State Party's Report
on the State of Conservation of its Property
Inscribed on the World Heritage List

Name of World Heritage Property:
Yellowstone National Park, United States of America (N28)

Introduction

The World Heritage Committee listed Yellowstone National Park (YNP) as a World Heritage Site in Danger on December 5, 1995. In its decision, the Committee cited specific threats and dangers that were already affecting, were beginning to affect, or had potential to seriously compromise the outstanding universal values for which Yellowstone was inscribed as one of the first World Heritage sites. In decision 34 COM 7B.28 (2010) the Committee: 1) acknowledged the State Party's progress towards opening some areas to bison migration and enhancing stakeholder involvement in the Interagency Bison Management Plan; 2) welcomed the State Party's efforts to rapidly implement the recommendations of the scientific expert panel concerning the restoration of the property's native cutthroat trout population; and 3) requested the State Party to continue to address the threats identified in this and previous reports. In keeping with the Committee's request, this document is the sixth progress report following YNP's removal from the Site in Danger list (in 2003) and includes plans and actions, currently planned or underway, that specifically seek to redress the 1995 threats and dangers.

Section 1: Response from the State Party to the World Heritage Committee's Decision, paragraph by paragraph

The Committee requests the State Party to continue to address the threats identified in this and previous reports in particular:

a) Continue efforts to secure bison migration routes, and to increase engagement with ranchers surrounding the property in order to keep landscapes open to bison movements in order to ensure the effective conservation of this key species of the property.

Bison began to seasonally migrate and expand their winter range from the interior of YNP onto lower-elevation areas along the park boundary and into Montana as numbers increased during the 1980s and bison began to experience nutritional deficiencies. However, these movement processes occurred well before lack of nutrition became sufficient to decrease survival and recruitment, suggesting that migration and dispersal served to prevent bison from reaching the food-limited capacity of the park. During winter, deep snow accumulates on much of the bison range inside the park and restricts their access to forage. Thus, the numbers and timing of bison moving to lower-elevation winter range in or outside the park increases as snow builds up in the park interior.

If bison are forced to remain in the park by humans, as was largely the case until recent years due to concerns about disease (brucellosis) transmission to cattle in Montana, then the bison population would be limited by the amount of food available in the park. Under these circumstances, bison numbers could increase during a series of milder winters and increase the probability that bison will cause significant deterioration to other park resources (such as vegetation and soils) and processes as they exceed the capacity of the environment to support them. At some point, bison would likely die in large numbers from starvation during drought conditions or a winter with deep snowpack that limited available forage. Alternatively, the park could implement management culls (removals) to keep bison numbers below the food- and snow-limited capacity of the environment to support them. Either way, ecological processes within the park could be diminished by a lack of human tolerance for the natural processes of migration and dispersal by bison outside the park. In addition, the suitability of the park to serve as an ecological baseline or benchmark for assessing the effects of human activities outside the park could be diminished.

Human-imposed restrictions on migration and dispersal resulted in culls of more than 1,000 bison during some winters (1997, 2006, and 2008) and perpetuated irruptive (boom-and-bust) dynamics in the bison population that could have persistent, decade-spanning consequences that impact the age, breeding herd, and sex structure of the population. Thus, a coalition of federal, state, and tribal managers recently agreed to management practices that would decrease the need for large culls of bison and support population stability. These practices include formal adaptive management agreements to increase tolerance for bison migrating to habitat outside the park's northern and western boundaries, in the state of Montana. In 2008, the agencies agreed that bison would be allowed to remain on Horse Butte, an area outside the west boundary of the park where there are no cattle, until an agreed-upon haze-back date to the park in spring. From 2008 through 2011, up to 700 bison migrated beyond the western boundary of the park and accessed suitable habitat in the Hebgen basin of Montana. In 2008, the State of Montana also signed a 30-year livestock grazing restriction and bison access agreement with the Church Universal and Triumphant, Inc. to remove livestock from the Royal Teton Ranch located north of the park. The National Park Service (NPS) provided $1.5 million to Montana to implement the initial payment for this agreement that should allow progressively increasing numbers of bison to use habitats north of the park. This agreement allowed the agencies to extend the northern migratory route for bison an additional 7 miles beyond the park boundary. During 2011, more than 300 bison migrated north of the park onto habitat in the Gardiner basin of Montana. However, it is worth noting that State Court hearings later this winter are expected to include testimony from Park County, Montana, and the Park County Stockgrowers Association, two groups seeking to limit bison travel north of the park boundary due to concerns about public safety and property damage.

