

National Park Service
U.S. Department of the Interior



Grand Teton National Park

Transportation Plan Final Environmental Impact Statement Executive Summary

September 2006





EXECUTIVE SUMMARY

Transportation Plan

Final Environmental Impact Statement

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Introduction and Background

Grand Teton National Park is located in northwestern Wyoming, approximately 5.0 miles (8.0 km) east of the Idaho state line and south of Yellowstone National Park. Grand Teton National Park provides visitors an opportunity to experience wild and challenging backcountry terrain and a frontcountry characterized by varying terrain, numerous lakes, a major river, and many developed areas. An important characteristic of Grand Teton National Park is its proximity to Yellowstone National Park and to numerous other public lands, including several large national forests and wilderness areas.

Project Background

Over the past several decades, the National Park Service (NPS) has worked to reduce the impacts of motor vehicles on activity areas within Grand Teton National Park. The potential for future increases in visitation and motor vehicle traffic prompted park staff to undertake a transportation study to identify actions that would:

- Improve visitor experience by providing a richer set of choices for movement within and between key activity areas and destinations.
- Improve mobility within the Park with a better balance between motorized and non-motorized travel modes.
- Reduce the potential for congestion in key areas.
- Provide information to visitors to help avoid adverse impacts to park resources and to promote a variety of transportation options.

The *Grand Teton National Park Transportation Study* relied on data gathered from visitor, staff, and concessioner surveys; analysis of trends in visitation and average daily traffic volumes; analysis of accident data; and interviews with staff from the Town of Jackson, Teton County, and private transit operators. The transportation study made several recommendations that are included in the alternatives described in detail in Chapter 2 of the *Final Grand Teton National Park Transportation Plan/Environmental Impact Statement* (Final Plan/EIS) and summarized here. The *Draft Grand Teton National Park Transportation Plan/EIS* (Draft Plan/EIS) presented four

alternatives including the No Action Alternative and identified a preferred alternative. In response to public comment, a new preferred alternative, Alternative 3a, was developed for the Final Plan/EIS based on the original Alternatives 3 and 4 with modifications as well as new mitigation and monitoring measures.

Purpose of and Need for the Plan

The purpose of the Final Plan/EIS is to address and manage transportation-related issues in Grand Teton National Park in a proactive manner. The need for the Final Plan/EIS results from a number of trends in park use and recreation preferences. While the overall number of recreational visits to the Park has remained relatively stable over the past decade, some of the most popular activity areas and trailheads are experiencing increased use. In these locations, parking areas are occasionally congested and impacts to natural resources (e.g., trampling and the development of social trails) are evident in some areas. Furthermore, traffic between these key locations can be heavy at times.

Many visitors to Grand Teton National Park choose to visit only those areas that can easily be reached from their vehicles. Particularly scenic and easily accessible areas, like South Jenny Lake, have become popular destinations and their parking areas are sometimes crowded and congested during periods of peak visitation. Opportunities for visitors to enjoy the Park while minimizing impacts on resources can be enhanced by providing additional options for travel through the Park, as well as by providing better information about how to access key areas. Implementation of a transit system, redesign of certain parking lots and pedestrian circulation at key activity areas, and the development of multi-use pathways are considered in this plan.

Transportation issues facing the Park and neighboring gateway communities of Jackson and Teton Village are connected. Services provided by Southern Teton Area Rapid Transit (START) provide transit service within the Town of Jackson and Teton County, as well as some surrounding areas, but these services do not currently extend into the Park. Similarly, multi-use pathways have been constructed to encourage bicycling and walking

elsewhere in Teton County, but these pathways do not extend into the Park. The Final Plan/EIS examines opportunities for the Park to partner with these neighboring communities to develop an integrated transportation system that benefits all parties while preserving important park resources, and to develop multi-use pathways that respond to community interest.

Although opportunities for recreational cycling exist in the Park, there is the potential for conflicts between vehicles, bicyclists, and occasionally pedestrians. Bicyclists share the roads with fast-moving traffic, and, while the number of reported collisions is low, the speed and volume of traffic make some visitors uncomfortable with riding a bicycle on existing roads or road shoulders due to perceived safety risks. Shoulder widths also vary on the Teton Park Road, and bicyclists and motorists can be caught off guard. Improved transportation opportunities for bicyclists and pedestrians would enhance recreational opportunities while at the same time reducing safety risks.

The Moose-Wilson Road is a popular destination for many park visitors due to its high scenic value and opportunities for viewing wildlife. The road connects the Granite Canyon Entrance Station near Teton Village with the Teton Park Road and the Park headquarters area at Moose, and provides access to destinations such as the Granite Canyon and Death Canyon trailheads, the White Grass Ranch, and beginning in 2007, the Laurance S. Rockefeller (LSR) Preserve (formerly the JY Ranch). Traveling the Moose-Wilson Road provides a more slow-speed and intimate park experience than does driving on some of the Park's other main roads. The road is constructed to a relatively low standard (e.g., narrow width, not striped, and a section of the road is unpaved). Travel volumes are approaching the point where the road physically may not be able to handle the capacity, and congestion occurs because of the inability of motorists to get around vehicles that have stopped in the roadway to view wildlife. Increasingly, persons seeking a connection between the Wyoming Highway 22 corridor, Wyoming Highway 390, and points within the Park use the road as a through route. Currently approved plans for expansion of Teton Village, as well as the growth in background traffic on Wyoming Highway 390, could increase traffic on the Moose-Wilson Road. All of the alternatives in the Final Plan/EIS call for testing several different management strategies over the next 5 to 10 years to determine how the NPS can maintain the existing character of the road and protect its special wildlife, scenic, and historic values. Under all strategies, two-way traffic would be maintained from Moose to the

LSR Preserve and from the Granite Canyon Entrance Station to the Granite Canyon Trailhead. Between the Granite Canyon Trailhead and the LSR Preserve, strategies could include one-way or reversible traffic flow or other techniques to manage vehicle use of the road.

The objectives for the Final Plan/EIS are the following:

- Provide improved opportunities for visitors to enjoy the Park safely by providing additional travel/recreational options, both motorized and non-motorized.
- Reduce and manage the level of traffic and parking congestion at key locations.
- Reduce and minimize adverse impacts to park resources attributable to human use.
- Enhance cooperation between the Park and gateway communities to achieve complementary transportation goals.

The Final Plan/EIS addresses these objectives through consideration of realignment of the Moose-Wilson Road to restore important wildlife habitat, reconfiguration of several parking lots and pedestrian circulation at activity areas to reduce the development of social trails, trampling, out of bounds parking, and other human-caused impacts, and improving opportunities for visitors to safely enjoy the park through the potential introduction of transit and development of multi-use pathways.

Public Participation

Public involvement in these issues has been extensive, beginning with the Phase I Transportation Study and continuing through review of the Draft Plan/EIS. The NPS encouraged public participation in the planning process to ensure that agency decision makers fully understood and considered stakeholders' concerns. Through public involvement, the NPS planning teams were informed of the concerns and values of those groups and individuals who participated in the process. The NPS consulted management agencies and other public constituencies as part of the process. The Issues and Impact Topics section of Chapter 1 of the Final Plan/EIS summarizes issues identified throughout the entire process.

The *Grand Teton National Park Transportation Study* was completed between April 2000 and January 2001, and included opportunities for public involvement through several community workshops and a Technical Information Exchange Group, which consisted of over 30 people



representing public and private entities ranging from local municipal and county governments to nonprofit organizations and park concessioners.

Completion of the transportation study prompted the NPS to undertake the preparation of a comprehensive transportation plan and environmental assessment. A scoping period for the plan was conducted from December 13, 2001, through January 12, 2002, and a series of planning workshops were conducted between December 2001 and June 2002. The workshops provided opportunities for interested parties, including the public, local governments, and others to help develop a range of issues, options, and preliminary alternatives. As work on the plan progressed, the NPS recognized that some of the potential environmental impacts were uncertain and therefore, in June 2002 converted the environmental assessment for the plan to an environmental impact statement. Another scoping period was provided through publication of a notice in the *Federal Register*.

As work continued on the plan, the NPS recognized that some of the preliminary alternatives were overly ambitious in terms of the level of transit, extent of the pathway system, intelligent transportation systems, and other transit-related facilities. It became apparent that the scope of the initial alternatives had expanded to the extent that some of the actions and alternatives were disproportionate to the types of transportation-related issues that exist in the Park, and would be financially and operationally infeasible to implement. Therefore, in 2004, the NPS decided to focus the alternatives on achievable actions that could reasonably be accomplished within the next 5 to 10 years.

In May 2005, the NPS released the *Grand Teton National Park Transportation Plan/Draft EIS* (Draft Plan/EIS), and provided an opportunity for public review and comment from May 27, 2005 to August 25, 2005. In addition, the NPS conducted an open house in Jackson on June 28, 2005, providing opportunities for the public to provide feedback and comments to the NPS, ask questions, and become more informed about the issues, draft alternatives, and environmental consequences.

