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OVERVIEW

The General Management Plan / Wilderness Study / Environmental Impact Statement (GMP/WS/EIS) for Great Sand Dunes National Park and Preserve provides comprehensive guidance for managing the Great Sand Dunes over the next 15 to 20 years. This summary and the full document are the culmination of a collaborative process that began in 2003. The planning process explored and evaluated four alternatives, recommended a preferred alternative, and resulted in the final plan.

This general management plan (GMP) is needed because the previous 1977 master plan for Great Sand Dunes National Monument is outdated, and because the park was significantly expanded in 2000. The Great Sand Dunes National Park and Preserve Act (2000) enlarged the national monument almost four-fold, authorized conversion of the national monument to a national park, and established the Great Sand Dunes National Preserve. The wilderness study is included as part of this GMP because of legislation, public interest, and timeliness. The GMP also includes an evaluation of wild and scenic rivers. Issues addressed by the GMP include protection of fundamental park resources and values, management of new park lands, public access, crowding/overuse, and development and uses in and around the park.

Public involvement for the Great Sand Dunes National Park and Preserve GMP included:

- four wilderness hearings in four communities (testimony by about 50 individuals)
 - five newsletters (334 comments received)
 - sixty-day public review of the draft GMP (3,394 comments received)
 - quarterly (or more often) Great Sand Dunes Advisory Council [advisory council] public meetings since January 2003)
 - numerous informal and formal meetings in communities by the advisory council, park superintendent, and park staff
- one preliminary community-based workshop (about 40 participants)
 - twelve public meetings in five communities (total attendance about 222)

The GMP provides overall guidance for the new national park and preserve. Desired future conditions, or goals, are identified that describe the ideal conditions that the National Park Service is striving to attain. They guide actions taken by park staff on such topics as natural and cultural resource management, wilderness management, park facilities, and visitor use management. Strategies describing actions that may be taken by park staff to achieve the desired conditions are also identified. The park-wide desired conditions and strategies, combined with actions that are specific to the plan, form the complete GMP for the Great Sand Dunes.

Most of Great Sand Dunes National Park and Preserve will remain wild and undeveloped. Management zones have been established for park lands. Management zones define specific resource conditions, visitor opportunities, and management approaches to be achieved and maintained in each area of the park. Sensitive resources will be protected by actions such as the designation of a “guided

learning zone” around Big and Little springs.

A formal wilderness study was conducted as part of this planning process. The wilderness study recommends the addition of about 53,000 acres within the national park expansion lands to the National Wilderness Preservation System.

Table 1 presents a summary of the specific actions in the plan. No significant changes will occur in the main dunes area. However, future vehicle congestion will be addressed by construction of trails to reduce vehicle use, a modest shuttle bus at peak times, and other management techniques, rather than by expanding parking areas. Medano Ranch, managed by The Nature Conservancy, may eventually come under National Park Service management. The National Park Service would seek partnerships to maintain structures and provide scheduled visitor activities and educational opportunities at Medano Ranch headquarters.

Other actions include cooperation with neighbors, acquisition of subsurface rights, a position that a NPS-managed bison herd would not likely occur during the life of this plan, a Medano Ranch irrigation study, no permitted use of off-road vehicles (ORVs), a hunter access permit system, elimination of unnecessary roads, treatment of historic structures in the backcountry, sanitation facilities, a fee program, use of Alpine Camp, and boundary adjustments. The National Park Service will continue to work with partners and park neighbors to develop management strategies for elk and bison.

The NPS preferred alternative for access to the northern portion of the park is a road that would enter the park at the boundary of the Baca Grande subdivision and terminate in a trailhead with a 10- to 15-

vehicle parking area near the mountain front. The road and trailhead would be located north and outside of the Deadman Creek riparian corridor. In consultation with the National Park Service, the U.S. Forest Service (USFS) will study the need for (and impacts of) providing public vehicle access to USFS lands via Liberty Road or via a route through the park that would connect with Liberty Road. These options (see asterisks on NPS “Preferred Alternative” map) are not evaluated in this GMP and would require a separate public joint (NPS/USFS) environmental analysis study.

Capital costs for the NPS preferred alternative are estimated at \$16.5 to \$21.2 million. Major costs include a new trailhead, trails, access road, relocating the nonhistoric entrance station, bicycle lanes, removal of a bison fence, and utility and structural improvements at Medano Ranch. Implementation of these projects is largely contingent upon future funding by Congress. Partners will be sought for projects such as the Medano Ranch improvements.

The complete Final GMP/WS/EIS for Great Sand Dunes National Park and Preserve analyzes a no-action alternative, the preferred alternative (the plan), and two other action alternatives. The environmental impact statement (EIS) discusses potential consequences of each alternative’s actions on archeological resources, historic character of the built environment, cultural landscapes, vegetation, ecologically critical areas, federal threatened and endangered species, wildlife (including Colorado state-listed species), soils and geological resources, wetlands, water resources, visitor use and experience, scenic resources and visual quality, socioeconomics, health and safety, NPS operations, and operations of other entities and management agencies. It is

important that the complete document be reviewed prior to implementing actions in the plan to ensure appropriate consultation and compliance with applicable laws and policies.

The planning process included public involvement, agency consultation, and tribal consultation. *Federal Register* notices, public meetings in the vicinity of the park and preserve, newsletters, and letters were the primary means of communication with the public. Tribal consultation established a foundation for discussing the type of relationship that should exist between all parties in the

future. Tribal consultations included the Jicarilla Apaches, the Oglala Lakotas, the Pueblo of Laguna, the Comanches, and the Southern Utes. Agency consultations included the USFS (Rio Grande National Forest) and the U.S. Fish and Wildlife Service (USFWS) (San Luis Valley National Wildlife Refuge) regarding northern access issues, the USFWS (Colorado field office) regarding threatened and endangered species, the Colorado state historic preservation office (SHPO) regarding cultural resources, and others.

The record of decision was signed July 19, 2007.

TABLE 1. SUMMARY OF ACTIONS IN THE PLAN

<p>General Emphasis</p>	<ul style="list-style-type: none"> ▪ Dunes area remains the main focus of visitor activity. ▪ New visitor opportunities in northwest backcountry and at Medano Ranch. ▪ New horseback and trail options. ▪ Seek cooperative or joint facilities (e.g., access routes, trailheads, ranger stations).
<p>Management Zones</p>	<ul style="list-style-type: none"> ▪ Most of the park and preserve are zoned backcountry adventure zone or natural/wild zone. ▪ Frontcountry zone and dunes play zone—continue existing activities. ▪ Guided learning zone provides new visitor opportunities and protects sensitive resources. ▪ Backcountry access zone provides vehicular routes to backcountry destinations. ▪ Administrative zone for NPS operations and scheduled activities at Medano Ranch.
<p>Wilderness</p>	<ul style="list-style-type: none"> ▪ Most undeveloped areas of new park land recommended for wilderness (53,000 acres).
<p>Medano Ranch Headquarters</p>	<ul style="list-style-type: none"> ▪ Maintain and adaptively use historic structures for NPS administrative purposes and open to the public on a limited basis for scheduled activities. Seek partnerships for maintaining structures and providing visitor activities and educational opportunities.
<p>New Trails and Trailheads</p>	<ul style="list-style-type: none"> ▪ New trailhead in northern part of the national park and new trails in backcountry adventure zone areas. ▪ Link park trails to outside trails where possible. ▪ New trails in guided learning zone. ▪ Cooperative trailheads around park if possible (e.g., Oasis, Baca National Wildlife Refuge, San Luis Lakes State Park).

TABLE 1. SUMMARY OF ACTIONS IN THE PLAN

<p>Public Access to North Part of Park</p>	<ul style="list-style-type: none"> ▪ Small backcountry trailhead (10–15 vehicles) within backcountry access zone improves foot, horseback, and vehicle access to public lands in the northwest. ▪ No campground in this area. ▪ Vehicular access route to trailhead to be determined in the future. ▪ Public vehicle access options to new USFS lands will be considered in a separate, future environmental analysis process.
<p>Main Dunes Area Carrying Capacity</p>	<ul style="list-style-type: none"> ▪ Possible modest shuttle system to transport visitors from remote parking areas to the dunes during peak summer weekends.
<p>Backcountry Carrying Capacity</p>	<ul style="list-style-type: none"> ▪ New trails in backcountry adventure zone accommodate use in areas that tolerate it. ▪ Guided learning zone protects areas around Big Spring and Little Spring. ▪ Sensitive areas (Upper and Lower Sand Creek lakes, Deadman Creek, Big Spring and Little Spring) are monitored and adaptively managed. ▪ Backcountry areas that join other public lands are managed in collaboration with those agencies.
<p>Dogs</p>	<ul style="list-style-type: none"> ▪ Within the national park, leashed dogs are allowed only within the frontcountry, dunes play, and backcountry access zones, and the Liberty Road administrative zone. ▪ Leashed dogs generally allowed in the national preserve. ▪ Unleashed dogs allowed for hunting (permitted only within the national preserve).
<p>Bison</p>	<ul style="list-style-type: none"> ▪ An NPS-managed free-roaming bison herd is not likely to occur during the life of the GMP. If additional bison habitat becomes available at some time in the future, this option can be reconsidered by the National Park Service.



PLANNING NEEDS AND FOUNDATION

PURPOSE AND NEED FOR THE PLAN

Overview of the Park and Preserve and the Region

Great Sand Dunes National Monument was established in 1932 by presidential proclamation “for the preservation of the Great Sand Dunes and additional features of scenic, scientific, and educational interest.” The Great Sand Dunes Wilderness Area, established in 1976, includes most of the original monument. In November 2000, the Great Sand Dunes National Park and Preserve Act authorized expansion of the national monument into a national park and preserve almost four times the size of the original monument. Some of the land within the expanded national park boundaries is in private or state ownership. The national preserve includes some 40,000 acres of wilderness formerly managed by the USFS.

In this document, Great Sand Dunes National Park and Preserve is referred to collectively as “the park” or “the Great Sand Dunes.” Great Sand Dunes National Preserve (only) is referred to as “the preserve” or “the national preserve.” Great Sand Dunes National Park (only) is referred to as “the national park.”

The park is located in the high San Luis Valley (Valley) of south-central Colorado (see “Region” and “Vicinity” maps). The Valley is bordered by Poncha Pass on the north, the San Juan Mountains on the west, and the Sangre de Cristo Mountains on the east. To the south, the San Luis Valley extends into New Mexico along the Rio Grande. The Valley is a discrete cultural

region rich in Hispanic culture and place names. Cattle ranching and irrigated agriculture (especially potatoes and alfalfa) are two main land uses in the Valley. Blanca Peak, the fourth-highest mountain in Colorado and sacred to some native peoples, towers over the Valley, southeast of the park.

The park straddles the Saguache-Alamosa county line. Alamosa, population 8,545, is located about 25 miles southwest of the park. Several smaller settlements (Moffat, Hooper, Mosca, and Crestone) are closer to the park.

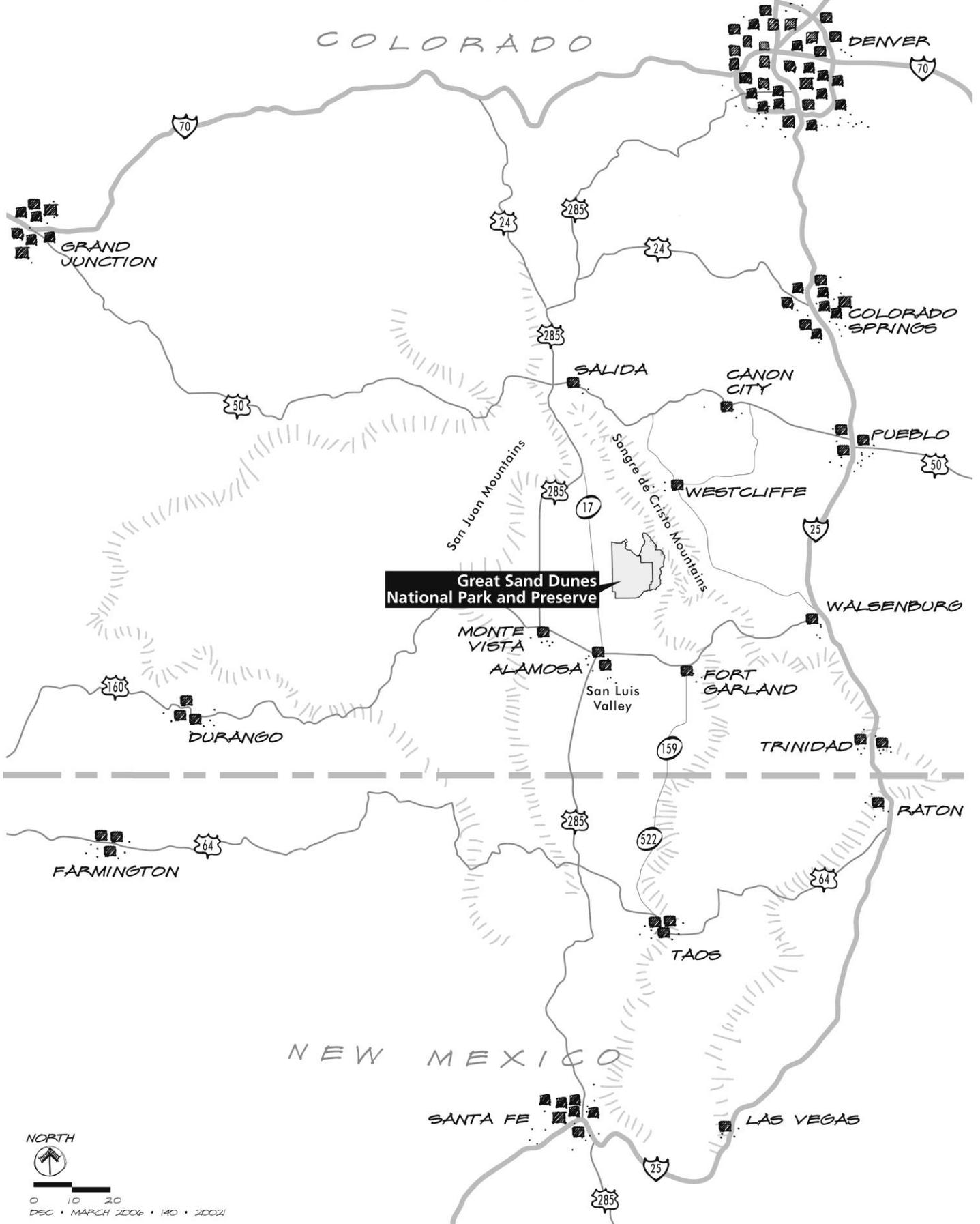
Sand, sun, wind, and water provide a land of elemental contrasts at the dunes. Early and late in the day, shadows lengthen and muted colors melt into one another. Sand ridge shadows paint striking patterns across the dune mass. At midday, intense solar radiation unimpeded by the thin atmosphere can heat sand to scorching temperatures. At the foot of the dunes, Medano Creek’s surging waters provide a delightful contrast to the barren sand surface in the spring and early summer. In the springtime, strong winds can blow for days; countless sand grains scour everything in their path.

The park is part of a fragile, dynamic system that influences and sustains the dunes. The dune mass is a huge deposit of pure sand nestled against the Sangre de Cristo Mountains. The sand sheet surrounds the dune mass and is stabilized by grasses and other low-growing plant life.



Region

GREAT SAND DUNES NATIONAL PARK AND PRESERVE



NORTH



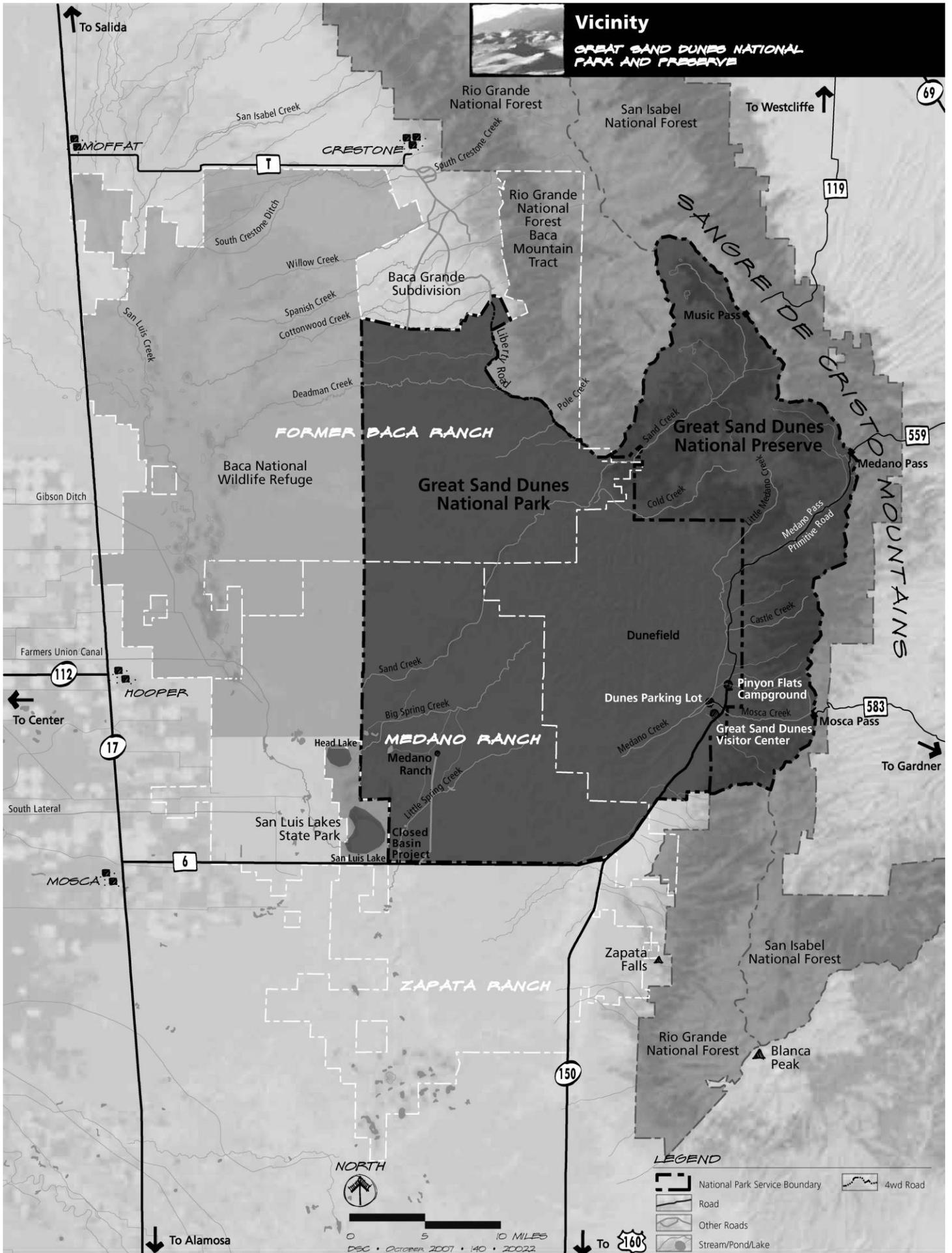
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Vicinity

GREAT SAND DUNES NATIONAL PARK AND PRESERVE



LEGEND

- National Park Service Boundary
- Road
- Other Roads
- Stream/Pond/Lake
- 4wd Road



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The sabkha (a sand deposit hardened by minerals) is located west of the sand sheet, and is cemented by minerals deposited by seasonal wetlands. Streams born high in the Sangre de Cristo Mountains recycle wind-blown sand back to and around the dunes. Over time, sand, wind, and water combine and join forces to shape the ever-changing dunefield.

From valley floor to the crest of the Sangre de Cristos, a dramatic variety of life zones provides distinct communities of plant and animal life. Just above the dunefield, at the base of the mountains, short shrubs give way to sparse pinyon-juniper woodland. With rising elevation, the pinyon-juniper forest transitions into denser montane forests of fir, pine, and aspen. Higher still is the subalpine life zone, where hardy stands of spruce and fir mingle with rocky talus slopes. Near the crest of the mountains is the rocky, snowy alpine zone. Each life zone supports specially adapted plant, animal, and insect life.

American Indian groups hunted and camped near the Great Sand Dunes as early as 10,000 to 12,000 years ago. Beginning around AD 1400, several Indian groups, including the Apaches, Arapahos, Cheyennes, Comanches, Kiowas, Navajos, and Utes, migrated to the San Luis Valley and other areas of the Southwest. The Spanish arrived in the San Luis Valley in the late 1500s—their cultural influence remains today. In 1807, Zebulon Pike and his men climbed over the crest of the Sangre de Cristo Mountains and into the Valley. Pike documented the expedition's first glimpse of the Great Sand Dunes. Today, the park bears evidence of past human use and occupation in many forms: archeological sites and artifacts, historic homesteads and trails, "culturally peeled" trees, and wickiups (temporary shelters made from tree saplings).

General Management Planning

Park planning is a decision-making process, and general management planning is the broadest level of decision making for parks. General management plans are required for all units of the national park system and are intended to establish the future management direction of a park. General management planning is the first phase of tiered planning and decision making for national park units. It focuses on why the park was established (purpose), why it is special (significance and fundamental resources and values), and what resource conditions and visitor experiences should be achieved and maintained (desired future conditions). General management plans look years into the future and consider the park holistically, in its full ecological and cultural context and as part of a surrounding region.

Although a general management plan provides the analysis and justification for future funding, the plan in no way guarantees that the level of future funding will be sufficient to fully implement the plan. Requirements for additional data or legal compliance and competing national park system priorities can delay implementation of actions. Full implementation of a plan could lie many years in the future.

This *General Management Plan / Wilderness Study / Environmental Impact Statement* was developed by an interdisciplinary team in consultation with relevant NPS offices; the Great Sand Dunes National Park Advisory Council; tribal, federal, state, and local agencies; other interested parties; and the general public. Establishment of the advisory council was mandated by the Great Sand Dunes National Park and Preserve Act of 2000, which authorized the expansion of the national park. The role of the advisory

council is to advise the Secretary of the Interior (generally via the Great Sand Dunes superintendent) regarding development of the Great Sand Dunes GMP. The backgrounds and experience of the advisory council members reflect the purposes of the park and the interests of persons who will be affected by the planning and management of the Great Sand Dunes. More information about the advisory council and its contributions to this GMP effort can be found in appendix B.

Purpose and Need for the General Management Plan

This GMP provides comprehensive guidance for perpetuating natural systems, preserving cultural resources, and providing opportunities for quality visitor experiences at Great Sand Dunes National Park and Preserve. Its purpose is to ensure that park managers and the public share the same vision of how best to achieve the park's purpose and protect its resources unimpaired for future generations.

The GMP describes the general path the National Park Service intends to follow in managing the Great Sand Dunes over the next 15 to 20 years. The GMP does not provide specific and detailed answers to every issue facing the park and preserve, but rather, is a framework to assist NPS managers in making decisions in today's and future contexts. The GMP:

- Provides general guidance for how to manage resources and provide for visitor use.
- Presents a general approach for facilities and access.

- Supports the park's purpose and significance and protects the park's fundamental resources and values.
- Clearly defines the resource conditions and visitor experience opportunities to be achieved.
- Ensures that the foundation for decision making has been developed in consultation with an interested public and adopted by NPS leadership after sufficient analysis of the benefits, impacts, and economic costs of alternative courses of action.

The park is currently operating under a master plan approved in 1977. The National Park Service initiated development of a new GMP in the mid-1990s, but this effort was halted in 1999, when it appeared that Congress would greatly expand the national monument. In the year 2000, the Great Sand Dunes National Park and Preserve Act enlarged the national monument almost four-fold, authorized conversion of the national monument to a national park, and established the Great Sand Dunes National Preserve (also managed by the National Park Service). The 1977 master plan is outdated and does not provide background information, a foundation for planning, or management guidance for the expanded national park and preserve.

The park is located adjacent to the newly established Baca National Wildlife Refuge (managed by the USFWS), Rio Grande and San Isabel national forests (managed by the USFS), San Luis Lakes State Park (managed by Colorado State Parks), San Luis Lakes State Wildlife Area (managed by Colorado Division of Wildlife [CDOW]), and land owned by private entities and individuals.

This situation creates remarkable opportunities for the National Park Service to work cooperatively with others toward

long-term stewardship of the dunes and the San Luis Valley.

PURPOSE AND NEED FOR THE WILDERNESS STUDY

This wilderness study provides a public forum for evaluating new land within the expanded park boundary for possible recommendation to Congress for inclusion in the National Wilderness Preservation System. Wilderness, which can be designated only by Congress, provides for permanent protection of lands in their natural condition.

Lands within Great Sand Dunes have been part of the National Wilderness Preservation System since 1976. The 35,955-acre Great Sand Dunes Wilderness Area is located within the former Great Sand Dunes National Monument. About 40,000 acres of wilderness located within the national preserve (part of the Sangre de Cristo Wilderness Area established in 1993) were added by the Great Sand Dunes National Park and Preserve Act of 2000. Most remaining lands within the expanded national park boundary, including former Baca Ranch and Medano Ranch lands, have not previously been evaluated for wilderness.

The wilderness study is included as part of this GMP because of legislation, public interest, and timeliness. The Great Sand Dunes Act (2000) cites wilderness as one of several important resources for which the park was expanded. The wilderness review process for the park expansion lands began with a *Federal Register* notice and a

wilderness suitability/eligibility assessment conducted during the early phases of GMP planning. Since initial scoping of this plan, the public has been interested in protecting natural systems and wilderness values. A wilderness study may be a separate document accompanied by an EIS, or it may be part of a GMP/EIS. Including the wilderness study with the GMP and EIS provides efficiencies of time and money, as the two processes have similar environmental compliance and public involvement needs.

The first step of this wilderness study was to conduct a wilderness suitability / eligibility assessment, which determined that some areas within the expanded park boundary possess wilderness characteristics. The next step was to conduct a formal evaluation of those lands by studying alternatives and impacts to see if the lands should be recommended for wilderness. With a general management plan, the wilderness alternatives are matched to various general management alternatives. A wilderness study results in a recommendation to Congress to designate all, some, or none of the lands possessing wilderness character as part of the National Wilderness Preservation System. Based on the wilderness study, the National Park Service may prepare a wilderness proposal to forward to the Department of the Interior.

PLANNING ISSUES AND CONCERNS

Early in the planning process, the planning team identified the primary issues and concerns facing Great Sand Dunes National Park and Preserve with assistance from the public, the advisory council, park staff, and neighboring agencies and organizations. Many issues relate to protection of natural and cultural resource values or providing for quality experiences. This section summarizes the main issues or concerns to be addressed by the GMP / WS.

Protection of Fundamental Resources and Values

The National Park Service must identify fundamental resources and values that deserve primary consideration in planning and management for the national park and preserve, and strategies to protect those values. Similarly, the National Park Service must identify what visitor opportunities or experiences fit with the purposes and maintain the significance of the park and preserve, and develop strategies for enhancing those opportunities. (Note: these determinations are now documented in the “Fundamental Resources and Values” section below.) The National Park Service must also decide how to manage specific areas of the park (through management zoning) to protect and provide these different natural, cultural, and visitor experience values. The National Park Service must resolve whether certain kinds of recreational activities (e.g., dogs, pack animals, and ORV use) and commercial services are consistent with protecting these resources and values, and where they should occur within the park (if they should occur at all).

Management of New Park Lands

The Great Sand Dunes Act of 2000 expanded the size of Great Sand Dunes National Monument by nearly four times. Some of the new land is now Great Sand Dunes National Park, and some is now Great Sand Dunes National Preserve. The National Park Service must decide how to manage natural resources, cultural resources, and visitor use on the park expansion lands. Of particular concern is management of former Baca and Medano ranch lands that are now within the boundaries of the national park. Examples include: determining the fate of ranch infrastructure such as buildings and roads, deciding whether to continue to allow bison on park lands, and resolving how to protect sensitive resources and manage visitor use on new lands.

Access to National Park Service and Other Federal Lands

Comments provided by the public and neighboring agencies indicate that access to new NPS lands and adjacent federal lands is of great interest and concern. People are concerned about whether there will be new road or trail access to the dunes from the north. Hunters are concerned about how to get to the national preserve and to USFS lands, where hunting is allowed. There is also interest in whether the National Park Service or other land managers will provide new trails or trailheads to stream drainages north of the former national monument. Neighbors in the Crestone / Baca Grande community are concerned that potential new routes of access could affect their quality of life. The National Park Service

must decide what routes and means of access are appropriate in different areas of the park and preserve, given resource protection and visitor experience needs.

Crowding and Overuse

Some visitor facilities and frontcountry and backcountry areas within the park and preserve are crowded or congested, even at times other than peak visitor weekends. The GMP must deal with issues of crowding and give general management direction for addressing visitor carrying capacity in the park and preserve.

Wilderness

Great Sand Dunes National Park includes the Great Sand Dunes Wilderness Area, and the national preserve includes a portion of the Sangre de Cristo Wilderness Area. Lands added to the national park when the park was expanded in 2000 have not previously been considered for wilderness designation by the National Park Service. The National Park Service needs to determine the general direction of wilderness management for existing NPS wilderness areas, and determine whether any additional lands should be proposed for inclusion in the National Wilderness Preservation System.

Wild and Scenic Rivers

The Wild and Scenic Rivers Act of 1968, and NPS *Management Policies* require park managers to assess whether water-courses within national park units are suitable for inclusion in the national wild and scenic river system. The streams of the park and preserve have not previously been considered for wild and scenic river status. The National Park Service must determine whether to recommend streams within the park as part of the wild and scenic rivers system (appendix D).

Development and Uses in and Near the Park

Some areas of the San Luis Valley are gradually becoming more developed by residential, commercial, and other uses. Agricultural and domestic demand for additional water has the potential to draw down the groundwater aquifer that underlies the dunes system. Oil and gas exploration activities are being conducted on lands within the national park. These and other activities could degrade park resources and values such as scenic views, the night sky, ambient sound levels, opportunities for solitude, and native plant and animal communities. Park managers must determine how to work with park neighbors to protect park resources in light of changes and activities that are occurring in the Valley.

PLANNING CONSIDERATIONS AND CONSTRAINTS

This section explains planning considerations and constraints related to implementation of some actions in the GMP.