For more information, please see http://www.nps.gov/yell/naturescience/bison

b) Ensure that adequate funding is secured to intensify lake trout suppression efforts over the next six years

In 2008, YNP hosted a panel of fisheries experts to review the park's lake trout suppression program. The panel concluded the program had slowed the population growth of lake trout, but was insufficient to drive them into decline. The panel emphasized that the cutthroat trout population could still be saved by a significant surge in lake trout removal. During 2009 and 2010, the park conducted a pilot study to evaluate the feasibility of increasing lake trout suppression by incorporating private-sector contract netters. The contractor used commercial-scale fisheries capture gear and employed both gillnets and large, deep-water trap nets. The expert panel reconvened in June 2011, reviewed the results of these suppression efforts, and recommended continued incorporation of contract netters to implement the surge in lake trout removal for 6 years.

The NPS prepared a Native Fish Conservation Plan / Environmental Assessment to examine various alternatives and environmental impacts for the conservation of native fish in Yellowstone. In April 2011, the NPS issued a Finding of No Significant Impact (FONSI) that, in part, will implement large-scale suppression of lake trout in Yellowstone Lake using fisheries staff and private sector contract netters for at least 6 years to allow cutthroat trout recovery to begin.

The heightened NPS fisheries and contract netting efforts during summer 2011 included the use of contracted netters for a longer season with additional crew, and additional large, deep-water trap nets to supplement the NPS fisheries lake trout suppression effort. More than 220,000 lake trout were killed in 2011.

The NPS has initiated a significant increase in lake trout removal efforts that will continue for at least the next 6 years. The capacity to conduct a surge in lake trout suppression is available through the private sector commercial fishing industry that has been used successfully to remove invasive lake trout in Idaho and Montana. These efforts are supported by fisheries and environmental groups (e.g., Trout Unlimited, National Parks Conservation Association, and the Greater Yellowstone Coalition).

Funding in the amount of $2 million per year over the next 6 years (FY2012-2017) is recommended to outsource an immediate surge in lake trout suppression efforts to private-sector contractors. Of that total, approximately $1 million per year has been acquired. The remaining funds have yet to be secured through private donor sources; however, potential donors exist. The Yellowstone Park Foundation, YNP's primary fundraising partner, is expected to make a decision on a grant request in the near future.

For more information, see http://www.greateryellowstonescience.org/topics/biological/fish/laketrout

c) Given the small size of Yellowstone's grizzly bear population, the State Party seeks to increase the population's connectivity with the larger population of bears in the region, and to consider the need to further mitigate human-bear conflict

While connectivity issues are not considered an immediate threat to the GYE's grizzly bear population, comprehensive plans and implementation strategies have been prepared and are in place to address the issue should future need arise.

YNP's boundaries are not fenced, nor are there any other physical barriers that prevent grizzly bears from freely moving back and forth from the park to the surrounding national forest, Bureau of Land Management, state, and private lands. Although gene flow within the Greater Yellowstone Ecosystem (GYE) is not restricted, the GYE is spatially isolated from all other grizzly bear populations in the lower 48 states. Thus, decreases in genetic diversity could occur over time due to inbreeding. However, at this time the grizzly bear population in the GYE is not eminently at risk from the deleterious consequences of inbreeding. Thus, the need for gene flow is not urgent.