During the public comment period, the NPS received a total of 2,638 letters, emails, faxes, and electronic submissions to the NPS' Planning, Environment, and Public Comment (PEPC) website. The NPS considered all comments received in preparing the Final Plan/EIS; responses to substantive comments appear in Appendix D.

Scope of Plan

As required by the National Environmental Policy Act (NEPA) the Final Plan/EIS evaluates a full range of reasonable alternatives for the identified issues and comprehensively evaluates impacts to natural and cultural resources from the actions. While retaining some elements of the initial alternatives, the alternatives presented in the Final Plan/EIS reflect focused and achievable actions that the NPS can accomplish over the next 5 to 10 years, provided that funding is available.

Over the last year, while revising the Draft Plan/EIS, the Park initiated several studies to provide professional guidance on adaptively managing certain road segments (e.g., the Moose-Wilson Road), assessing the feasibility of transit within the Park, and monitoring the impacts of construction and use of the first phase of implementation of the proposed actions. While many of these activities will take place within the next 5 to 10 years, monitoring their effects, and subsequent decisions based on these effects, may extend beyond the 5 to 10-year implementation period. Future long-term planning efforts for the Park will provide an opportunity to examine further and more comprehensively the transportation-related issues not addressed in the Final Plan/EIS, within the context of overall park management.

As a result, the Final Plan/EIS is a comprehensive environmental analysis of potential effects on the Park's natural, cultural, and social resources that would result from implementing a range of new transportation management actions over the next 5 to 10 years. The Final Plan/EIS analyzes resource impacts associated with the enhancement of pedestrian pathways, signs, and way-finding improvements in developed areas; construction of pathways in a generalized area along existing roadways; realignment of entrance ways; construction of information kiosks; road widening and realignment; improved roadway shoulders; and accompanying improvements such as signs and other limited facilities.

Issues and Impact Topics

Issues and concerns were defined through the initial transportation study and further developed at several public and working group meetings. These issues represented the range of opinions in regard to the purpose of and need for action and also addressed concerns about certain resources and values. Initial issues identified included visual quality, vegetation, soils, water quality

and wetlands, threatened and endangered species, wildlife, cultural resources, transportation and traffic, visitor use and experience, employee use and experience, socioeconomics and local community impacts, and park operations.

Some issues were not carried forward as impact topics for detailed analysis in the Final Plan/EIS because impacts expected would not exceed negligible or minor adverse levels under any of the alternatives. Issues that were not carried forward include floodplains, wild and scenic rivers, air quality, soundscapes, historic structures and cultural landscapes, ethnographic resources, museum collections, American Indian trust resources, land use, environmental justice, lightscape management, prime and unique agricultural lands, threatened and endangered species (whooping crane), sensitive species/species of special concern (wolverine, harlequin duck, and trumpeter swan), wildlife (white-tailed deer, bighorn sheep, and fish species), energy consumption, and wilderness.

Summary of Alternatives Considered

During the alternative development process, the NPS considered alternatives that, if implemented, would meet project objectives while protecting the Park's natural resources. A brief summary of each alternative is presented below; more details are provided for Alternative 3a, the preferred alternative. Elements that are common to all alternatives are presented first followed by the summary of actions proposed for each alternative.

Elements Common to All Alternatives

Several actions would be implemented under any alternative selected. Under all alternatives, park roadways would continue to be maintained or improved on a case-by-case basis as warranted. The NPS does not plan to make changes to any roads or trails not specifically identified in the Final Plan/EIS. A variety of adaptive management strategies would be tested on the Moose-Wilson Road to address periodic congestion, wildlife, wetlands, and visitor experience issues. The NPS has developed the *Moose-Wilson Road Adaptive Management Plan* to test transportation management and operational strategies for vehicle use on the Moose-Wilson Road. These strategies, if implemented, would be seasonal and/or temporary and would provide information to the NPS for developing a long-term solution. The goal of this effort would be to provide for a high quality visitor experience for motorists, bicyclists, and pedestrians, maintain traffic volumes at sustainable levels, and ensure that no unacceptable impacts

are allowed to occur. Under all strategies, two-way traffic would be maintained from Moose to the LSR Preserve and from the Granite Canyon Entrance Station to the Granite Canyon Trailhead. Between the Granite Canyon Trailhead and the LSR Preserve, the NPS may, over the next several years, test strategies such as direction of traffic flow or other techniques to manage vehicle use of the road. Public notification of the selected transportation management strategy would take place well in advance of any of these changes. In addition, the NPS may consider minor widening in select areas to help accommodate safe travel, without altering the character of the road.

The Park would improve signs on roadways under all alternatives to enhance safety by advising visitors to be aware of areas frequented by wildlife, share the road with bicyclists, and watch for pedestrians. Separate entrance lanes would be established for use by park employees and other administrative traffic to shorten lines at park entrance stations. Reconfiguration of some parking areas in the Park could also occur under all alternatives. Information would be provided to visitors to assist with trip planning and for scheduling off-peak visits. The installation of variable-messaging signs is common to all alternatives.

Alternatives described in the Draft Plan/EIS proposed implementing varying levels of a pilot transit system in the Park. The NPS recognized that more information was needed before implementation of any of the suggested transit alternatives in order to ensure that transit within Grand Teton National Park would be successful. Development of a public transit business plan will take place under all alternatives. Its purpose is to provide sufficient analysis of options to determine (1) whether it is feasible to implement a transit system in and around Grand Teton National Park; (2) if so, how it could be operated effectively and efficiently by the private-sector or other entity as a financially sustainable system. The transit business plan will provide an analysis of potential ridership; routes, stops, and schedules; capital and operating costs; infrastructure and rolling stock needs; funding sources and leveraging opportunities; and coordination and partnership opportunities. The transit business plan will follow on previous planning efforts within Grand Teton National Park, as well as the Town of Jackson and Teton County, Wyoming.

A wildlife research and monitoring program will provide the NPS with information about impacts on wildlife resulting from the development of pathways, and allow data collected following the construction and operation



of early phases of the pathway system to inform future planning and design regarding later phases.

In 2006, the Park commissioned a conceptual design and study process intended to address issues in the Moose Administrative Complex. The Park is also working with the Federal Highway Administration, to analyze impacts at the three existing intersections along the Teton Park Road from the Snake River Bridge to the Moose-Wilson Road.

Costs for implementation of any alternative would include initial construction and the long-term cost of ownership, including annually recurring expenditures for maintenance and operations. Project costs include construction and other direct costs (i.e., pre-design, design, construction supervision, construction contingency, and monitoring). The costs reflected under each of the alternatives considered reflect 2008 construction prices, which is projected to be the initial phase of construction. Any project constructed beyond 2008 will need to factor 4 percent inflation, compounding per year.

Alternative 1: No Action Alternative

Under the No Action Alternative, the Park would continue its current transportation management actions. No improvements would be made to roadways, parking, or transit service and facilities, and no changes would occur related to development of multi-use pathways or improved road shoulders other than those that would be accomplished through normal and ongoing park operations and maintenance or on a case-by-case basis. Minor improvements to developed areas may occur and limited improvements would occur in the traveler information arena. Alternative 1 would include all of the actions described above under the “Elements Common to All Alternatives” section. Estimated capital costs for implementing Alternative 1 are \$361,000. There are no maintenance costs associated with this alternative.

Alternative 2: Improved Road Shoulders

Under Alternative 2, the primary objective is to improve the ability to manage the traffic flow, parking, and visitor experience within the Park in a proactive manner, with little or no construction of new pavement or parking facilities. This alternative would provide additional information concerning transit services and facilities and about current travel conditions within the Park. No multi-use pathways are proposed, but road shoulders would be improved to a 5.0-ft (1.5-m) width (4.5-ft travel lane, plus 3 inches on each side for striping) on the Teton Park Road between Moose Junction and Signal Mountain Lodge (a distance of

approximately 17.8 miles [28.6 km]) to provide increased access for bicycling. The Park would limit motorized traffic on Signal Mountain Road at certain times in order to provide increased access to bicyclists and pedestrians. Limited modifications and additions to infrastructure in developed areas would occur. Alternative 2 would include improvements to the amount and type of information available to park visitors and the local community regarding transportation related issues. Alternative 2 would improve the efficiency of parking by providing enhanced information to park visitors regarding the availability of parking. Entrance stations, visitor centers, self-service information kiosks, and variable messaging signs within the Park would provide information on lot capacity and filled lots. Alternative 2 would include all of the actions described under the “Elements Common to All Alternatives” section. Estimated capital costs and annual maintenance and operation costs for implementing Alternative 2 are \$12,958,000 and \$63,000, respectively.