Medano Ranch

The Nature Conservancy owns all private lands within Medano Ranch, and may eventually transfer the ranch portion within the national park boundary to the federal government. This could happen in phases or all at once, but this transfer is generally expected to be completed within the life of this GMP. Until the transfer takes place, implementation of some alternative actions, especially those related to Medano Ranch facilities and access onto or through Medano Ranch lands, will be contingent on agreement and cooperation with The Nature Conservancy.

Public Vehicle Access to the Backcountry Access Zone in Northern Portion of National Park

When the Great Sand Dunes National Park and Preserve was established in 2004, the federally acquired Baca Ranch lands within the NPS boundary became open to the public via pedestrian access, but not via public vehicle access. Public pedestrian access to new NPS lands now occurs where public rights-of-way touch the NPS boundary. A key issue in this plan is whether or not to provide public vehicle access to the newly acquired northern public lands. Some alternatives in this GMP propose public vehicle access to a small trailhead, parking area, and in one alternative, a small primitive campground.

There are a number of planning considerations and constraints regarding such access that involve existing agreements, Saguache County and its residents, and other federal agencies. While this plan has alternatives and a proposal for a backcountry access zone to provide public vehicle access to the northern portion of the park for backcountry use, this GMP does not resolve the question of how such access might ultimately be achieved. It instead leaves flexibility, allowing for ongoing collaboration and planning with the entities involved.

Cow Camp Road

Cow Camp Road (sometimes referred to locally as Lexam Road) is an improved gravel road located within the Baca National Wildlife Refuge and the northern portion of Great Sand Dunes National Park. Some alternatives in this GMP propose that segments of Cow Camp Road within the national park be designated a backcountry access zone to allow public vehicle access to a small trailhead, parking area, and in one alternative, a campground. Lexam Explorations, Inc. (Lexam), has a surface-use agreement permitting the company to use Cow Camp Road to exercise its subsurface mineral rights within the former Baca Ranch. Lexam's surface-use agreement will expire in the year 2011, unless Lexam begins producing oil, gas, or minerals on the former Baca Ranch. In that case, the surface-use agreement could be extended beyond the life of this GMP. The surface-use agreement contains language relieving Lexam of liability for others' use of Cow Camp Road. To allow acquisition of Baca Ranch by the federal government, The

Nature Conservancy assumed liability for the federal government's use of the road. The Nature Conservancy does not wish to assume liability for public vehicle use, so such use would not be allowed until expiration of the Lexam surface-use agreement.

County Roads and Baca Grande Subdivision

Saguache County public roads through the Baca Grande subdivision provide the current public pedestrian access to the new northern NPS lands. Camino Real ends 0.2 mile short of the NPS boundary; however, the public right-of-way continues to the NPS boundary. If the county completed the 0.2 mile road to the NPS boundary, the National Park Service could construct a connection to Cow Camp Road or an existing primitive road in the backcountry access zone shown in the proposal and some of the alternatives. Public roads within the subdivision do connect to Liberty Road, currently gated and closed to public vehicle use at the NPS boundary (more on Liberty Road below). Residents and others currently park on the county rights-of-way and walk into the national park at the end of Camino Real and Liberty Road. Residents of the subdivision and numerous spiritual retreat centers are concerned about traffic and associated impacts that may occur if public vehicle access on federal lands is developed via one of these public rights-of-way.

Baca National Wildlife Refuge

As described above, some alternatives in this GMP propose that segments of Cow Camp Road within the national park be designated a backcountry access zone to allow public vehicle access for backcountry

use. Cow Camp Road does extend through the Baca National Wildlife Refuge and was considered during the draft GMP for providing public vehicle access to the park. Early in the NPS planning process there was a possibility of vehicle access for wildlife-dependent public use of the refuge that could also provide national park access. However, the USFWS clarified later in the planning process that at least for the life of the GMP, the USFWS does not plan to develop wildlife-dependent public use on the east side of the refuge that would require visitors to traverse substantial amounts of refuge habitat and that would facilitate access to the proposed backcountry access zone of the park. Thus, the USFWS ultimately decided that public use of Cow Camp Road or other roads across the refuge to directly access the park would not meet USFWS policy. However, there is an existing Baca Grande emergency egress easement that could be developed to provide indirect access to the park.

Liberty Road

For the last several decades, Liberty Road has been a Baca Ranch road. As the Baca Grande subdivision was purchased and developed, roads within the subdivision leading to the Liberty Road gate became Saguache County public roads. The roads traverse one of the most densely developed portions of the subdivision and are adjacent to several spiritual retreat centers.

The federal government obtained the remainder of Baca Ranch and Liberty Road in 2004. Prior to 2004, Liberty Road, from the park/subdivision boundary south, was privately owned and not open to public use. The first 0.7 mile of Liberty Road crosses NPS land and the road then roughly forms the boundary for about 6.0 miles between the park and the Baca

Mountain Tract of the Rio Grande National Forest, with the road crossing USFS lands. The road ends at the Liberty town site.

When the National Park Service obtained jurisdiction over the first 0.7 mile, the agency installed a gate and the road has since been an administrative road only. The National Park Service and the USFS, as well as private landowners to the south, have vehicle access, but the general public does not. The National Park Service allows pedestrian access along Liberty Road. Pedestrians typically park their vehicles on the county road outside the park. To avoid parking congestion from horse trailers, the National Park Service does not currently allow horse access at the northern park boundary.

County roads to the Liberty Road gate provide the only existing public vehicle access up to the park boundary, but there

are concerns about opening the Liberty gate to provide public vehicle use on public lands. As stated above, county roads to the Liberty gate traverse a densely developed area in the Baca Grande subdivision and several spiritual retreat centers whose residents are concerned about potential impacts of traffic. Liberty Road crosses sensitive riparian areas and then becomes loose sand farther south of those crossings. With regular vehicle use, Liberty Road would quickly become impassable to all but four-wheel-drive vehicles due to the sandy conditions. The USFS has not finished planning for the Baca Mountain Tract, so the potential uses in this new USFS area are still unknown. Therefore, the National Park Service cannot analyze the impacts of new uses, and this GMP does not resolve the question of Liberty Road as an access option to the area. Instead it encourages ongoing collaboration and planning to determine the best option.

FOUNDATION FOR PLANNING AND MANAGEMENT

The foundation for planning and management identifies what is most important about the park. It consists of two parts. Part I outlines the intentions of Congress or the president in creating the park as a unit of the national park system. These intentions, which take precedence over all other considerations, include the park's purpose, significance, mission, primary interpretive themes, and special mandates. Part II documents the fundamental resources and values that deserve primary consideration during planning and management.

Part I: Purpose, Significance, Mission, Primary Interpretive Themes, and Special Mandates

Park Purpose

Park purpose statements convey the reasons for which the park was set aside as part of the national park system. They are grounded in a thorough analysis of park legislation and legislative history, and provide fundamental criteria against which the appropriateness of plan recommendations, operational decisions, and actions are tested. The purpose of Great Sand Dunes National Park and Preserve is to:

- Preserve spectacular and unique sand dunes and their high elevation watersheds, and perpetuate the entire system for the benefit and enjoyment of present and future generations. Protect the sand deposits associated with the dune mass and the groundwater system on which the sand dunes and wetlands systems depend.
- Provide long-term protection of the geological, hydrological, ecological, scenic, scientific, cultural, wilderness, educational, wildlife, and recreational resources of the area. Preserve the remarkable biodiversity evident in the landscape from the valley floor to the mountain crest.
- Provide opportunities for visitors to experience, understand, enjoy, and gain a sense of stewardship of the park's natural and cultural resources.
- Facilitate research to support park management and to promote scientific knowledge and education.

Park Significance

Park significance statements capture the essence of the park's importance to the nation's natural and cultural heritage. They describe the park's distinctiveness and describe why an area is important within regional, national, and global contexts. This helps park managers focus their efforts and limited funding on protection and enjoyment of attributes that are directly related to the purpose of the park.

Great Sand Dunes National Park and Preserve:

- Contains the tallest dunes in North America and one of the most fragile and complex dune systems in the world.
- Protects a globally significant water- and wind-driven system, which includes creeks that demonstrate surge flow, a rare hydrologic phenomenon.
- Provides tremendous scenic settings that, for many, provoke strong emotional responses. These settings (including massive dunes surrounded by alpine peaks, a desert valley, creeks flowing on the surface of the sand, pristine mountains, and rural rangeland) offer spacious relief from urban America, exceptional opportunities for solitude and quiet, and a remarkably unspoiled day and night sky.
- Hosts a great diversity of plants and animals, including insect species found nowhere else on earth. The system, which spans high desert to alpine life zones, supports rare biological communities that are mostly intact and functional.
- Contains some of the oldest (9,000+ years before present) known archeological sites in America. The dunes have been identified as having special importance by people of various cultures, and the

- area is recognized for the culturally diverse nature of human use.
- Provides special opportunities for recreation, exploration, and education in the highly resilient dune mass and adjoining creek environments.

Mission

The mission statement is a visionary summary that conveys the essence of park qualities to be protected and understood, forging an intellectual and emotional connection between people and their national heritage.

Majestic and austere, the Great Sand Dunes rise from a high mountain valley flanked by some of the tallest peaks in the Rocky Mountains. Great Sand Dunes National Park and Preserve celebrates the entire natural system of the Great Sand Dunes, as well as a rich and living connection with ancient and modern peoples. Our mission is to offer visitors opportunities for enjoyment, learning, solitude, and a growing sense of stewardship in an accessible and undeniably enticing natural setting. The National Park Service works with park partners, neighbors, and the American public to protect this treasure forever.

Primary Interpretive Themes

Primary interpretive themes are the most important ideas and concepts communicated to the public about the park. They are the core of all interpretive programs and media provided to park visitors.

- The unexpected combination of massive dunes surrounded by

alpine peaks, a desert valley, and creeks flowing on the surface of the sand makes Great Sand Dunes National Park and Preserve a unique landscape that inspires awe, mystery, and wonder.

- Although the active dunefield appears stark, in reality Great Sand Dunes National Park and Preserve is a rich and complex environment ranging from desert valley floor to snow-capped mountain peaks where many different plants and animals live in a variety of distinct natural communities.
- The towering dunes and the life they support are the most visible indicators of the health of the natural system that extends beyond park boundaries. To protect the ecological health of the park, the National Park Service must partner with the larger community.
- Just as human survival is dependent upon water, this complex, dynamic dune system, with its distinctive geological and biological character, is dependent on the area's unusual, fragile, and near-pristine water system for its continued existence.
- The same physical characteristics that influenced the formation of the sand dunes created a cultural crossroads, resulting in a landscape of special significance to many people over thousands of years.
- The wilderness areas within Great Sand Dunes National Park and Preserve offer spacious relief from urban America, exceptional solitude

and quiet, and a remarkably unspoiled day and night sky.

Special Mandates

Special mandates are legal requirements and administrative commitments that apply to a specific unit of the national park system. They are mandated by Congress or by signed agreements with other entities. Special mandates for Great Sand Dunes National Park and Preserve are listed below. The Great Sand Dunes National Park and Preserve Act of 2000 is referred to herein as the “Great Sand Dunes Act of 2000” for brevity.

Advisory Council

The Secretary of the Interior has responsibility for establishing a “Great Sand Dunes Advisory Council.” The council is to advise the secretary with respect to preparation and implementation of a management plan for the national park and preserve. The advisory council is to dissolve upon completion of the GMP (Great Sand Dunes Act of 2000, Public Law 106–530).

Water Resources

The Secretary of the Interior is to obtain and exercise water rights required to fulfill the purposes of the national park and preserve, provided:

1. Such water rights are appropriated and administered pursuant to the procedural requirements of Colorado state law.
2. The purposes and other substantive characteristics of water rights are established according to

state law, except that the Secretary of the Interior is specifically authorized to appropriate water exclusively for maintaining groundwater levels; surface water levels; and stream flows on, across, and under the national park and preserve; to accomplish the purposes of the national park and preserve; and to protect park resources and park uses.

3. Water rights are established without interfering with: (a) any exercise of a water right for a nonfederal purpose in the San Luis Valley that existed when the Great Sand Dunes Act of 2000 was passed, and (b) the Closed Basin Project.
4. Except for those rights already established for the national monument and for the Rio Grande National Forest, no federal reservation of water may be claimed or established for the national park or preserve.

Two irrigation ditches in the headwaters of Medano Creek are associated with water rights senior to those of the park. The Hudson Ditch was constructed in 1886, and the Medano Ditch in 1892. Since no easement was issued for these ditches by the USFS prior to passage of the Great Sand Dunes Act of 2000, the legislative authority for issuing easements and establishing terms and conditions for such easements on these ditches now falls to the National Park Service. However, since the USFS was in the process of issuing easements for these ditches prior to the passage of the Great Sand Dunes Act of 2000, the National Park Service may be required to issue an easement pursuant to the Colorado Ditch Bill (Public Law 99-545, October 27, 1986) despite the fact that

this legislation would not normally pertain to an NPS area.

Wilderness

The Great Sand Dunes Wilderness Area, comprised primarily of the main dunes within Great Sand Dunes National Park, was established in 1976 by Public Law 94-567 and amended in 1978 by Public Law 95-625. It is 35,955 acres in size. The Sangre de Cristo Wilderness Area was established by the Colorado Wilderness Act of 1993 (Public Law 103-77). It is 226,420 acres in size. In 2000, 39,686 acres of the Sangre de Cristo Wilderness Area was administratively transferred from the USFS to the National Park Service (Great Sand Dunes Act of 2000). Total designated wilderness in Great Sand Dunes National Park and Preserve amounts to 75,641 acres. Nothing in the Great Sand Dunes Act of 2000 alters the wilderness designation of any lands within the national park or preserve.

Hunting, Fishing, and Trapping

- **National Preserve:** Hunting, fishing, and trapping¹ shall generally be permitted on land and water within the preserve, in accordance with applicable federal and state laws. Areas may be designated where, and limited periods established when, no hunting, fishing, or trapping are permitted for reasons of public safety, administration, or compliance with applicable law (Great Sand Dunes Act of 2000).

¹ A state constitutional amendment was passed in 1996 that made it generally unlawful to take wildlife with any leghold trap, any instant kill body-gripping design trap, or by poison or snare in the state of Colorado (*Colorado Revised Statutes* 33-6-203).

- **National Park:** Fishing is allowed in the national park. Hunting and trapping are not allowed in the national park.

Domestic Livestock

On former state or private land where grazing was permitted when the Great Sand Dunes Act of 2000 was passed, and which is acquired for the national park or preserve, the Secretary of the Interior, in consultation with the lessee, may permit continued grazing by the lessee at the time of acquisition. Where grazing was permitted on federal land when the Great Sand Dunes Act of 2000 was passed, the secretary may permit continued grazing unless it would harm the resources or values of the national park or preserve. Permits for grazing are subject to applicable law and regulations. The secretary may accept voluntary termination of leases or permits for grazing within the national park or preserve (Great Sand Dunes Act of 2000).

Closed Basin Project

The Closed Basin Division, San Luis Valley project (Closed Basin Project) is located in a topographic depression (the Closed Basin) in the San Luis Valley. The purpose of the project is to pump and deliver unconfined groundwater and available surface flows in the Closed Basin to the Rio Grande via a 42 mile conveyance channel. The project helps Colorado meet its water delivery commitment to New Mexico and Texas under the Rio Grande Compact of 1939, and helps the United States meet its water delivery commitment to Mexico under a treaty dated May 21, 1906. The project also delivers water to the Alamosa National Wildlife Refuge.

Features of the Closed Basin Project within the national park are not to be affected by the park expansion. Management responsibility for the Closed Basin Project features within the national park is to remain with the U.S. Bureau of Reclamation (Great Sand Dunes Act of 2000).

Part II: Fundamental Resources and Values

Fundamental resources and values are systems, processes, features, visitor experiences, stories, and scenes that deserve primary consideration in planning and management because they are critical to maintaining the park's purpose and significance. Fundamental resources and values are subject to periodic review and updates based on new information or changing conditions. The planning team, with assistance from the Great Sand Dunes National Park Advisory Council and the public, has identified the following fundamental resources and values for Great Sand Dunes National Park and Preserve.

Dunes System

The dunes system is complex, fragile, and dynamic due to the interactions of sand, wind, streams, groundwater, vegetation, and mountains. The main components of the dunes system must be protected to ensure that the system remains intact. The main components that can be feasibly managed are listed below. Sand particles, wind, and the geologic setting are important components, but were not included in the list because they cannot be managed.

- **dunefield (complex, tall, inland dunes)**

–natural transport of sand by streams must be protected

- **sand sheet (relatively flat sand sheet stabilized by vegetation)**
–natural vegetation patterns must be protected
- **sabkha (sand deposit hardened by minerals)**
–groundwater aquifer must be protected
- **Sand Creek (transports and recirculates sand)**
–watershed and groundwater aquifer must be protected
- **Medano Creek and its surge flow (transports and recirculates sand)**
–watershed and groundwater aquifer must be protected
- **groundwater aquifers (integral to sabkha, vegetation on sand sheet, surface water flows)**
–natural water table levels must be maintained

Natural Diversity

Great Sand Dunes National Park and Preserve contains remarkable natural biological diversity, which is due largely to its range of elevation zones and mix of wet and desert habitats. The following key resources help contribute to the dunes' unusual species diversity:

- **insects that are endemic to the Great Sand Dunes**
–there are at least seven known endemic species
- **Medano Creek's outstanding water quality and closed system**
–serves as a genetic refuge/breeding

area for native fish such as the state-endangered Rio Grande sucker and the Rio Grande cutthroat trout, a state species of special concern

- **un-hybridized narrowleaf cottonwoods**
–located along creeks (e.g., Sand Creek)—trees up to 340 years old, oldest cored, which conserve a native plant gene pool
- **sand sheet wetlands**
–(e.g., interdunal ponds, Big Spring Creek, Little Spring Creek)
–increases the variety of flora and fauna
- **balanced and sustainable populations of native wildlife and plants**
–important habitat and natural processes, including fire, must be protected
- **tundra**
–highly erosive, fragile (highly vulnerable to damage from visitor use)

Human Connections

The Great Sand Dunes have served as a prominent visual and cultural marker, drawing people physically and spiritually for thousands of years. Cultural resources and values that are key to maintaining the park’s purpose and significance include the following:

- **early archeological sites**
–associated with Folsom Early Man, ~9,000 years before present
- **dunes area—important to American Indians and other people**

–e.g., traditional hunting and gathering place, sacred and spiritual place

- **scarred ponderosa pines**
–inner bark of peeled trees used by native peoples for food (mid-1800s)
–one cluster of trees (Indian Grove) is listed in the National Register of Historic Places (NRHP)
- **contemporary community ties to the dunes**
–emotional connection, support for park expansion

Visitor Opportunities

The Great Sand Dunes are attractive, inviting, and approachable. These qualities and certain inspirational, recreational, and educational opportunities must be managed and protected to maintain the park’s purpose and significance:

- **climbing and descending the high dunes**
- **experiencing surge flow, playing in Medano Creek near the foot of the dunes**
- **seeing the heavens (Milky Way, stars, planets, comets, etc.) at night**
–dark night sky must be protected
- **viewing the dune mass with backdrop of the high peaks and from the mountains**
–key elements: views from west and south, viewing the dunes from the mountains, changing light conditions
–shadow and contrast especially impressive in early morning and evening

–air quality and undeveloped mountain slopes must be protected

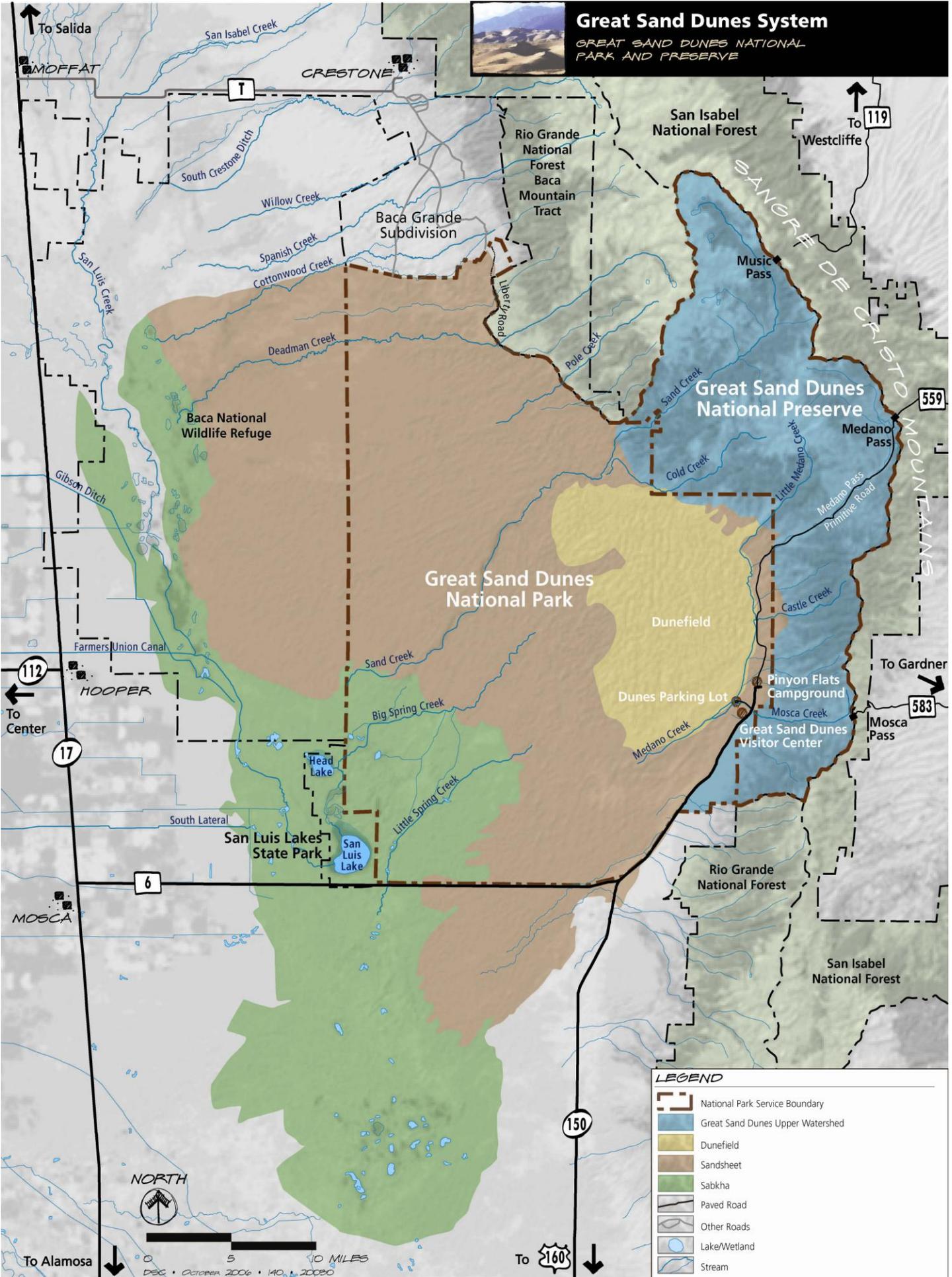
- **seeing wildlife in its natural setting (e.g., elk, pronghorn, deer)**
–important habitat must be protected
- **learning about the dunes system—its components and dynamic nature**

–includes research, education, and stewardship opportunities

- **experiencing quiet, solitude, isolation in a wilderness environment**
- **driving in sand on Medano Pass primitive road (high clearance four-wheel drive required)**

Great Sand Dunes System

GREAT SAND DUNES NATIONAL PARK AND PRESERVE



LEGEND

- National Park Service Boundary
- Great Sand Dunes Upper Watershed
- Dune field
- Sand sheet
- Sabkha
- Paved Road
- Other Roads
- Lake/Wetland
- Stream



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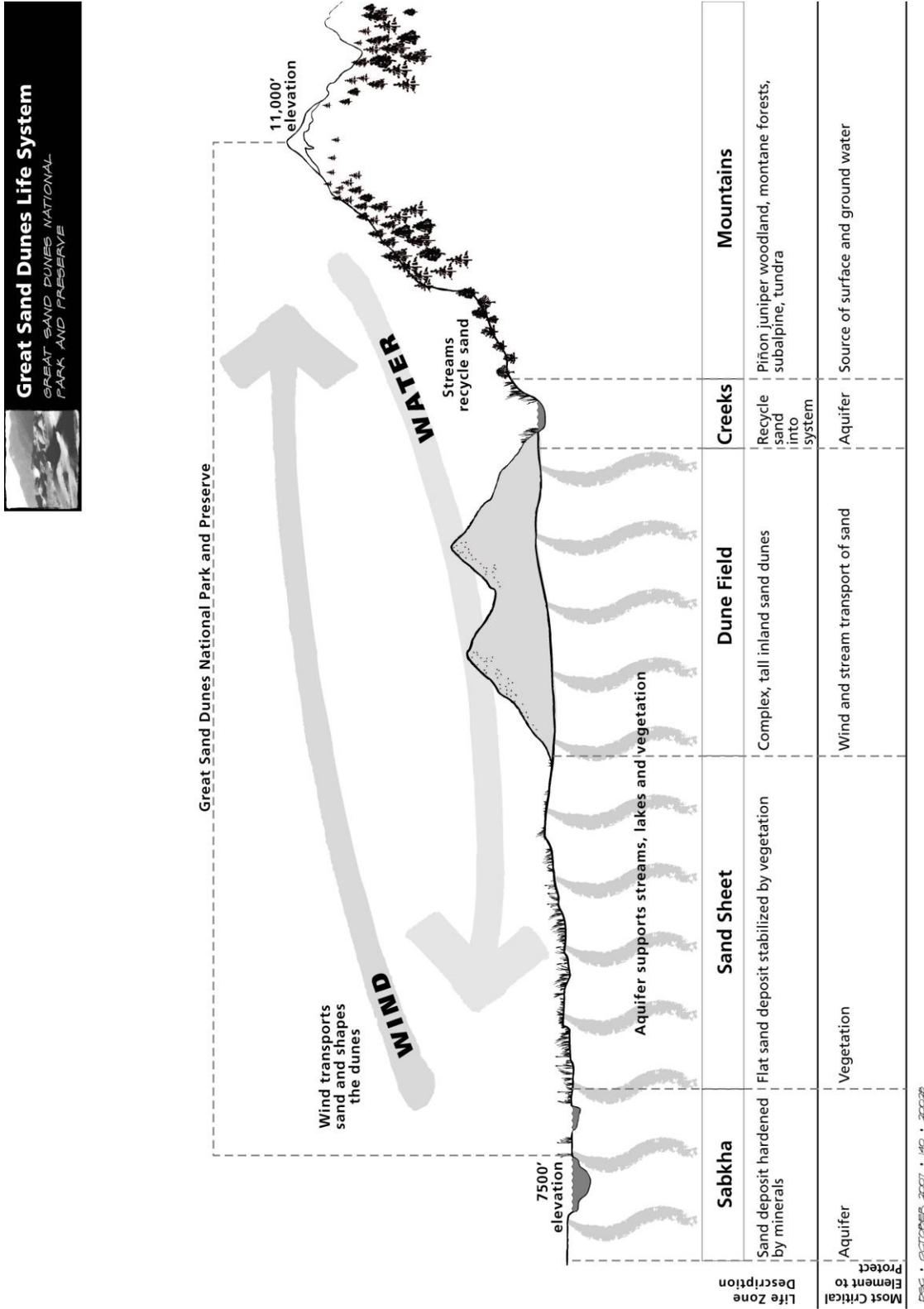
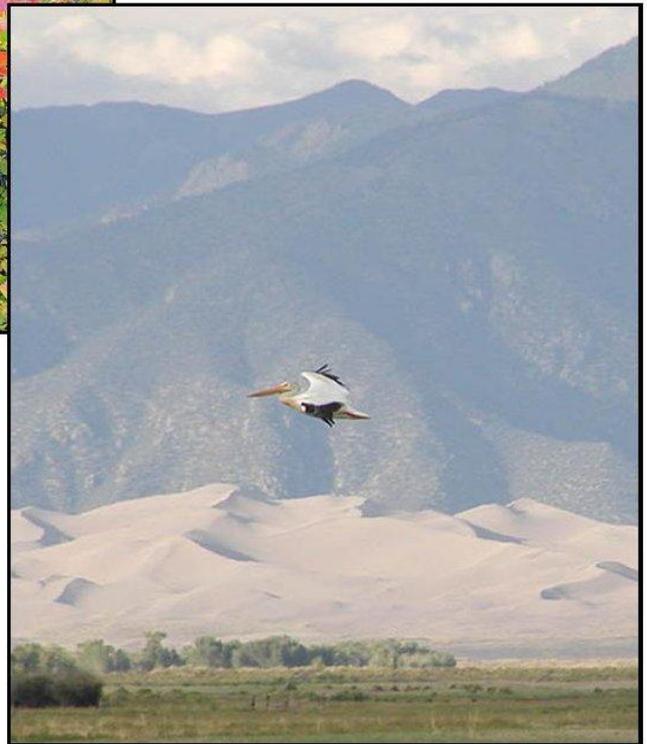
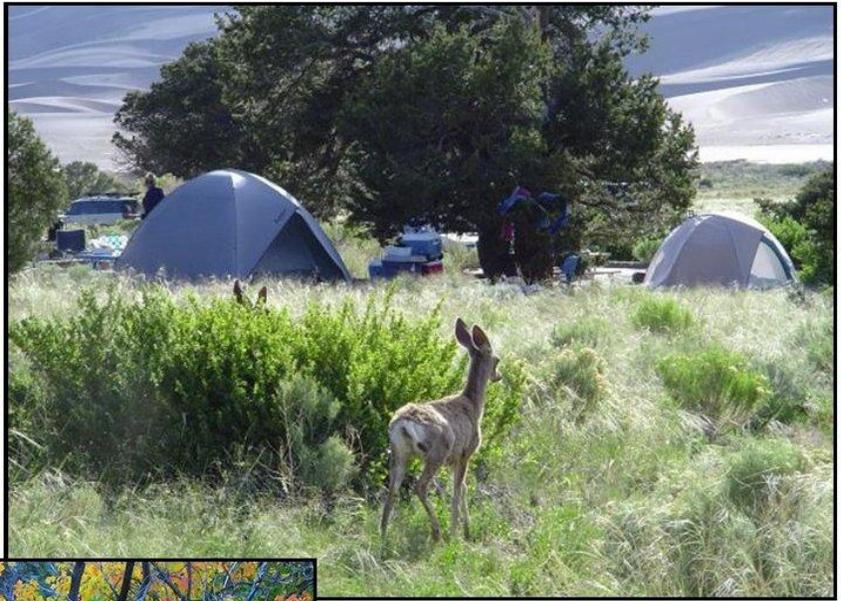


Figure 1. Cross-Section Showing Great Sand Dunes Life System



THE PLAN

PARKWIDE DESIRED CONDITIONS AND STRATEGIES

This section focuses on parkwide desired conditions and strategies that guide overall management of the Great Sand Dunes. They guide actions taken by park staff on such topics as natural and cultural resource management, wilderness management, park facilities, and visitor use management. Each topic discussed below has two parts: (1) desired conditions for that topic, and (2) strategies that may be applied to achieve those desired conditions.

