operations Subcommittee (SOS) facilitates coordination of sustainable operations throughout GYA public lands, such as water and energy conservation, waste prevention and recycling.

In 2009, the GYCC completed the first regional interagency greenhouse gas emission inventory in the nation. In 2010, the agencies came together to create a “*Climate Action Plan*” to reduce greenhouse gas emissions.

GYCC staff and managers as well as National Renewable Energy Laboratory (NREL) staff participated in a GYA-wide Working Session in Bozeman, Montana in April 2010. Attendees completed draft action plans for their units and a prioritized list of GYA-wide projects.



Climate Action Plan Working Session April 2010

A \$250,000 Federal Energy Management Program (FEMP) technical assistance grant from the Department of Energy supported creation of the Climate Action Plan.

The SOS Committee began a new initiative to assess federal buildings for energy and water consumption. Architectural graduate student interns from Georgia Institute of Technology evaluated historic buildings for potential energy savings and assessed nearby creeks for micro-hydro potential.

Structures were reviewed at Red Rock Lakes NWR and at Rock Creek and Meyers Creek on the Beartooth Ranger District of the Custer NF.



Historic Structure at Red Rock Lakes National Wildlife Refuge Headquarters

In the second year of a continuing partnership, the Kohler company generously donated 19 faucets and 17 sinks to replace higher water using fixtures at several locations around the GYA. GYCC funds supported fixture installation.



New low flow faucet and sink donated by Kohler

See more SOS information at:
<http://www.fedgycc.org/SOSOverview.htm>

Ecosystem Health

The Ecosystem Health priority includes the air, water, soil, plant, fish and wildlife resources of the Greater Yellowstone Area. The GYCC focused this priority on climate change, air quality, invasive species and disease, water quality and flow, and species on the brink (native fish, wildlife and whitebark pine).

Climate Change

The GYCC seeks to understand the effects of climate change on GYA lands and resources, and how to manage these resources in light of the potential effects.

A new GYCC subcommittee formed late in 2010 to address climate change adaptation in the GYA region. Initial tasks included pulling together an inventory of GYA related climate change projects and publications.

The GYCC supported development of a climate change watershed sensitivity analysis process with projected completion in 2011.

Climate, Land Use and Invasive Species were focal topics of the 2010 Greater Yellowstone Ecosystem Biennial Scientific Conference.

The GYCC contributed \$11,500 to a partnership effort with the National Park Service to create two climate change literature syntheses; one focusing on changes in climate and the second on potential ecological responses to those changes. The documents and the biennial science conference material may be found at <http://www.fedgycc.org/ClimateChange.htm>

Air Quality

The Greater Yellowstone Area Clean Air Partnership (GYACAP) includes federal and state air resource program managers and specialists. The GYACAP advises the GYCC on

air quality issues, shares air quality information and regulatory issues, and coordinates air quality monitoring between state and federal agencies in the GYA.

In 2010, the GYCC supported a General Technical Report of statistical analysis of air quality trends in the southern GYA: *Lake and Bulk Sampling Chemistry, NADP, and IMPROVE Air Quality Data Analysis on Bridger-Teton NF*, Grenon et.al. RMRS-GTR-248WWW 2010. See: <http://www.fedgycc.org/documents/AIRbtnfRMRSgtr248.pdf>

Invasive Species and Disease

Invasive species and disease pose a serious threat to the GYA. Diseases of concern include brucellosis, whirling disease, chronic wasting disease and white pine blister rust. The whitebark pine committee addresses blister rust, while the Interagency Bison Management Plan guides management of bison in and around Yellowstone NP.

Terrestrial Invasive Plant Species

The Terrestrial Invasive Species Committee brings together a broad base of cooperators in the fight against invasive terrestrial plant species. See the subcommittee's webpage at: <http://www.fedgycc.org/WeedOverview.htm>



Helicopters drop Flea Beetles for Leafy Spurge control

The GYCC awarded 2010 funds to “Holding the Line”, a multi-partner effort in Eastern Idaho holding the line against the eastward spread of leafy spurge.