Alternative 3: Improved Road Shoulders / Multi-Use Pathways

Under Alternative 3, a system of multi-use pathways and improved road shoulders would be constructed to provide enhanced and safer experiences for bicyclists and pedestrians. Approximately 23.3 miles (37.3 km) of multi-use pathways would be constructed outside the engineered road corridor (within 50 ft of the road, but not greater than 150 ft from the road) along U.S. Highway 26/89/191 from the south boundary to Antelope Flats Road, along the Teton Park Road from Moose Junction to North Jenny Lake Junction, including a segment to Dornan’s, and from the Granite Canyon Entrance Station to the LSR Preserve. Alternative 3 also includes shoulder widening (to 5.0 ft [1.5 m]) along 15.5 miles (25.0 km) of the Teton Park Road from North Jenny Lake Junction to Colter Bay.

In addition, visitor information systems would be expanded and improved. Road signs and other forms of information, including information about existing transit services, would be improved to inform park visitors about current traffic/ use conditions in the Park. A pedestrian-crossing signal would be constructed at the Jackson Lake Dam crossing to increase visitor safety. The Moose-Wilson Road would be realigned in two areas to restore aspen and wetland habitat, and the existing alignments would be abandoned and restored to natural conditions. Limited modifications and additions to infrastructure would be incorporated, such as social trails, signs, information kiosks, and way-finding. Some parking and circulation would be minimally redesigned. Alternative 3 would include all

of the actions described under the “Elements Common to All Alternatives” section. Estimated capital costs and annual maintenance and operation costs for implementing Alternative 3 are \$34,542,000 and \$417,000, respectively.

Alternative 3a: Preferred Alternative

Based on comments received during public review of the Draft Plan/EIS, the NPS developed a new preferred alternative that combines elements of Alternatives 3 and 4. Under Alternative 3a, a combination of improved road shoulders and multi-use pathways within and outside the road corridor would be constructed, which would provide a wide range of transportation opportunities for bicyclists and pedestrians (Figure ES-1). As with Alternative 3, the Moose-Wilson Road would be realigned in two areas to restore aspen and wetland habitat and 22.5 miles (36.0 km) of multi-use pathways would be constructed outside the existing road corridor. However, under Alternative 3a, 18.8 miles (30.3 km) of multi-use pathways would be constructed within the existing road corridor, compared to 42.6 miles (68.6 km) of multi-use pathways that would be constructed outside the road corridor in Alternative 4, and 15.5 miles (25.0 km) of improved shoulders included in Alternative 3. Estimated capital costs and annual maintenance and operation costs for implementing Alternative 3a are \$45,019,000 and \$558,000, respectively.

Roadways and Parking

Under Alternative 3a, improvements to park roadways and parking areas would occur during scheduled maintenance or on an as needed basis. A combination of improvements may be implemented and could include road signs to increase awareness of wildlife crossings; improved information on parking lot capacity and filled lots; self-service information kiosks; and variable messaging signs. A pedestrian-crossing signal would be constructed at the Jackson Lake Dam crossing to increase visitor safety.

The Moose-Wilson Road would be realigned in two areas and the existing alignments would be abandoned and restored to natural conditions. Specifically, a section of the existing Moose-Wilson Road between the Sawmill Ponds Overlook and a point approximately one-third mile (0.5 km) north of the Death Canyon Road Junction would be abandoned and restored to natural conditions. Pavement would be removed and the roadbed would be regraded and revegetated to restore aspen and wetland habitat in this area. The road realignment between those two points would generally follow an old abandoned roadbed on the east side of the wetland and riparian areas. The other realignment, approximately one-half mile (0.8 km) east of

Sawmill Ponds Overlook to a junction with the Teton Park Road near Moose, would intersect the Teton Park Road between the entrance station and the access road to the Chapel of the Transfiguration.

Realignment would occur for the purpose of restoring aspen habitat to this area and avoiding important wetland and riparian areas. Realignment near the entrance station also would protect and facilitate a wildlife migration corridor in the Snake River riparian area. The aspen, cottonwood, and mixed deciduous-coniferous forests and wetlands located along this section of the Moose-Wilson Road provide unique habitat for wildlife and distinct vegetative communities. The area to be restored differs notably from the surroundings, and the road passing through this area currently affects its wildlife habitat value. The Park may consider the addition of wildlife viewing areas as part of the realignment of the Moose-Wilson Road between Sawmill Ponds and the Death Canyon Road. In other areas, the existing character of the road would be maintained and thus, there are no plans for further development in the form of pull-offs or formal viewing areas. User-created pull-offs may be formalized or barricaded as necessary to ensure resource protection and enhance visitor experience.

Transit Service and Facilities

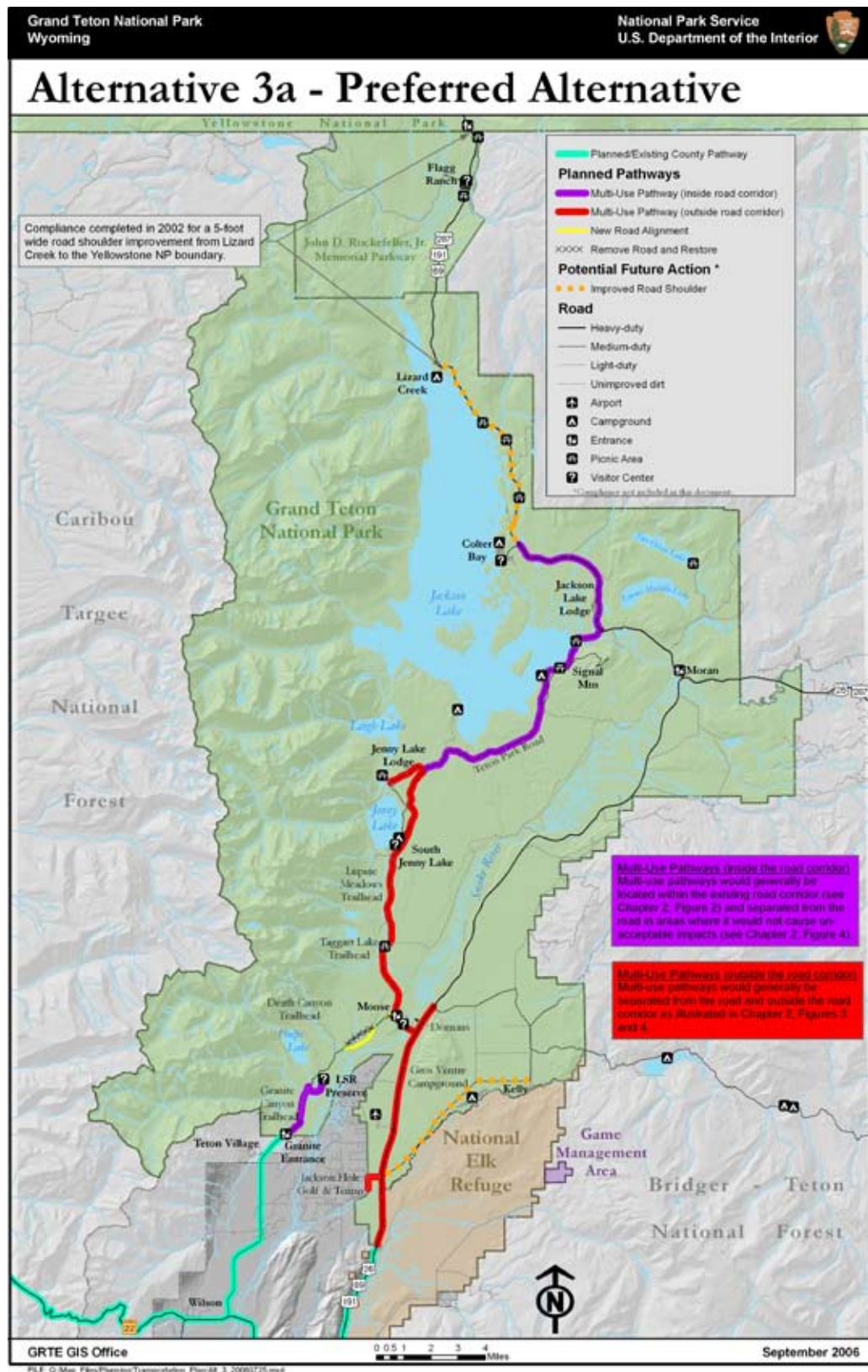
This alternative would provide additional information concerning the transit services available to the public, including route maps and schedules at lodges within and outside the Park, visitor centers, and other locations where visitors may congregate. Completion of the transit business plan could result in operation of a pilot transit system in the Park.