Desired conditions describe the ideal conditions that the National Park Service is striving to attain. “Desired conditions” is used interchangeably with “goals.” Desired conditions provide guidance for fulfilling the park’s purpose and for protecting the park’s fundamental resources and values. To emphasize this, the desired conditions listed below (in italics) are organized by fundamental resource and value type (dunes and biological diversity, human connections, visitor opportunities, and other).

The strategies describe actions that may be taken by park staff to achieve the desired conditions. Most of these strategies are already being implemented. Those that are not already being implemented are consistent with NPS policy, are not believed to be controversial, and require no additional analysis and documentation under the National Environmental Policy Act of 1969 (NEPA) (or analysis and documentation would be completed separately from this GMP/EIS).

Desired Conditions for the Dunes and for Biological Diversity

Ecosystem Management

The National Park Service is a leader in resource stewardship and conservation of ecosystem values within and outside the park. The dunes system is managed from an ecosystem perspective, considering both internal and external factors affecting visitor use, environmental quality, and resource stewardship. Management decisions about ecosystems are based on ongoing scholarly and scientific information. Resources and visitation are managed in view of the ecological and social conditions of the park and surrounding area. Park managers adapt to changing ecological and social conditions and are partners in regional land planning and management. The dunes system shows no lasting physical damage caused by humans.

Strategies

- Park staff will continue to participate in and encourage ongoing partnerships with local, state, and federal agencies and organizations in programs that have importance within and beyond park boundaries. Partnerships important to the long-term viability of critical natural resources include:
 - reintroduction of native fish species
 - Valleywide groundwater monitoring and trends

- management of wildlife across human-created boundaries
 - combating nonnative invasive plants
 - wildland fire management
- Central to ecosystem management is the long-term monitoring of changes in the condition of cultural and natural resources and related human influences. Improvement or degradation of resources and visitor experience cannot be determined with any certainty without a monitoring program. To protect, restore, and enhance park resources and to sustain visitor use and enjoyment within and around the park, park managers will:
 - Initiate or continue long-term monitoring of resources and visitor use, including use of the visitor experience and resource protection (VERP) framework or other carrying capacity process, as appropriate.
 - Promote research to increase understanding of park resources, natural processes, and human interactions with the environment, with emphasis on fundamental park resources and values.
 - Practice science-based decision making and adaptive management, incorporating the results of resource monitoring and research into all aspects of park operations.
- Identify lands outside the park where ecological processes, natural and cultural resources, and human use affect park resources or are closely related to park resource management considerations; initiate joint research, monitoring, management actions, agreements, or partnerships to promote resource conservation.
 - Provide education and outreach programs to highlight conservation and management issues facing the park and related lands, and to develop partners who assist with ecosystem stewardship.
 - Continue to participate in the Rocky Mountain Inventory and Monitoring Network and integrate the information that results into management decisions and identification and monitoring of vital signs.

Natural Resources and Diversity

The resources and processes of Great Sand Dunes National Park and Preserve retain their ecological integrity. Natural wind, sand, and water processes are understood and allowed to function. Management decisions about natural resources are based on ongoing scholarly and scientific information. Park resources and values are protected through collaborative efforts with neighbors and partners. Human impacts on resources are monitored and harmful effects are minimized or eliminated.

Biologically diverse native communities are protected and restored when possible. Particularly sensitive communities such as sand sheet wetlands and tundra are closely monitored and protected. Endemic species and habitats are fully protected, nonnative species are controlled or eliminated, and native species are re-introduced when conditions allow. Genetic integrity of native species is protected. Threatened and endangered species recovery is successful. Natural fire regimes are understood and supported. Grazing by domestic and wildlife species is managed so that natural plant and animal communities and cultural values are protected. Research natural areas may be designated to provide representative areas for long-term ecological baseline studies.

Strategies

Park staff and other scientists will:

- Continue to inventory park resources to quantify, locate, and document biotic and abiotic resources in the park and to assess their status and trends.
- Continue long-term systematic monitoring of resources and processes with neighbors such as the USFS and USFWS, to detect natural and human-caused trends, document changes in species or communities, evaluate the effectiveness of management actions taken to protect and restore resources, and to mitigate impacts on resources.
- Continue research that furthers understanding of the geology, sand, wind, and water processes that underlie the dunes system.
- Conduct or support natural history studies of endemic insects to support management and protection of these species.
- Identify ecological disturbance regimes (e.g., wildland fires and sand blowouts) and their extent, and determine the relative impact of human actions on them.
- Implement and keep current a cooperative wildlands fire management plan that maintains, to the extent possible, condition class I vegetative communities (i.e., within the natural range). This plan is developed with the input and cooperation of park neighbors and federal, state, and local agencies (e.g., Baca National Wildlife Refuge, The Nature Conservancy, and USFWS).
- Establish cooperative agreements and develop weed management area plans for prevention and control of nonnative plants with park neighbors, such as the USFS.
- Inventory and map cottonwoods in new areas of the park to determine whether they are unhybridized narrowleaf cottonwoods. Identify and implement management actions aimed at minimizing the likelihood of introduction of and hybridization with broadleaf cottonwoods.
- Continue to map and monitor sand sheet wetlands areas (springs, stream corridors, and interdunal ponds) to expand understanding of long-term water trends, surface water-ground-water relationships, sensitive

species, and human impacts. Persistent problems may trigger restoration activities or management of visitor access.

- Inventory, map, and monitor vegetation, fauna, and soils in tundra areas, particularly adjacent to popular trails and alpine lakeshores. If resources are threatened, actions could include stronger delineation of trails, trail relocation, and/or site restoration. Persistent problems could trigger additional management actions such as use limits or closures, education, and mandatory permits.
- Inventory human-made structures and modifications, and remove structures or restore modifications that do not contribute to the purposes or management of the park, or have been determined not to have cultural significance, or are judged to be unsafe.
- Provide information on living with the park's natural processes, wildlife, critical habitats, and threats to its resources to adjacent homeowners and private landowners. Information will include wildlife, wildfire, nonnative plants, etc.
- Conserve and restore habitats for threatened and endangered species such as the Rio Grande cutthroat trout.
- Continue to expand the park's data management systems (e.g., geographic information system (GIS), research database, and literature database) for analyzing,

modeling, predicting, and testing trends in resource conditions.

- Continue to regularly update the park's resource stewardship plan and prioritize actions needed to protect, manage, and study park resources.
- Apply mitigation techniques to minimize impacts of construction and other activities on park resources.

Air Quality

Great Sand Dunes' class I air quality is maintained or enhanced. Naturally dark night skies and scenic views are substantially unimpaired.

Strategies

- The National Park Service will continue to work with appropriate state and federal agencies, industries, nearby communities, land managers, and the Western Regional Air Partnership to maintain park and regional air quality.
- Park staff and other scientists will continue to inventory and monitor the park's air quality and expand this program to detect and measure changes (improvement or deterioration) to the expanded park's airshed.
- Consistent with provisions of the Clean Air Act, the National Park Service will review, comment on, and recommend actions to minimize or reduce emissions from sources

being proposed within 64 miles (103 kilometers) of Great Sand Dunes National Park and Preserve.

- Park managers will attempt to minimize the effects of in-park pollution sources on air quality. For example:
 - if warranted by data demonstrating degradation, emissions from burning wood in campgrounds and employee residences may be reduced by establishing nonburn days or by banning wood burning altogether
 - continue to require bus tour companies to comply with regulations that reduce air pollution levels (e.g., turning off engines when buses are parked)

Water Quality and Quantity

Great Sand Dunes water quality and quantity reflect natural conditions and support natural, recreational, and administrative uses. Outstanding water quality is protected and preserved. Water rights are managed to protect natural systems. Existing water rights are used, maintained, and respected.

Strategies

- The National Park Service will continue to work to identify and obtain water rights required to fulfill the purposes of the national park and preserve, as authorized by Congress and the Secretary of the Interior.

- Park managers will continue to expand water quality monitoring associated with outstanding waters with the aim of understanding trends and possible management actions aimed at protecting water quality. They will also seek outstanding waters designations for other worthy streams within the park and preserve.
- Park staff will seek to bring water diversions on watercourses and wells within newly acquired park lands into compliance with state water law.
- The National Park Service will expand ongoing water quality and groundwater and stream flow monitoring programs into new park lands to more fully understand the status and trends of surface water and groundwater throughout the area.
- Park staff will develop a program to manage human waste in back-country areas, particularly near stream corridors and lakes.
- Park staff will educate visitors about techniques to prevent water pollution and to safely collect and treat drinking water from natural sources.

Park managers will work with adjacent landowners and managers and the Colorado Division of Water Resources to prevent water pollution and minimize the risk of water-borne diseases stemming from livestock and other sources.

- Park managers will participate in state and national water quality remediation and watershed planning programs.
- The National Park Service will work with partners and neighbors throughout the Valley to better understand groundwater systems, trends, and human influences. The National Park Service will also work with partners and neighbors throughout the Valley to protect groundwater resources.
- The National Park Service will attempt to acquire the transbasin water rights to the Hudson and Medano ditches if the owners are willing.
- Park staff will consider the needs of backcountry recreation users before eliminating any human-made water sources.
- The National Park Service will update its water resource management plan to reflect the resources and management issues of the expanded park.

Wildlife Management

Natural wildlife populations and systems are understood and perpetuated. Natural fluctuations in populations are permitted to occur. Natural influences are mimicked, if necessary. The National Park Service works with neighbors and partners to achieve mutually beneficial goals.

Strategies

- The National Park Service will continue its elk/bison management study to determine the status and health of the elk and bison populations that use park lands.
- The National Park Service will continue to work with partners, including CDOW, the USFWS, USFS, The Nature Conservancy, and park neighbors to develop management strategies for elk and bison. Of particular interest is understanding and perpetuating the dynamic interaction of grazing animals, vegetation, sand sheet conditions, and dune migration in the greater ongoing natural processes of the Great Sand Dunes.
- The National Park Service will develop an elk management plan. This plan will be developed in consultation with partners, including CDOW, the USFWS, USFS, The Nature Conservancy, and park neighbors.
- The National Park Service will strive to identify species that have occupied the park and preserve in the past, and evaluate the feasibility and advisability of reintroducing extirpated species.
- The National Park Service will continue to cooperate with CDOW to learn more about population dynamics and determine appropriate management actions for game species.

- Park managers will work with CDOW to address conflicts between hunters and other recreational users of the preserve.
- The park will investigate the feasibility of expanding the native fish reintroduction program into other streams in the park or preserve.

Desired Conditions for Human Connections

Cultural Resources

Great Sand Dunes' cultural resources, especially archeological and ethnographic resources, are identified, evaluated, managed, and protected within their broader context. Visitors and employees recognize and understand the value of the park's cultural resources. Management decisions about cultural resources are based on ongoing scholarly and scientific information and consultation with native peoples, the Colorado SHPO, and others. Culturally modified trees are managed to preserve their integrity and vitality. The historic integrity of properties listed in the NRHP (or eligible for listing in the NRHP, or meeting NRHP eligibility criteria) is protected. Human impacts on cultural resources are monitored and harmful effects are minimized or eliminated.

Strategies

- Park staff, researchers, and partners will continue to collect information to fill gaps in the knowledge and understanding of Great Sand Dunes cultural resources, to assess status

and trends, and effectively protect and manage cultural resources.

- In accordance with the National Historic Preservation Act of 1966, as amended (NHPA), park managers will continue to locate, identify, and evaluate cultural resources throughout the park and preserve to determine if they are eligible for listing in the NRHP. In particular, the National Park Service will continue work to identify cultural landscapes and archeological sites within the expanded park and preserve.
- The National Park Service will continue to work closely with and consult the Colorado SHPO and other interested parties to identify, evaluate, and determine appropriate treatment for sites, historic structures, cultural landscapes, and other historic properties throughout the park and preserve.
- The National Park Service will use the best available scientific information and technology for making decisions about management of the park's cultural resources. Park managers will continue to use and expand its data management systems, including GIS and electronic databases, to analyze, model, predict, and test trends in resource conditions.
- The National Park Service will continue long-term monitoring of archeological sites to measure deterioration from natural and human sources and to evaluate the effectiveness of management actions to protect resources and mitigate

impacts. Park managers will rely on a variety of actions to minimize these impacts, including visitor education and interpretation, and use of patrols to enforce the Archeological Resource Protection Act. The park's archeological site disclosure policy will continue to be followed.

Appropriate preservation actions for all cultural resources that are threatened or in danger of being lost will be developed, in consultation with the Colorado SHPO, American Indian tribes, and other consulting parties, in compliance with the NHPA. This could include measures such as removing the threat, stabilizing the resource, data recovery, documenting and researching, increasing ranger patrol and visitor education, or closure.

- To provide the public and park staff with optimum interpretive and resource management opportunities, park personnel will continue to research, document, and catalog the museum collection. Museum objects and archival materials will be conserved to professional and NPS standards. The park's museum conservation program will continue to provide the proper preservation and protection of the museum collection.
- Resource and maintenance staff will receive historic preservation training and will be made aware of and apply the most recent preservation technology and applications.
- Park managers will continue to regularly update the park's Resource Stewardship Plan and prioritize

actions needed to protect park resources.

Relations with Private and Public Organizations, Adjacent Landowners, and Governmental Agencies

Great Sand Dunes National Park and Preserve is managed holistically as part of a greater ecological, social, economic, and cultural system. Positive relations are maintained with adjacent landowners, surrounding communities, academia, and private and public groups that affect, and are affected by, the park. Great Sand Dunes is managed proactively to resolve external issues and concerns, to provide opportunities for appropriate independent research, and to ensure that park values are not compromised.

Strategies

- Park staff will continue to establish and foster partnerships with public and private organizations to achieve the purposes and mission of the park. Partnerships will be sought for resource protection, research, education, and visitor enjoyment purposes.
- To foster a spirit of cooperation with neighbors and encourage compatible adjacent land uses, park staff will keep landowners, land managers, local governments, and the public informed of park goals, management activities, and resource threats. Park staff will respond promptly to concerns that arise on adjacent lands over park management practices, visitor access, and proposed activities and development. Park managers will seek agreements with landowners to encourage that their

lands be managed in a manner compatible with park purposes, especially with close neighbors (e.g., the USFS and USFWS). Park staff will seek ways to provide land-owners with technical and management assistance to address issues of mutual interest or concern.

- The National Park Service will work closely with local, state, and federal agencies, and tribal governments whose programs affect, or are affected by, activities at Great Sand Dunes. Park managers will continue to work closely with the USFS, USFWS, CDOW, The Nature Conservancy, and Colorado State Parks to achieve mutual management goals. Park managers will also pursue cooperative regional planning whenever possible to involve the park in issues of regional concern.
- The National Park Service will seek to resolve minor boundary discrepancies near San Luis Lakes State Park and at other locations through administrative action or legislation.

Relations Between American Indian Tribes and Great Sand Dunes National Park and Preserve

The National Park Service and tribes culturally affiliated with Great Sand Dunes maintain positive, productive, government-to-government relationships. Park managers and staff respect the viewpoints and needs of the tribes, promptly address any conflicts that occur, and consider American Indian values in park management and operation. Traditional

ethnographic needs and uses are understood, and those uses that are consistent with protection of park resources and values are allowed to occur.

Strategies

- The National Park Service will continue to cooperate with tribes in conducting ethnographic studies to better understand which tribes are culturally affiliated with the park and to identify culturally significant resources. Regular consultations will occur with affiliated tribes to continue to improve communications and understand mutual concerns.
- Values and stories of affiliated tribes will be considered (in consultation with the tribes) in development of park interpretive programs and management decisions.

Contemporary Community Ties

Strong personal ties to the Great Sand Dunes and appropriate uses are recognized, fostered, and maintained. NPS staff, volunteers, and concession employees reflect the cultural diversity of the San Luis Valley and the region.

Strategies

- Park managers will recruit employees who reflect the cultural diversity of the San Luis Valley and region.
- The park will continue to partner with Friends of the Dunes to meet mutual goals related to park research, interpretation, and

education, and to strengthen community ties.

- Park managers will continue to support and encourage volunteers who contribute to park programs.

Desired Conditions for Visitor Opportunities

Visitor Use and Experience

Visitors from diverse backgrounds can experience a range of opportunities consistent with the purpose, significance, and fundamental resources and values of the park. Most visitors understand and appreciate the purpose and significance of the park and value their stewardship role in preserving natural and cultural features. They actively contribute to the park's preservation through appropriate use and behavior. Park programs and services are accessible to all audiences. All visitors understand park policies for use. Conflicts between different user groups are minimized.

Visitor use levels and activities are consistent with preserving park purpose, significance, and fundamental resources and values, and with providing opportunities for primitive recreation and/or solitude. Visitor use is also managed to minimize impacts on neighboring private and public lands. Management decisions are based on scholarly and scientific information. When such information is lacking, managers make decisions based on the best available information, adapting as new information becomes available. Regional recreation opportunities are coordinated among agencies for public benefit and ease of use.

Strategies

- By evaluating existing services and seeking opportunities for improvement, the park will attempt to provide programs and facilities that are effective in reaching and serving diverse communities.
- The park will seek to collect data over time to monitor visitor experiences as part of an overall carrying capacity effort to protect desired resource conditions and visitor experiences. Methods will be designed to minimize the burden to staff and visitors.
- The National Park Service will strive to address threats to resources and the visitor experience by means other than placing limits or restrictions on use (e.g., by expanding or redirecting visitor education programs). If necessary, however, more restrictive methods may include requiring permits for certain uses or areas, placing limits on use, and closing areas, including trails or campsites. Restrictions on visitor use will be based on a determination by the park superintendent that such measures are consistent with the park's enabling legislation and NPS policies, and are necessary to prevent degradation of the purposes and values for which the park was established, to minimize visitor use conflicts, or to provide opportunities for quality visitor experiences.

Visitor Information, Interpretation, and Education

Interpretation and education services at Great Sand Dunes facilitate intellectual and emotional connections between visitors and park resources. Interpretive programs foster understanding of park resources, resource stewardship, and build a local and national constituency. Outreach programs through schools, organizations, and partnerships build connections to the park. Curriculum-based education inspires student understanding and resource stewardship. Information about public use opportunities is coordinated among neighboring agencies for public benefit and ease of use. Visitors receive adequate information to orient themselves to visitor opportunities and to have a safe, enjoyable visit.

Strategies

- Park managers will continue to update and implement the park's long-range interpretive plan, with emphasis on providing information, orientation, and interpretive services in the most effective manner possible. Staff will use state-of-the-art technologies, including Internet Web-based programs, where appropriate.
- Park staff will stay informed of changing visitor demographics and preferences to effectively tailor programs for visitors. They will develop interpretive media supportive of park purposes, interpretive themes, and fundamental resources and values.
- Working with other federal agencies, the state of Colorado, and local communities, park staff will

continue to improve pre-trip planning and provide en route information and orientation for park visitors. Park staff will work with local communities and other entities to provide information/orientation and interpretive services outside park boundaries, where appropriate. Park staff will seek partnerships with other state and national parks, educational institutions, and other organizations to enrich interpretation and educational opportunities regionally and nationally.

- Staff will implement the park's education strategy plan, which outlines goals and actions for expanding the park's curriculum-based education program.

Viewsheds

Key scenic vistas are identified and protected. Park managers work with neighbors, local communities, and land managers to preserve scenic values.

Strategies

- The National Park Service will work with visitors, neighbors, and others to identify and preserve key viewpoints and vistas in and near the park. Managers will share viewpoint and vista preservation goals and concerns with neighboring management agencies, communities, and landowners so that these entities may share in stewardship of these fundamental park and regional values.

- Park managers will work with neighbors, partners, and others to preserve the rural, scenic character of park “gateway” (entrance) areas and corridors so that they complement the park’s key viewpoints and vistas.

Night Sky

The naturally dark night sky is preserved. Artificial light sources within and outside of the park do not impair opportunities to see the moon, stars, planets, and other celestial features.

Strategies

- Baseline data for the dark night sky is established through servicewide NPS programs.
- The National Park Service will continue to work with local communities to encourage protection of the night sky and will evaluate impacts on the night sky caused by facilities within Great Sand Dunes National Park and Preserve. To the extent possible, the staff will work within a regional context to protect night sky quality.
- If park staff determine that light sources within the park affect views of the night sky, they will study ways to further minimize light sources and eliminate any unnecessary ones.

Natural Sounds

The natural soundscape is preserved. Visitors have opportunities throughout most of the park to experience natural

sounds. The sounds of civilization are generally confined to developed areas.

Strategies

- Park managers will continue to work with the Federal Aviation Administration, commercial businesses, and general aviation entities to minimize noise and visual impacts of aviation to the park. Pilots will be discouraged from overflying the park. Actions taken to minimize aviation impacts could include identifying the park on aviation maps as a noise-sensitive area, educating pilots about park values, and encouraging pilots to fly in compliance with Federal Aviation Administration regulations and advisory guidance, in a manner that minimizes noise and other impacts. If demand for commercial air tours develops, the National Park Service will develop a commercial air tour management plan to address tours and their effects on the park.
- The National Park Service will continue to work with Department of Defense entities (e.g., Colorado Air National Guard) to minimize impacts from military flights in the vicinity of the park.
- Park managers will follow several strategies to control existing and potential land-based noise sources:
 - Continue to require bus tour companies to comply with regulations that reduce noise levels (e.g., turning off engines when buses are parked).

- Encourage visitors to avoid the use of noisy generators.
- Maintain existing quiet hours in campgrounds.
- Continue to enforce existing noise policies in the backcountry.
- Park managers will minimize noise generated by their own management activities by regulating National Park Service and concession use of noise-producing machinery such as aircraft and motorized equipment. Noise will be a consideration when procuring and using park equipment. In wilderness areas, the use of motorized equipment will conform to the requirements of the Wilderness Act “minimum requirements procedures” and related NPS policies (NPS Director’s Order – 41).
- The National Park Service will continue to collect baseline data on park soundscapes to understand characteristics and trends in natural soundscapes and to assist in management.

Wilderness

Wilderness areas retain their wilderness characteristics and values. Visitors find ample opportunities for primitive recreation and solitude. Wilderness areas are affected primarily by the forces of nature, and signs of people remain substantially unnoticeable. Visitors value and support wilderness preservation.

Strategies

- Within five years after approval of the GMP, park staff will complete a wilderness management plan that

will include establishing specific carrying capacities for areas of concern. Managers will plan in coordination with the adjacent USFS wilderness area, seeking common goals, information sharing, joint planning, efficient and consistent management, and good visitor service. In the meantime, and in keeping with established NPS policies and Director’s Order – 41: *Wilderness Preservation and Management*, the park staff will continue to manage wilderness areas and recommended wilderness areas as wilderness.

- The park’s wilderness plan will also provide guidance for minimum requirement assessments, as defined in Director’s Order – 41, to all activities affecting wilderness resources and character. A minimum requirement assessment will be used to determine whether or not a proposed management action is appropriate or necessary for the administration of the area as wilderness. If the project is deemed appropriate or necessary, the management method selected will be that which causes the least amount of impact to the physical resources and experiential characteristics of the wilderness. The park staff will also continue to take appropriate action to preserve wilderness character and limit visitor impacts on resources.

Park Accessibility

Buildings, facilities, programs, and services of Great Sand Dunes are accessible to and usable by all people, including those with disabilities. New and renovated facilities are

designed and constructed to be universally accessible. Visitors with limited mobility have opportunities to experience the dunes, surrounding sands and waters, and enjoy representative portions of the backcountry.

Strategies

- The National Park Service will identify and modify existing facilities to meet accessibility standards as funding allows or as facilities are replaced or rehabilitated. New facilities will meet accessibility standards.
- Park managers will periodically consult with disabled persons or their representatives to increase awareness of the needs of the disabled and to determine how to make the park more accessible. Human-powered over-sand wheelchairs will continue to be available for visitors with special accessibility needs.

Other Desired Conditions

Land Protection

Impacts from rights-of-way, inholdings, private mineral interests, agricultural uses, and other valid existing rights within the park are minimized to protect park resources and values.

Strategies

- Private property, mineral rights, and water rights within the park will continue to be recognized; however, such rights will be acquired or modified, where possible, to

minimize impacts on park resources and values. Park staff will continue to communicate with private rights owners to understand each others' values and concerns and to address any potential impacts from each others' activities. Meetings will be held, as necessary, to address any concerns.

- Various techniques will be used to protect park values, including cooperative management agreements, acquisition of conservation and access easements, land exchanges, donations, and purchase of fee title. Inholdings will be acquired, as possible, assuming conditions for transfer are acceptable and compatible with the purposes of the park. Management of such lands will revert to the zoning and wilderness status proposed in this GMP once land or water rights are acquired or relinquished, and nonconforming uses are removed.

- Federal regulations and laws will be applied to oil, gas, and mineral exploration and extraction activities to ensure protection of park resources.

Research

The National Park Service works with partners to learn about natural and cultural resources and associated values. Research priorities for the park and preserve are aligned with its purpose, significance, and fundamental resources and values.

Strategies

- Park managers will encourage and support basic and applied research through various partnerships and agreements to enhance understanding of park resources and processes, or to answer specific management questions.

Facilities and Services

Great Sand Dunes facilities and development are the minimum necessary to serve visitor needs and protect park resources for the long term. Visitor and management facilities are compatible with natural processes and surrounding landscapes, aesthetically pleasing, and functional. Commercial services in the park are only those that are necessary, appropriate, and based on park purposes. In general, commercial services will be based outside the park rather than inside the park, if possible. Housing is managed to ensure an adequate level of protection for park resources, visitors, employees, and government property, and to provide necessary services. Adequate response (equipment and people) for visitor and facility protection, search and rescue, fire management, and safety is available. All decisions regarding park operations, facilities management, and development at Great Sand Dunes—from initial concept through design and construction—reflect principles of resource conservation and sustainability.

Strategies

- Facilities will be located, built, and/or modified according to the *Guiding Principles of Sustainable Design* (NPS 1993) or similar guidelines. Architectural character guidelines will be established and

followed to ensure sustainability and compatibility with the natural and cultural environment. Park staff will properly maintain and upgrade existing facilities using sustainability principles where necessary to serve the park mission.

- Park managers will consider the availability of existing or planned facilities in nearby communities and adjacent lands, as well as the possibility of joint facilities with other agencies, when deciding whether to construct new developments in the park. This will ensure that any additional facilities in the park are necessary, appropriate, and cost-effective.
- The National Park Service will continue to strive to make affordable housing available within the park for emergency response staff, seasonal and entry-level employees, and support other park needs (housing support for researchers, etc.).
- Any new telecommunication structures will be carefully sited so as to not jeopardize the park's purpose, significance, and fundamental resources and values (including viewsheds), and in consideration of the park's management zones. New rights-of-way will be permitted only with specific statutory authority and approval by NPS managers, and only if there is no practicable alternative to such use of NPS lands.
- To support visitor opportunities, "The National Park Service will provide, through the use of concession contracts and commercial use authorizations,

commercial visitor services within parks that are necessary and appropriate for visitor use and enjoyment. Concession operations will be consistent with the protection of park resources and values and demonstrate sound environmental management and stewardship” (NPS 2001). The following criteria were derived from

NPS Management Policies to guide management of commercial services at Great Sand Dunes National Park and Preserve. Necessary and appropriate commercial services are generally identified under the management zones and alternatives sections of the GMP.

Criteria for Commercial Services

Commercial services are managed at Great Sand Dunes National Park and Preserve in accordance with NPS policies and to meet the following criteria for “necessary and appropriate”:

1. Necessary (meets one or more)
 - a. Enhances visitor understanding and appreciation of park mission and values.
 - b. Facilitates or complements the fundamental experiences of park visitors.
 - c. Assists the park in managing visitor use and educating park visitors in appropriate, safe, and minimum-impact techniques.
 - d. Is an essential visitor service or facility not available within a reasonable distance from the park.
2. Appropriate (meets all)
 - a. Services are consistent with the purposes and values for which the park was established, as well as applicable laws, regulations, and policies.
 - b. Services do not compromise public health, safety, or well-being.
 - c. Services do not significantly impact important park resources and values.
 - d. Services do not unduly conflict with other authorized park uses and activities or services outside the park.
 - e. Services do not monopolize limited recreational opportunities at the expense of the general public.

MANAGEMENT ACTIONS

In the NPS preferred alternative (NPS “Preferred Alternative” map), options would be created for dispersed hiking and horseback riding in the park and preserve. Longer day-use options and overnight linking or loop options would be emphasized. A few new trails would be provided, and links to trails on adjacent lands would be a priority. Carefully located access routes near the park’s perimeter would provide new visitor opportunities with minimal new facilities, keeping most new lands free for natural processes to continue. Cooperative or joint facilities (such as access routes, trailheads, and ranger stations) with neighboring management agencies or private partners would be emphasized and appropriate consultation conducted. A large portion of park expansion lands that are not already designated as wilderness would be recommended for future designation as wilderness. (See appendix B, “Rationale for the Preferred Alternative” in the full GMP for more information about why this alternative was selected as the NPS preferred alternative.)

Examples of potential cooperative opportunities include the following:

- The Oasis area (private lodge, store, and campground near the main park entrance) could serve as a trailhead base for guided or unguided horseback riding or hiking trips and as a shuttle staging area.
- San Luis Lakes State Park could serve as a base for hiking and horseback visits to the national park if the state agrees this is a reasonable idea.