The GYCC also continued support of the GYA-wide weed database and GIS map.

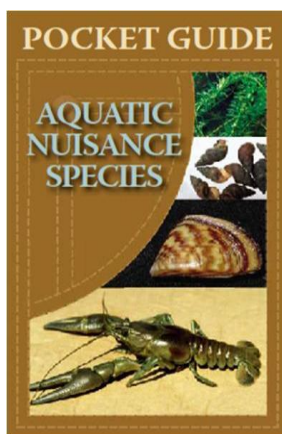
Aquatic Invasive Species

The GYA Aquatic Invasive Species (AIS) Cooperative includes federal, state and county agencies, local outfitters, organizations, and businesses.



Clean Inspect Dry: Power washing a boat in YNP

With GYCC and partner assistance, the AIS Cooperative in 2010 continued area wide outreach and inventory crew training, deployed public outreach crews, and conducted stream and lake inventory/ monitoring surveys. The team's own website is found at <http://www.cleaninspectdry.com/>



An Aquatic Nuisance Species Pocket Guide was modeled after the highly successful GYCC *Weed Pocket Guide*.

No new invasive aquatic species were known to have entered GYA waters in 2010. New infestations were found of species already in the GYA, such as perennial pepperweed.

Species on the Brink

Native Fish

GYCC funding supported fish surveys on streams around the GYA, and restoration actions on over 50 stream miles. Surveys demonstrate across the GYA that non-native fish species invasions are advancing and threaten persistence of native fishes. Restoration projects have been successful, but are expensive and labor intensive.



Caribou-Targhee NF Fisheries Crew

Wildlife

A two-year GYA wide survey of American Pika began in 2010. Pikas are one of the few mammals residing at high GYA elevations, and are considered an indicator species for detecting ecological effects of climate change. Seemingly common, little is known about their distribution, habitat requirements, and historic presence, or how climate change may impact the GYA population. A 2009 survey begun in Grand Teton and Yellowstone NPs was expanded to the rest of the GYA, and signs of pika were found on all federal units surveyed.

An assessment of carnivore linkages within the GYA and to adjacent ecosystems is underway.

Whitebark Pine

Whitebark pine is a GYA “keystone” species. Its seeds feed wildlife, including grizzly bears and Clark’s nutcracker. Mountain pine beetles and the introduced white pine blister rust reduce whitebark pine stands throughout its range.

The Whitebark Pine Committee involves GYCC agency staff, university and agency researchers, and works to ensure the long-term viability and function of whitebark pine in the GYA. See: <http://www.fedgycc.org/WhitebarkPineOverview.htm>

GYCC funds helped protect over 800 cone-bearing whitebark pine trees around the GYA from mountain pine beetles through use of the insecticide Carbaryl.



NPS photo by Nancy Bockino

A Bag of Whitebark Pine Cones

Cones from blister rust resistant “plus trees” have been collected for the past several years and their seeds grown in a nursery. A seed orchard location for rust resistant trees was identified on the Gallatin NF, with initial work in 2010 to establish the seed orchard.

The Whitebark Subcommittee ground truthed its GYA map of whitebark pine distribution and condition. A portion of high priority stands were assessed for a number of stand characteristics to ensure map accuracy and to guide management and restoration planning. GYCC funds helped support these on-the-ground surveys.

The Whitebark Pine Committee’s whitebark pine strategy will be completed in 2011, and will guide the pine’s protection and restoration.

Connect People to the Land

Outdoor activities among today’s children are declining, with children gravitating towards a virtual indoor reality. Concerned that a growing disconnect from nature affects our children’s health and well-being and the future stewardship of our public lands, the GYCC identified “Connect People to the Land” as a priority.

GYCC goals include:

- Become relevant to diverse Americans.
- Expand constituency for protected lands.

A new GYCC subcommittee formed in 2010 to coordinate, integrate and expand GYA program possibilities in reaching more diverse audiences. The Connect People to the Land Subcommittee is exploring expanding agency use of social media and new technology.