Multi-use Pathways and Improved Shoulders

Under Alternative 3a, a distinction is made between pathways constructed within the road corridor as opposed to those constructed outside of the corridor. For the purposes of this plan, the term “road corridor” generally means the engineered corridor in which the road exists, including the cut and fill areas and clear zones. Under this alternative, multi-use pathways would be constructed outside the road corridor along U.S. Highway 26/89/191 (Outer Highway) from the south boundary to Antelope Flats Road (a distance of approximately 9.4 miles [15.0 km]), along the Teton Park Road from Moose Junction to North Jenny Lake Junction (a distance of approximately 10.6 miles [17.0 km]), from North Jenny Lake Junction west to String Lake (a distance of approximately 1.5 miles [2.4 km]), and from Gros Ventre Junction to an existing



FIGURE ES-1
ALTERNATIVE 3A — PREFERRED ALTERNATIVE



pathway near Jackson Hole Golf and Tennis via Sagebrush Drive and Spring Gulch Road (a distance of approximately 1.0 mile [1.6 km]). A total of 22.5 miles (36.0 km) of multi-use pathways would be constructed outside existing road corridors. Pathways would be constructed outside of the engineered road corridor and generally within 50 ft of the road, but not greater than 150 ft from the road.

Alternative 3a also includes construction of multi-use pathways within the road corridor along the Teton Park Road from North Jenny Lake Junction to Colter Bay (approximately 15.5 miles [25.0 km]), except for a section between Signal Mountain Lodge and Jackson Lake Dam, where an improved shoulder would be constructed. In addition, improved shoulders would be used in other areas where constructability issues or unacceptable impacts to resources could occur.

A multi-use pathway would also be constructed within the road corridor along the Moose-Wilson Road from the Granite Canyon Entrance Station to the LSR Preserve (a distance of approximately 3.3 miles [5.3 km]). The Moose-Wilson pathway would begin at the Granite Canyon Entrance Station and extend to the north end of the unpaved section of road. At that point, the pathway would divert eastward and follow the long-established alignment of the unpaved levee access road to the LSR Preserve.

Developed Areas

Alternative 3a would incorporate limited modifications and additions to infrastructure through normal park operations and maintenance and could include improved social trails, signs, and way-finding, information kiosks, bicycle racks, variable-messaging signs, bulletin boards, and other traveler information systems in the following activity areas of the Park.

As described under the “Elements Common to All Alternatives” section, issues in the Moose Administrative Complex will be examined to address the increase in use of the area as a result of pathway construction.

Social trails, signs, and way-finding would be improved in the South Jenny Lake area in order to create well-marked pedestrian pathways to facilitate pedestrian travel between key points (i.e., the campground and the store), thereby lessening the use of private vehicles to travel short distances and reducing congestion. Social trails would likely be paved or graveled, and information kiosks would be added.

Social trails, signs, and way-finding would be improved in the Signal Mountain area in order to facilitate pedestrian

travel between key points (i.e., the campground and the store), thereby lessening the use of private vehicles to travel short distances and reducing congestion. Information kiosks would be added at Signal Mountain.

Signs and way-finding would be improved in the Jackson Lake Lodge area in order to facilitate pedestrian travel between key points. Information kiosks would be added at Jackson Lake Lodge.

Parking, boat trailer parking, and circulation would be minimally redesigned at Colter Bay to improve function and safety and information kiosks would be added.

Traveler Information

Alternative 3a would improve the amount and type of information available to park visitors and the local community regarding transportation-related issues. The Park would employ various information transmission methods, depending on effectiveness and as funds become available, which could include traveler information systems (localized radio transmissions with information on current park conditions), additional variable messaging signs, bulletin boards, an improved website, and information kiosks with current information at key locations. Wildlife hazard signs, particularly for grizzly bears and moose, and particularly in areas with low sight distance, could also be provided.

Alternative 4: Multi-Use Pathways

Under Alternative 4, an extensive system (a total of 42.6 miles [68.4 km]) of multi-use pathways would be constructed outside the road corridor to provide a wide range of transportation opportunities for bicyclists and pedestrians. Multi-use pathways would be developed along U.S. Highway 26/89/191 from the south boundary to Antelope Flats Road, and from Moose Junction to Colter Bay via the Teton Park Road, including a segment to Dornan's. A pathway would also be constructed along the Moose-Wilson Road from the Granite Canyon Entrance Station to Moose. The Moose-Wilson Road would be realigned in two areas to restore aspen and wetland habitat. Limited modifications and additions to infrastructure in developed areas would occur, and improvements would be made to the amount and type of transportation-related information available to park visitors and the local community. Estimated capital costs and annual maintenance and operation costs for implementing Alternative 4 are \$47,788,000 and \$558,000, respectively.



Evolution of the Alternatives from Draft to Final

The most significant difference between the preferred alternative identified in the Draft Plan/EIS and the preferred alternative in the Final Plan/EIS is that the preferred alternative in the Final Plan/EIS includes multi-use pathways from North Jenny Lake Junction to Colter Bay rather than improved shoulders, which were included in the preferred alternative in the Draft Plan/EIS. Below is a summary of the major differences between the Draft Plan/EIS Alternatives 3 (the preferred) and 4, and the Final Plan/EIS Alternative 3a (the new preferred).

During public comment on the Draft Plan/EIS, the NPS received the most comments about the pathways, with some commentors expressing support for an extensive pathway system that would facilitate non-motorized use of the Park and others objecting to the potential impacts of pathways on park resources. Commentors also expressed concern about potential changes to the Moose-Wilson Road that would alter the road's scenic quality, its suitability for sight-seeing purposes, and impacts to the wildlife that use the corridor and provide wildlife viewing opportunities for visitors. These comments underscored the need for the NPS to develop information to guide management decisions about pathways and about the Moose-Wilson corridor.

The Park recognizes that the Moose-Wilson Road requires a management strategy different from other road segments in the Park because of its rustic nature, wildlife habitat, wetlands, and eligibility for the National Register of Historic Places. To meet the need for additional information about the Moose-Wilson Road, the NPS contracted with the Western Transportation Institute at Montana State University to develop a data collection and monitoring plan, and performance measures that will be used by the NPS to guide the implementation of the adaptive management plan.

The Park's goal is to retain the existing character of this corridor and to restore approximately 2 miles of important habitat and wetland areas while also providing a high-quality visitor experience for motorists, bicyclists, and pedestrians. To ensure that use of the corridor does not produce unacceptable impacts to park resources, the NPS will test strategies for managing traffic on the Moose-Wilson Road, such as one-way traffic during certain times of the day. Under any strategy, two-way traffic would be maintained between the Granite Canyon Entrance Station and the Granite Canyon Trailhead and between the LSR Preserve and Moose. The strategies were developed in consultation with the Western Transportation Institute and will be part of an adaptive management plan for the road.

Draft Plan Alternative 3	Final Plan Alternative 3a	Draft Plan Alternative 4
Improved shoulders from North Jenny Lake Junction to Colter Bay.	Pathways within road corridor from North Jenny Lake Junction to Colter Bay.	Pathways outside of road corridor from North Jenny Lake Junction to Colter Bay.
Pathways outside of road corridor along the Moose-Wilson Road between the Granite Canyon Entrance Station and the LSR Preserve.	Pathways within road corridor along the Moose-Wilson Road between the Granite Canyon Entrance Station and the LSR Preserve.	Pathways outside of road corridor along entire length of the Moose-Wilson Road.
No pathways data collection and monitoring program for wildlife and visitor use.	Pathways data collection program for visitor use and wildlife monitoring and research.	No pathways data collection and monitoring program for wildlife and visitor use.
Adaptive management plan for the Moose-Wilson Road.	Adaptive management plan for the Moose-Wilson Road.	Adaptive management plan for the Moose-Wilson Road.
Re-alignment of the Moose-Wilson Road in two locations to facilitate habitat and wetlands restoration.	Re-alignment of the Moose-Wilson Road in two locations to facilitate habitat and wetlands restoration.	Re-alignment of the Moose-Wilson Road in two locations to facilitate habitat and wetlands restoration.
No pathway spurs.	Pathway spurs from Gros Ventre Junction to Jackson Hole Golf and Tennis, from Teton Park Road to Dornan's, and from North Jenny Lake Junction to String Lake.	No pathway spurs.
Pilot transit program.	Transit Business Plan.	Pilot transit program.

Adaptive management enables park managers to assess the impacts of a decision and to adjust that decision accordingly when necessary to prevent unacceptable impacts.

To meet the need for additional information about how a pathway system might affect wildlife, the Park convened a group of biologists from the NPS, academic, private research, and transportation planning organizations which has begun work on a wildlife monitoring program to measure how wildlife respond to pathway construction and pathway use. That information will inform the planning and design of future pathway segments to ensure that pathway construction and use do not result in unacceptable impacts to park resources.