- The National Park Service and USFWS could operate a joint visitor contact station (e.g., on the refuge at the former Baca Ranch headquarters or along State Highway [SH] 17).

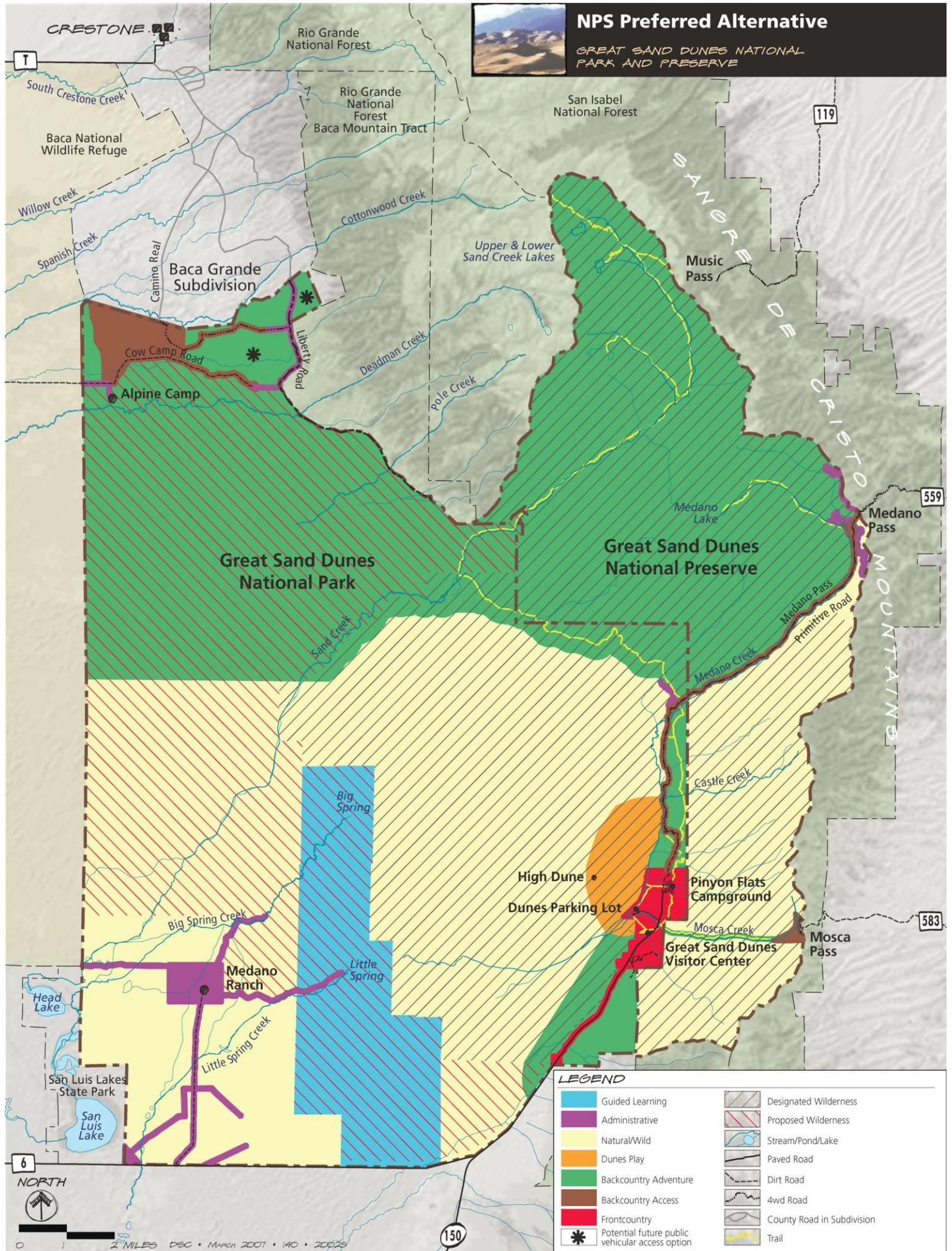
The existing developed area east of the dunes (main park road, visitor center, dunes parking area, and campground) would remain essentially the same, providing a base for most park visitation. To address existing and growing vehicle congestion in parking areas and along the access roadway to the dunes parking lot on summer weekends, the park would pursue managing traffic by first operating a temporary shuttle service such as the modest shuttle system operated on a trial basis in the summer of 2005. This shuttle allows people in the visitor center and campground to leave vehicles at those locations. If congestion, visitor and employee safety along the dunes access road becomes a persistent problem, transportation studies would be undertaken to determine the need, configuration, and feasibility of a more formal transportation system. If it is determined that the costs of such a system are unavailable or prohibitive, then the park might consider adding a small unpaved overflow parking area in the vicinity of the dunes lot as an interim measure until funds become available for a formal transportation system.

The park’s nonhistoric entrance station would be located closer to the park boundary, near the Oasis. The new location would better accommodate a modest shuttle system and overflow parking, and reduce congestion near park headquarters.



NPS Preferred Alternative

GREAT SAND DUNES NATIONAL PARK AND PRESERVE



150

559

583

6

Bicycle lanes would be added to the main entrance road from the park boundary to the dunes parking lot. A hiking/biking path would connect Pinyon Flats campground to the dunes parking lot and visitor center

The National Park Service would seek acquisition of Medano Ranch, and upon acquisition, would use the ranch headquarters area for the following:

- Administrative use such as offices, housing, storage, and research support.
- Scheduled, guided public activities such as interpretive programs, environmental education, a base for guided hiking or horseback tours, and special events. Visitor activities may be guided by the National Park Service, concessioners, or other partners under direction of the National Park Service. Because of concerns about sensitive resources, staffing costs, and visitor safety, the Medano Ranch area and adjacent guided learning zone would not be open to general public visitation and use.

The National Park Service would adaptively use and maintain Medano Ranch historic structures for the above uses. The agency would not necessarily keep all historic structures, but would maintain certain ones based on adaptive use potential, efficiency, and historic significance. Partnership support would be needed to bring these facilities up to NPS standards, to maintain them over time, and to provide opportunities for visitors. Decisions regarding whether or not to remove structures and resources would be made in consultation with the Colorado SHPO and other consulting parties, in compliance with section 106 of the NHPA.

Leashed dogs would be allowed within the national park (only within the frontcountry, dunes play, and backcountry access zones, and Liberty Road administrative zone), and within the national preserve. Within the national preserve, unleashed dogs would continue to be allowed for hunting (see chapter three in full plan, “Health and Safety—Dogs” section for details). Within the national park, no dogs would be permitted within the natural/wild, backcountry adventure, or guided learning zones, or the administrative zone (other than Liberty Road). If dogs became more of a problem over time, adjustments to the latter policy would be addressed in the Superintendent’s Compendium. To assist visitor compliance with dog regulations, a commercial service to provide dog boarding in the vicinity of the main dunes area would be sought.

Necessary and appropriate commercial services would continue to include providing firewood and incidental camper supplies in the vicinity of the campground through a concession contract. Pending a study of financial feasibility, a determination may be made to seek the following new commercial services: (1) dog boarding within the main dunes area frontcountry zone, (2) guided tours by horseback, jeep, or hiking from Medano Ranch (provided primarily from outside the park with a minimal base of operations at the ranch), and (3) modest shuttle services. These activities and services are necessary and appropriate to achieve resource protection and visitor use goals for the park. Horseback riding, pack trips, guided hunting, guided hiking, photography workshops, and four-wheel-drive tours are appropriate activities and would continue to be authorized. The National Park Service would consider other potential commercial activities on a case-by-case basis to determine if they were necessary and appropriate before any new contracts or

authorizations would be issued (see “Criteria for Commercial Services,” page 44).

The preferred alternative identifies a small trailhead/parking area for 10 to 15 vehicles to provide access for hikers, backpackers, horseback riders, and hunters in the northwest portion of the national park near the foot of the mountains, but away from sensitive riparian environments. This is intended to satisfy the general public’s desire for a new, closer access point for backcountry recreation on the nearby national forest, the preserve, and new public lands within the national park. There are no plans for paved roads through new park lands to access the dunes or other high-use destinations. The wilderness recommendation in the preferred alternative ensures most new lands within the park boundary will remain wild and undeveloped.

The NPS preferred access option is a road that would enter the park from the Baca Grande subdivision at some point contiguous with the backcountry access zone shown on the NPS “Preferred Alternative” map. Implementation of that connection for vehicle access across the boundary requires ongoing collaboration (see the following section “Public Vehicle Access to Federal Lands in the North—Ongoing Collaboration”).

From that point, a high clearance, two-wheel drive road would connect to an existing two-track or Cow Camp Road, follow one of these roads eastward toward the mountains and terminate in a trailhead/parking area. The road and trailhead would be located north and outside of the Deadman Creek riparian corridor. A trail or trails from the trailhead to the mountain front would avoid the Deadman Creek riparian corridor (see NPS “Preferred Alternative” map).

The size of the backcountry access zone in the northwest corner of the park is designed to allow maximum flexibility for siting a public vehicle access route. Within this zone, no new facilities beyond the access road and trailhead mentioned above are proposed. When the facilities above are sited, the remainder of primitive roads not needed for public access would be zoned administrative or reclaimed, and the remainder of the backcountry access zone would be converted to backcountry adventure zone.

The trailhead would include a small parking area with a capacity of 10 to 15 vehicles and would accommodate equestrian use. This trailhead would be designed to discourage parking outside of designated spaces. The capacity of the trailhead would not be increased during the life of the GMP. If demand for use of this trailhead routinely exceeded capacity, the National Park Service would manage trailhead use (e.g., require permits) rather than expand the trailhead. A previously disturbed site, such as an existing drill pad, would be sought for the trailhead location to minimize natural resource impacts.

If no public vehicle access to the north part of the park could be found over the long term so that trailering horses was not possible, the National Park Service would provide gates for horses at the northern park boundary at Camino Real and Liberty Road, and a partner would be sought to provide an equestrian trailhead facility outside the park.

Public Vehicle Access to Federal Lands in the North—Ongoing Collaboration

There is general public desire for backcountry access to the northern part of the expanded park and preserve, as well as to new USFS lands. The National Park Service has determined that it is desirable to have a

small trailhead/parking area for 10 to 15 vehicles to provide access for hikers, backpackers, horseback riders, and hunters near the foot of the mountains, but away from sensitive riparian environments. The NPS preferred alternative in the GMP proposes to develop such access via the backcountry access zone shown on the map. However, implementing a vehicular connection to that zone depends on the ongoing planning and collaboration with the community, Saguache County, and other agencies.

The USFWS has not begun planning for the new Baca National Wildlife Refuge. The agency's comments on the draft GMP indicate that for the life of the GMP, the USFWS will not develop any wildlife-dependent public use on the east side of the refuge that would facilitate access to the park.

There are strong community concerns regarding any public vehicle access through the Baca Grande subdivision. It is important to note that while the NPS boundary and backcountry access zone join a public right-of-way at Camino Real, allowing public pedestrian access to the national park, this county road ends 0.2 mile short of the NPS boundary. The National Park Service cannot provide vehicle access to the backcountry access zone through the Baca Grande subdivision unless the county chooses to extend Camino Real or create another public route.

The USFS has not completed planning for the Baca Mountain Tract and would like to preserve options for public vehicle access to the mountain front. The USFS, with the National Park Service as a cooperating agency, may study the need for (and impacts of) providing public vehicle access to USFS lands via Liberty Road or a route through the park. These options are marked with asterisks on the NPS "Preferred Alternative" map as "potential future public vehicular

access option." These options are not evaluated in this GMP and would require a separate joint (NPS/USFS) environmental analysis study that would include public participation. (See chapter one in the full plan, "Relationship of the General Management Plan to Other Planning Efforts: Planning for Lands Added to Rio Grande National Forest in the Year 2000" for more information about USFS planning efforts.) If the results of this subsequent joint NPS/USFS environmental analysis should determine some form of public vehicle access to federal lands via Liberty Road is the best option, the National Park Service would not need the backcountry access zone or use of a primitive road in the park. In this case, the parking area could be sited on USFS land. If the joint analysis should determine public vehicle access via a primitive road in the park is the best option, the selected route could be extended to Liberty Road and the parking area could be sited on USFS land in this case also.

It may take time after the completion of the GMP to collaboratively determine a public access solution that creates a balance between demand for backcountry access, protection of ecological values, and the values of park neighbors. Ongoing planning efforts (including a joint NPS/USFS public planning process to study access to the mountain front, comprehensive planning for the Baca National Wildlife Refuge, and community planning in the Baca Grande subdivision) will continue for the agencies and the community, giving all parties the opportunity to learn more about actual use and issues.

Upon completion of this GMP, no road or parking area would be constructed in the backcountry access zone unless a collaborative solution among the county and agencies was reached regarding an acceptable route of access.

ADDITIONAL ACTIONS

- Park staff would continue to work with park neighbors (public and private) to achieve the purposes of the park and to protect fundamental resources and values (see “Desired Conditions and Strategies” section of this document for more information).
- The acquisition of mineral rights throughout the park from willing sellers would be pursued.
- For several reasons (see “Written Comments” section in chapter five of the full plan), a NPS-managed free-roaming bison herd is not feasible for the life of the GMP. If additional bison habitat becomes available at some time in the future, this option can be reconsidered by the National Park Service.
- If and when The Nature Conservancy ceases agricultural uses (e.g., bison grazing and forage production) on their owned and leased lands, and transfers the lands to the National Park Service, surface irrigation of meadows would be discontinued and the bison fence would be removed. Before surface irrigation is discontinued, a study would be conducted to better understand how this action might affect wetlands, groundwater supplies, downstream water users, federal water rights, the Closed Basin Project, etc.
- Use of ORVs that do not conform to requirements for use on Colorado state roads would not be allowed in the park or preserve.
- A route or routes across NPS land would be designated (via the Superintendent’s Compendium) for hunter access to the national preserve and USFS lands, where hunting is permitted. (According to *36 Code of Federal Regulations* [CFR] 24, provision for such access may be provided when other access is impracticable; hunters must stay on the designated routes and firearms must be broken down or disassembled so as to prevent their ready use.) Such routes would be identified cooperatively with CDOW and the USFS. The permitting process for this activity would be made as convenient as possible.
- Roads that the National Park Service does not intend to use for public or administrative purposes would be abandoned and not maintained, but there would be no active elimination and revegetation of roads. Depending on the alternative, abandoned roads would include Cow Camp Road, Medano Ranch roads, and/or other minor roads and “two-tracks.”
- Historic structures in backcountry areas would be documented, but not maintained. If the structures became a health or safety hazard, they would be individually assessed to decide whether they should be removed. Decisions regarding whether or not to remove structures and resources would be made in consultation with the Colorado SHPO and other consulting parties in compliance with section 106 and the NHPA.

- Toilets would be installed if/when visitor use levels are high enough that human waste disposal and sanitation is a concern, and if a more suitable solution does not exist.
- Alpine Camp would serve as a backcountry patrol cabin.
- Due to the Great Sand Dunes Act of 2000 and the major park boundary

expansion that followed, this GMP addresses only minor, technical boundary adjustments. The National Park Service would pursue, through legislation or administrative action, minor boundary corrections, including one to address boundary discrepancies near San Luis Lakes State Park.

CARRYING CAPACITY

General management plans are required to address visitor carrying capacity for national park units. The National Park Service defines visitor carrying capacity as “the type and level of visitor use that can be accommodated while sustaining desired resource conditions and visitor experiences in the park.” Carrying capacity does not necessarily involve identifying a “magic number” for visitor use, nor does it necessarily imply closures or use limits.

The carrying capacity process for national parks typically involves the following steps:

1. Identify desired conditions (goals) for resources and visitors.
2. Identify indicators (things to monitor to determine whether desired conditions are being met).
3. Identify standards (limits of acceptable change) for the indicators.
4. Monitor indicators.
5. Take management action, as necessary, to ensure that standards are met.
6. Regularly evaluate and make adjustments based on new information and lessons learned.

Steps

Step 1: identify desired conditions, involves assigning management zones that have different desired resource and visitor conditions to different park areas.

Step 2: identify indicators, often begins with a discussion of park and zone-specific resource and visitor experience concerns (signs that desired conditions are perhaps not being met). Discussing specific concerns helps managers identify potential resource and visitor experience indicators to monitor. Depending on the situation, managers may also consult scientific literature, conduct research, consult other park managers, consult public opinion, and apply management judgment to assist with identifying indicators.

Step 3: identify standards, involves using scientific information, combined with best judgment, to establish the minimum acceptable condition for an indicator. (A standard does not define an intolerable condition. It is not a condition that managers should strive to achieve, unless intolerable conditions already exist.)

Step 4: monitor indicators, means checking indicators to see if conditions are

deteriorating or if standards are being exceeded. Ideally, monitoring involves systematic and periodic measurement of indicators according to a predefined plan. With limited NPS staff and budgets, park managers must focus on areas where there are definite concerns and/or clear evidence of problems. This means monitoring should generally take place where:

- conditions are at or violate standards
- conditions are changing rapidly
- specific and important values are threatened by visitation
- effects of management actions are unknown

Step 5: take management action, means taking corrective steps to address deteriorating or unacceptable conditions. Management action includes things like expanding education or information, requiring visitor guides or permits, delineating trails, extending seasons or hours, expanding facilities, establishing one-way trails, increasing patrols, implementing temporary closures, or redirecting use. Using a combination of strategies provides managers with greater flexibility and allows them to address multiple dimensions and causes of undesired impacts. Reducing use may appear to be the obvious solution to visitor use impacts, but less restrictive strategies may work as well and have fewer undesired consequences.

Step 6: sometimes referred to as adaptive management, means remaining flexible and “learning as you go.” Park managers rarely have all the information they desire to make decisions. Nonetheless, they are responsible for ensuring that park resources remain unimpaired for the enjoyment of future generations, which may mean taking a cautious or conservative approach while gathering additional information. Adaptive management also includes using best

judgment, trying different things to see what works, and adapting as new information becomes available.

This GMP addresses carrying capacity in the following ways:

- It identifies desired resource and visitor experience conditions for each management zone.
- It identifies the principal resource and visitor experience concerns for each management zone (and related indicators) so that park managers can collect baseline data that will assist with setting preliminary standards.
- For each resource concern, it lists potential management actions that might be used to address deteriorating trends or unacceptable conditions.
- It identifies specific geographic areas for special monitoring attention.
- It evaluates the tradeoffs of having different proportions and distributions of management zones, via the GMP alternatives.
- It explores different scenarios (solutions) for what to do when frontcountry parking areas become full, via the GMP alternatives.

A wilderness management plan, tiered off this GMP, will provide more specific direction for addressing carrying capacity.

With limited NPS personnel and budgets, park managers must focus carrying capacity efforts on areas where there are definite concerns and/or clear evidence of problems. This means that monitoring should concentrate on areas where: conditions violate standards (or threaten to), conditions are changing rapidly, specific and important values are threatened by

visitation, or effects of management actions or visitation are unknown. At the Great Sand Dunes, the following areas deserve special carrying capacity attention: the Upper and Lower Sand Creek Lakes areas, portions of Deadman Creek, Sand Creek, and Castle Creek corridors located within the national park, Big and Little Springs, the

area north of Cow Camp Road, and the area around the dunes parking lot.

Since some of these resource areas (and visitor use of them) begin or end outside the park, opportunities to cooperate with other land-managing neighbors would be pursued, as appropriate.

MANAGEMENT ZONES

Management zones (see table for more detail) define specific resource conditions, visitor opportunities, and management approaches to be achieved and maintained in each area of the park. Similar to city or county zoning, management zones provide predictable expectations for the condition of areas of the park. Seven management zones have been developed for Great Sand Dunes National Park and Preserve, and these zones are applied to different areas of the park:

1. frontcountry
2. dunes play
3. backcountry access
4. guided learning
5. backcountry adventure
6. natural/wild
7. administrative

The Superintendent's Compendium is a list of designations, closures, permit requirements, and other restrictions imposed under the discretionary authority of the park superintendent as provided for in Title 36 of the *Code of Federal Regulations*. In addition to the management zones, park managers would continue to use the Superintendent's Compendium to effect limitations or closures, as necessary, to protect resources and wilderness values.

Application of Management Zones

Most of the northern half of the park would be zoned backcountry adventure, as would existing trails, to allow for resource protection and appropriate facilities. The backcountry access zone along the northern boundary of the park would permit motorized access to the area. The Medano Pass primitive road would also be zoned backcountry access. Much of the southern half would be zoned natural/wild to protect resources and allow the area to remain undeveloped. The frontcountry zone, east of the dunefield, would allow bicycle lanes, a new hiking/biking path from the campground to the dunes lot, existing facilities, and relocation of the entrance station. There would be a guided learning zone southwest of the dunefield for guided visitor use of sensitive areas. The dunes play zone would cover a portion of the dunefield closest to the dunes parking lot. Administrative zones would be located in various places around the park and preserve, primarily for NPS operational access. Medano Ranch headquarters, also zoned administrative, would be open for scheduled public activities. The administrative zone road corridors in the Medano Ranch area are needed to provide access for annual maintenance of diversion, monitoring structures, and irrigation ditches that are

likely to remain for the foreseeable future. Some of these roads are deeded easements for the Closed Basin Project canals, production wells, and other infrastructure

maintenance. A similar situation exists on Medano Pass with the Medano/Hudson ditches.

WILDERNESS

Almost all of the lands identified as suitable/eligible for wilderness would be recommended for wilderness designation in this alternative (see NPS “Preferred Alternative” map). A setback (200 feet in width from the road centerline) along County Lane 6 and SH 150 was excluded to allow for any underground and future utility, drainage, fence, or roadway improvements, and administrative roads in the Medano area. The area recommended for wilderness would be contiguous with the existing Great Sand Dunes Wilderness, extend west to the NPS boundary, north to Cow Camp Road,

and reach south toward Medano Ranch, but exclude the ranch headquarters area and structures associated with the Closed Basin Project. The rest of the areas (north of Cow Camp Road and south and west of Medano Ranch) are too small to manage effectively and/or contain Closed Basin Project structures, overhead utility lines, wells, irrigation ditches, and other structures that need to remain for the foreseeable future. A total of 53,013 acres would be recommended for wilderness designation (see appendix G).

STAFFING AND COSTS

Full staffing level under the NPS preferred alternative would be 36 full-time equivalents (FTEs). Volunteers would continue to be a key component of park operations. If funding and staffing for some elements of the preferred alternative were unavailable from federal sources, park managers would consider other options such as expanding the park volunteer program or developing partnerships with other agencies, organizations, or businesses to accomplish these elements.

The cost estimates provided here are for alternatives comparison purposes only—

they are not to be used for budgeting purposes. Capital costs for the NPS preferred alternative are estimated at \$16.5 to \$21.2 million. In addition to items mentioned for the no-action alternative, this includes costs for a new trailhead, trails, access road, improvements at Medano Ranch, cooperative entrance station, fee booth, associated utilities, and bison fence removal. Life cycle costs over 25 years, which include staff, maintenance, and operations costs (as well as capital costs), are estimated at \$44.9 to \$49.6 million.

TABLE 2. MANAGEMENT ZONES SUMMARY

Frontcountry	Dunes Play	Backcountry Access	Guided Learning	Backcountry Adventure	Natural / Wild	Administrative
						
Overview						
<p>Primary features, facilities, and programs provide opportunities for large numbers of people to enjoy and learn about the park. This zone does not occur in wilderness.</p>	<p>These are natural areas for visitor enjoyment of the dunes and Medano Creek, two of the park's prime resources. This zone occurs primarily in wilderness.</p>	<p>This zone provides access to backcountry adventure or natural/wild zones by providing vehicle travel routes and/or trailheads. This zone does not occur in wilderness.</p>	<p>Protecting sensitive resources is the focus of this zone. Learning about these resources is important, and protection is provided by guiding or escorting visitors. This zone occurs in wilderness or nonwilderness.</p>	<p>These are natural landscapes with a few facilities such as designated trails, backcountry campsites, and backcountry patrol cabins. This zone occurs in wilderness or nonwilderness.</p>	<p>This is the wildest zone. It protects natural resources and provides opportunities for physical challenge, adventure, and solitude. This zone occurs in wilderness or nonwilderness.</p>	<p>This zone is primarily to support management and administration of the park or other mandated activities such as the Closed Basin Project. This zone does not occur in wilderness.</p>
Resource Condition						
<p>Natural processes and landscapes are unaltered, except within or directly adjacent to the limited number of developed sites or areas. In frontcountry zone developed areas, natural processes and landscapes may be altered or manipulated to restore damaged areas, to preserve or maintain cultural resources, or to direct visitor use to avoid resource impacts. Alterations are designed to blend with the natural landscape as much as possible.</p>	<p>Natural processes are unaltered. Lasting evidence of recreational use is not apparent (evidence is temporary).</p>	<p>These are unpaved vehicle travel routes or trailheads from which backcountry adventure or natural/wild zones can be accessed. Parts of the natural landscape may be altered to protect resources from impacts (e.g., installing culverts under roads). Alterations are designed to blend with the natural landscape. There is little to no roadside damage to vegetation and soils from vehicles passing each other. Resources may be manipulated when necessary to restore damaged areas, to preserve or maintain cultural resources, or to direct visitor use to avoid resource impacts.</p>	<p>These are areas where visitor use is permitted only with a guide or escort to protect particularly sensitive resources. Travel is via horseback or foot (or vehicle in nonwilderness areas). Parts of the natural landscape may be altered (e.g., designated trails and backcountry toilets installed) to protect resources from negative impacts. Resources may be manipulated when necessary to restore damaged areas, to preserve or maintain cultural resources, or to direct visitor use to avoid resource impacts. Alterations are designed to blend with the natural landscape.</p>	<p>Natural systems and processes prevail, with minimal human alteration. Segments of the natural landscape may be altered (e.g., campsites defined, water bars and privies installed) to protect resources from negative impacts. Resources may be manipulated when necessary to restore damaged areas, to preserve or maintain cultural resources, or to direct visitor use to avoid resource impacts. Alterations are designed to blend with the natural landscape.</p>	<p>Natural systems and processes prevail, and natural and cultural resources are generally unaltered and unaffected by human influences. Evidence of recreational use is not readily apparent. Resource inventory and monitoring activities help to identify and protect resources. Rare or special plant communities receive management emphasis for preservation and protection. Archeological sites are protected in place. Natural soundscapes and the dark night sky predominate.</p>	<p>Natural processes and resources are in good condition, but may be altered to support park operations (or other mandated activities such as the Closed Basin Project); the degree of alteration is dependent on need. Resources may also be altered or manipulated to preserve/maintain cultural resources, restore damaged areas, or to direct use to prevent additional resource impacts. Alterations blend in visually with the surrounding landscape or facilities to the extent possible.</p>
Visitor Opportunities						
<p>These easily accessible, high-use areas that focus on a connection with and appreciation of special park resources. Visitors are offered a variety of opportunities for onsite interpretation and education; understanding park themes is a priority. Sights and sounds of people and/or vehicles are expected. Encounters with others, including park staff, are likely, especially around developed facilities. Basic necessities and conveniences are provided, so visitors don't need a high degree of self-reliance or outdoor skills. This zone is popular and well-suited for family recreation.</p>	<p>Experiencing Medano Creek and the high dunes are a focus of this zone. Visitors have opportunities for primitive and unconfined recreation and a sense of freedom in a natural landscape. There is a low expectation for solitude because this is a key area for park visitors, but it's possible to find solitude within 0.25 mile of the dunes parking lot. This zone is popular and well-suited for family recreation.</p>	<p>Travel is generally by passenger vehicle, horseback, or bicycle. Visitors have opportunities to view or access some of the park's prime resources from roads or trailheads. There is a sense of being in a natural landscape. There are some opportunities for adventure and discovery. The expectation for solitude is low during peak visitor periods, but congestion due to numbers of vehicles occurs only on summer holiday weekends. Visitors are somewhat self-reliant and need basic outdoor skills. There may be limits on numbers of people or vehicles to protect resources or visitor experiences.</p>	<p>Opportunities to learn about these special resources while protecting them are provided by guiding or escorting visitors. Visitors have a sense of being in a natural landscape. There are low expectations for solitude since visitors generally travel in groups. Opportunities for discovery are great since facilitated learning and enjoyment are the primary focus of this zone. Visitors do not need a high degree of self-reliance or outdoor skills since basic necessities are provided. There may be limits on group size or numbers of groups to protect resources and enhance visitor experience.</p>	<p>Travel is by foot or horseback. Visitors have a sense of being in the natural landscape with opportunities to view, access, and experience some of the park's prime resources. Encounters with other visitors are common on trails during park busy periods, but solitude can always be found in off-trail areas. Visitors are somewhat self-reliant and need basic outdoor skills. There are some opportunities for adventure and discovery. Visitors have opportunities to experience natural soundscapes and lightscapes. There may be limits on numbers of visitors, length of stay, group size, and overnight use to protect resources or visitor experience. A visitor permit system may be implemented if needed to protect resources.</p>	<p>Visitors explore and enjoy relatively remote areas in a natural setting by foot or horseback. Opportunities for solitude, independence, closeness to nature, and adventure are readily available. Expectation for solitude is high and it can be found in most areas of this zone; there are few encounters with other people. Visitors are self-reliant and require good outdoor skills because these areas are without comforts or conveniences. Visitors have opportunities to experience natural soundscapes and lightscapes. There may be limits on numbers of visitors, length of stay, and overnight use. A visitor permit system may be implemented if needed to protect resources or visitor experience.</p>	<p>This zone is intended primarily to serve NPS operational and administrative needs, but accommodates some visitor activities. Generally, it may be used as a hiking or horseback travel route for visitors with or without guides, and as a vehicle travel route for visitors traveling with NPS-approved guides. Hunters may use this zone as a vehicle travel route if they have special permission and/or are accompanied by land management agency staff. However, there may be specific cases (e.g., near Medano Ranch headquarters or Big and Little Spring) where there are some visitor limitations.</p>