Two migrants to the GYE per generation that survive and breed would adequately increase the level of genetic diversity in the GYE. These movements could occur naturally or by translocation. Bears in the GYE and Northern Continental Divide (NCDE) ecosystems are dispersing and expanding their range, thereby reducing the distance between the two populations. Since the mid-1980s, the grizzly bear population in the GYE has increased to over 600 bears and expanded in range to over 14 million acres. The grizzly bear population in the NCDE is also expanding. However, natural gene flow by bears moving across the landscape between the GYE and the NCDE may be several years away. The average dispersal distance for subadult male grizzly bears in the GYE is 70 km. The distance between the occupied ranges of the GYE and NCDE populations is currently 165 km, more than two times the average dispersal distance, but approximately equal to the maximum dispersal distances observed for male bears in this region. If natural gene flow does not occur within 2-3 decades, it may become necessary to implement plans for translocation.

The obstacles to achieving natural connectivity are substantial because much of the land between the GYE and NCDE is in private ownership. Grizzly bear gene flow between the GYE and NCDE is currently being monitored via genetic samples (DNA) collected from blood, tissue, and hair of live and dead bears. Bear movements are also monitored through radio telemetry. If no genetic exchange between the GYE and NCDE is detected by 2020, plans call for the translocation of two or more bears annually from other populations into the GYE to ensure that genetic diversity in the GYE does not decrease below existing levels. Translocation would likely commence in 2022 and continue until the genetic concerns were resolved.

Natural connectivity will require a cooperative effort on the part of federal and state agencies, private landowners, industry, political leaders, and the public. Connectivity can be enhanced by allowing both the GYE and NCDE grizzly populations to increase their current sizes and/or by facilitating range expansion through natural dispersal and/or reintroduction into suitable intermediate habitat.

During the early history of the park there were many bear-human conflicts. For years, human food and garbage were a common component of bears' diets. Bears obtained anthropogenic foods from

garbage dumps and bear viewing/feeding stations, recreational hand feeding by visitors, and unsecured foods and garbage in developments.

Although interacting closely with bears delighted most park visitors, large numbers of people interacting with human food-conditioned bears also led to high numbers of bear-human conflicts. From the 1930s through the 1960s, an average of 48 bear-inflicted human injuries and 138 incidents of bear-caused property damage occurred each year inside YNP. Most of these conflicts were directly related to the hand feeding of bears by the public or to bears searching for unsecured human foods and garbage in developments. The proximity of garbage dumps and bear viewing/feeding stations to public use areas was also considered a contributing factor. The high number of bear-human conflicts also resulted in many bears being removed from YNP annually in management actions.

Implementation of a new Bear Management Program in 1970 significantly reduced the number of conflicts, even in the face of an increasing bear population and significant increases in human visitation. Today, preventing bears from obtaining anthropogenic foods and garbage is the underlying foundation of the park's bear management program. This philosophy evolved over more than a century of trying to balance recreational activities with resource protection. After closing the garbage dumps and feeding stations, prohibiting hand feeding, bear-proofing all food and garbage containers, and educating park visitors about the negative consequences of allowing bears to obtain human foods, bear-human conflicts decreased significantly to 1 human injury and 12 property damages per year. The reduction in bear-human conflicts has also resulted in a significant reduction in the number of bears killed in management actions. Even without viewing stations and public feeding, thousands of visitors still see bears annually, building a constituent public that supports bear conservation. This NPS management experience demonstrates that bear populations can be maintained in a manner that provides for the safety of bears, park visitors and visitors' property, while still providing the public with opportunities to view bears.

In 2011 (and each of the last 20 years), there were more than 3 million visits t Yellowstone. Thousands of these visitors observed or encountered bears. Although two of these visitors were killed by grizzly bears in 2011, the overall risk of bear attack is still low and public support remains high for the grizzly bear program. To further reduce the risks to visitors, the park is currently re-evaluating its bear safety messages, and investigating new media for getting information to park visitors more effectively.