The NPS has determined that confining pathways to the road corridor as called for in the Final Plan/EIS preferred alternative will facilitate non-motorized use of the Park in a manner comparable to the extensive pathway system included in the Draft Plan/EIS Alternative 4, but with less disturbance to the environment. Moreover, confining pathways to previously disturbed areas is expected to produce fewer impacts to wildlife, which may adapt more readily to changes within an area already used by humans. Pathways outside the corridor would disrupt previously undisturbed areas and introduce humans into areas not frequented by humans on a regular basis. The new activity could result in wildlife avoiding those areas entirely or altering their normal use patterns. Wildlife monitoring and research, along with visitor use monitoring will help the NPS assess exactly how wildlife behavior is affected by development and use of pathways.

The NPS will use information about how wildlife react to construction and use of the first phase of the pathway system, which covers 7.7 miles between Dornan's and South Jenny Lake Junction, in informing the planning and design of future segments of the pathway system.

The NPS has selected Alternative 3a in the Final Plan/EIS as the preferred alternative because it best fulfills the purpose and need for the plan by providing a more extensive system of multi-use pathways to improve opportunities for non-motorized travel between the Park's major activity areas, while mitigating environmental and visitor safety concerns associated with locating pathways outside of road corridors in heavily forested or other resource sensitive areas where the risk of surprise encounters between bicyclists and wildlife would be greatest. For these reasons, the NPS believes that Alternative 3a meets the objectives of the Final Plan/EIS as

described in Chapter 1, such as providing additional travel/recreational options, both motorized and non-motorized.

Environmental Consequences

The Final Plan/EIS discloses direct, indirect, and cumulative effects. These effects are both beneficial and adverse depending on the resource and the action being analyzed. Beneficial impacts are those that involve a positive change in the condition or appearance of a resource or a change that moves the resource toward a desired condition. Adverse impacts involve a change that moves the resource away from a desired condition or detracts from its appearance or condition. Direct impacts are caused by an action and occur at the same time and place as the action. Indirect impacts are caused by the action and occur later or farther away but are still reasonably foreseeable. Cumulative impacts are the impacts on the environment that result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. A summary of effects for all alternatives is provided in Table ES-1.



TABLE ES-1 COMPARATIVE SUMMARY OF IMPACTS				
Alternative 1: No Action	Alternative 2: Improved Road Shoulders	Alternative 3: Improved Shoulders / Multi-Use Pathways	Alternative 3a: Preferred Alternative	Alternative 4: Multi-Use Pathways
Visual and Scenic Quality				
Alternative 1 would result in long-term, localized, negligible to minor, adverse impacts on visual quality. Cumulative impacts would generally be long-term, negligible to minor, and adverse, with short-term, moderate, adverse impacts during routine maintenance and construction.	Alternative 2 would result in long-term, localized, negligible to minor, adverse impacts on visual quality, with short-term, localized, moderate, adverse impacts during construction of improved shoulders. Cumulative impacts would generally be long-term, negligible to minor, and adverse, with short-term, moderate, adverse impacts occurring during periods of construction.	Alternative 3 would result in long-term, localized, minor to moderate, adverse impacts on visual quality, primarily because of the introduction of multi-use pathways into the foreground views, as seen from the affected road corridors. Short-term, localized, moderate, adverse impacts would result during realignment and construction of improved shoulders and pathways. Cumulative impacts would be long term, minor to moderate, and adverse, with short-term, moderate, adverse impacts during periods of construction.	Alternative 3a would result in long-term, localized, moderate, adverse impacts on visual quality, largely because of the introduction of multi-use pathways into the foreground views, as seen from the affected road corridors. Short-term, localized, moderate, adverse impacts would result during construction. Cumulative impacts would be long term, minor to moderate, and adverse, with short-term, moderate adverse impacts from construction activities.	Alternative 4 would result in long-term, localized, moderate, adverse impacts on visual quality, largely because of the introduction of multi-use pathways into the foreground views, as seen from the affected road corridors. Short-term, localized, moderate, adverse impacts would result during construction. Cumulative impacts would be long term, minor to moderate, and adverse, with short-term, moderate, adverse impacts from construction activities.
Soils				
Alternative 1 would result in short- and long-term, localized, negligible to minor, adverse impacts from entrance lane construction, sign installation and routine maintenance and construction and from the continued use of social trails. Cumulative impacts would be long-term, negligible to minor, and adverse.	Alternative 2 would result in short- and long-term, localized, minor adverse impacts from entrance lane construction, sign installation, and construction of shoulders along a portion of the Teton Park Road and from continued use of social trails. Cumulative impacts would be long-term, negligible to minor, and adverse.	Alternative 3 would result in short- and long-term, localized, minor to moderate, adverse impacts to soils, as well as long-term, localized, negligible, beneficial impacts to soils, primarily because of the construction and eventual use of a multi-use pathway system and improved road shoulders, plus the improvements and delineation of social trails. Short-term, localized, minor, adverse impacts would occur at locations of construction projects. Cumulative impacts would be long term, minor to moderate, and adverse.	Alternative 3a would result in short- and long-term, localized, moderate, adverse impacts to soils, as well as long-term, localized, negligible, beneficial impacts to soils, primarily because of the construction and eventual use of a multi-use pathways system, plus the improvements to and delineation of social trails. Short-term, localized, minor, adverse impacts would occur at locations of construction projects. Cumulative impacts would be long term, minor to moderate, and adverse.	Alternative 4 would result in long-term, localized, moderate, adverse impacts to soils, as well as long-term, localized, negligible, beneficial impacts to soils, primarily because of the construction and eventual use of a multi-use pathways system, plus the improvements to and delineation of social trails. Short-term, localized, minor, adverse impacts would occur at locations of construction projects. Cumulative impacts would be long term, minor to moderate, and adverse.



TABLE ES-1 COMPARATIVE SUMMARY OF IMPACTS				
Alternative 1: No Action	Alternative 2: Improved Road Shoulders	Alternative 3: Improved Shoulders / Multi-Use Pathways	Alternative 3a: Preferred Alternative	Alternative 4: Multi-Use Pathways
Vegetation				
Alternative 1 would result in long-term, localized, negligible to minor, adverse impacts from the degradation of native vegetation in and near areas with concentrated human use and areas of social trails. No (or negligible) effects to plant species of special concern are expected to result from implementation of Alternative 1. Cumulative impacts to vegetation would be long-term, minor, and adverse.	Alternative 2 would result in the permanent removal of approximately 13.3 acres (5.4 ha) of vegetation. Actions under Alternative 2 would result in long-term, localized, negligible to minor, adverse impacts to vegetation due to continued use of social trails and direct impacts from construction of shoulders along a portion of the Teton Park Road, with short- and long-term, localized, minor, adverse impacts associated with construction. No (or negligible) effects to plant species of special concern are expected to result from implementation of Alternative 2. Cumulative impacts to vegetation would be long-term, minor, and adverse.	Alternative 3 would result in the permanent removal of approximately 63.8 acres (25.8 ha) of vegetation including between 5,200 and 7,100 trees. This Alternative would result in long-term, localized, moderate, adverse impacts on vegetation and long-term, localized, negligible, beneficial impacts to vegetation. In the short-term, localized, moderate, adverse impacts would occur where construction disturbs vegetation, including the realignment of two sections of the Moose-Wilson Road. With proper and successful regeneration, the long-term, adverse impacts in construction areas would be negligible to minor. No (or negligible) effects to plant species of special concern are expected to result from implementation of Alternative 3. Cumulative impacts would be long-term, minor to moderate, and adverse.	Alternative 3a would result in the permanent removal of approximately 82.9 acres (33.5 ha) of vegetation including between 17,900 and 23,075 trees. This alternative would result in long-term, localized, moderate, adverse impacts on vegetation and long-term, localized, negligible, beneficial impacts to vegetation. In the short-term, localized, moderate, adverse impacts would occur where construction disturbs vegetation, including the realignment of two sections of the Moose-Wilson Road. With proper and successful regeneration, the long-term, adverse impacts in construction areas would be negligible to minor. No (or negligible) effects to plant species of special concern are expected to result from implementation of Alternative 3a. Cumulative impacts would be long-term, minor to moderate, and adverse.	Alternative 4 would result in the permanent removal of approximately 85.1 acres (34.4 ha) of vegetation including between 29,950 and 33,775 trees. This alternative would result in long-term, localized, moderate, adverse impacts on vegetation and long-term, localized, negligible, beneficial impacts to vegetation. In the short-term, localized, moderate, adverse impacts would occur where construction disturbs vegetation, including the realignment of two sections of the Moose-Wilson Road. With proper and successful regeneration, the long-term, adverse impacts in construction areas would be negligible to minor. No (or negligible) effects to plant species of special concern are expected to result from implementation of Alternative 4. Cumulative impacts would be long-term, minor to moderate, and adverse.