TABLE 2. MANAGEMENT ZONES SUMMARY

Frontcountry	Dunes Play	Backcountry Access	Guided Learning	Backcountry Adventure	Natural / Wild	Administrative
Facilities and Activities						
<p>Common visitor activities include scenic driving, viewing scenic vistas, taking short walks on designated trails, camping, and picnicking. Interpretive and educational programs may be provided. Horse or pack animal use is not permitted, but loading and unloading stock and trailer parking is allowed. Culturally significant resources, including historic structures, may be used for visitor or administrative purposes. Appropriate kinds of facilities include visitor centers, visitor entrance stations, slow-speed paved or gravel roads, parking areas, horse loading and unloading areas, trailer parking, formal campgrounds, picnic areas, amphitheaters, surfaced trails, communications facilities, and operational facilities (offices, NPS housing, horse corrals, etc.). Appropriate commercial services include limited convenience concessions, modest shuttle services, horseback riding tours, and dog boarding.</p>	<p>Common visitor activities include wading, climbing and sliding on the high dunes, sand and water play (the latter when the creek is flowing), and guided interpretive and educational programs. No facilities except small signs. No trails, camping, horseback riding, or motorized vehicles. In designated wilderness, management is consistent with NPS wilderness management policies. No commercial services would be appropriate in this zone.</p>	<p>Common visitor activities include scenic driving, horseback riding, and bicycling. Appropriate kinds of facilities include unpaved roads, trailheads, horse loading areas, primitive campgrounds, vault or composting toilets, and information/entrance kiosks. Appropriate commercial services include guided activities: hunting (preserve only), fishing, hiking, horseback riding, photography, bird/ wildlife viewing, and backcountry four-wheel-drive tours (beginning and ending outside the park) on designated routes.</p>	<p>Visitor activities include guided interpretive and educational tours on horseback, by foot, or (in nonwilderness areas) by vehicle. Appropriate kinds of facilities include unpaved roads, trails, wayside exhibits, vault or composting toilets, and information kiosks. Appropriate commercial services include concession-operated guided vehicle, horseback, and hiking tours. In designated wilderness, management is consistent with NPS wilderness management policies.</p>	<p>Common visitor activities include hiking, backpacking, hunting (in the preserve only), fishing, backcountry camping, and horseback riding (bicycles are not permitted). Visitor access is by foot or horseback. Appropriate kinds of facilities include primitive or maintained trails, trails marked by cairns or markers, backcountry campsites, backcountry privies, and patrol cabins. In designated wilderness, management is consistent with NPS wilderness management policies. Appropriate commercial services include guided activities: hunting and fishing, hiking, horseback riding, pack animal trips, photography, bird/wildlife viewing, and mountaineering/climbing.</p>	<p>Common visitor activities include off-trail hiking, backcountry camping, horseback riding, guided or unguided hunting (within the national preserve only), and fishing. Visitor access is by foot or horseback (bicycling is not permitted). Overnight use may be limited in certain areas. Management activities include research and monitoring, and stabilization and restoration of natural and cultural resources. There are generally no facilities (examples of exceptions: unmaintained historic structures, research plots, and monitoring wells). In designated wilderness, management is consistent with NPS wilderness management policies. Occasional administrative use of mechanized tools or transport may be used, as necessary, outside of wilderness. Appropriate commercial services include guided activities: hunting and fishing, hiking, horseback riding, pack animal trips, photography, bird/wildlife viewing, and mountaineering/climbing.</p>	<p>Visitor activities include environmental education programs, guided interpretive and educational tours on horseback, by foot, or (in nonwilderness areas) by vehicle. Appropriate kinds of facilities include visitor information signs; structures serving as a base for management or maintenance activities (offices, shops, storage buildings, patrol cabins); housing; communications facilities, outdoor storage areas; environmental education, interpretation, and research facilities; unpaved roads, fences, and ditches. Management activities include maintenance, planning, and overseeing operations, research, monitoring resources and visitor activities, and vehicle travel to remote park areas. Appropriate commercial services include guided activities: hiking, horseback riding, and vehicle tours on designated routes (in nonwilderness), including backcountry four-wheel-drive tours originating outside the park.</p>
Carrying Capacity (principal resource concerns and indicators)						
<p>When the dunes parking lot fills, visitors park along shoulders of dunes lot access road and the main park road. Parking on road shoulders compacts soils and damages vegetation.</p> <p><u>Possible indicator:</u> vegetation damage along road shoulders; number of vehicles parking along roadside may be an easy to monitor surrogate indicator.</p> <p><u>Possible management actions to address this concern:</u> parking lot reconfiguration (underway), continue to publicize park busy times so visitors can avoid them, provide modest shuttle service, redirect visitors to other areas of the park.</p> <p>There is a proliferation of social trails along the east side of Medano Creek, between the north dunes lot and the campground.</p> <p><u>Possible indicator:</u> linear feet of social trails.</p> <p><u>Possible management actions to address this concern:</u> install hiking/ biking path from campground to dunes lot.</p>	<p>Medano Creek water quality—waste from horses upstream, humans (from babies and discarded diapers), and dogs in the creek is a concern. (Note: this is also a visitor experience concern.)</p> <p><u>Possible indicator</u> (underway): fecal coliform counts in/near the dunes play area.</p> <p><u>Possible management actions to address this concern:</u> establish limits on numbers (or duration of stay) of horses upstream, close area temporarily to dogs and/or visitors if public health standards are exceeded, prohibit dogs in the creek area altogether, establish special area downstream where dogs are allowed, require special swim diapers for babies.</p>	<p>Most drivers keep to road corridors, but a few drive off the road illegally, damaging soils and plant life outside the road corridor.</p> <p><u>Possible indicator:</u> amount of vegetation damage outside the road corridor.</p> <p><u>Possible management actions to address this concern (some underway):</u> install special fabric in areas of deeper sand to provide a stable base and improve traction, install posts along the road to better delineate road corridor, install signs encouraging drivers to stay on the road, increase visitor contacts, work with user groups to enhance understanding of impacts and how to avoid them, alternate traffic flow during busy times to reduce/eliminate the need for cars to pass, inform drivers at entrance station about dry sand conditions, require permits for road use (excluding Medano Pass primitive road).</p>	<p>Potential damage to archeological sites and sensitive wetlands areas. (Note: the intent is to minimize this concern by using guided tours.)</p> <p><u>Possible indicators:</u> amount of soil disturbance, erosion, loss of artifacts, etc., as measured by photo comparisons and/or survey plots.</p> <p><u>Possible management actions to address this concern:</u> limit visitor use in terms of group size, tour frequency, time (daily or seasonally), and space as needed to protect sensitive resources.</p>	<p>There is concern about invasive nonnative plants becoming established, especially in more accessible areas of the expanded national park that are newly open to public use (e.g., the northernmost portion of the national park, and Deadman and Sand Creek corridors).</p> <p><u>Possible indicators:</u> incidence of such plants in new areas.</p> <p><u>Possible management actions to address this concern:</u> require use of weed-free hay, increased education, and other visitor-oriented measures to limit spread of weed seeds.</p> <p>There is concern about soil compaction, social trails, erosion, vegetation trampling and loss, and tree damage in areas of heavy visitor/equestrian use (e.g., around Upper Sand Creek Lake) and in areas of new visitor use (e.g., northernmost portion of the national park). This is also a visitor experience concern.</p>	<p>Same as for the backcountry adventure zone.</p>	<p>This zone is located in disturbed areas (established roads and trails, Medano Ranch headquarters, etc.), so the main resource concern is use-related impacts to historic structures at Medano Ranch.</p> <p><u>Possible indicators:</u> damage or wear and tear on adaptively used historic structures.</p> <p><u>Possible management actions to address this concern:</u> limit visitor use (group size, tour frequency, area, etc.), reinforce or protect structures to protect historic integrity.</p>

TABLE 2. MANAGEMENT ZONES SUMMARY

Frontcountry	Dunes Play	Backcountry Access	Guided Learning	Backcountry Adventure	Natural / Wild	Administrative
				<p><u>Possible indicators:</u> linear feet of social trails, number and size of problem sites (e.g., denuded areas, wide muddy spots on trails), number of damaged trees.</p> <p><u>Possible management actions to address this concern:</u> rehabilitate disturbed areas, create designated campsites, install planking across wet areas, require "leave-no-trace" practices, allow stoves only (no wood fires), require backcountry permits, limit number (or duration of stay) of horses.</p> <p>There is a human waste problem—a health, water quality, and visitor experience concern—from visitors who do not adhere to the park's sanitary regulations, particularly in the Upper and Lower Sand Creek lakes area.</p> <p><u>Possible indicators:</u> fecal coliform counts in nearby lakes and streams, toilet tissue "counts" or surveys.</p> <p><u>Possible management actions to address this concern:</u> provide primitive toilets in problem areas, require visitors to pack waste out, expand education efforts.</p> <p>Wildlife concerns include bears becoming habituated to humans, declining bighorn sheep numbers (unknown cause), and fishing impacts on reestablished native fish populations.</p> <p><u>Possible indicators:</u> fish surveys, number of human/bear encounters, bighorn sheep population size/health.</p> <p><u>Possible management actions to address these concerns:</u> require use of bear canisters/lockers for food (underway); fishing restrictions designed, in consultation with CDOW, to protect native fishes, bighorn sheep research conducted jointly by the National Park Service and CDOW.</p>		

TABLE 2. MANAGEMENT ZONES SUMMARY

Frontcountry	Dunes Play	Backcountry Access	Guided Learning	Backcountry Adventure	Natural / Wild	Administrative
Carrying Capacity (principal visitor experience concerns and indicators)						
<p>When the dunes parking lot fills, visitors park along the shoulders of the dunes lot access road and portions of the main park road. Visitors then walk along the road to reach dunes access points. This is a visitor experience and safety concern.</p> <p><u>Possible indicator:</u> proportion of visitors who encountered people walking along the road and perceived it to be a problem (exit survey), number of vehicles parking along roadside may be an easy to monitor surrogate indicator.</p> <p><u>Possible management actions to address this concern:</u> same as for resource conditions concerns (see above).</p>	<p>Some visitors indicate that they are bothered by crowding.</p> <p><u>Possible indicator:</u> proportion of visitors who say they feel crowded in the dunes play area (exit survey).</p> <p><u>Possible management actions to address this concern:</u> provide information about where to go in this zone to find solitude, continue to publicize park busy times so visitors can avoid them, install a Web camera in the dunes parking lot so potential visitors can tell when the area tends to be busy.</p> <p>Park staff occasionally receive complaints about dogs who are aggressive and/or off-leash.</p> <p><u>Possible indicator:</u> number of complaints received per week, proportion of visitors who encountered problem dogs (exit survey).</p> <p><u>Possible management actions to address this concern:</u> prohibit dogs in this area.</p>	<p>Crowding and congestion in certain areas.</p> <p><u>Possible indicators:</u> proportion of road users who say they felt crowded (exit survey); number of times parking areas fill (parking lot use is closely correlated with road use, and parking lots are simpler to monitor).</p> <p><u>Possible management actions to address this concern:</u> continue to publicize busy times so visitors can avoid them, and work cooperatively with the USFS regarding capacity and management in large areas with a common boundary.</p> <p>Crowding at backcountry campsites in the national preserve (some individual sites get crowded when people try to park as many as seven or eight cars at one site).</p> <p><u>Possible indicators:</u> proportion of campers who say they felt crowded (exit survey), number of vehicles counted during patrols (easy to count surrogate).</p> <p><u>Possible management actions to address this concern (underway):</u> use barriers or better delineate sites to prevent extra vehicles, create regulatory limit on number of vehicles that can park at each site.</p>	<p>The National Park Service desires that visitors enjoy and are satisfied with guided tours.</p> <p><u>Possible indicator:</u> proportion of visitors satisfied with their guided tour (end-of-tour survey).</p> <p><u>Possible management actions to address this concern:</u> alter tour details, within limits, to correct deficiencies (ongoing problems would not be expected).</p>	<p>In this zone, solitude is a desired condition in off-trail areas, but the zone allows for frequent encounters along trails during busy visitor periods. The Upper and Lower Sand Creek lakes areas are of particular concern; use is increasing so that it's difficult at times to find solitude and good camping locations.</p> <p><u>Possible indicator:</u> proportion of visitors who saw or heard too many other visitors in off-trail areas (exit survey).</p> <p><u>Possible management actions to address this concern:</u> tighter restrictions on camping around lakes, create designated campsites, require visitor permits, work cooperatively with the USFS regarding capacity and management in large areas with a common boundary.</p>	<p>In this zone, a desired condition is that solitude can be found and there are few encounters with other people. The Upper and Lower Sand Creek lakes areas are of particular concern; use is increasing so that it's difficult at times to find solitude and good camping locations.</p> <p><u>Possible indicator:</u> proportion of visitors who saw or heard too many other visitors in off-trail areas (exit survey).</p> <p><u>Possible management actions to address this concern:</u> tighter restrictions on camping around lakes, require visitor permits, work cooperatively with the USFS regarding capacity, and management in large areas with a common boundary.</p>	<p>The National Park Service desires that visitors enjoy and are satisfied with interpretive and educational activities (at Medano Ranch).</p> <p><u>Possible indicator:</u> proportion of visitors satisfied with such activities (exit survey).</p> <p><u>Possible management actions to address this concern:</u> alter interpretive and educational activities and services to correct deficiencies.</p>

TABLE 3. COST SUMMARY: GREAT SAND DUNES GMP	
Annual Costs Fiscal Year 2004 Operations Costs: \$1,450,000	NPS Preferred Alternative \$1,870,000 – \$2,150,000 This estimate assumes 8 additional FTEs, a 20% increase in utility and maintenance costs, and a 15% increase in transportation costs. Potential partnership support at Medano Ranch may partially offset operations costs.
Initial Capital Costs (includes construction, exhibits, research support, etc.)	\$16,450,000 – \$21,200,000 Major cost projects include those listed under no action, plus new trails and trailheads, an access road, relocating the nonhistoric entrance station, bicycle lanes, removal of a bison fence, and structure and utility improvements at Medano Ranch. Costs for the latter may be offset by grants and partnerships.
Total Life-Cycle Costs over the Life of the Plan	\$44,850,000 – \$49,600,000
<p>Important notes and assumptions:</p> <ol style="list-style-type: none"> 1. These cost estimates were developed in 2005; they are very general and are intended to be used for comparing alternatives only. They are not intended for budgeting purposes. 2. Total life-cycle costs also include other costs that recur at intervals longer than annually (e.g., road paving). 3. Initial capital costs were prepared using the NPS Denver Service Center "Class C" estimating guide, and include add-ons of 40% for overhead and profit, 15% for design contingency, 10% for general conditions, a regional location factor of 1.0, and a park location factor of 1.0. 4. Cost ranges reflect uncertainty about future costs, especially costs for capital improvement projects. 5. Life-cycle costs were determined using the NPS Construction Management LCC template, which assumes a discount rate of 7% and a project life cycle of 25 years. 	
<p>The National Park Service develops five-year deferred maintenance and capital improvement plans. Project proposals are developed at the park level, but projects are evaluated and ranked in priority order nationally, primarily based on critical health and safety and resource protection considerations.</p>	
<p>Capital developments, maintenance, and staffing proposals in this plan will be evaluated in light of competing priorities for this and other units of the national park system. Because the budget process currently emphasizes alleviating the existing maintenance backlog, funding for new development is not likely within the next five years. However, development and operational proposals in this plan may be implemented sooner if funding is available from partnerships that do not rely on the National Park Service budget.</p>	

MITIGATION MEASURES

In the legislation that created the National Park Service, Congress charged the agency with managing lands under its stewardship “in such manner and by such means as will leave them unimpaired for the enjoyment of future generations” (National Park Service Organic Act (16 *United States Code* [USC] 1 2 3, and 4). As a result, the National Park Service routinely considers and implements mitigation measures whenever activities that could adversely affect the resources or systems are anticipated. Mitigation means to

take action to avoid, reduce, or compensate for the effects of environmental damage.

The National Park Service would avoid, minimize, and mitigate adverse impacts whenever practicable.

General

New facilities such as trailheads and trails would be sited in disturbed areas whenever feasible to avoid causing new impacts to resources.

Construction zones would be identified with temporary fencing prior to any construction activity to confine activity to the minimum area required. All protection measures would be clearly stated in construction specifications and workers would be instructed to avoid areas beyond the fencing.

Outdoor lighting for new or rehabilitated facilities would be the minimum amount required to provide for personal safety. Lights would also be shielded and/or directed downward to minimize impacts to the night sky.

Natural Resources

New trails would be sited with potential wildlife impacts in mind. Specific measures used to avoid impacts on wildlife would include the following (Trails and Wildlife Task Force et al. 1998):

- Considering not only the narrow width of the trail, but also the wider area it may influence; different species respond differently to the presence of humans (and dogs) along trails.
- Seeking out degraded areas that have the potential to be used or restored when aligning a trail, rather than creating another disturbed area.
- Aligning trails along or near human-created ecological edges rather than bisecting undisturbed areas.
- Keeping trails (and their zones of influence) away from known

sensitive species, populations, or communities.

- Locating trails where they can be screened and separated from sensitive wildlife by vegetation or topography.
- Providing trail experiences that are diverse and interesting enough to dissuade recreationists from creating their own trails

Measures to control dust and erosion during construction would be implemented and could include the following: water sprinkling dry soils; using silt fences and sedimentation basins; stabilizing soils during and after construction with specially designed fabrics, certified straw, or other materials; covering haul trucks; employing speed limits on unpaved roads; and revegetating disturbed areas where practicable.

Wetlands and riparian habitats would be delineated by qualified specialists, as appropriate, clearly marked, and avoided during construction. To protect water quality and wetlands/riparian areas, best management practices would be employed and could include all or some of the following actions, depending on site-specific requirements:

- Work would be scheduled to avoid the wet season.
- Barriers would be provided between stream channels and trails or paved areas to reduce erosion potential.
- Disturbed areas would be kept as small as possible to minimize exposed soil and erosion potential.
- Silt fences, temporary earthen berms and water bars, sediment traps, stone check dams, or other equivalent measures would be installed prior to construction.

- Regular site inspections would be conducted during construction to ensure that erosion control measures were properly installed and functioning effectively.
- Chemicals, fuels, and other toxic materials would be stored, used, and disposed in a proper manner.

Undesirable species would be controlled in high-priority areas. Other undesirable species would be monitored and control strategies initiated if these species occur. To prevent the introduction of and to minimize the spread of nonnative vegetation and noxious weeds, the following measures would be implemented:

- Minimize soil disturbance.
- Pressure wash all construction equipment to ensure that it is clean and weed-free before entering the park.
- Limit vehicle parking to road shoulders, parking areas, or previously disturbed land.
- Obtain fill, rock, or additional topsoil from the project area. If this is not possible, obtaining weed-free sources from NPS-approved sources outside the park would be required.
- Monitor disturbed areas for two to three years following construction to identify noxious weeds or nonnative vegetation. Treatment of nonnative vegetation would be completed in accordance with NPS Director's Order – 77: *Natural Resource Management Reference Manual* (NPS 2004).

Mitigation measures would occur prior to construction to minimize immediate and long-term impacts to rare, threatened, and endangered species. Surveys would be conducted for such species as warranted.

Facilities would be sited and designed so as to avoid adverse effects on rare, threatened, and endangered species whenever possible. If avoidance is not feasible, adverse effects would be minimized and compensated for, as appropriate, and in consultation with appropriate resource agencies.

Before surface irrigation of meadows was discontinued on Medano Ranch, a study would be conducted to better understand how this action might affect wetlands, groundwater supplies, federal water rights, the Closed Basin Project, etc.

Standard noise abatement measures would be implemented, as appropriate, during park operations and construction activities. Examples include: scheduling activities so that impacts are minimized, use of the best available noise control technique, use of hydraulically or electrically powered tools, and situating noise-producing machinery as far as possible from sensitive uses or resources.

Threatened and Endangered Species

Mitigation measures are undertaken to reduce potential impacts to federally listed or candidate species. Mitigation measures include the following:

- Canada lynx habitat in the preserve will follow the guidelines provided in the Lynx Conservation Assessment and Strategy.
- Activities in the vicinity of bald eagle habitat will follow the CDOW raptor guidelines for seasonal avoidances and buffer distances.
- Initiation of a NEPA process and additional consultation if oil and gas exploration on lands within the park subject to private mineral rights occurs.

- Prior to the implementation of any activity in or near riparian habitat, surveys will be conducted for the southwestern willow flycatcher, yellow-billed cuckoo, bald eagle nests, and bald eagle winter roosts. Additional section 7 consultation with the USFWS may be appropriate if the proposed activity may affect these species.
- Prior to implementation of any activity in or near dense coniferous forests on steep slopes, surveys will be conducted for the Mexican spotted owl. Additional section 7 consultation with the USFWS may be appropriate if the proposed activity may affect these species.

Additional consultation with the USFWS would be required if any of the following occurred:

- Documentation of use of relevant habitats within the park and preserve by the southwestern willow flycatcher, yellow-billed cuckoo, or Mexican spotted owl.
- Initiation of activities anticipated to impact the single bald eagle winter roost site in the western portion of the park.
- Identification of additional bald eagle winter roost sites or of bald eagle nest sites within the park.
- Establishment of den sites by Canada lynx within the park.

Renewed discussions and consultation with the USFWS, should any of the above events occur, would focus on development of specific conservation measures to reduce potential impacts on these species. Such conservation measures would be based on the recommendations provided by the current USFWS recovery plan or further

coordination with the USFWS for the relevant species.

Cultural Resources

The identification and evaluation of cultural resources in the park are ongoing. As much of the park has not been surveyed for cultural resources, the planning process for facilities, visitor use areas, trails, and other land and resource management actions and practices would include consultation with NPS cultural resource professionals and likely would include surveys for cultural resources. Land and resource projects and practices would be planned to avoid effects to cultural resources to the extent possible, using this cultural resources information. In any case, the National Park Service would comply with section 106 of the NHPA in planning for these actions, including consultation with the Colorado SHPO and other consulting parties, as outlined in 36 CFR 800.

Prior to undertaking ground-disturbing activities, the National Park Service would coordinate with its cultural resource professionals to determine if archeological survey is warranted and/or if such activities should be monitored by a professional archeologist for unanticipated discovery of archeological resources. Workers would be informed of penalties for illegally collecting artifacts or intentionally damaging archeological or historic property and of notification procedures in the event that previously unknown resources were uncovered during construction.

If any archeological resources are discovered, work in the immediate vicinity of the discovery would be halted, the discovery would be secured, NPS cultural resource professionals would document and evaluate the resource, and the National Park Service

would take appropriate actions to avoid or mitigate effects to the resource, in consultation with the Colorado SHPO and other consulting parties.

In the event that human remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act of 1990 (25 USC 3001), would be followed.

Great Sand Dunes National Park and Preserve would consult with associated American Indian tribes to develop and accomplish the programs in a way that respects the beliefs, traditions, and other cultural values of the American Indian tribes who have ancestral ties to park lands. The park will maintain government-to-government relations with associated tribes

to ensure a collaborative working relationship, and will consult regularly with them before taking actions that would affect natural and cultural resources that are of interest and concern to them. The park would accommodate access to, and ceremonial use of, American Indian sacred sites by American Indian religious practitioners in a manner that is consistent with park purposes and applicable law, regulation, and policy.

All proposed documentation, recordation, and mitigation measures for archeological, historical, and ethnographic resources that are included in or eligible for listing in the NRHP would be stipulated in a memorandum of agreement among the National Park Service, Colorado SHPO (and/or, as necessary, the Advisory Council on Historic Preservation [ACHP]) in accordance with 36 CFR 800.

TABLE 4. FUTURE ACTIONS REQUIRING COMPLIANCE WITH SECTION 106 OF THE NHPA

Action	Section 106 Compliance
<ul style="list-style-type: none"> ▪ New bicycle lanes along the park entrance road 	<p>The National Park Service will comply with section 106 in accordance with 36 CFR 800 for the proposed new bicycle lanes.</p>
<ul style="list-style-type: none"> ▪ Entrance station replacement in a new location near the park entrance 	<p>The National Park Service will comply with section 106 in accordance with 36 CFR 800 for the proposed entrance station replacement.</p>
<ul style="list-style-type: none"> ▪ Adaptive use of Medano Ranch headquarters for an NPS administrative center and for public uses on a limited, scheduled basis 	<p>The National Park Service will comply with section 106 in accordance with 36 CFR 800 for the proposed adaptive reuse and other management of Medano Ranch. This would include consultation on rehabilitation, maintenance (including lack of maintenance), new construction, and other management of Medano Ranch including structures and landscape elements.</p>
<ul style="list-style-type: none"> ▪ Management and maintenance (including lack of maintenance) of other buildings and structures including but not limited to the superintendent's house, cabins in wilderness areas, stamp mill, etc. 	<p>The National Park Service will comply with section 106 in accordance with 36 CFR 800 for the management including maintenance (including lack of maintenance) or removal of buildings and structures. This would include evaluation of NRHP eligibility.</p>

TABLE 4. FUTURE ACTIONS REQUIRING COMPLIANCE WITH SECTION 106 OF THE NHPA

Action	Section 106 Compliance
<ul style="list-style-type: none"> ▪ New access road and trailhead in the backcountry access zone in the northern portion of the park 	<p>The National Park Service will comply with section 106 in accordance with 36 CFR 800 for proposed new access road and trailhead in the northern backcountry access zone.</p>
<ul style="list-style-type: none"> ▪ New trails in undetermined locations within the backcountry adventure and guided learning zones 	<p>The National Park Service will comply with section 106 in accordance with 36 CFR 800 for all proposed new trails.</p>
<ul style="list-style-type: none"> ▪ New hiking/biking path connecting Pinyon Flats campground to dunes parking area and visitor center 	<p>The National Park Service will comply with section 106 in accordance with 36 CFR 800 for the proposed new hiking/biking path connecting Pinyon Flats campground to the dunes parking area and visitor center.</p>
<ul style="list-style-type: none"> ▪ Other projects and management plans (i.e., elk management plan, wilderness management plan, noxious weed management plan, commercial services management plan) 	<p>The National Park Service will comply with section 106 in accordance with 36 CFR 800 regarding other management plans and projects. The 1995 nationwide programmatic agreement among the National Park Service, National Conference of State Historic Preservation Officers, and the ACHP will be followed.</p>

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Appendixes

APPENDIX A: LEGISLATION

39. Great Sand Dunes National Monument

Establishment: Proclamation (No. 1994) of March 17, 1932..... Page
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BY THE PRESIDENT OF THE UNITED STATES OF AMERICA

A PROCLAMATION

[No. 1994—March 17, 1932—47 Stat. 2506]

WHEREAS it appears that the public interest would be promoted by including the lands hereinafter described within a national monument for the preservation of the great sand dunes and additional features of scenic, scientific, and educational interest;

NOW, THEREFORE, I, Herbert Hoover, President of the United States of America, by virtue of the power in me vested by sec. 2 of the act of Congress entitled "AN ACT For the preservation of American antiquities," approved June 8, 1906 (34 Stat. 225), do proclaim and establish the Great Sand Dunes National Monument and that, subject to all valid existing rights, the following-described lands in Colorado be, and the same are hereby, included within the said national monument:

SIXTH PRINCIPAL MERIDIAN

- T. 25 S., R. 73 W., secs. 31 and 32;
- T. 26 S., R. 73 W., secs. 3 to 11, inclusive;
secs. 14 to 23, inclusive;
secs. 26 to 35, inclusive;
- T. 27 S., R. 73 W., secs. 3 to 10, inclusive;
secs. 15 to 22, inclusive;

NEW MEXICO PRINCIPAL MERIDIAN

- T. 40 N., R. 12 E., secs. 1 and 2;
sec. 11, NE. $\frac{1}{4}$;
secs. 12, 13, 24, and 25;
 - T. 41 N., R. 12 E., sec. 10, lots 1 to 4, inclusive;
sec. 11, lots 1 to 4, inclusive;
sec. 12, lots 1 to 4, inclusive;
secs. 13 to 15, inclusive;
secs. 22 to 27, inclusive;
secs. 34 to 36, inclusive;
- and unsurveyed land which upon survey will probably be described as:
- Fractional T. 40 N., R. 13 E.;
 - Fractional T. 41 N., R. 13 E.;
 - Fractional T. 42 N., R. 13 E.; secs. 30 and 31.

Warning is hereby expressly given to all unauthorized persons not to appropriate, injure, destroy, or remove any feature of this monument and not to locate or settle upon any of the lands thereof.

The Director of the National Park Service, under the direction of the Secretary of the Interior, shall have the supervision, management, and control of this monument as provided in the act of Congress entitled "AN ACT To establish a National Park Service, and for other purposes," approved August 25, 1916 (39 Stat. 535-536), and acts additional thereto or amendatory thereof.

208 VIII. NATIONAL MONUMENTS—GREAT SAND DUNES

IN WITNESS WHEREOF, I have hereunto set my hand and caused the seal of the United States to be affixed.

DONE at the City of Washington this 17th day of March, in the year of our Lord nineteen hundred and thirty-two, and of the Independence of the United States of America the one hundred and fifty-sixth.

By the President:
HENRY L. STIMSON,
Secretary of State.

HERBERT HOOVER.

PROCLAMATION 1150

REVISING THE BOUNDARIES OF GREAT SAND DUNES NATIONAL MONUMENT, COLORADO

WHEREAS the Great Sand Dunes National Monument in the State of Colorado was established by Proclamation No. 1994 of March 17, 1932 (47 Stat. 2565), as modified by Proclamation No. 2681 of March 12, 1946, for the preservation of the great sand dunes and additional features of scenic, scientific, and educational interests; and

WHEREAS it appears that retention of certain lands within the monument is

no longer necessary for such purpose; and

WHEREAS it appears that it would be in the public interest to exclude such lands from the monument; and

WHEREAS certain lands now a part of the Rio Grande National Forest are better suited for national-forest purposes than for national-monument purposes and should be excluded from such forest, and these lands and certain other land adjoining the monument are required for the proper care, management, and protection of the objects of scenic, scientific, and educational interest situated on lands within the monument; and

WHEREAS it appears that it would be in the public interest to reserve such lands as an addition to the monument:

NOW, THEREFORE, I, DWIGHT D. EISENHOWER, President of the United States of America, under and by virtue of the authority vested in me by section 2 of the act of June 8, 1906, 34 Stat. 225 (16 U. S. C. 421), and the act of June 4, 1897, 30 Stat. 24, 38 (16 U. S. C. 473), do proclaim as follows:

1. The following-described lands in the State of Colorado are hereby excluded from the Great Sand Dunes National Monument:

New Mexico Principal Meridian

T. 41 N., R. 12 E.
Sec. 22, SW $\frac{1}{4}$;
Sec. 24, all;
Sec. 27, all;
Sec. 34, all;
Sec. 35, all.

T. 40 N., R. 12 E.

Sec. 2, all;
Sec. 11, NE $\frac{1}{4}$;
Sec. 12, SW $\frac{1}{4}$;
Sec. 13, W $\frac{1}{2}$;
Sec. 24, all;
Sec. 25, all.