In 2010, the GYCC supported the Bear Creek Natural Resources Field Camp on the Beaverhead-Deerlodge NF. Over 450 students in grades 3 -8 spend a day learning about fish, wildlife, plants, fly-fishing and other topics geared to each grade level.



Fly Fishing Lesson at Bear Creek Natural Resources Field Camp, Beaverhead-Deerlodge NF

Recreation Management

The Forest Service San Dimas Technology Center completed their evaluation of the National Forests' winter use monitoring protocols. San Dimas staff worked with National Forest recreation managers and wildlife biologists to assess the key monitoring questions and suggested protocols to answer those questions. As a result, Forest staff agreed the key monitoring objectives are to:

- Understand the geographic extent of winter use and the change over time in general volume of use.
- Identify areas of potential conflict with winter recreation use and grizzly bears, wolverine, lynx, and big game winter range.

The National Forests then requested and were awarded two years of GYCC funding for winter use monitoring, with particular emphasis on understanding where winter use occurs in relation to wolverine habitat. The monitoring would begin in winter 2011.



Photo: NPS. F. Hirschman 1978

Fire Management

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

In 2010, the Fire Team updated its *GYA Interagency Fire Management Planning and Coordination Guide*.

For More Information:

The GYCC's website at www.fedgycc.org provides information on the GYCC's roles, participants, history, subcommittees, projects, and meetings and events.

Many of the projects mentioned in this document have a more comprehensive report with project methods, findings and reference materials. The 2010 GYCC project reports may be found at: <http://www.fedgycc.org/GYCCProjectReports2010.htm>

For additional information please contact GYCC Executive Coordinator Virginia Kelly at vkelly@fs.fed.us. 406-587-6704.

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APPENDIX A. Summary of 17 FY 2010 GYCC Projects – In Order of Project Type

Project Reports are available at <http://www.fedgycc.org/GYCCProjectReports2010.htm>.

Project Type: GYA Landscape Integrity. One Project.				
Unit	Project	Description	Accomplishments	External Partnerships
Gallatin NF	Reeb Estate Land Purchase near Cooke City MT.	Cost share title review, field inspections, resource studies, appraisal.	Acquired 772 acres in 2010, in addition to 697 acres acquired in 2009.	Trust for Public Lands
Project Type: Sustainable Operations. Two Projects.				
Unit	Project	Description	Accomplishments	External Partnerships
GYA - SOS Committee	Save water with low flow fixtures	Replace faucets and sinks at high use locations to reduce water use.	Replaced 32 fixtures with low flow fixtures donated by Kohler Co.	Kohler Co.
GYA - SOS Committee	Historic Buildings Energy Savings and Water Consumption Assessments	Assess identified buildings and formulate renovation/restoration strategies that incorporate LEED principles.	Completed 3 locations: Red Rock Lakes NWR, Rock Creek, Meyer's Creek (Beartooth RD, Custer NF).	Georgia Tech Research Institute, Anderson Window Co., Yellowstone Park Found.
Project Type: Ecosystem Health - Climate Change. One Project.				
Unit	Project	Description	Accomplishments	External Partnerships
Gallatin NF	Climate Change and Watershed Sensitivity Analysis	Understand climate change sensitivities at local scales using largely non-changing drives such as gradient, soils, topography, etc.	Methodology is being developed on Gallatin NF with intent to apply to GYA in 2011.	Wildlife Conservation Society, Forest Service Research
Project Type: Ecosystem Health – Air Quality. One Project.				
Unit	Project	Description	Accomplishments	External Partnerships
southern GYA Air Quality Committee	Air Quality Data Analysis and Report	Publish GTR on trends and seasonality of lake chemistry, bulk deposition, IMPROVE (visibility), NADP (atmospheric deposition).	General Technical Report (GTR) published.	USFS Rocky Mountain Research Station, NPS, USGS, University scientists
Project Type: Ecosystem Health - Invasive Species. Four Projects.				
Unit	Project	Description	Accomplishments	External Partnerships
Terrestrial Invasive Species				
GYA- Idaho Weed Committee	"Holding the Line" Leafy Spurge Project	Prevent Leafy Spurge expansion in eastern Idaho and into Yellowstone NP. Bio-saturation targeted in Upper Snake River watershed.	Over 6.5 million Leafy Spurge flea beetles released. Five new insectaries. Website development.	High Country RC&D, USFS State and Private Forestry, other RC&Ds, local counties.
GYA Weed Committee	GYA Weed Mapping Support	Keep database current for GYA weed occurrence.	Over 450,000 records, tracking 132 weed species. Used for EDRR.	Fremont Co, WY Weed and Pest Dept, 20 contributors.