TABLE ES-1 COMPARATIVE SUMMARY OF IMPACTS				
Alternative 1: No Action	Alternative 2: Improved Road Shoulders	Alternative 3: Improved Shoulders / Multi-Use Pathways	Alternative 3a: Preferred Alternative	Alternative 4: Multi-Use Pathways
Hydrology and Water Quality				
Alternative 1 would result in long-term, localized, negligible, adverse impacts on water quality and hydrology, resulting from continued road maintenance activities and construction of separate entrance lanes. Cumulative impacts would be long-term, negligible, and adverse.	Alternative 2 would result in long-term, localized, negligible, adverse impacts on water quality. Impacts associated with construction activities would be short-term, localized, negligible to minor, and adverse, with appropriate mitigation. Cumulative impacts would be long-term, negligible, and adverse.	Alternative 3 would result in long-term, localized, minor, adverse impacts on water quality. Long-term, localized, minor, beneficial impacts would result from the paving and stabilization of social trails. Impacts associated with construction activities would be short term, localized, minor, and adverse, with appropriate mitigation. Cumulative impacts would be long-term, negligible, and adverse.	Alternative 3a would result in long-term, localized, minor, adverse impacts on water quality. Long-term, localized, minor, beneficial impacts would result from the paving and stabilization of social trails. Impacts associated with construction activities would be short term, localized, minor, and adverse, with appropriate mitigation. Cumulative impacts would be long term, negligible, and adverse.	Alternative 4 would result in long-term, localized, minor to moderate, adverse impacts on water quality. Long-term, localized, minor, beneficial impacts would result from the paving and stabilization of social trails. Impacts associated with construction activities would be short term, localized, minor, and adverse, with appropriate mitigation. Cumulative impacts would be long term, negligible, and adverse.
Wetlands				
Alternative 1 would result in long-term, localized, negligible, adverse impacts to wetlands in the Park, with no new or measurable net wetland losses. Cumulative impacts would be long-term, negligible to minor, and adverse.	Alternative 2 would potentially result in long-term, localized, negligible to minor, adverse impacts to wetlands in the Park. Approximately 0.02 acre (0.008 ha) of wetlands would be impacted under this alternative. Cumulative impacts to wetlands would be long-term, negligible to minor, and adverse.	Alternative 3 would potentially result in long-term, localized, minor, adverse impacts on wetlands in the Park, mainly in the vicinity of Cottonwood Creek and Willow Flats, with long-term, localized, negligible, adverse impacts due to improving social trails and long term, localized, minor to moderate, beneficial impacts from realignment of the Moose-Wilson Road. Approximately 1.40 acres (0.57 ha) of wetlands would be impacted under this alternative. Cumulative impacts would be long-term, negligible to minor, and adverse.	Alternative 3a would potentially result in long-term, localized, minor to moderate, adverse impacts on wetlands in the Park, mainly in the vicinity of Cottonwood Creek and Willow Flats, with long-term, localized, negligible, beneficial impacts due to improving social trails and long-term, localized, minor to moderate, beneficial impacts from realignment of the Moose-Wilson Road. Approximately 3.85 acres (1.56 ha) of wetlands would be impacted under this alternative. Cumulative impacts would be long-term, negligible to minor, and adverse.	Alternative 4 would potentially result in long-term, localized, minor to moderate, adverse impacts to wetlands in the Park, mainly in the vicinity of Cottonwood Creek and the area from Jackson Lake Dam to Jackson Lake Junction, with long-term, localized, negligible, beneficial impacts due to improving social trails and long-term, localized, minor to moderate, beneficial impacts from realignment of the Moose-Wilson Road. Approximately 4.26 acres (1.72 ha) of wetlands would be impacted under this alternative. Cumulative impacts would be long-term, negligible to minor, and adverse.



TABLE ES-1 COMPARATIVE SUMMARY OF IMPACTS				
Alternative 1: No Action	Alternative 2: Improved Road Shoulders	Alternative 3: Improved Shoulders / Multi-Use Pathways	Alternative 3a: Preferred Alternative	Alternative 4: Multi-Use Pathways
Threatened, Endangered, and Species of Special Concern				
Alternative 1 would have long-term, localized, minor impacts to the bald eagle, Canada lynx, or yellow-billed cuckoo resulting in a formal determination of "May affect, is not likely to adversely affect." Alternative 1 would also have long-term, localized moderate impacts to grizzly bears and gray wolf, resulting in a formal determination of "likely to adversely affect" because vehicle collisions could occur that would adversely affect one or more individuals; however, the alternative would not threaten the survival of either species. Impacts to bird species of special concern and/or neotropical migratory birds from Alternative 1 would be long-term, localized, negligible, and adverse. Cumulative impacts would be long term, negligible, and adverse.	Alternative 2 would have long-term, localized, minor impacts to the bald eagle, Canada lynx, or yellow-billed cuckoo resulting in a formal determination of "May affect, is not likely to adversely affect." Alternative 2 would also have long-term, localized moderate impacts to grizzly bears and gray wolf, resulting in a formal determination of "likely to adversely affect" because vehicle collisions could occur that would adversely affect one or more individuals; however, the alternative would not threaten the survival of either species. Impacts to bird species of special concern and/or neotropical migratory birds from Alternative 2 would be long-term, localized, negligible to minor, and adverse. Cumulative impacts would be long term, negligible, and adverse.	Alternative 3 would have long-term, localized, minor impacts to the bald eagle, Canada lynx, or yellow-billed cuckoo resulting in a formal determination of "May affect, is not likely to adversely affect." Alternative 3 would also have long-term, localized moderate impacts to grizzly bears and gray wolf, resulting in a formal determination of "likely to adversely affect" because vehicle collisions could occur that would adversely affect one or more individuals; however, the alternative would not threaten the survival of either species. Impacts to bird species of special concern and/or neotropical migratory birds from Alternative 3 would be long-term, localized, minor, and adverse. Cumulative impacts would be long term, minor, and adverse.	Alternative 3a would have long-term, localized, minor impacts to the bald eagle, Canada lynx, or yellow-billed cuckoo resulting in a formal determination of "May affect, is not likely to adversely affect." Alternative 3a would also have long-term, localized moderate impacts to grizzly bears and gray wolf, resulting in a formal determination of "likely to adversely affect" because vehicle collisions could occur that would adversely affect one or more individuals; however, the alternative would not threaten the survival of either species. Impacts to bird species of special concern and/or neotropical migratory birds from Alternative 3a would be long-term, localized, minor, and adverse. Cumulative impacts would be long term, minor, and adverse.	Alternative 4 would have long-term, localized, minor impacts to the bald eagle, Canada lynx, or yellow-billed cuckoo resulting in a formal determination of "May affect, is not likely to adversely affect." Alternative 4 would also have long-term, localized moderate impacts to grizzly bears and gray wolf, resulting in a formal determination of "likely to adversely affect" because vehicle collisions could occur that would adversely affect one or more individuals; however, the alternative would not threaten the survival of either species. Impacts to bird species of special concern and/or neotropical migratory birds, from Alternative 4 would be long-term, localized, minor, and adverse. Cumulative impacts would be long term, minor, and adverse.

TABLE ES-1 COMPARATIVE SUMMARY OF IMPACTS				
Alternative 1: No Action	Alternative 2: Improved Road Shoulders	Alternative 3: Improved Shoulders / Multi-Use Pathways	Alternative 3a: Preferred Alternative	Alternative 4: Multi-Use Pathways
General Wildlife				
Alternative 1 would result in long-term, localized, negligible to minor, adverse impacts to mammals, reptiles, and amphibians from continued use of park roads and trails due to displacement from and/or avoidance of habitats adjacent to existing roads. Direct mortality levels are not expected to increase under this alternative, but it is likely that vehicles using park roads would continue to strike and kill individual mammals.	Alternative 2 would result in long-term, localized, negligible to minor, adverse impacts to mammals, reptiles, and amphibians from continued use of park roads and construction of shoulder widening. Direct mortality levels are not expected to increase under this alternative, but it is likely that vehicles using park roads would continue to strike and kill individual mammals. Effects to local species distributions and habitat use patterns are likely, but to a lesser degree than in Alternatives 3, 3a, or 4. Cumulative impacts would be long term, minor to moderate, and adverse, with Alternative 1 adding a negligible amount to overall cumulative impacts.	Alternative 3 would have an intermediate level of adverse impacts on wildlife among the action alternatives considered. Although Alternative 3 is not expected to have adverse population level impacts on mammals, reptiles, and amphibians, there would be long-term, localized, negligible to minor, adverse effects. Direct mortality levels are not expected to increase under this alternative; however, it is likely that vehicles using park roads would continue to strike and kill individual mammals. Effects to local species distributions and habitat use patterns are likely and would be long term, localized, negligible to moderate, and adverse. Cumulative impacts to general wildlife under this alternative would be long term, minor to moderate, and adverse.	Alternative 3a would have a higher level of adverse impacts on wildlife than Alternatives 1, 2, and 3. Although direct impacts to habitat for mammals, reptiles, and amphibians would be relatively small, the increased disturbance (both spatially and in terms of recreation use levels) would further fragment habitats and erode habitat effectiveness. Direct mortality levels are not expected to increase under this alternative; however, it is likely that vehicles using park roads would continue to strike and kill individual mammals. Effects to local species distributions and habitat use patterns are likely and would be long term, localized, negligible to moderate, and adverse. Cumulative impacts to wildlife under this alternative would be long term, minor to moderate, and adverse.	Alternative 4 would have the highest level of adverse impacts on wildlife of the alternatives considered. Although direct habitat impacts on mammals, reptiles, and amphibians would be relatively small, the increased disturbance (both spatially and in terms of recreation use levels) would further fragment habitats and erode habitat effectiveness. Direct mortality levels are not expected to increase under this alternative; however, it is likely that vehicles using park roads would continue to strike and kill individual mammals. Effects to local species distributions and habitat use patterns are likely and would be long term, localized, negligible to moderate, and adverse. Cumulative impacts to wildlife under this alternative would be long term, minor to moderate, and adverse.