Fractional T. 40 N., R. 12 E.

Sec. 19, all;
Sec. 20, all;
Sec. 21, all.

Sixth Principal Meridian

T. 27 S., R. 73 W.
Sec. 15, SW $\frac{1}{4}$, SW $\frac{1}{4}$, SE $\frac{1}{4}$, SE $\frac{1}{4}$;
Sec. 19, all;
Sec. 20, all;
Sec. 21, all;
Sec. 22, all.

The public lands hereby excluded from the monument shall not be subject to application, location, settlement, entry, or other forms of appropriation under the public-land laws until further order of an

authorized officer of the Department of the Interior.

2. Subject to valid existing rights, the following-described lands in the State of Colorado are hereby reserved as and made a part of the Great Sand Dunes National Monument, and so much thereof as is now within the Rio Grande National Forest is hereby excluded therefrom and the boundaries of the said National Forest are modified accordingly:

Sixth Principal Meridian

T. 26 S., R. 73 W.
Sec. 2, all.
T. 27 S., R. 73 W.
Sec. 2, W $\frac{1}{2}$.

Warning is hereby expressly given to all unauthorized persons not to appropriate, injure, destroy, or remove any feature of this monument and not to locate or settle upon any of the lands thereof.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the Seal of the United States to be affixed.

DONE at the City of Washington this seventh day of June in the year of our Lord nineteen hundred and [SEAL] fifty-six, and of the Independence of the United States of America the one hundred and eightieth.

DWIGHT D. EISENHOWER

By the President:

JOHN FOSTER DULLES,
Secretary of State.

REDEFINING THE AREA OF GREAT SAND
DUNES NATIONAL MONUMENT, COLO-
RADO:

WHEREAS the lands included within the Great Sand Dunes National Monument, Colorado, by Proclamation No. 1994 of March 17, 1932 (47 Stat. 2566), were described therein in conformity with plats then on file in the General Land Office and other maps of the locality:

WHEREAS resurveys by the General Land Office disclose that sections 10, 11, 12, and parts of sections 13, 14, and 15, Township 41 North, Range 12 East, and unsurveyed sections 30 and 31, Township 42 North, Range 13 East, New Mexico Principal Meridian, as described in the said Proclamation, do not exist; and

WHEREAS it appears necessary and desirable in the public interest to re-define the area included within the Monument in accordance with the latest plats of survey:

NOW, THEREFORE, I, HARRY S. TRUMAN, President of the United States of America, under and by virtue of the authority vested in me by section 2 of the act of June 8, 1906, c. 3063, 34 Stat. 225 (U.S.C., title 16, sec. 431), do revise the land description contained in said Proclamation No. 1994 of March 17, 1932, to read as follows:

EIGHTH PRINCIPAL MERIDIAN

T. 25 S., R. 73 W.,
secs. 31 and 32.
T. 26 S., R. 73 W.,
secs. 3 to 11, secs. 11 to 23, and secs. 23 to
33, inclusive.
T. 27 S., R. 73 W.,
secs. 3 to 10 and secs. 15 to 22, inclusive.

NEW MEXICO PRINCIPAL MERIDIAN

T. 40 N., R. 12 E.,
secs. 1 and 2;
sec. 11, NE¼;
secs. 12, 13, 24, and 25.
T. 41 N., R. 12 E.,
secs. 12, 14, 15, those parts south of Luis
Marta Baca Grant No. 4;
secs. 22 to 27, inclusive;
secs. 34, 35, and 36.
Tps. 40 and 41 N., R. 12 E., unsurveyed.
Containing approximately 44,810 acres.

All other provisions contained in the said Proclamation of March 17, 1932, shall remain in full force and effect.

IN WITNESS WHEREOF I have here-
unto set my hand and caused the seal
of the United States to be affixed.

DONE at the city of Washington this
12th day of March, in the year of our
Lord nineteen hundred and
(SEAL) forty-six, and of the Independ-
ence of the United States of
America the one hundred and seventieth.

HARRY S. TRUMAN

By the President:

JAMES F. BYRNES,
Secretary of State.

90 STAT. 2692

PUBLIC LAW 94-567—OCT. 20, 1976

Public Law 94-567
94th Congress

An Act

Oct. 20, 1976
[H.R. 13160]

To designate certain lands within units of the National Park System as wilderness; to revise the boundaries of certain of those units; and for other purposes.

<p>Wilderness areas. Designation. 16 USC 1132 note.</p>	<p><i>Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,</i> That in accordance with section 3(c) of the Wilderness Act (78 Stat. 890; 16 U.S.C. 1132(c)), the following lands are hereby designated as wilderness, and shall be administered by the Secretary of the Interior in accordance with the applicable provisions of the Wilderness Act:</p>
<p>Bandelier National Monument, N. Mex.</p>	<p>(a) Bandelier National Monument, New Mexico, wilderness comprising twenty-three thousand two hundred and sixty-seven acres, depicted on a map entitled "Wilderness Plan, Bandelier National Monument, New Mexico", numbered 315-20,014-B and dated May 1976, to be known as the Bandelier Wilderness.</p>
<p>Gunnison National Monument, Colo.</p>	<p>(b) Black Canyon of the Gunnison National Monument, Colorado, wilderness comprising eleven thousand one hundred and eighty acres, depicted on a map entitled "Wilderness Plan, Black Canyon of the Gunnison National Monument, Colorado", numbered 144-20,017 and dated May 1973, to be known as the Black Canyon of the Gunnison Wilderness.</p>
<p>Chiricahua National Monument, Ariz.</p>	<p>(c) Chiricahua National Monument, Arizona, wilderness comprising nine thousand four hundred and forty acres, and potential wilderness additions comprising two acres, depicted on a map entitled "Wilderness Plan, Chiricahua National Monument, Arizona", numbered 145-20,007-A and dated September 1973, to be known as the Chiricahua National Monument Wilderness.</p>
<p>Great Sand Dunes National Monument, Colo.</p>	<p>(d) Great Sand Dunes National Monument, Colorado, wilderness comprising thirty-three thousand four hundred and fifty acres, and potential wilderness additions comprising six hundred and seventy acres, depicted on a map entitled "Wilderness Plan, Great Sand Dunes National Monument, Colorado", numbered 140-20,006-C and dated February 1976, to be known as the Great Sand Dunes Wilderness.</p>
<p>Haleakala National Park, Hawaii.</p>	<p>(e) Haleakala National Park, Hawaii, wilderness comprising nineteen thousand two hundred and seventy acres, and potential wilderness additions comprising five thousand five hundred acres, depicted on a map entitled "Wilderness Plan, Haleakala National Park, Hawaii", numbered 162-20,006-A and dated July 1972, to be known as the Haleakala Wilderness.</p>
<p>Isle Royale National Park, Mich.</p>	<p>(f) Isle Royale National Park, Michigan, wilderness comprising one hundred and thirty-one thousand eight hundred and eighty acres, and potential wilderness additions comprising two hundred and thirty-one acres, depicted on a map entitled "Wilderness Plan, Isle Royale National Park, Michigan", numbered 139-20,004 and dated December 1974, to be known as the Isle Royale Wilderness.</p>
<p>Joshua Tree National Monument, Calif.</p>	<p>(g) Joshua Tree National Monument, California, wilderness comprising four hundred and twenty-nine thousand six hundred and ninety acres, and potential wilderness additions comprising thirty-seven thousand five hundred and fifty acres, depicted on a map entitled</p>

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retary of Agriculture shall be deemed to be a reference to the Secretary of the Interior.

* * * * *
October 20, 1976.

An Act to authorize additional appropriations for the acquisition of lands and interests in lands within the Sawtooth National Recreation Area in Idaho. (92 Stat. 3467) (P.L. 95-625)

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

TITLE III—BOUNDARY CHANGES

SEC. 301. The boundaries of the following units of the National Park System are revised as follows, and there are authorized to be appropriated such sums as may be necessary, but not exceed the amounts specified in the following paragraphs for acquisitions of lands and interests in lands within areas added by reason of such revisions:

* * * * *

(8) Great Sand Dunes National Monument, Colorado: To add approximately one thousand one hundred and nine acres as generally depicted on the map entitled "Boundary Map, Great Sand Dunes National Monument, Colorado", numbered 140-80,001-A, and dated November 1974: \$166,000.

SEC. 302. Within twelve months after the date of the enactment of this Act, the Secretary shall publish in the Federal Register a detailed map or other detailed description of the lands added or excluded from any area pursuant to section 301.

SEC. 303. (a) Within the boundaries of the areas as revised in accordance with section 301, the Secretary is authorized to acquire lands and interests therein by donation, purchase with donated or appropriated funds, exchange, or transfer from any other Federal agency. Lands and interests therein so acquired shall become part of the area to which they are added, and shall be subjected to all laws, rules, and regulations applicable thereto. When acquiring any land pursuant to this title, the Secretary may acquire any such land subject to the retention of a right of use and occupancy for a term not to exceed twenty-five years or for the life of the owner or owners. Lands owned by a State or political subdivision thereof may be acquired only by donation.

(b) (1) Lands and interests deleted from any area pursuant to section 301 may be exchanged for non-Federal lands within the revised boundaries of such area, or

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transferred to the jurisdiction of any other Federal agency or to a State or political subdivision thereof, without monetary consideration, or be administered as public lands by the Secretary, as the Secretary may deem appropriate.

(2) In exercising the authority contained in this section with respect to lands and interests therein deleted from any such area which were acquired from a State, the Secretary may, on behalf of the United States, transfer to such State exclusive or concurrent legislative jurisdiction over such lands, subject to such terms and conditions as he may deem appropriate, to be effective upon acceptance thereof by the State.

(c) It is the established policy of Congress that wilderness, wildlife conservation, and park and recreation values of real property owned by the United States be conserved, enhanced, and developed. It is further declared to be the policy of Congress that unutilized, underutilized, or excess Federal real property be timely studied as to suitability for wilderness, wildlife conservation, or park and recreation purposes. To implement this policy, the Secretary, the Administrator of General Services, and the Director of the Office of Management and Budget shall establish a system with appropriate procedures to permit the Secretary full and early opportunity to make such studies and propose appropriate recommendations to disposing agencies for consideration in connection with determinations of further utilization or disposal of such property under existing law. Each affected executive agency is authorized and directed to provide to the Secretary such advice and information relating to such studies as the Secretary may request.

SEC. 304. The authorities in this title are supplementary to any other authorities available to the Secretary with respect to the acquisition, development, and administration of the areas referred to in section 301.

* * * * *

Approved November 10, 1973.

Sec. 202. (a) The Secretary shall administer the property, Site, including personal property comprising the archival collection, acquired for the purposes of this Act in accordance with the Act of August 25, 1916 (39 Stat. 535), as amended and supplemented, and the Act of August 21, 1935 (49 Stat. 666), as amended.

Administration.

(b) The Secretary is authorized to enter into a cooperative agreement with an appropriate entity for the management of the archival collection acquired for the purposes of this Act.

16 USC 461.

(c) Within three years of the date of enactment of this Act, the Secretary shall submit to the Committee on Interior and Insular Affairs of the United States House of Representatives and the Committee on Energy and Natural Resources of the United States Senate, a general management plan for the Site pursuant to the provisions of section 12(b) of the Act of August 18, 1970 (84 Stat. 325), as amended. Within six months of the date of enactment of this Act, the Secretary shall submit a written report to the same committees relating the state of progress of his acquisition and provisions for management and permanent protection of the archival collection. He shall submit a similar report within one year of the date of enactment of this Act to the same committees indicating the final management and protection arrangements he has concluded for such collection.

General management plan, submittal to congressional committees.
16 USC 1a-1.

Report to congressional committees.

Sec. 203. (a) Effective October 1, 1979, there are authorized to be appropriated from the Land and Water Conservation Fund such sums as may be necessary for the acquisition of lands and interests therein.

(b) There is hereby authorized to be appropriated, effective October 1, 1979, an amount not to exceed \$314,000 for the acquisition of the archival collection; an amount not to exceed \$200,000 for development; and an amount not to exceed \$1,230,000 for the preservation of the archival collection.

Appropriation authorization.

TITLE III

Sec. 301. Notwithstanding any other provision of law, the Secretary shall permit the late Chief Turkey Tayac to be buried in the ossuary at Piscataway Park in Oxon Hill, Maryland. The Secretary shall select the site in such ossuary at which Chief Tayac may be buried. No Federal funds may be used for the burial of Chief Tayac except such funds as may be necessary for the maintenance of the burial site by the Department of the Interior.

Chief Turkey Tayac, burial in Oxon Hill, Md.

TITLE IV

Sec. 401. The National Parks and Recreation Act of 1978, approved November 10, 1978 (92 Stat. 3467), is amended as follows:

National Park System.

(a) Section 101(8), re: DeSoto National Memorial, is amended by changing the phrase "changing '\$3,108,000' to '\$5,108,000'." to read "by changing '\$175,000' to '\$292,000'."

16 USC 1 note.
92 Stat. 3471.
16 USC 450odd note.

(b) Section 101(20), re: Pecos National Monument, is amended by changing "\$2,375,000" to "\$2,575,000".

92 Stat. 3472.

(c) Section 301, re: revision of boundaries, is amended by changing the words "but not exceed" in the first sentence to "but not to exceed".

92 Stat. 3473.

(d) Section 301(8), re: Great Sand Dunes National Monument, is amended by (1) changing "one thousand one hundred and nine acres" to "one thousand nine hundred acres" and by changing "\$166,000" to "\$265,000"; and (2) by adding the following at the end thereof: "The Secretary shall designate the lands described by this paragraph for management in accordance with the adjacent lands within the monument by publication of a notice in the Federal Register."

Publication in Federal Register.

Public Law 106-530
106th Congress

An Act

To provide for the establishment of the Great Sand Dunes National Park and Preserve and the Baca National Wildlife Refuge in the State of Colorado, and for other purposes.

Nov. 22, 2000
[S. 2547]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the “Great Sand Dunes National Park and Preserve Act of 2000”.

Great Sand
Dunes National
Park and
Preserve Act of
2000.
16 USC 410hhh
note.
16 USC 410hhh.

SEC. 2. FINDINGS.

Congress finds that—

(1) the Great Sand Dunes National Monument in the State of Colorado was established by Presidential proclamation in 1932 to preserve Federal land containing spectacular and unique sand dunes and additional features of scenic, scientific, and educational interest for the benefit and enjoyment of future generations;

(2) the Great Sand Dunes, together with the associated sand sheet and adjacent wetland and upland, contain a variety of rare ecological, geological, paleontological, archaeological, scenic, historical, and wildlife components, which—

(A) include the unique pulse flow characteristics of Sand Creek and Medano Creek that are integral to the existence of the dunes system;

(B) interact to sustain the unique Great Sand Dunes system beyond the boundaries of the existing National Monument;

(C) are enhanced by the serenity and rural western setting of the area; and

(D) comprise a setting of irreplaceable national significance;

(3) the Great Sand Dunes and adjacent land within the Great Sand Dunes National Monument—

(A) provide extensive opportunities for educational activities, ecological research, and recreational activities; and

(B) are publicly used for hiking, camping, and fishing, and for wilderness value (including solitude);

(4) other public and private land adjacent to the Great Sand Dunes National Monument—

(A) offers additional unique geological, hydrological, paleontological, scenic, scientific, educational, wildlife, and recreational resources; and

- (B) contributes to the protection of—
 - (i) the sand sheet associated with the dune mass;
 - (ii) the surface and ground water systems that are necessary to the preservation of the dunes and the adjacent wetland; and
 - (iii) the wildlife, viewshed, and scenic qualities of the Great Sand Dunes National Monument;
- (5) some of the private land described in paragraph (4) contains important portions of the sand dune mass, the associated sand sheet, and unique alpine environments, which would be threatened by future development pressures;
- (6) the designation of a Great Sand Dunes National Park, which would encompass the existing Great Sand Dunes National Monument and additional land, would provide—
 - (A) greater long-term protection of the geological, hydrological, paleontological, scenic, scientific, educational, wildlife, and recreational resources of the area (including the sand sheet associated with the dune mass and the ground water system on which the sand dune and wetland systems depend); and
 - (B) expanded visitor use opportunities;
- (7) land in and adjacent to the Great Sand Dunes National Monument is—
 - (A) recognized for the culturally diverse nature of the historical settlement of the area;
 - (B) recognized for offering natural, ecological, wildlife, cultural, scenic, paleontological, wilderness, and recreational resources; and
 - (C) recognized as being a fragile and irreplaceable ecological system that could be destroyed if not carefully protected; and
- (8) preservation of this diversity of resources would ensure the perpetuation of the entire ecosystem for the enjoyment of future generations.

16 USC 410hhh-1. **SEC. 3. DEFINITIONS.**

In this Act:

- (1) **ADVISORY COUNCIL.**—The term “Advisory Council” means the Great Sand Dunes National Park Advisory Council established under section 8(a).
- (2) **LUIS MARIA BACA GRANT NO. 4.**—The term “Luis Maria Baca Grant No. 4” means those lands as described in the patent dated February 20, 1900, from the United States to the heirs of Luis Maria Baca recorded in book 86, page 20, of the records of the Clerk and Recorder of Saguache County, Colorado.
- (3) **MAP.**—The term “map” means the map entitled “Great Sand Dunes National Park and Preserve”, numbered 140/80,032 and dated September 19, 2000.
- (4) **NATIONAL MONUMENT.**—The term “national monument” means the Great Sand Dunes National Monument, including lands added to the monument pursuant to this Act.
- (5) **NATIONAL PARK.**—The term “national park” means the Great Sand Dunes National Park established in section 4.
- (6) **NATIONAL WILDLIFE REFUGE.**—The term “wildlife refuge” means the Baca National Wildlife Refuge established in section 6.

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(7) PRESERVE.—The term “preserve” means the Great Sand Dunes National Preserve established in section 5.

(8) RESOURCES.—The term “resources” means the resources described in section 2.

(9) SECRETARY.—The term “Secretary” means the Secretary of the Interior.

(10) USES.—The term “uses” means the uses described in section 2.

SEC. 4. GREAT SAND DUNES NATIONAL PARK, COLORADO.

(a) ESTABLISHMENT.—When the Secretary determines that sufficient land having a sufficient diversity of resources has been acquired to warrant designation of the land as a national park, the Secretary shall establish the Great Sand Dunes National Park in the State of Colorado, as generally depicted on the map, as a unit of the National Park System. Such establishment shall be effective upon publication of a notice of the Secretary’s determination in the Federal Register.

(b) AVAILABILITY OF MAP.—The map shall be on file and available for public inspection in the appropriate offices of the National Park Service.

(c) NOTIFICATION.—Until the date on which the national park is established, the Secretary shall annually notify the Committee on Energy and Natural Resources of the Senate and the Committee on Resources of the House of Representatives of—

(1) the estimate of the Secretary of the lands necessary to achieve a sufficient diversity of resources to warrant designation of the national park; and

(2) the progress of the Secretary in acquiring the necessary lands.

(d) ABOLISHMENT OF NATIONAL MONUMENT.—(1) On the date of establishment of the national park pursuant to subsection (a), the Great Sand Dunes National Monument shall be abolished, and any funds made available for the purposes of the national monument shall be available for the purposes of the national park.

(2) Any reference in any law (other than this Act), regulation, document, record, map, or other paper of the United States to “Great Sand Dunes National Monument” shall be considered a reference to “Great Sand Dunes National Park”.

(e) TRANSFER OF JURISDICTION.—Administrative jurisdiction is transferred to the National Park Service over any land under the jurisdiction of the Department of the Interior that—

(1) is depicted on the map as being within the boundaries of the national park or the preserve; and

(2) is not under the administrative jurisdiction of the National Park Service on the date of enactment of this Act.

SEC. 5. GREAT SAND DUNES NATIONAL PRESERVE, COLORADO.

(a) ESTABLISHMENT OF GREAT SAND DUNES NATIONAL PRESERVE.—(1) There is hereby established the Great Sand Dunes National Preserve in the State of Colorado, as generally depicted on the map, as a unit of the National Park System.

(2) Administrative jurisdiction of lands and interests therein administered by the Secretary of Agriculture within the boundaries of the preserve is transferred to the Secretary of the Interior, to be administered as part of the preserve. The Secretary of Agriculture shall modify the boundaries of the Rio Grande National Forest to exclude the transferred lands from the forest boundaries.

16 USC 410hhh-
2.
Effective date.
Notification.
Federal Register,
publication.

16 USC 410hhh-
3.

(3) Any lands within the preserve boundaries which were designated as wilderness prior to the date of enactment of this Act shall remain subject to the Wilderness Act (16 U.S.C. 1131 et seq.) and the Colorado Wilderness Act of 1993 (Public Law 103-767; 16 U.S.C. 539i note).

(b) MAP AND LEGAL DESCRIPTION.—(1) As soon as practicable after the establishment of the national park and the preserve, the Secretary shall file maps and a legal description of the national park and the preserve with the Committee on Energy and Natural Resources of the Senate and the Committee on Resources of the House of Representatives.

(2) The map and legal description shall have the same force and effect as if included in this Act, except that the Secretary may correct clerical and typographical errors in the legal description and maps.

(3) The map and legal description shall be on file and available for public inspection in the appropriate offices of the National Park Service.

(c) BOUNDARY SURVEY.—As soon as practicable after the establishment of the national park and preserve and subject to the availability of funds, the Secretary shall complete an official boundary survey.

16 USC 410hhh-4, 668dd note.

SEC. 6. BACA NATIONAL WILDLIFE REFUGE, COLORADO.

(a) ESTABLISHMENT.—(1) When the Secretary determines that sufficient land has been acquired to constitute an area that can be efficiently managed as a National Wildlife Refuge, the Secretary shall establish the Baca National Wildlife Refuge, as generally depicted on the map.

Effective date. Federal Register, publication.

(2) Such establishment shall be effective upon publication of a notice of the Secretary's determination in the Federal Register.

(b) AVAILABILITY OF MAP.—The map shall be on file and available for public inspection in the appropriate offices of the United States Fish and Wildlife Service.

(c) ADMINISTRATION.—The Secretary shall administer all lands and interests therein acquired within the boundaries of the national wildlife refuge in accordance with the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd et seq.) and the Act of September 28, 1962 (16 U.S.C. 460k et seq.) (commonly known as the Refuge Recreation Act).

(d) PROTECTION OF WATER RESOURCES.—In administering water resources for the national wildlife refuge, the Secretary shall—

(1) protect and maintain irrigation water rights necessary for the protection of monument, park, preserve, and refuge resources and uses; and

(2) minimize, to the extent consistent with the protection of national wildlife refuge resources, adverse impacts on other water users.

16 USC 410hhh-5.

SEC. 7. ADMINISTRATION OF NATIONAL PARK AND PRESERVE.

(a) IN GENERAL.—The Secretary shall administer the national park and the preserve in accordance with—

(1) this Act; and

(2) all laws generally applicable to units of the National Park System, including—

(A) the Act entitled "An Act to establish a National Park Service, and for other purposes", approved August 25, 1916 (16 U.S.C. 1, 2-4); and

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(B) the Act entitled “An Act to provide for the preservation of historic American sites, buildings, objects, and antiquities of national significance, and for other purposes”, approved August 21, 1935 (16 U.S.C. 461 et seq.).

(b) GRAZING.—

(1) ACQUIRED STATE OR PRIVATE LAND.—With respect to former State or private land on which grazing is authorized to occur on the date of enactment of this Act and which is acquired for the national monument, or the national park and preserve, or the wildlife refuge, the Secretary, in consultation with the lessee, may permit the continuation of grazing on the land by the lessee at the time of acquisition, subject to applicable law (including regulations).

(2) FEDERAL LAND.—Where grazing is permitted on land that is Federal land as of the date of enactment of this Act and that is located within the boundaries of the national monument or the national park and preserve, the Secretary is authorized to permit the continuation of such grazing activities unless the Secretary determines that grazing would harm the resources or values of the national park or the preserve.

(3) TERMINATION OF LEASES.—Nothing in this subsection shall prohibit the Secretary from accepting the voluntary termination of leases or permits for grazing within the national monument or the national park or the preserve.

(c) HUNTING, FISHING, AND TRAPPING.—

(1) IN GENERAL.—Except as provided in paragraph (2), the Secretary shall permit hunting, fishing, and trapping on land and water within the preserve in accordance with applicable Federal and State laws.

(2) ADMINISTRATIVE EXCEPTIONS.—The Secretary may designate areas where, and establish limited periods when, no hunting, fishing, or trapping shall be permitted under paragraph (1) for reasons of public safety, administration, or compliance with applicable law.

(3) AGENCY AGREEMENT.—Except in an emergency, regulations closing areas within the preserve to hunting, fishing, or trapping under this subsection shall be made in consultation with the appropriate agency of the State of Colorado having responsibility for fish and wildlife administration.

(4) SAVINGS CLAUSE.—Nothing in this Act affects any jurisdiction or responsibility of the State of Colorado with respect to fish and wildlife on Federal land and water covered by this Act.

(d) CLOSED BASIN DIVISION, SAN LUIS VALLEY PROJECT.—Any feature of the Closed Basin Division, San Luis Valley Project, located within the boundaries of the national monument, national park or the national wildlife refuge, including any well, pump, road, easement, pipeline, canal, ditch, power line, power supply facility, or any other project facility, and the operation, maintenance, repair, and replacement of such a feature—

(1) shall not be affected by this Act; and

(2) shall continue to be the responsibility of, and be operated by, the Bureau of Reclamation in accordance with title I of the Reclamation Project Authorization Act of 1972 (43 U.S.C. 615aaa et seq.).

(e) WITHDRAWAL.—(1) On the date of enactment of this Act, subject to valid existing rights, all Federal land depicted on the

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map as being located within Zone A, or within the boundaries of the national monument, the national park or the preserve is withdrawn from—

(A) all forms of entry, appropriation, or disposal under the public land laws;

(B) location, entry, and patent under the mining laws; and

(C) disposition under all laws relating to mineral and geothermal leasing.

Applicability.

(2) The provisions of this subsection also shall apply to any lands—

(A) acquired under this Act; or

(B) transferred from any Federal agency after the date of enactment of this Act for the national monument, the national park or preserve, or the national wildlife refuge.

(f) WILDERNESS PROTECTION.—(1) Nothing in this Act alters the Wilderness designation of any land within the national monument, the national park, or the preserve.

(2) All areas designated as Wilderness that are transferred to the administrative jurisdiction of the National Park Service shall remain subject to the Wilderness Act (16 U.S.C. 1131 et seq.) and the Colorado Wilderness Act of 1993 (Public Law 103-77; 16 U.S.C. 539i note). If any part of this Act conflicts with the provisions of the Wilderness Act or the Colorado Wilderness Act of 1993 with respect to the wilderness areas within the preserve boundaries, the provisions of those Acts shall control.

16 USC 410hhh-6.

SEC. 8. ACQUISITION OF PROPERTY AND BOUNDARY ADJUSTMENTS.

(a) ACQUISITION AUTHORITY.—(1) Within the area depicted on the map as the “Acquisition Area” or the national monument, the Secretary may acquire lands and interests therein by purchase, donation, transfer from another Federal agency, or exchange: *Provided*, That lands or interests therein may only be acquired with the consent of the owner thereof.

(2) Lands or interests therein owned by the State of Colorado, or a political subdivision thereof, may only be acquired by donation or exchange.

(b) BOUNDARY ADJUSTMENT.—As soon as practicable after the acquisition of any land or interest under this section, the Secretary shall modify the boundary of the unit to which the land is transferred pursuant to subsection (b) to include any land or interest acquired.

(c) ADMINISTRATION OF ACQUIRED LANDS.—

(1) GENERAL AUTHORITY.—Upon acquisition of lands under subsection (a), the Secretary shall, as appropriate—

(A) transfer administrative jurisdiction of the lands to the National Park Service—

(i) for addition to and management as part of the Great Sand Dunes National Monument, or

(ii) for addition to and management as part of the Great Sand Dunes National Park (after designation of the Park) or the Great Sand Dunes National Preserve; or

(B) transfer administrative jurisdiction of the lands to the United States Fish and Wildlife Service for addition to and administration as part of the Baca National Wildlife Refuge.

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(2) FOREST SERVICE ADMINISTRATION.—(A) Any lands acquired within the area depicted on the map as being located within Zone B shall be transferred to the Secretary of Agriculture and shall be added to and managed as part of the Rio Grande National Forest.

(B) For the purposes of section 7 of the Land and Water Conservation Fund Act of 1965 (16 U.S.C. 4601-9), the boundaries of the Rio Grande National Forest, as revised by the transfer of land under paragraph (A), shall be considered to be the boundaries of the national forest.

SEC. 9. WATER RIGHTS.

(a) SAN LUIS VALLEY PROTECTION, COLORADO.—Section 1501(a) of the Reclamation Projects Authorization and Adjustment Act of 1992 (Public Law 102-575; 106 Stat. 4663) is amended by striking paragraph (3) and inserting the following:

16 USC 410hhh-7.

“(3) adversely affect the purposes of—

“(A) the Great Sand Dunes National Monument;

“(B) the Great Sand Dunes National Park (including purposes relating to all water, water rights, and water-dependent resources within the park);

“(C) the Great Sand Dunes National Preserve (including purposes relating to all water, water rights, and water-dependent resources within the preserve);

“(D) the Baca National Wildlife Refuge (including purposes relating to all water, water rights, and water-dependent resources within the national wildlife refuge); and

“(E) any Federal land adjacent to any area described in subparagraph (A), (B), (C), or (D).”.