For more information, please see http://www.nps.gov/yell/naturescience/bears.htm

d) Consider how recent delisting of wolves as a protected species in Idaho and Montana and hunting of wolves in neighboring public and private land may impact the wolf population within the property

Wolves were removed from the federal endangered species list in April 2011, with management authority transferred to the states of Idaho and Montana. Wolves were not delisted from Wyoming and management authority there still resides with the US Fish and Wildlife Service until spring 2012. Regardless of listing status outside YNP, wolves will continue to be protected within the park. However, the changes in listing status in Idaho and Montana have led to a wolf hunting season outside YNP. Wolves will likely be delisted in Wyoming by the next hunting season (fall 2012), and if this comes to pass, legal wolf harvest will occur in all three states surrounding YNP.

Most of YNP's wolves range primarily within the park, where YNP's prohibition on hunting protects them from harvest. Hunting impacts on park wolves depends on how much time a particular pack spends outside of YNP, and most of the park's nine packs reside primarily in areas where hunting is not allowed. However, harvest of park wolves has occurred. In 2009, when wolves were temporarily delisted (removed from the endangered species list) and there was a hunting season in Montana, one pack left the park and four of 10 wolves were legally harvested. Again during the 2011 hunting season, two wolves that resided mostly within YNP were legally harvested near (but outside) the park

boundary. There is also the potential that hunting outside the park will create territorial vacancies drawing wolves out of the park exposing them to potential harvest. Radio-collaring data indicates that movement of wolves is primarily from within YNP to outside (from high to low density environments), supporting such a scenario of increased wolf mortality due to hunting outside the park.

The current population of wolves within YNP is approximately 100 wolves in nine packs, so it is unlikely the mortality thus far experienced (2-4 wolves/year), or the increased dispersal from the park, will have a significant impact on the park population of wolves. It is also likely that some wolves from within the park will disperse anyway, regardless of outside-the-park vacancies, so it is hard to gauge whether outside-the-park hunting draws wolves out. In addition, the park requested, and was granted by the state of Montana, a reduced quota of wolves in that state's hunting districts that abut the park's northern boundary, thereby reducing the potential for significant mortality of wolves living in YNP. This agreement with Montana has increased the level of protection of YNP wolves and will function to make any wolf mortality along this boundary insignificant to maintenance of the overall YNP wolf population. Furthermore, although Idaho has not instituted quota reductions like Montana's near YNP, the potential effect of not having a similar agreement with Idaho is significantly reduced because only one pack shares the YNP/Idaho boundary while four packs share the YNP/Montana boundary. State hunting quotas are in effect on private lands as well.

For more information, please see http://www.nps.gov/yell/naturescience/wolves.htm

e) Develop a more detailed understanding of the ecological role that the surrounding lands play in maintaining the property's values, and a long-term vision and action plan for integrated management of the property and its surrounding areas

The Greater Yellowstone Coordinating Committee (GYCC) was formed in 1964 to allow representatives from the National Park Service (NPS), US Forest Service, and the US Fish and Wildlife Service to pursue opportunities of mutual cooperation and coordination in the management of core federal lands in the GYE. The GYE is a unique and special place, with federally administered lands that include six national forests, two national parks and two national wildlife refuges; they are geographically contiguous, ecologically interdependent, and unalterably linked.

GYCC member representatives include park superintendents from Yellowstone and Grand Teton National Parks; forest supervisors from the Beaverhead-Deerlodge, Bridger-Teton, Caribou-Targhee, Custer, Gallatin, and Shoshone National Forests; and refuge managers from the National Elk Refuge and Red Rock Lakes National Wildlife Refuge. The members provide leadership that serves the public and sustains the resources of the GYE. They strive to find intersection in the missions of their agencies and opportunities of cooperative management of area resources that make sense, enhance public service and maintain or enhance the integrity of the Greater Yellowstone.