TABLE ES-1 COMPARATIVE SUMMARY OF IMPACTS				
Alternative 1: No Action	Alternative 2: Improved Road Shoulders	Alternative 3: Improved Shoulders / Multi-Use Pathways	Alternative 3a: Preferred Alternative	Alternative 4: Multi-Use Pathways
Archeological Resources				
Alternative 1 would result in potentially long-term, localized, negligible to minor, adverse impacts on known archeological sites. Because many areas have either not been surveyed or have not been surveyed in accordance with the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, additional research, fieldwork, and consultation with the Wyoming State Historic Preservation Office and Native American tribal governments will be needed to determine whether sites are eligible for listing in the National Register of Historic Places. Cumulative impacts would be long-term, negligible to minor, and adverse.	Alternative 2 would result in potentially long-term, localized, negligible to minor, adverse impacts on known archeological sites. Because many areas have either not been surveyed or have not been surveyed in accordance with the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, additional research, fieldwork, and consultation with the Wyoming State Historic Preservation Office and Native American tribal governments will be needed to determine whether sites are eligible for listing in the National Register of Historic Places. Cumulative impacts would be long-term, negligible to minor, and adverse.	Alternative 3 would result in potentially long-term, localized, negligible to minor, adverse impacts on known archeological sites. Because many areas where resources are known to exist have either not been surveyed or have not been surveyed in accordance with the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, additional research, fieldwork and consultation with the Wyoming State Historic Preservation Office and Native American tribal governments would be needed to determine whether these sites are eligible for listing in the National Register of Historic Places. Cumulative impacts would be long term, negligible to minor, and adverse.	Alternative 3a would result in potentially long-term, localized, negligible to minor, adverse impacts on known archeological sites. Because many areas where resources are known to exist have either not been surveyed or have not been surveyed in accordance with the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, additional research, fieldwork and consultation with the Wyoming State Historic Preservation Office and Native American tribal governments would be needed to determine whether these sites are eligible for listing in the National Register of Historic Places. Cumulative impacts would be long term, negligible to minor, and adverse.	Alternative 4 would result in potentially long-term, localized, negligible to minor, adverse impacts on known archeological sites. Because many areas where resources are known to exist have either not been surveyed or have not been surveyed in accordance with the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, additional research, fieldwork and consultation with the Wyoming State Historic Preservation Office and Native American tribal governments would be needed to determine whether these sites are eligible for listing in the National Register of Historic Places. Cumulative impacts would be long term, negligible to minor, and adverse.
Transportation System and Traffic				
Alternative 1 would result in long-term, localized, negligible to minor, adverse impacts on roadways within the Park. On the Moose-Wilson Road, impacts would be long-term, localized, minor to moderate, and beneficial. Long-term, localized, minor, adverse impacts would be expected at parking areas throughout the Park. Cumulative impacts would be long term, minor, and adverse.	Alternative 2 would result in long-term, localized, negligible to minor, adverse impacts on roadways within the Park, with short-term, localized, negligible to minor, adverse impacts resulting from construction of improved shoulders on the Teton Park Road. Improvements in the dissemination of information to park visitors would result in long-term, localized, minor, beneficial impacts. Long-term, regional, minor, beneficial impacts would	Alternative 3 would result in both beneficial and adverse impacts to the transportation system and traffic. If implemented, the transit system would have, long-term, regional, negligible to minor, and beneficial impacts on park roadways and management strategies employed on the Moose-Wilson Road would result in long-term, localized, moderate, beneficial impacts. Long-term, regional, minor, beneficial impacts would	Alternative 3a would result in both beneficial and adverse impacts to the transportation system and traffic. If implemented, the transit system would have long-term, regional, negligible to minor, and beneficial impacts on traffic and park roadways and the management strategies employed on the Moose-Wilson Road would result in long-term, localized, moderate, beneficial impacts. Long-term, localized, minor, adverse impacts would	Alternative 4 would result in both beneficial and adverse impacts to the transportation system and traffic. If implemented, the transit system would have long-term, regional, negligible to minor, and beneficial impacts on traffic and park roadways and the management strategies employed on the Moose-Wilson Road would result in long-term, localized, moderate, beneficial impacts. Long-term, localized, minor, adverse impacts would continue to affect some parking

TABLE ES-1 COMPARATIVE SUMMARY OF IMPACTS				
Alternative 1: No Action	Alternative 2: Improved Road Shoulders	Alternative 3: Improved Shoulders / Multi-Use Pathways	Alternative 3a: Preferred Alternative	Alternative 4: Multi-Use Pathways
	also be expected from the connection to trails outside of the Park provided by improved shoulders, and the potential for implementation of transit. Cumulative impacts would be long term, minor, and both beneficial and adverse.	adverse impacts would continue to affect some parking areas and selected parking areas would experience long-term, localized, minor to moderate, adverse impacts. Short-term, localized, adverse impacts would result from construction activities. Cumulative impacts are expected to be long term, minor, and beneficial.	continue to affect some parking areas and selected parking areas would experience long-term, localized, minor to moderate, adverse impacts. Short-term, localized, negligible to minor, adverse impacts would result from construction activities. Cumulative impacts are expected to be long term, minor, and beneficial.	areas and selected parking areas would experience long-term, localized, minor to moderate, adverse impacts. Short-term, localized, negligible to minor, adverse impacts would result from construction activities. Cumulative impacts are expected to be long term, minor, and beneficial.
Visitor and Employee Use and Experience				
Alternative 1 would result in short- and long-term, localized and regional, minor to moderate, beneficial and adverse impacts on visitor and employee use and experience. Cumulative impacts would include long-term, negligible to minor, adverse cumulative impacts to employee commuting time; long-term, negligible, beneficial cumulative impacts on employee mobility choices; and long term, moderate, beneficial cumulative impacts on visitor use and experience.	Alternative 2 would result in long-term, localized and regional, minor to moderate, beneficial impacts, and short-term, localized, negligible to moderate, adverse impacts on visitor and employee use and experience. Cumulative impacts would include long-term, negligible to minor, adverse cumulative impacts to employee commuting time; long-term, negligible, beneficial cumulative impacts on employee mobility choices; and long term, moderate, beneficial cumulative impacts on visitor use and experience.	Alternative 3 would result in long-term, localized and regional, minor to major, beneficial impacts associated with the additional pathways and transit, and short- and long-term, localized, negligible to moderate, adverse impacts on visitor and employee use and experience. Cumulative impacts would include long-term, negligible to minor, adverse impacts to employee commuting time; long-term, negligible, beneficial impacts on employee mobility choices; and long-term, moderate, beneficial impacts on visitor use and experience.	Alternative 3a would result in long-term, localized and regional, minor to major, beneficial impacts associated with the additional pathways and transit, and short- and long-term, localized, minor to moderate, adverse impacts on visitor and employee use and experience. Cumulative impacts would include long-term, negligible to minor, adverse impacts to employee commuting time; long-term, negligible, beneficial impacts on employee mobility choices; and long-term, moderate, beneficial impacts on visitor use and experience.	Alternative 4 would result in long-term, localized and regional, minor to major, beneficial impacts associated with the additional pathways and transit, and short- and long-term, localized, minor to moderate, adverse impacts on visitor and employee use and experience. Cumulative impacts would include long-term, negligible to minor, adverse impacts to employee commuting time; long-term, negligible, beneficial impacts on employee mobility choices; and long-term, moderate, beneficial impacts on visitor use and experience.
Social and Economic Environment				
Alternative 1 would have a total capital cost of \$361,000 and would result in long-term, regional, negligible, beneficial impacts.	Alternative 2 would have a total capital cost of \$12,958,000 and would result in short- and long-term, regional, negligible to minor,	Alternative 3 would have a capital cost of \$34,542,000 and would result in short- and long-term, regional, minor, beneficial impacts.	Alternative 3a would have a capital cost of \$45,019,000 and would result in short- and long-term, regional, minor, beneficial and adverse impacts.	Alternative 4 would have a capital cost of \$47,788,000 and would result in short- and long-term, regional, minor, beneficial and adverse impacts.