(b) EFFECT ON WATER RIGHTS.—

(1) IN GENERAL.—Subject to the amendment made by subsection (a), nothing in this Act affects—

(A) the use, allocation, ownership, or control, in existence on the date of enactment of this Act, of any water, water right, or any other valid existing right;

(B) any vested absolute or decreed conditional water right in existence on the date of enactment of this Act, including any water right held by the United States;

(C) any interstate water compact in existence on the date of enactment of this Act; or

(D) subject to the provisions of paragraph (2), State jurisdiction over any water law.

(2) WATER RIGHTS FOR NATIONAL PARK AND NATIONAL PRESERVE.—In carrying out this Act, the Secretary shall obtain and exercise any water rights required to fulfill the purposes of the national park and the national preserve in accordance with the following provisions:

(A) Such water rights shall be appropriated, adjudicated, changed, and administered pursuant to the procedural requirements and priority system of the laws of the State of Colorado.

(B) The purposes and other substantive characteristics of such water rights shall be established pursuant to State law, except that the Secretary is specifically authorized to appropriate water under this Act exclusively for the purpose of maintaining ground water levels, surface water

levels, and stream flows on, across, and under the national park and national preserve, in order to accomplish the purposes of the national park and the national preserve and to protect park resources and park uses.

(C) Such water rights shall be established and used without interfering with—

(i) any exercise of a water right in existence on the date of enactment of this Act for a non-Federal purpose in the San Luis Valley, Colorado; and

(ii) the Closed Basin Division, San Luis Valley Project.

(D) Except as provided in subsections (c) and (d), no Federal reservation of water may be claimed or established for the national park or the national preserve.

(c) NATIONAL FOREST WATER RIGHTS.—To the extent that a water right is established or acquired by the United States for the Rio Grande National Forest, the water right shall—

(1) be considered to be of equal use and value for the national preserve; and

(2) retain its priority and purpose when included in the national preserve.

(d) NATIONAL MONUMENT WATER RIGHTS.—To the extent that a water right has been established or acquired by the United States for the Great Sand Dunes National Monument, the water right shall—

(1) be considered to be of equal use and value for the national park; and

(2) retain its priority and purpose when included in the national park.

(e) ACQUIRED WATER RIGHTS AND WATER RESOURCES.—

(1) IN GENERAL.—(A) If, and to the extent that, the Luis Maria Baca Grant No. 4 is acquired, all water rights and water resources associated with the Luis Maria Baca Grant No. 4 shall be restricted for use only within—

(i) the national park;

(ii) the preserve;

(iii) the national wildlife refuge; or

(iv) the immediately surrounding areas of Alamosa or Saguache Counties, Colorado.

(B) USE.—Except as provided in the memorandum of water service agreement and the water service agreement between the Cabeza de Vaca Land and Cattle Company, LLC, and Baca Grande Water and Sanitation District, dated August 28, 1997, water rights and water resources described in subparagraph (A) shall be restricted for use in—

(i) the protection of resources and values for the national monument, the national park, the preserve, or the wildlife refuge;

(ii) fish and wildlife management and protection; or

(iii) irrigation necessary to protect water resources.

(2) STATE AUTHORITY.—If, and to the extent that, water rights associated with the Luis Maria Baca Grant No. 4 are acquired, the use of those water rights shall be changed only in accordance with the laws of the State of Colorado.

(f) DISPOSAL.—The Secretary is authorized to sell the water resources and related appurtenances and fixtures as the Secretary deems necessary to obtain the termination of obligations specified

in the memorandum of water service agreement and the water service agreement between the Cabeza de Vaca Land and Cattle Company, LLC and the Baca Grande Water and Sanitation District, dated August 28, 1997. Prior to the sale, the Secretary shall determine that the sale is not detrimental to the protection of the resources of Great Sand Dunes National Monument, Great Sand Dunes National Park, and Great Sand Dunes National Preserve, and the Baca National Wildlife Refuge, and that appropriate measures to provide for such protection are included in the sale.

SEC. 10. ADVISORY COUNCIL.

16 USC 410hhh-
8.

(a) **ESTABLISHMENT.**—The Secretary shall establish an advisory council to be known as the “Great Sand Dunes National Park Advisory Council”.

(b) **DUTIES.**—The Advisory Council shall advise the Secretary with respect to the preparation and implementation of a management plan for the national park and the preserve.

(c) **MEMBERS.**—The Advisory Council shall consist of 10 members, to be appointed by the Secretary, as follows:

(1) One member of, or nominated by, the Alamosa County Commission.

(2) One member of, or nominated by, the Saguache County Commission.

(3) One member of, or nominated by, the Friends of the Dunes Organization.

(4) Four members residing in, or within reasonable proximity to, the San Luis Valley and 3 of the general public, all of whom have recognized backgrounds reflecting—

(A) the purposes for which the national park and the preserve are established; and

(B) the interests of persons that will be affected by the planning and management of the national park and the preserve.

(d) **APPLICABLE LAW.**—The Advisory Council shall function in accordance with the Federal Advisory Committee Act (5 U.S.C. App.) and other applicable laws.

(e) **VACANCY.**—A vacancy on the Advisory Council shall be filled in the same manner as the original appointment.

(f) **CHAIRPERSON.**—The Advisory Council shall elect a chairperson and shall establish such rules and procedures as it deems necessary or desirable.

(g) **NO COMPENSATION.**—Members of the Advisory Council shall serve without compensation.

(h) **TERMINATION.**—The Advisory Council shall terminate upon the completion of the management plan for the national park and preserve.

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¹⁶ USC 410hhh-
9.

SEC. 11. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated such sums as are necessary to carry out this Act.

Approved November 22, 2000.

LEGISLATIVE HISTORY—S. 2547:

SENATE REPORTS: No. 106-479 (Comm. on Energy and Natural Resources).

CONGRESSIONAL RECORD, Vol. 146 (2000):

Oct. 5, considered and passed Senate.

Oct. 25, considered and passed House.



APPENDIX B: DEVELOPMENT OF THE GENERAL MANAGEMENT PLAN

DEVELOPMENT OF THE GENERAL MANAGEMENT PLAN

INITIAL PLANNING STEPS

Work on the Great Sand Dunes National Park and Preserve General Management Plan / Wilderness Study / Environmental Impact Statement began in earnest in early 2003. The planning team consisted of Great Sand Dunes staff, specialists from the National Park Service – Intermountain Region, and professionals from the consulting firm engineering-environmental Management, Inc. (e²M).

The planning team was assisted by the Great Sand Dunes National Park Advisory Council. The council has operated in accordance with the Federal Advisory Committee Act (5 USC App.) and other applicable laws. Early in the planning process, council members participated in field trips to learn more about the park, its surroundings, and planning issues. As of fall 2005, the council had met 11 times. Advisory council meetings are open to the public and typically include an opportunity for public comment. Advisory council meeting minutes are available online. The council (see “Preparers and Consultants” for a list of members) participated in each step of the NPS planning process, including identifying fundamental resources and values, developing management zones and alternatives, gathering and considering public input, and identifying consequences of alternatives. After completion of the GMP, the advisory council is to be dissolved.

Early steps in the GMP planning process included the following (see chapter one in the full plan for details):

- identify the park’s fundamental resources and values
- consider legislative mandates and constraints
- recognize planning issues

The planning team and advisory council conducted field trips, and gathered and studied information and park resources, visitor use and values, and planning issues. With this information, the team and advisory council developed four preliminary concepts for alternatives (including a no-action alternative) for managing natural and cultural resources and visitor use. These concepts were presented to the public in a newsletter, and comments from the public and other agencies were gathered and reviewed.

Based on public input and further consideration, the planning team developed three draft alternatives, each with an accompanying option for new wilderness from these preliminary concepts. The team also dismissed certain ideas or actions from further consideration. These draft alternatives were then presented in a newsletter and at public meetings, and again, comments were collected and reviewed. Possible consequences of the alternatives were discussed, neighboring agencies were consulted, and additional field trips were conducted. Based on all of this information, certain elements of the GMP alternatives were modified.

DEVELOPING THE NATIONAL PARK SERVICE PREFERRED ALTERNATIVE

The next major step was to identify (develop) a preferred National Park Service alternative. The four revised alternatives, titled “no-action,” “dunefield focus—maximize wildness,” “three public nodes,” and “dispersed use-joint facilities,” were evaluated. The planning team used an evaluation process called “choosing by advantages.” This process evaluates different choices (in this case, the four management alternatives) by identifying and comparing the relative advantages of each according to a set of criteria. In this case, the criteria were based on the park’s purpose, significance, and fundamental resources and values. The Great Sand Dunes Advisory Council reviewed the criteria and its comments were incorporated.

The criteria area listed below (not in priority order):

- preserves natural diversity and natural processes (especially fundamental resources and values)
- preserves human connections (cultural resources), especially fundamental resources and values
- provides for visitor opportunities (especially fundamental resources and values)
- supports the park’s education and research programs
- provides for efficient NPS operations and for employee and visitor safety
- considers interests of neighboring agencies, communities, and public comments

The team identified the relative advantages of each alternative for each of the six

criteria. Each advantage (not each criterion) was given a point value that reflected its importance. Then, by adding up the scores for each alternative, the team was able to determine how the four alternatives compared overall. Costs of implementing the alternatives were then compared to examine the relationships between advantages and costs.

The relative advantages of the alternatives for each criterion are summarized below.

Preserves natural diversity and natural processes (especially fundamental resources and values)—The dunefield focus—maximize wildness alternative scored highest for this criterion. This alternative had the greatest amount of new wilderness proposed and most of the natural/ wild management zone. It therefore had the least habitat fragmentation, least wildlife disturbance, and permitted a return to a more natural hydrologic regime. The management zones and minimal access would probably lead to relatively light use of the Baca and Medano ranch areas, which would mean less spread of invasive plants into biologically special areas.

Preserves human connections (cultural resources), especially fundamental resources and values—The dispersed use—joint facilities alternative scored highest for its protection of cultural resources, archeological resources, historic structures, and cultural landscapes. Its wilderness recommendation, overlaid with the guided learning zone, would help protect sensitive areas by limiting vehicle access. People would not be permitted to drive to areas containing especially sensitive resources. This alternative also would maintain and preserve the Medano Ranch headquarters historic structures and cultural landscape via administrative and related adaptive use. This would provide an additional level of

protection to sensitive cultural resources in and near the Medano Ranch area. A relatively large backcountry adventure zone would permit construction of trails that would direct use away from other sensitive areas.

Provides for visitor opportunities (especially fundamental resources and values)—The dispersed use—joint facilities alternative scored highest for this factor. It would provide for and could accommodate growth in visitation, and provide for an appropriate range of visitor opportunities. (The quality of visitor experiences was judged more important than having a wide variety of experiences that may not relate to the park’s fundamental resources and values.) A modest shuttle system would provide options for transporting visitors to the dunes area during peak visitor use periods. The guided learning zone would encourage a different type of park experience and provides protective measures for especially sensitive resources. A northern access point would be important for addressing neighboring agency needs and providing options for access to the northern part of the park.

Supports the park’s education and research programs—The three public nodes alternative scored highest for this criterion because it would permit environmental education and interpretive options at the Medano Ranch headquarters, and would not limit vehicle access (no new wilderness recommendation) for researchers and educators.

Provides for efficient NPS operations and for employee and visitor safety—The no-action alternative scored highest for this criterion due to no increase in fire risk and no access limitations (via wilderness recommendation) for administrative purposes. Also, Medano Ranch would be maintained by The Nature Conservancy,

which would mean park staff would remain free for other operational needs. Limited visitor access to new lands would keep additional patrol, response, and maintenance needs (and staff) to a minimum. No new services to provide or facilities to maintain would help keep park operations small and streamlined.

Considers interests of neighboring agencies, communities, and public comments—The dispersed use—joint facilities alternative scored highest for this criterion. It would preserve historic structures and landscapes at Medano Ranch and recommend new wilderness (which may affect management by some other agencies, but also preserves wilderness values that are highly valued by the public). It would provide flexibility to consider various access options to USFS lands and the mountain front. It would also provide some measure of administrative access for park and agency staff, new recreational opportunities for visitors, and partnering opportunities that could enhance socioeconomic interests in the San Luis Valley.

After studying the advantages of the revised alternatives according to the six criteria in the foregoing discussion, the planning team developed the NPS preferred alternative. The dispersed use-joint facilities alternative provided the overall best value (greatest total advantage for the cost expended), so the team started with this alternative, then studied the choosing by advantages results to see where elements of other alternatives could be incorporated to add advantages without adding much additional cost. In this way, certain other elements were incorporated to build the NPS preferred alternative. Having taken this step, the planning team eliminated the dispersed use—joint facilities alternative from detailed analysis and discussion in the GMP/EIS to keep the document

manageable and understandable, and because many of its key elements had been incorporated into the NPS preferred alternative.

RATIONALE FOR THE NPS PREFERRED ALTERNATIVE

The following discussion provides the rationale for why various elements were included in the NPS preferred alternative.

Frontcountry Zone

A modest shuttle system for peak visitor use periods was included in the preferred alternative for the following reasons: (1) to minimize the incidence of visitor vehicles parked on road shoulders for safety and resource reasons, (2) to reduce vehicle congestion and visitor frustration because enlarging parking areas within the frontcountry zone would have undesired scenic and resource impacts, and (3) because the frontcountry and dunes play zones can accommodate more visitors (without vehicles) without undue social consequences.

The frontcountry zone was widened slightly along the main park road to provide for future bicycle lanes. Some people ride bicycles along the main park road. To do this, cyclists must share the road, which has no shoulders in many places, with large RVs. This is a safety concern, especially when traffic is heavy. Adding bicycle lanes would improve safety, provide an alternative, more sustainable way of visiting the park (one that does not require a vehicle parking space), and increase recreational opportunities. This option would be less costly and have fewer environmental impacts (e.g., habitat fragmentation) than a multiuse path that is separate from the main road corridor.

A separate hiking/biking path that connects the campground with the visitor center and dunes parking lot/access area) would allow visitors to safely walk or ride bicycles between these areas without creating additional social trails. Use of such a path would also reduce the amount of traffic on the main park road, and reduce or eliminate danger associated with visitors, including children, sharing this heavily used section of roadway with motor vehicles.

The nonhistoric entrance station would be relocated near the park boundary. Its current location immediately west of park headquarters presents the following problems: (1) vehicle congestion around the headquarters area, (2) no way for a visitor shuttle bus to bypass the main entrance gate, (3) no way for park staff vehicles to bypass lines of vehicles queuing as they enter or leave the park, and (4) little room for vehicles to turn around in the immediate area (does not provide for redirection of visitor vehicles). The new location would help alleviate these problems and support a modest shuttle system operating out of the Oasis area.

Dunes Play Zone

The dunes play management zone was included to acknowledge and provide management direction for this localized dune and Medano Creek area located west of the dunes parking lot. The area is special because, although it is located within a designated wilderness area, it receives high concentrations of visitor use during busy summer weekends and holidays. The National Park Service believes that such use is appropriate.

Guided Learning Zone

An area in the south-central portion of the park was zoned guided learning to protect an area of diverse sensitive resources while still allowing public use (guided only). Because Medano Ranch headquarters would not be managed as a public day-use area (see administrative zone below), the planning team felt there was no need to extend the zone westward to the headquarters as a means of discouraging visitors from wandering into sensitive areas.

Backcountry Access Zone

The Medano Pass primitive road corridor was zoned backcountry access because no substantial changes in management are needed or desired, and this zone best fits the area.

The backcountry access zone and trailhead in the northern portion of the park provides for future public vehicle access to this area. The shape and extent of this zone in the northern portion of the park allows maximum flexibility for siting a route from the Baca Grande subdivision. Similarly, maximum flexibility for public vehicle access to the mountain front—a USFS goal—was retained by including a provision for a joint NPS/USFS study of the need for and impacts of: (1) an extension of Cow Camp Road to connect with Liberty Road, and/or (2) access via Liberty Road. Either would require a separate NEPA process.

The backcountry access zone in the northern portion of the park does not include a campground, which was included in another GMP alternative. The planning team felt it best not to introduce noise, visual impacts, nighttime traffic, and lights in this area. Two campgrounds are located in nearby Crestone. Staff and maintenance requirements for campgrounds far exceed those needed for a trailhead—this was an

agency consideration. There was also substantial concern about encouraging high levels of use near Deadman Creek (a special ecological area) due to the potential for introduction of invasive plant species and damage to streambanks from horse and foot traffic. Risk of wildfire (from campfires) was a concern, especially with the Baca Grande subdivision in the path of prevailing winds.

Backcountry Adventure Zone

The areas north and south of the frontcountry zone along the main park road and along the southern portion of the Medano Pass primitive road were zoned backcountry adventure. This zoning acknowledges that some visitors wander away from these roads, which are located in the busier frontcountry zone, to explore adjacent areas. Also, zoning of the backcountry adventure zone allows an option for the future to provide hiking or horseback trails from the Oasis commercial area (located just outside the main park entrance) to appropriate dunefield and Medano Creek areas. [Note: there is an established “no public horse use area” located within the main portion of the frontcountry and dunes play zones.] Similarly, it would allow more flexibility in the event that the Oasis served as an alternate base for guided hiking and horseback tours into the guided learning zone.

The planning team felt that the northern portion of the preserve, around Music Pass and Sand Creek Lakes, is an area that already experiences relative high levels of use, and where use may increase substantially in the future. The team zoned this area backcountry adventure to keep management options open for formalizing trails, creating loop trails, providing designated backcountry campsites, and for interfacing with USFS management of the adjacent area.

The National Park Service is in the early stages of learning more about the characteristics and resources of the former Baca Ranch area, located northwest of the dunefield. Thus, this area was zoned backcountry adventure, which gives the National Park Service future flexibility to define trails and otherwise direct visitor use as needed to protect special or sensitive resources.

Natural/Wild Zone

The dunefield and the area surrounding the Medano Ranch headquarters were zoned natural/wild. The planning team anticipated low use levels in these areas because trails would be expensive to impossible to build and maintain due to the sandy conditions. With the natural/wild zone, it would still be possible, should a trailhead be developed at the San Luis Lakes State Park and Wildlife Area, to access the national park via cross-country foot or horseback travel.

The southern portion of the national preserve was also zoned natural/wild (except for the Mosca Pass trail corridor) because there is a desire to maintain it in a natural wild condition, the area is unlikely to experience a substantial increase in use, and there are few logical places for additional formal trails.

Administrative Zone

Liberty Road is zoned administrative within the national park to permit National Park Service and other agency use for administrative purposes. Visitor foot and horseback travel would be permitted, but not general public vehicle use. (Vehicle use by hunters who are accompanied or authorized by agency personnel may be permitted.) If general public vehicle use were allowed on this road segment, many people would likely continue by vehicle

southward along Liberty Road, accessing the national forest, national preserve, and the national park, much of which is designated wilderness. This GMP does not analyze the impacts of those activities because the USFS has not identified through planning what role Liberty Road would play and what activities would be appropriate in the Baca Mountain Tract. Therefore, the NPS preferred alternative does not resolve the northern park access issue, but leaves flexibility to accommodate appropriate uses determined through joint NPS/USFS planning.

Areas along the eastern boundary of the preserve, near the top of Medano Pass, were zoned administrative to allow access for private entities that own water rights associated with irrigation ditches in the area.

Closed basin pipeline right-of-ways in the far southwest corner of the park were zoned administrative to allow access for agencies to check and maintain these working structures. Certain roads in the southwestern portion of the park were zoned administrative to allow agency access for operational activities such as resource management and monitoring.

The dirt road that accesses Alpine Camp from the north would be zoned administrative to allow NPS vehicle access to the site. Alpine Camp would serve as a base for patrols of the backcountry access and backcountry adventure zones, research, and monitoring activities, etc.

The Medano Ranch access road and headquarters are zoned administrative to permit NPS adaptive use of structures for operational and administrative purposes (offices, storage, housing, research activities support, etc.). The area would also be used for scheduled, guided public activities such as interpretive programs,

environmental education, a base for guided hiking or horseback tours, and special events; the access road would be gated, and the gate would be opened on a limited, as-needed (scheduled) basis for public vehicle access to the Medano Ranch headquarters area. The planning team decided against zoning the Medano Ranch headquarters as frontcountry, which would have allowed general public use, due to concerns about sensitive resources in this general area of the park, staffing and maintenance costs associated with operating public facilities, and visitor safety.

Wilderness Recommendation (see also “Appendix C: Wilderness Study and Recommendation”)

The general approach to wilderness was to recommend designated wilderness for as much of the wilderness-eligible land as possible to protect wilderness values and provide protection for remote natural and cultural resources over the long term. NPS staff had serious concerns that designating additional large blocks of wilderness would severely constrain National Park Service and other agency access to monitoring equipment (e.g., groundwater monitoring wells along Sand Creek and at Big Spring) and for research and resource management activities. For that reason, the extent of the wilderness recommendation was passionately debated, as were several wilderness exclusions along two-track roads. Ultimately, the team concluded that the wilderness recommendation should be based on what is best for resources and wilderness values over the long term, not on operational convenience and efficiency.

Wilderness-eligible lands excluded from the wilderness recommendation included narrow strips (approximately 200 feet wide) immediately north of and adjacent to County Road 6N and SH 150. The purpose of these exclusions is to allow future flexibility for road, utility, and drainage

improvement in these areas. The Alpine Camp area was also excluded to allow the simple facilities there (one-room cabin, corral and stock loading ramp, tack building, and privy) to serve as an operational base.

Dogs

Dogs on leashes were allowed in the national monument, and upon expansion, in the national park and preserve. By law, dogs being used for hunting are allowed in the preserve (see chapter three in the full plan, “Health and Safety—Dogs” section for details). The future management of dogs was an issue raised in scoping. After considerable discussion of visitor comments and environmental consequences, the planning team decided on a “middle ground” policy: dogs (leashes required) would be permitted only in the national preserve and in the frontcountry, dunes play, and backcountry access zones, and the Liberty Road administrative zone of the national park. The team seriously considered restricting dogs (on leashes) to parking lots, car campgrounds, and picnic areas. However, there was concern based on past experience that visitors would leave their dogs in hot cars or tied to car bumpers if dogs were not allowed in the dunes play zone. Also, dogs on leashes have been permitted everywhere in the park for years. Many repeat visitors (there are many) count on bringing their dogs when they visit the park. The team decided to allow leashed dogs in the preserve because hunting dogs are allowed, and to minimize the dog policy differences between the preserve and the adjacent national forest, where dogs are allowed and must be within voice control of the owner if not on-leash. The team also decided to allow dogs in the backcountry access zone and Liberty Road administrative zone to allow people with dogs access to the Baca Mountain tract of the USFS. However, if dogs become more

of a problem over time, the National Park Service may consider further limitations under the authority of the Superintendent's Compendium.

DEVELOPING THE NPS FINAL GMP AND WILDERNESS RECOMMENDATION

The National Park Service collected, compiled, and analyzed the agency, tribe, organization, and individual comments submitted on the draft GMP according to CEQ guidelines and NPS policy. The planning team then identified substantive comments. Substantive comments are defined as those that:

- question, with reasonable basis, the accuracy of the information in the EIS
- question, with reasonable basis, the adequacy of the environmental analysis
- present reasonable alternatives other than those presented in the EIS
- cause change or revision in the proposal

In other words, they raise, debate, or question a point of fact or policy. The National Park Service is obligated to address all substantive comments. Possible responses are to:

- modify alternatives including the proposed action
- develop and evaluate alternatives not previously given serious consideration
- supplement, improve, or modify its analyses
- make factual corrections
- explain why the comments do not warrant further response, citing the

sources, authorities, or reasons that support the NPS position and, if appropriate, indicate those circumstances that would trigger reappraisal or further response

A summary of NPS responses is provided in chapter five of the full plan. Factual changes were made throughout the final EIS. Changes were also made to enhance the adequacy of the environmental analysis as warranted. No new alternatives were developed. The most notable changes to the preferred alternative are:

- The backcountry access and backcountry adventure zones in the north part of the national park were modified, as requested by the USFWS, to remove the potential future option of public motorized vehicle access via the Baca National Wildlife Refuge.
- The backcountry access zone in the north part of the national park does not come near or end at Deadman Creek.
- The asterisks in the north part of the national park are better explained in terms of potential future actions, should a suitable access route outside the park be found or not be found.
- The NPS position on managing a free-roaming bison herd was clarified to indicate that if additional bison habitat becomes available, this option may be reconsidered.

The wilderness recommendation was increased by 1,962 additional acres northeast of Medano Ranch headquarters and in the northern portion of the former Baca Ranch.

APPENDIX C: WILDERNESS STUDY AND RECOMMENDATION

INTRODUCTION

The purpose of wilderness designation, which is accomplished solely by congressional action, is to preserve and protect wilderness characteristics and values over the long term, while providing opportunities for solitude or primitive and unconfined recreation. With passage of the 1964 Wilderness Act (16 USC 1131 *et seq.*), Congress declared that it is national policy to secure for present and future generations the benefits of enduring wilderness resources.

As of 2005, Great Sand Dunes National Park and Preserve had two designated wilderness areas within its boundaries. The Great Sand Dunes Wilderness Area, comprised primarily of the main dunes within Great Sand Dunes National Park, was established in 1976 by Public Law 94-567, and amended in 1978 by Public Law 95-625. The Sangre de Cristo Wilderness Area was established by the Colorado Wilderness Act of 1993 (Public Law 103-77). In the year 2000, the portion of the Sangre de Cristo Wilderness that is now within the national preserve was administratively transferred from the USFS to the National Park Service (Great Sand Dunes Act of 2000). Total designated wilderness in the national park and preserve amounts to about 75,584 acres.

Wilderness was one of several important resources identified in the Great Sand Dunes Act of 2000, which authorized expansion of the park. A decision was made to include a wilderness study with the GMP that would review new lands not already designated as wilderness for possible inclusion in the National Wilderness Preservation System. The study consisted of two phases: (1) determining which lands within the expanded park were eligible for wilderness recommendation based on their

characteristics, and (2) deciding which of the wilderness-eligible lands identified in the first phase should be recommended for wilderness designation.

WILDERNESS DEFINITION

The Wilderness Act of 1964 (Public Law 88-577) describes and defines a wilderness area as follows:

A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in the Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which 1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; 2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; 3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and 4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

BRIEF DESCRIPTION OF THE STUDY AREA

The study area, which is located to the immediate northwest, west, and southwest of the former Great Sand Dunes National Monument, consists of lands that were added to the park unit by the Great Sand Dunes Act of 2000. The area is bounded on the north by the expanded park boundary, on the south by County Road 6N and SH 150; on the west by the Baca National Wildlife Refuge; and on the east by the Sangre de Cristo and Great Sand Dunes Wilderness areas. Land cover types of the area include sand dune shrub complex, greasewood fans and flats, sandy areas, desert shrub, and foothills and mountain grassland.

Except for the narrow Medano Pass primitive road corridor and portions of the Hudson and Medano irrigation ditches, the entire Great Sand Dunes National Preserve, established in 2000, is part of the Sangre de Cristo Wilderness. Thus, there was no need to evaluate the national preserve for wilderness eligibility. Park lands that were originally assessed as unsuitable for wilderness because of nonconforming or incompatible uses must be re-evaluated if the nonconforming uses have been terminated or removed. Land uses within the pre-2000 national monument boundary have not changed appreciably since the Great Sand Dunes Wilderness was established in 1976, so the planning team did not reassess these lands.

The study area includes portions of Medano Ranch and the former Baca Ranch. Most of the study area has been grazed; bison grazing continues on the Medano Ranch portion. Historically there has been little to no public use of the land and there are few formal roads. With the exception of the Closed Basin Project, evidence of human use consists mainly of ranching-related elements such as ranch

buildings, fences, stock tanks, and windmills.

WILDERNESS CRITERIA AND ELIGIBILITY

The first phase of the wilderness study was to conduct an initial determination of wilderness eligibility, which is a factual determination of whether a park contains lands that possess wilderness character. The Wilderness Act, departmental regulations at 43 CFR Part 19, secretarial orders, NPS management criteria, and NPS memoranda² prescribe the criteria that are used to make an objective determination of whether wilderness-eligible lands exist in a park. In general, roadless areas exhibiting characteristics of the Wilderness Act that are at least 5,000 acres in size (or of sufficient size to make management as wilderness practicable) are considered suitable for wilderness. Using these criteria, an evaluation of the study area was conducted by the National Park Service. The evaluation concluded that there are approximately 53,000 acres of wilderness-eligible lands within the study area. Details are provided in the paragraphs below.

Nonfederal Lands or Interests

Nonfederal lands or interests in land within a roadless or undeveloped part of a park do not necessarily disqualify the area from eligibility. The wilderness eligibility assessment should consider whether the non-federal lands are: (1) a small proportion of the roadless area, (2) dispersed throughout the roadless area, or can they be segregated by prospective boundary shifts, (3) inaccessible or subject to likely

² A June 10, 2002, National Park Service memo from the associate director, Park Operations and Education, titled "Clarifying the Wilderness Review Process" provided detailed guidance on conducting a wilderness suitability assessment. This memo is an insert to Reference Manual 41: *Wilderness Preservation and Management*.

development, and (4) likely to remain nonfederal indefinitely.

Most of the park expansion area south of the former Baca Ranch is state trust land or private land owned by The Nature Conservancy. This area is part of what is known as Medano Ranch. These nonfederal lands are not likely to remain so indefinitely. There's a good chance that The Nature Conservancy will donate or sell the portion of Medano Ranch within the park boundary to the National Park Service within the life of the GMP. Also, NPS managers are working with the state and the BLM on a land exchange that would transfer state lands within the park boundary to the National Park Service. For these reasons, the National Park Service concluded that most of the Medano Ranch lands located within the national park are wilderness-eligible. Exceptions are discussed in the sections that follow.

The northern portion of the study area is part of what was formerly the Baca Ranch. The National Park Service owns the surface rights, but subsurface mineral rights are held by a private entity, Lexam Explorations, Inc., which has engaged in gas and oil exploration activities during the past decade. Based on the land's geologic properties, the National Park Service Geologic Resources Division believes that the likelihood of gas and oil production occurring on these lands is relatively low. The National Park Service is likely to eventually pursue purchase of these mineral estates (24,092 acres). For this reason, and because the National Park Service owns the surface rights, the National Park Service concluded that most of this land is wilderness-eligible.

Three additional private parcels totaling 52 acres are located within the national park. One parcel is east of the former Baca Ranch and north of the former national

monument. The others are located near the park's main entrance. The National Park Service plans to pursue purchase of these parcels, assuming the owners are willing to sell. Thus, the National Park Service concluded that these lands are wilderness-eligible.