Unit	Project	Description	Accomplishments	External Partnerships
Aquatic Invasive Species (AIS)				
GYA - AIS Committee	AIS Prevention and Outreach Activities	Inspection and education crews in multiple locations around the GYA, coordinated crew training.	Coordinated staff training staff. Thousands of public contacts made throughout GYA.	Snake River Fund, Teton Co, WYG&F, MT FWP, ID RAC, USFWS, Yellowstone Park Fnd
GYA - AIS Committee	GYA AIS Inventory and Monitoring	Survey high priority waters for AIS infestations.	Over 200 survey sites around GYA.	Same as above
Project Type: Ecosystem Health - Species on the Brink; Native Cutthroat Trout Conservation. One Project.				
Unit	Project	Description	Accomplishments	External Partnerships
GYA - Fish Committee	GYA-Wide Native Fish Distribution / Status Surveys and Response Actions.	Assess status of cutthroat trout and other native fish species populations around GYA.	Fish surveys on streams throughout GYA. Restoration actions on over 50 stream miles	PPL Montana, ID Fish and Game Dept and others.
Project Type: Ecosystem Health - Species on the Brink; Wildlife. Three Projects.				
Unit	Project	Description	Accomplishments	External Partnerships
GYA	Assess Carnivore Linkages in GYA and Adjacent Areas	Develop accurate, high resolution assessment that locates essential wolverine linkages.	Written publication being drafted.	Wildlife Conservation Society
4 Forests	GYA Winter Use Monitoring / Wolverine Program	Assess location of winter recreation use, especially snowmobiles, as baseline for future analysis of wolverine impacts.	Developed program for flights in winter of 2011 and 2012.	Wildlife Conservation Society
GYA	GYA Pika Distribution	Identify and survey potential pika habitat. Determine the GYA pika distribution evaluate climatic and habitat variables.	Occupied pika sites found in both parks and five forests. Surveys continue in 2011.	Teton Science School, St Cloud State Univ. Craighead Env Research Inst, GTNP Found.
Project Type: Ecosystem Health - Species on the Brink; Whitebark Pine Conservation. Three Projects				
Unit	Project	Description	Accomplishments	External Partnerships
GYA - WBP Committee	GYA Whitebark Pine Seed Orchard	Install seed orchard on Gallatin NF for GYA seedlings.	NEPA completed in 2010	None for NEPA phase, partners expected for install.
GYA - WBP Committee	Survey High Priority Restoration/Protection Sites	Ground truth the sites identified in the GIS mapping for high priority treatment.	Surveyed 234 sample plots across GYA. Analysis is underway.	Greater Yellowstone Inventory & Monitoring Network
GYA - WBP Committee	Carbaryl Treatment of High Priority WBPine	Protect high value whitebark pine via Carbaryl Treatment.	Over 800 cone-bearing trees treated with Carbaryl around the GYA.	USFS Forest Health Protection
Project Type: Connect People to the Land. One Project.				
Unit	Project	Description	Accomplishments	External Partnerships
Beaverhead-Deerlodge NF	Bear Creek Natural Resources Field Camp	Place-based learning for 3rd-8th grade students from 5 area schools. Fish, wildlife, plants, geology, fire ecology, etc topics.	Approx 450 students attended a day long camp with topics geared to each grade level.	MOSS, Madison Valley Ranch-ands, Madison River Found, Madison Valley Cons Dist. Vols