TABLE ES-1 COMPARATIVE SUMMARY OF IMPACTS				
Alternative 1: No Action	Alternative 2: Improved Road Shoulders	Alternative 3: Improved Shoulders / Multi-Use Pathways	Alternative 3a: Preferred Alternative	Alternative 4: Multi-Use Pathways
Cumulative impacts would be long-term, major, and both beneficial and adverse, with the increment associated with this alternative considered negligible.	beneficial impacts. Cumulative impacts would be long-term, major, and both beneficial and adverse, with the increment associated with this alternative considered negligible.	Cumulative impacts would be long-term, major, and both beneficial and adverse, with the increment associated with this alternative considered negligible.	Cumulative impacts would be long-term, major, and both beneficial and adverse, with the increment associated with this alternative considered negligible.	Cumulative impacts would be long-term, major, and both beneficial and adverse, with the increment associated with this alternative considered negligible.
Local Communities				
Alternative 1 would result in a long-term, regional, negligible to minor, beneficial impact on collaboration between the Park and its gateway communities. Collaboration would continue at a modest and project specific level. Cumulative impacts on local communities would be long-term, negligible to minor, and beneficial.	Alternative 2 would result in long-term, regional, negligible to minor, beneficial impacts on inter-jurisdictional collaboration if a transit system is implemented and short- and long-term, regional, negligible, adverse and beneficial impacts as a result of roadway management on the Signal Mountain and Moose-Wilson Roads. Cumulative impacts on local communities would be long-term, negligible to minor, and adverse and beneficial.	Alternative 3 would result in long-term, regional, moderate, beneficial impacts on inter-jurisdictional collaboration if a transit system is implemented, and long-term, regional, minor to moderate, beneficial impacts as a result of the pathway system. Cumulative impacts to local communities would be long-term, minor to moderate, and beneficial.	Alternative 3a would result in long-term, regional, moderate, beneficial impacts on inter-jurisdictional collaboration if a transit system is implemented, and long-term, regional, minor to moderate, beneficial impacts as a result of the pathway system. Cumulative impacts to local communities would be long-term, minor to moderate, and beneficial.	Alternative 4 would result in long-term, regional, moderate, beneficial, impacts on inter-jurisdictional collaboration if a transit system is implemented, and long-term, regional, minor to moderate, beneficial impacts as a result of the pathway system. Cumulative impacts to local communities would be long-term, minor to moderate, and beneficial.

TABLE ES-1 COMPARATIVE SUMMARY OF IMPACTS				
Alternative 1: No Action	Alternative 2: Improved Road Shoulders	Alternative 3: Improved Shoulders / Multi-Use Pathways	Alternative 3a: Preferred Alternative	Alternative 4: Multi-Use Pathways
Park Operations				
Alternative 1 would result in long-term, localized, negligible to minor, adverse impacts on park operations, if staffing levels do not keep pace with workloads in the future. Cumulative impacts would be long term, minor to moderate, and adverse.	Alternative 2 would result in long term, localized, minor, adverse impacts on park operations, if staffing levels do not keep pace with workloads in the future. Cumulative impacts would be long term, minor to moderate, and adverse.	Alternative 3 would result in long-term, localized, moderate, adverse impacts on park operations due to the increased workload necessary to implement and manage new programs such as multi-use pathways, a transit system (if implemented), and management strategies for the Moose-Wilson Road. Short-term impacts on park operations would also be localized, moderate, and adverse due to the workload involved in planning, design, and construction. Cumulative impacts to park operations would be long term, moderate, and adverse	Alternative 3a would result in long-term, localized, moderate, adverse impacts on park operations due to the increased workload necessary to implement and manage new programs such as multi-use pathways, a transit system (if implemented), and management strategies for the Moose-Wilson Road. Short-term impacts on park operations would also be localized, moderate, and adverse due to the workload involved in planning, design, and construction. Cumulative impacts would be long term, moderate to major, and adverse.	Alternative 4 would result in long-term, localized, moderate, adverse impacts on park operations due to the increased workload necessary to implement and manage new programs such as multi-use pathways, a transit system (if implemented), and management strategies for the Moose-Wilson Road. Short-term impacts on park operations would also be localized, moderate, and adverse due to the workload involved in planning, design, and construction. Cumulative impacts would be long term, moderate to major, and adverse.

Mitigation of Potential Adverse Effects

To ensure that the implementation of the action alternatives protects natural and cultural resources and the quality of the visitor experience, a consistent set of mitigation measures would be applied to actions that result from the plan, assuming that the individual measures are appropriate for specific types of action. Specific mitigation measures that are relevant and appropriate for each element of the project would be identified during the design phase using the measures discussed in the Final Plan/EIS as a starting point. As part of the environmental review, the NPS would avoid, minimize, and mitigate adverse impacts whenever practicable.

The NPS would employ a comprehensive monitoring program as part of implementation of any alternative involving pathways. This program would include collection of information on pathway users (i.e., number, type, etc.) and impacts of use, as well as impacts of pathways on wildlife, habitat, etc. Information obtained from the monitoring program would inform planning and design of future segments.

Implementation and Monitoring

Alternative 1 would require only one phase to implement. Implementation of the improved road shoulders and multi-use pathways proposed in Alternatives 2, 3, 3a, and 4 would occur in multiple phases based on availability of funds and on the results of monitoring and analysis of environmental impacts, visitor use patterns, and other factors relevant to construction and use of the system. The Park intends to design pathway construction in segments that will provide adequate parking opportunities and pathway connectivity at both ends as much as possible. Following the construction of the first phase of pathways, the NPS would evaluate visitor use and any environmental impacts resulting from the use of pathways and use the data to help inform the planning and design of future segments and phases.

These phases would be based on the availability of funds and on the results of monitoring and analysis of environmental impacts, visitor use patterns, and other factors relevant to construction and use of the system. Following the construction of the first phase of pathways, from Dornan's to South Jenny Lake Junction, the NPS would evaluate visitor use and any environmental impacts

resulting from the use of pathways and use the data to inform the planning and design of future segments.

The NPS considered several factors in developing the proposed implementation schedule (e.g., construction schedules, remote location, and projects by other entities). For example, the Park would strive to plan the pathway segment from the south boundary to Moose so that it coincides with the Town and County Plan for construction of their pathway up to the southern boundary of the Park.

Data Collection and Monitoring Plan

The Park is currently working on a data collection and monitoring plan (anticipated to be complete in early 2007) to address management strategies proposed along the Moose-Wilson Road and the effects on wildlife, visitor use and experience, and park operations for the first phase of pathways proposed for construction within the Park. The results of this data collection and monitoring will help Park managers understand the effects of the new pathway system based on actual use and facilitate planning and design of additional pathway segments or different management strategies for the Moose-Wilson Road in the future.

Post-pathway construction monitoring would collect data on pathway distributions, volume, user types, behaviors, satisfaction, and conflicts to determine the pathways' effects on visitor use and experience. Visitor surveys would be conducted to assess opinions on improved safety, level of enjoyment and accessibility.

Wildlife Monitoring and Research

In order to obtain information on pathway-associated impacts to wildlife based on actual operation and use of the pathways, the Park would implement a research and monitoring program designed to evaluate a variety of pathway effects, beginning with the Phase 1 construction. Phase 1 includes the construction of approximately 7.7 miles (12.3 km) of multi-use pathway between Dornan's and South Jenny Lake Junction. The NPS anticipates that this segment would be one of the easier sections on which to site pathways close to the existing road and would connect two major activity areas — Moose and South Jenny Lake; as a result, it may be the most popular segment of all the pathways proposed within the Park for visitors. The monitoring program's primary objective would be to quantify the effects of pathway construction and use. The information obtained from this effort would be used to inform the planning and design of future pathway segments.



Regulatory Compliance

Typically, everything in a Final EIS is covered by NEPA compliance, except in cases where the project implementation would deviate significantly from what was described in the environmental analysis, or where it is otherwise stated that future compliance would be necessary. Every implementation action proposed in the Final Plan/EIS will continue to be reviewed and monitored by the Park's interdisciplinary team of specialists to ensure compliance with all federal and state regulations. Additionally, the Park's NEPA specialists will continue to work with construction project leaders to ensure that all actions comply with the Final Plan/EIS and do not have an effect beyond what was analyzed. Federal and state agencies including the Federal Highway Administration, United States Fish and Wildlife Service, Army Corps of Engineers, State Historic Preservation Office, Wyoming Game and Fish Department, and Wyoming Department of Transportation will be consulted as necessary and best management practices and appropriate mitigation measures will be employed as much as possible. In the event that the Park decides to significantly add to or deviate from the Final Plan/EIS and subsequent record of decision, further NEPA compliance would be required and would include a formal public participation process.

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