The GYCC's role is to ensure coordination of planning, monitoring and practices across national park, national forest, and national wildlife refuge units where possible. GYCC managers periodically identify priority resource management issues where coordination across the Greater Yellowstone area is desirable. This helps to identify and address ongoing and emerging issues, and promotes coordinated strategic thinking. The managers affirmed the following priorities in fall 2009:

- Ecosystem Health
  - Air Quality
  - Climate Change
  - Disease
  - Invasive Species: Aquatic Invasives, Terrestrial Invasives
  - Species on the Brink: Native Fish, Whitebark Pine, Wildlife
  - Healthy Water Quality and Flow
- Sustainable Operations
- Protection of GYE Landscape Integrity
- Connect People to the Land

The GYCC also endeavors to create a climate that encourages coordination and sharing within the federal units and with partners. To that end, they provide a forum for interaction with other

government agencies (federal, state, and local), and with private organizations and the public. Other benefits include helping to minimize duplication of effort, and providing opportunities to share information, resources, and data. More information is available at http://fedgycc.org .

In 2012, the park is continuing to demonstrate its regional leadership and commitment to integrated planning for resource protection, management and decision-making by presenting its 11th Biennial Scientific Conference on the Greater Yellowstone Ecosystem. The 2012 event, titled *Greater Yellowstone in Transition: linking science to decision-making,* will focus on strengthening the link between research and science-based management decisions for the region and Yellowstone National Park. An estimated 200 representatives from academia, government (county, state and federal) agencies, and nongovernmental organizations are expected to attend. Conference information can be accessed online and the proceedings of the conference will be compiled and published in 2013.

For more information, please visit *http://www.greateryellowstonescience.org/gyesciconf2012* .

Section 2: Other current conservation issues identified by the State Party

The State Party also notes the continued pressures from high visitor use and resolves to:

a) implement a sustainability programme to reduce the impacts of visitation and parks operations to ensure that the Outstanding Universal Value of the property can be transmitted to future generations

Yellowstone is an active member of the Greater Yellowstone Sustainable Operations Subcommittee (SOS), chartered in 2005 by the GYCC to facilitate overall coordination and collaboration of sustainable operations practices throughout the public lands of the GYE and to provide technical advice and guidance to the GYCC and their staff. The SOS:

- Provides information and technical guidance to the 10 GYCC federal units on matters related to sustainable operations.
- Serves as a forum for exchange of information and ideas between the 10 GYCC federal units about sustainable operations.
- Creates a scale for efficient implementation of practices across the region that facilitates the leveraging of resources (including grant writing), expertise and outcomes beyond the accomplishments of any one unit.
- Develops monitoring, inventory and assessment protocols for operational activities.
- Showcases sustainable practices and projects in a variety of operations areas.

Federal agencies operating within the GYE have demonstrated the effectiveness of leading by example through their implementation of environmental stewardship programs that promote a clean energy economy, preserve the interests of taxpayers, address environmental threats, protect water resources, and strengthen the vitality and livability of surrounding communities. Of the diverse sustainability initiatives implemented, one recent and exemplary program has involved the inventory and reduction of greenhouse gases (GHGs). In addition to promoting sound environmental and land management policies, fiscal benefits from these emissions-reduction measures are projected to offset the cost to implement them in less than five years, while improving air quality, increasing energy independence, reducing waste, supporting efforts to mitigate global climate change, and working overall toward healthier social, economic, and environmental systems in the GYE and surrounding gateway communities. Since the launching the plan, a number of gateway communities in Montana, Wyoming and Idaho have developed similar local GHG mitigation initiatives.

The Yellowstone Environmental Stewardship (YES!) Initiative is a multi-year plan that leverages Yellowstone's growing role as an NPS leader in operational environmental stewardship. This initiative complements the Park's comprehensive environmental management program and enables Yellowstone to build upon its sustainability successes to further reduce the ecological footprint of its operations and decrease the consumptive use of natural resources. This initiative will allow

Yellowstone to serve as a model to other parks and land management agencies in effectively addressing the challenges associated with climate change. Yellowstone has set challenging and achievable environmental management goals to resolve sustainability challenges. Using 2003 figures as the baseline, Yellowstone aims to achieve the following by 2016:

- Reduce greenhouse gas (GHG) emissions by 30%
- Reduce electricity consumption by 15%
- Reduce fossil fuel consumption by 18%
- Reduce water consumption by 15%
- Divert 100% of solid waste from landfills

One of 27 YES!-identified projects of particular note involves the park's 2011 installation of a micro hydropower system, a clean-energy project made possible by American Recovery and Reinvestment Act (ARRA) funds. The hydropower project reflects a YNP commitment to clean energy that dates back 100 years to the park's 1911 installation of a Pelton water wheel that generated hydropower from existing water-supply resources at Mammoth Hot Springs. That early commitment to clean energy was reaffirmed during 2011 when the park installed the new micro hydropower system. Designed for efficient use of existing water-supply infrastructure near Mammoth Hot Springs, it will become the park's newest clean-energy source when brought on-line in 2012. Project feasibility studies indicate the system will be capable of producing up to 900,000 kWh of renewable energy each year, eliminate 695 tons of greenhouse emissions annually and reduce YNP's energy costs by an estimated $80,000 per year.

As visitation numbers remain high and put further pressure on park resources, park managers continue to evaluate and implement a range of measures designed to increase knowledge of specific impacts and to offset these impacts to park resources while maintaining visitor experience standards. Options being evaluated include a social science program that would help inform managers on visitor's attitudes, perceptions, and experiences. Studies designed to investigate resource impacts from roadside parking, development of social trails, and overcrowding of sensitive natural areas, are also being considered.

b) continue assessing visitor numbers and the effects of visitor use on the Outstanding Universal Value of the property

Sustained visitor pressures on the natural and cultural resources of the park have been of concern to managers for many years. Recently, the park has hosted about 3 million visits per year, which represents roughly 5 million visitor-use days annually. The quality of a visitor's Yellowstone experience in terms of sights, sounds and smells has also been extensively debated. Concerns have been raised most strongly regarding winter use in the park (addressed below), but the crowds of the summer season are also a concern to many people. The number of visitors in the park, whether summer or winter, is a contentious subject with public opinion divided among those who believe the park is overused, feel current use is about right, or think the park could handle more visitors. The NPS Mission is to conserve the natural and cultural resources and to provide for the public enjoyment of the same in such manner as will leave them unimpaired for future generations.

Annual visitation at Yellowstone passed 3 million for the first time in 1992; since then, it has remained relatively stable, ranging from 2.8 to 3.3 million. Most visitation occurs during the summer; use typically peaks from the last week of July through the second week of August. Although there are no day-use visitor quotas, the park only accommodates 14,341 visitors per night during the peak summer season (this number includes maximum potential occupancy at hotels, campgrounds, and backcountry campsites). Fall visitation began to increase in the 1990s and now comprises approximately 20% of annual use. Winter visitation has never been more than 5% of the annual count. Similar to trends in other western parks, overnight backcountry use in Yellowstone peaked in 1977 at more than 55,000 "people use nights" (the total number of nights spent in the backcountry). Since 1990, people use nights for backcountry users have been fluctuating between 34,000 and 46,000, with an overall downward trend; a recent exact count (for 2008) totaled 39,603.

Recurring visitor surveys (the most recent summer survey was in 2006 and the most recent winter survey was in 2008) help the NPS understand who the visitors are, their activities, and their values.

A commercial services strategy has been developed to assist YNP in making business decisions that provide for appropriate visitor services while preserving park natural and cultural resources. The strategy will assist Yellowstone in making decisions related to concessions contracts, provide directions for developing funding priorities for future long-term concessions contracts, and ensure that visitor services provided under concessions contracts are consistent with park goals, statutory and regulatory requirements, park planning and NPS policies and guidelines.

Planning at YNP continues to be comprehensive, integrated, strategic, long-term and ongoing. The Master Plan developed in 1973 continues to serve as the overarching framework for park management, and as the framework for almost 100 subplans that have been completed since 1973. The park is focusing its planning on specific issues, and continues to develop plans to address those issues. In 2009, the park completed a comprehensive plan to address issues associated with the developed area of Tower-Roosevelt in the northeast portion of the park. Additional plans are in development for the areas of Lake, Old Faithful, and Mammoth. Focused plans will continue to be developed as needed.

For more information, please see http://www.nps.gov/yell/parkmgmt/planning.htm

c) continue assessing winter visitation and the effects from snowmobiles

Winter use in YNP has been highly controversial for more than a decade, and has been a subject of long term discussions for 75 years. Most of the recent debate centered on the question of snowmobile use. Some argue that one-to-two passenger snowmobiles should be banned and the park should allow multi-passenger snowcoaches only. Others say that all oversnow vehicles (both snowmobiles and snowcoaches) should be banned, and the park should be closed in the winter. Finally, some say the recent management restrictions are too severe and unnecessary.

The NPS is in the process of completing a new long-term plan and environmental impact statement to direct winter use of the park. During the current winter (2011-2012), and for each winter for the past decade, YNP's winter use program has combined the effective use of selected management tools and resource monitoring to manage winter use consistently and successfully. The program's purpose includes ensuring that:

- Air quality, sound, wildlife, and personal exposure to pollution and noise are all closely monitored.
- The park is closed to oversnow motorized travel at night.
- Oversnow vehicles are not (and never have been) allowed to travel on roads in the park, and continue to be prohibited off roads.
- Both commercially guided snowmobiles and snowcoaches provide access to the many features of the park in winter. Both are there to provide transportation access to visitor experiences, not as recreational activities unto themselves.
- Visitors on snowmobiles must use Best Available Technology (BAT) machines (which are 70–90% cleaner and somewhat quieter than traditional snowmobiles). Some older snowcoaches have also been retrofitted and made cleaner and quieter.
- Visitors must also be accompanied by a commercial guide -- or they cannot snowmobile in Yellowstone.
- A daily limit on snowmobile and snowcoach numbers and reduced speed limits in travel corridors are in place.

The winter use program has had a positive impact on recent resource conditions in YNP, which are much improved over the conditions that existed in the1990s, when the NPS had significant concerns with the amount and type of winter recreation and impacts to park resources. The current science indicates that resource conditions are remarkably good in the park. Air quality is overall very good.

There are few known impacts to bison and elk populations. Sound concerns are much reduced, and studies confirm visitors are having an excellent experience. In sum, the unacceptable conditions that once existed are no longer present.

When snowcoach and snowmobile use is managed effectively, as it has been for the past five to ten winters, both modes of transportation provide opportunities for visitors to enjoy the park by different means, just as cross-country skiing, snowshoeing, and walking offer different opportunities for visitors to enjoy the park in the winter.

For more information on winter use, please see http://www.nps.gov/yell/planyourvisit/winteruse.htm

Section 3: In conformity with paragraph 172 of the Operational Guidelines, please describe any potential major restorations, alterations and/or new construction(s) within the protected area (core zone and buffer zone and/or corridors) that might be envisaged

While there have been various construction projects within the park during the reporting period, none have had impacts that created or represented any threat, damage, or loss of Outstanding Universal Value, integrity or authenticity, to the property as inscribed as a World Heritage site. Additionally, in conformance with paragraph 172 of the Operational Guidelines, there have been no new major restorations or constructions meeting this criteria and occurring within the park since the last report in 2009. Furthermore, based on current knowledge, there is no single action in scoping within the GYE that would have an effect on the park as described within Chapter IV of the 2011 Operational Guidelines.