Closed Basin Project

The Closed Basin Project pumps and delivers unconfined groundwater and available surface flows in the Closed Basin to the Rio Grande via underground pipelines and a 42-mile conveyance channel. A portion of the Closed Basin Project is located within the southwestern part of the study area. The project is likely to remain in operation, and the Bureau of Reclamation will require continued access to pipelines and production/monitoring wells. New wells or pipelines may be needed in the future. The National Park Service concluded that the presence and ongoing operation of the Closed Basin Project renders the Closed Basin portion of the park ineligible for wilderness.

Roads

For the purposes of wilderness eligibility, lands containing unimproved dirt roads or tracks are "roadless areas." Roadless areas include lands containing improved dirt roads that are not passable by four-wheeled vehicles (not four-wheel-*drive* vehicles) intended primarily for highways.

Not including roads associated with the Closed Basin Project (see above), there are two improved roads within the park expansion area that are passable by four-wheeled vehicles intended for highway use. The first, referred to in this document as Cow Camp Road, is located in the northwest corner of the park expansion area, south of the Baca Grande subdivision. This road, which has an east-west

orientation, is associated with oil and gas exploration activities on the former Baca Ranch. Because the area north of Cow Camp Road is less than 5,000 acres in size, the planning team concluded that this portion is not wilderness-eligible. The second road, which has a north-south orientation, bisects the southwest corner of the park expansion area. The southernmost portion of the road is located within the Closed Basin Project area. This road is associated with Medano Ranch and occurs in combination with ranch structures, corrals, aboveground electric lines, and human-made Closed Basin features. The National Park Service concluded that the southwest portion of the park expansion area is not wilderness eligible due to the presence of Medano Ranch Road and a concentration of other human-made features.

Several other roads exist on lands within the expanded park boundary. These roads are not generally passable by four-wheeled passenger vehicle. Most are no more than “two tracks,” and others are too sandy to remain passable with any more than occasional use. A small aircraft landing strip, no longer in use, parallels SH 150 in the southeastern corner of the park expansion area. The strip is unpaved and is substantially unnoticeable. The National Park Service concluded that these roads and the abandoned airstrip do not disqualify park expansion lands from wilderness eligibility.

Grazed Lands

Lands that have been grazed may be considered eligible for wilderness designation if, at the time of the assessment, the effects of these activities are substantially unnoticeable or if their wilderness character could be maintained or restored through appropriate management actions. Most of the lands

within the park expansion area have been grazed by cattle and/or bison. In these areas, a number of stock tanks fed by flowing groundwater wells are present. One well pump is powered by a windmill. Grazing ended on the former Baca Ranch portion in late 2004 with its transfer to NPS management. Bison grazing continues on the Medano Ranch portion. The effects of grazing are substantially imperceptible and wilderness character could be restored through management actions (e.g., capping wells below ground and removing stock tanks), so the National Park Service concluded that grazing and associated features do not render these lands ineligible for wilderness.

Mined Lands, etc.

Lands that have been mined may be considered eligible for wilderness designation if, at the time of the assessment, the effects of these activities are substantially imperceptible or if their wilderness character could be maintained or restored through appropriate management actions. Historic mine sites (e.g., Liberty) are located at the periphery, or northern edge, of the park expansion area. The mine/prospect sites and pond/quarry sites are located in the far northeast corner of the park expansion area. Although evidence of mining, prospecting, and quarrying is apparent, the effects are generally small in scale and are limited primarily to changes in landform. Structures, concrete foundations, and other obvious human-made features are generally absent. The National Park Service believes that the wilderness character of these areas could be restored if the land’s original contours were reestablished. The small flumes or weirs are part of the national park’s water rights quantification and monitoring program. The National Park Service concluded that the mine and prospect sites, ponds, quarries, and flumes/ weirs do not

disqualify park expansion lands from wilderness eligibility.

Structures and Cultural Features

Areas may contain cultural resource features such as historic buildings and still be included in wilderness, provided the features are not primary attractions for park visitors. Immediately adjacent to and south of Cow Camp Road is a small area called Alpine Camp. The camp, which dates to the mid-1900s, includes a small cabin, corrals, and fences. The camp does not disqualify the area from wilderness eligibility.

The only other buildings within the park expansion area are the Medano Ranch structures. Most structures on the ranch date to the late 1880s, but others (bison shed, barns, etc.) are much more recent. These structures do not necessarily render this corner of the park ineligible for wilderness. However, the structures occur in combination with an improved road, aboveground powerlines, and other human-made features. As discussed above, this combination and concentration of features renders this area of the park ineligible for wilderness eligibility.

Fences and earthen ditches are present on some portions of park expansion lands. As land uses change in the future due to park expansion, some or all of the fences and ditches may no longer be needed. Fences could be removed and earthen ditches could be filled so that wilderness character is restored. The National Park Service concluded that such features do not disqualify park expansion lands from wilderness eligibility.

WILDERNESS OPTIONS ANALYZED IN THIS STUDY

Two wilderness options are analyzed in detail in this GMP: (1) recommend no new lands for wilderness, and (2) recommend most eligible lands for wilderness. A third wilderness option (recommend moderate amount of wilderness) was also considered during the planning process. However, this option was dismissed from further analysis when the matching GMP alternative was dropped because it was so similar to the NPS preferred alternative. The remaining two wilderness options in this study cover the range of impacts that would be expected; impacts of the dismissed option would be somewhere in between.

The two GMP alternatives that include no new wilderness recommendation are the no-action alternative and the three public nodes alternatives (see chapter two of the full plan for alternative maps and descriptions). The no-action alternative includes this option because it portrays baseline (existing) conditions in December 2004, soon after the Baca Ranch became federally managed. The three public nodes—new dunes experiences alternative includes this option because it proposes more new facilities and public uses in various areas of the park.

The two GMP alternatives that do include a wilderness recommendation are the dunefield focus—maximize wildness alternative and the NPS preferred alternative (see chapter two of the full plan for alternative maps and descriptions). The dunefield focus—maximize wildness alternative recommends wilderness for nearly all eligible lands because it offers the wildest conditions of the four GMP alternatives. The NPS preferred alternative recommends wilderness for most of the eligible lands because, after studying the various options, the National Park Service

concluded that wilderness designation is the best long-term management strategy for these lands. The draft GMP/WS/EIS proposed that 50,951 acres within the park be recommended as wilderness.

WILDERNESS HEARINGS AND PUBLIC COMMENT

In accordance with the *Code of Federal Regulations* (36 CFR 19.5), public hearings on the wilderness proposal were held near the park and in Denver as part of the public meetings on the draft GMP for Great Sand Dunes National Park and Preserve. Part of each meeting was dedicated to the wilderness hearing, presided over by a hearing officer; a verbatim record was kept by a court reporter. Written public comments were also received during the 60-day public comment period on the draft GMP and wilderness study.

There was substantial support for the wilderness recommendation presented in the GMP. Most organizations, most unaffiliated individuals, Saguache County, and more than 3,000 form letters supported the recommendation. There was a significant amount of information provided related to the benefits of wilderness designation. Many organizations and 3,000-plus form letters supported additional lands (northwest and southwest corners of the park) be recommended for wilderness. CDOW and some individuals expressed concern about wilderness designation interfering with elk management. The USFS thought there should be more information on existing roads, wilderness conditions, and restoration needs. Backcountry equestrians and some unaffiliated individuals were opposed to wilderness designation for various reasons, as expressed in written comments and at the wilderness hearings.

As a result of public comments, some acreage that was previously assessed as “not eligible” for further study and recommendation as wilderness were re-evaluated and determined that they were eligible. Two areas have been added to the wilderness recommendation—one parcel in the northwest portion of the new park lands near Deadman Creek, and another parcel in the southwest portion between Big and Little springs.

The revised final preferred alternative proposes to realign a portion of backcountry access in the northwest portion of the new park lands, which allows a small area in the vicinity of Deadman Creek (257 acres) to be reclaimed and added to the proposed wilderness designation. The remaining land in the northwest portion of the park is segmented by the backcountry access zone and creates isolated parcels that are not appropriate sizes for wilderness management. The remaining area is zoned as backcountry adventure, which would allow the land to remain relatively natural, with minimal development.

In the southwest portion of the park, an additional parcel (1,705 acres) between Big and Little springs has been added to the proposed wilderness designation. The remaining remnants around Medano Creek, and including the sabkha, are not suitable for wilderness due to the Closed Basin Project, overhead powerlines, wells, irrigation and other structures that would need to be maintained for the foreseeable future and segment the land into parcels too small for wilderness designation. The remaining land would be protected by the natural/wild zone.

WILDERNESS RECOMMENDATION

According to *NPS Management Policies* (2001), a wilderness recommendation may include two categories: (1) lands

recommended for immediate wilderness designation, and (2) potential wilderness additions. The former are lands that are wholly federally owned and are fully qualified to become wilderness. The latter are lands that are surrounded by or adjacent to lands proposed for wilderness designation, but that do not qualify for immediate designation due to temporary, nonconforming, or incompatible conditions. Potential wilderness additions, if so authorized by Congress, will become designated wilderness upon the Secretary of the Interior's determination that the nonconforming use has ended.

This study recommends that approximately 53,013 acres within Great Sand Dunes National Park be ultimately recommended for wilderness. This includes 4,556 acres recommended for immediate wilderness designation, and 48,457 acres of potential wilderness additions (table C-1 and figure C-1). A narrow corridor of wilderness-eligible land was excluded from the recommendation because the National Park Service believes a setback (200 feet from the centerlines of County Lane 6 and SH 150) is needed to allow for potential future utility, drainage, fence, and roadway improvements.

Wilderness-eligible lands recommended for immediate wilderness designation are those that are wholly in National Park Service ownership (former BLM-managed lands transferred to the National Park Service in 2000).

Wilderness-eligible lands recommended for potential wilderness additions include:

1. Medano Ranch lands currently owned by The Nature Conservancy (possible transfer to the National Park Service within five to seven years)
2. former Baca Ranch lands owned by the federal government, but for which subsurface mineral rights are privately held (long-term objective for National Park Service to acquire)
3. Medano Ranch lands currently owned by the state of Colorado (land exchange underway; completion expected within one to two years)
4. lands held in other private ownership (three parcels, acquisition timeline varies)

Implications of Managing Lands Recommended for Wilderness

Park lands that are recommended for wilderness designation in this GMP are to be managed as wilderness until such time as Congress specifically designates new wilderness for these lands (NPS *Management Policies* 2001). That is, management decisions for lands recommended for wilderness will be made in expectation of eventual wilderness designation. This also applies to potential wilderness, meaning it will be managed as wilderness to the extent that existing nonconforming conditions allow.

Table C-1. Great Sand Dunes Wilderness Status and Recommendations

	Category Subtotals (approx. acres)	Area (approx. acres)
Designated by Congress		75,584
Designated Wilderness	73,143	
Potential Wilderness – NPS ownership, not yet converted	750	
Potential Wilderness – private subsurface mineral ownership	1,691	
Wilderness Recommendation		53,013
Recommended Designated Wilderness – NPS ownership	4,556	
Recommended Potential Wilderness	48,457	
The Nature Conservancy ownership	6,393	
Private subsurface mineral ownership	24,092	
State ownership	17,920	
Other private ownership	52	
Total Designated and Recommended Wilderness		128,597

Wilderness management plans are typically developed to guide preservation, management, and use of NPS wilderness areas. Such plans are developed with public involvement and contain specific, measurable wilderness management objectives for preservation of wilderness values as specified in the Wilderness Act and NPS *Management Policies*. Wilderness management plans, which are often combined with backcountry management plans, articulate management actions such as regulations, monitoring, and permit systems.

Management decisions affecting wilderness must be consistent with the “minimum requirements” concept. This concept is a documented process used to determine whether administrative activities affecting wilderness resources or visitor experiences are necessary in wilderness, and if so, how to minimize impacts from such activities. Parks are to complete a minimum requirements analysis on administrative

practices and equipment uses that have the potential to affect wilderness character.

Recreational uses of NPS wilderness are to be of a type and nature that enable the areas to retain their primeval character and influence; protect and preserve natural conditions; leave the imprint of man’s work substantially unnoticeable; provide outstanding opportunities for solitude or primitive and unconfined types of recreation; and preserve wilderness in an unimpaired condition. Public use of motorized equipment or any form of mechanical transport is prohibited, except as provided for in specific legislation. Operating a motor vehicle or possessing a bicycle in wilderness is prohibited.

Scientific activities are to be encouraged in wilderness. Even scientific activities (including inventory, monitoring, and research) that involve a potential impact to wilderness resources or values (including access, ground disturbance, use of

equipment, and animal welfare) are allowed when the benefits of what can be learned outweigh the impacts on wilderness resources or values. However, all such activities must be evaluated using the minimum requirement concept.

Wilderness designation does not extinguish valid existing private rights such as ownership, grazing, or valid mineral interests. The validity of private rights within wilderness is determined on a case-by-case basis. Valid private rights in wilderness are administered in keeping with the specific conditions and requirements of the valid right.

Grazing is not curtailed in wilderness areas simply because an area is designated as wilderness. Where practical alternatives do not exist, maintenance or other activities may be accomplished through the occasional use of motorized equipment. The use of motorized equipment should be based on a rule of practical necessity and reasonableness. Motorized equipment need not be allowed for activities that can reasonably be accomplished on foot or on horseback. Motorized equipment uses are normally permitted in those portions of a wilderness area where they had occurred prior to the area's designation as wilderness or are established by prior agreement, and

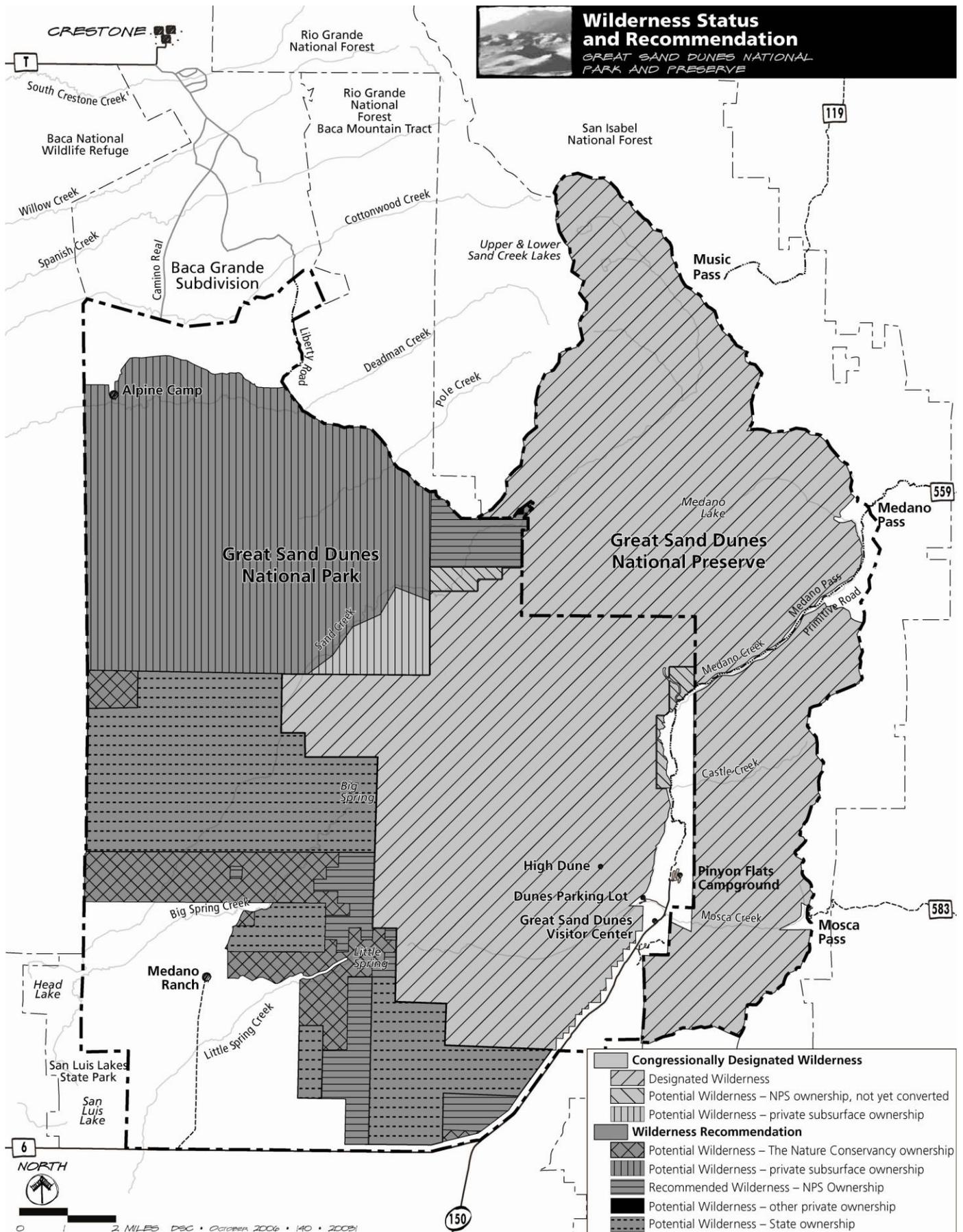
where such use would not have a significant adverse effect on the natural environment. (*Congressional Grazing Guidelines*, House Report 96-1126).

The National Park Service will seek to remove or extinguish valid mining claims and nonfederal mineral interests in wilderness through authorized processes, including purchasing valid rights. Unless and until mineral interests and mining claims within NPS wilderness are eliminated, they must be managed pursuant to existing NPS regulations, policies, and procedures. (See 36 CFR 9A, for mineral development on mining claims; 36 CFR 9B, for nonfederal oil and gas development; and 43 CFR 3100 and 3500, for federal mineral leasing.)

Conclusion

Of the approximately 69,164 acres added to Great Sand Dunes National Park in the year 2000, roughly three-quarters was determined wilderness-eligible because it possesses wilderness characteristics and values. Of the wilderness-eligible land, most (53,013 acres total) is recommended for wilderness. This includes 4,556 acres (8.6%) for immediate wilderness designation, and 48,457 acres (91.4%) for potential wilderness additions.

GENERAL MANAGEMENT PLAN SUMMARY



APPENDIX D: WILD AND SCENIC RIVERS EVALUATION

WILD AND SCENIC RIVERS EVALUATION

Introduction

This appendix presents the results of a NPS study of potential wild and scenic rivers in Great Sand Dunes National Park and Preserve. The purpose of this analysis was to determine if selected creeks, all or in part, should be recommended for inclusion in the national wild and scenic rivers system, based on their resources and Wild and Scenic Rivers Act eligibility guidelines.

In October 1968, the freshly penned Wild and Scenic Rivers Act pronounced "...that certain selected rivers of the Nation, which with their immediate environs, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environs shall be protected for the benefit and enjoyment of future generations."

The wild and scenic river study process, as described in *the National Wild and Scenic Rivers System: Final Revised Guidelines for Eligibility, Classification, and Management of River Areas* (1982), is composed of three steps:

- determine if rivers are eligible as components of the national wild and scenic rivers system
- determine the appropriate classification of rivers
- determine whether the eligible segments would make suitable additions to the national wild and scenic rivers system

Eligibility Evaluation

To be eligible for inclusion in the national wild and scenic rivers system, a study segment must be free flowing and the stream corridor must exhibit at least one outstandingly remarkable resource value.

"Free flowing" may be defined as existing in a largely natural condition without major impoundments, diversions, or other modifications of the waterway. It should be understood that there are no specific requirements for minimum flow for eligible segments. Flows are considered sufficient for eligibility if they sustain or complement the outstandingly remarkable values for which the segment would achieve designation. Rivers with intermittent flows have been included in the national system.

Outstandingly remarkable values are scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values that are professionally judged to be regionally significant—those that stand out as among the best on a regional basis. All resources assessed should be directly river related, or owe their location or existence to the river. Features that are exemplary (outstanding examples of common types), as well as those that are rare or unique, should be considered.

Outstandingly Remarkable Values

An assessment of potential outstandingly remarkable values was made by NPS professionals for the major creeks of the park: Mosca Creek, Medano Creek, Castle Creek, Sawmill Creek, Buck Creek, Little Medano Creek, Cold Creek, Sand Creek, Pole Creek, Deadman Creek, Big Spring Creek, and Little Spring Creek. Resources evaluated include biological resources, paleontological resources, cultural

resources, as well as scenic and recreational values. The following sections describing the outstandingly remarkable values are very brief. Other sections of the full document (e.g., Chapter Three: Affected Environment) contain more comprehensive information about these streams.

Mosca Creek

Mosca Creek headwaters originate on Mosca Pass and along the drainage there occur numerous prehistoric and historic cultural resources. These include archeological sites, wickiups (temporary shelters made from tree saplings), culturally peeled ponderosa pine trees, ruins of a toll road, and the historic town site of Montville. Mosca Pass was a primary prehistoric and historic route in and out of the San Luis Valley from the east.

The scenic vistas of the Great Sand Dunes are excellent from the Mosca Creek corridor. This corridor also provides recreational opportunities for hiking, camping, birding, and photography.

Mosca Creek's water quality meets standards for the "Outstanding Waters" designation (USGS publication WRIR 02-4196). The National Park Service holds a federally reserved water right for a designated flow amount for Mosca Creek.

Medano Creek

Medano Creek is essential to the formation, development, and recycling of sand to perpetuate the Great Sand Dunes system as both the impressive east and southeast faces of the Great Sand Dunes are the result of the interaction of Medano Creek and the dunes. Through "surge" or "pulsating flow," the waters return vast quantities of wind-blown sand back to the valley floor. The transport of sand by Medano Creek is a key role of this aeolian/hydrologic

system. The mechanism by which Medano Creek transports sand is quite unique and the surging behavior of Medano Creek is considered by USGS hydrologists to be one of the best examples of this phenomenon in the world. In addition, Medano Pass serves as a "funnel" for air flow and affects wind and sand deposition, which also influence dune formation.

There are numerous prehistoric and historic sites along Medano Creek. One of the largest stands of culturally scarred ponderosa pine trees grows in close proximity to the creek and this grove is listed in the NRHP. There are several pioneer homesteads along the creek including the Herard homestead, which was settled in the 1870s, and inhabited for many years. Medano Pass was another prehistoric and historic route into the San Luis Valley from the east.

Medano Creek and its floodplain support a diversity of wildlife habitats. CDOW has reclaimed the drainage for the native species of Rio Grande cutthroat trout and the federally endangered Rio Grande sucker. Since Medano Creek has no outlet, it represents an ideal drainage for a refuge for both rare fish species.

In addition to the plains pocket mouse (*Perognathus flavescens relictus*), which is a mammal subspecies considered rare for the Great Sand Dunes National Park and Preserve area, bighorn sheep, black bear, mountain lion, elk, deer, bobcat, and beaver are also observed along Medano Creek.

The world class surge flow of Medano Creek causes waves that create a beach-like environment for park visitors. During the spring and summer runoff, thousands of visitors derive great enjoyment from playing in the surging waters of the creek. The corridor of Medano Creek provides

outstanding recreational opportunities for hiking, camping, sightseeing, four-wheeling, photography, birding, fishing, and hunting in the preserve.

In addition to the recreational value of the creek's waters, the water quality of Medano Creek has been tested and identified by the USGS (National Water Quality Assessment Program) as attaining the highest water quality in the upper Rio Grande drainage. As such, Medano Creek's water quality meets standards for the "outstanding waters" designation (USGS Publication WRIR 02-4196). The National Park Service holds a federally reserved water right for a designated flow amount for Medano Creek.

Castle Creek

Castle Creek flows into Medano Creek and, although Castle Creek is ephemeral, during periods of significant flow it displays remarkable surge flow. In fact, it is the site at which the explanation for surge flow was developed.

The Castle Creek corridor provides exceptional and unique opportunities to view the Great Sand Dunes. Recreation opportunities include hiking and sightseeing. However, these are typical activities for the region.

Castle Creek water quality meets standards for the "outstanding waters" designation (USGS Publication WRIR 02-4196). The National Park Service holds a federally reserved water right for a designated flow amount for Castle Creek.

Sawmill Creek

The Sawmill Creek corridor provides exceptional and unique opportunities to view the Great Sand Dunes. Recreational opportunities include hiking and

sightseeing. However, these are typical activities for the region.

The water quality of Sawmill Creek meets standards for the "outstanding waters" designation (USGS Publication WRIR 02-4196). The National Park Service holds a federally reserved water right for a designated flow amount for Sawmill Creek.

Buck Creek

The plains pocket mouse, which is a mammal subspecies considered rare and endemic for the Great Sand Dunes National Park and Preserve area, was observed by the CNHP at the confluence of Medano and Buck creeks.

The creek corridor provides exceptional and unique opportunities to view the Great Sand Dunes. Recreational opportunities include hiking and sightseeing. However, these are typical activities for the region.

The National Park Service holds a federally reserved water right for a designated flow amount for Buck Creek.

Little Medano Creek

The channel of Little Medano Creek is located in a sand-filled valley. Therefore, the creek carries a large amount of sand to its confluence with Medano Creek, which has world class surge flows.

Little Medano Creek provides suitable habitat for the rare Rio Grande cutthroat trout. Although there are times of the year when the creek surface flows are disconnected from Medano Creek, there is a viable population of Rio Grande cutthroat trout in the drainage year-round. There are also frequent sightings of wildlife along Little Medano Creek.

Exceptional scenic values are present along Little Medano Creek, including a waterfall and outstanding views of the Great Sand Dunes. There are frequent opportunities for viewing wildlife along the creek drainage. Additional recreation opportunities include backpacking, hiking, photography, and camping. Natural quiet has been monitored along Little Medano Creek and found to be outstanding.

The water quality of Little Medano Creek meets standards for the “outstanding waters” designation (USGS Publication WRIR 02-4196). The National Park Service holds a federally reserved water right for a designated flow amount for Little Medano Creek.

Cold Creek

The Cold Creek corridor provides outstanding scenic vistas of the Great Sand Dunes. There are frequent opportunities for viewing wildlife along Cold Creek. There are opportunities for wilderness recreation such as backpacking, hiking, horseback riding, photography, and camping due to the remoteness of the drainage.

The water quality of Cold Creek meets standards for the “outstanding waters” designation (USGS Publication WRIR 02-4196). The National Park Service holds a federally reserved water right for a designated flow amount for Cold Creek.

Sand Creek

Sand Creek was evaluated in two segments because the character of the drainage changes significantly where it flows west from the Sangre de Cristo Mountain Range.

Sand Creek (from the headwaters to the mountain front)

Upper Sand Creek supports a narrowleaf cottonwood riparian community, designated by the CNHP as globally rare. The narrowleaf cottonwood trees along this drainage represent a pure strain and there is no hybridization with other cottonwoods. The trees are considered some of the oldest cottonwoods in the west, having been dated up to 340 years old. The upper Sand Creek corridor provides outstanding scenic vistas of the Great Sand Dunes. Recreation opportunities include backpacking, hiking, horseback riding, photography, fishing, and camping. Sand Creek’s water quality meets standards for the “outstanding waters” designation (USGS Publication WRIR 02-4196).

Sand Creek (from the mountain front to where it exits the park)

Sand Creek is the largest drainage in the park and, through the transport of sand, plays an important role in the development of the dunes. Surge flow does occur in Sand Creek, but not as consistently as in Medano Creek. Sand Creek borders the western and northwestern portion of the Great Sand Dunes, forming the western boundary of the dune mass.

There are also important historic resources along this stretch of Sand Creek (e.g., Stamp Mill).

There are frequent sightings of wildlife along lower Sand Creek, which supports high quality wildlife habitat. The lower Sand Creek corridor provides outstanding scenic vistas of the Great Sand Dunes. Recreation opportunities include backpacking, hiking, photography, fishing, and camping.

Pole Creek

The status of Pole Creek was considered eligibility unknown, because there has not yet been enough information gathered to evaluate it for the wild and scenic rivers program.

Deadman Creek

The CNHP has identified the Deadman Creek corridor as a potential conservation site with a biodiversity rank of B2 (very high significance). The Deadman Creek corridor provides outstanding scenic vistas of the Great Sand Dunes and Sangre de Cristo mountain front. Recreation opportunities include backpacking, hiking, photography, fishing, camping, and wildlife viewing.

Big Spring Creek

Big Spring Creek flows from Indian Springs, a designated Colorado natural area administered by Colorado State Parks. It is a very unique hydrologic system and critical water source located in the sand sheet west of the Great Sand Dunes. Big Spring Creek is a gaining system in an area where most of the other drainages are losing systems. Groundwater, in the form of seeps and springs, contributes flows, and as a result, Big Spring Creek is a nonflooding creek with constant flow.

Big Spring Creek is also an important archeological area.

Big Spring Creek represents an exceptional focal point for wildlife, including waterfowl. Fathead minnow (*Pimphales promelus*) are found in Big Spring Creek. *Cleome multicaulus* (slender spiderflower), a wetlands plant identified as a globally rare species by the CNHP, is found in the riparian habitat along Big Spring Creek.

The Big Spring Creek corridor provides outstanding scenic vistas of the Great Sand Dunes. Recreational opportunities include backpacking, hiking, photography, and camping. Wildlife viewing opportunities along Big Spring Creek are excellent.

Little Spring Creek

Cleome multicaulus (slender spiderflower), a wetlands plant identified as a globally rare species by the CNHP, is found in the riparian habitat along Little Spring Creek. This creek is also an important archeological area. Little Spring Creek has been channelized along most of its length, from its spring origin to where it enters a playa lake, approximately 4 miles.

Summary of Eligibility Evaluation

Ten of the 12 evaluated creeks, or segments thereof, were considered eligible for inclusion in the national wild and scenic river system: Mosca Creek, Medano Creek, Castle Creek, Sawmill Creek, Buck Creek, Little Medano Creek, Cold Creek, Sand Creek on and west of the mountain front, Deadman Creek, and Big Spring Creek. These creeks were found to be free flowing and exhibited at least one outstandingly remarkable value. They are further evaluated for classification and suitability below. The two that were not considered eligible are Pole Creek and Little Spring Creek. Pole Creek is located in the expansion area of Great Sand Dunes National Park. There has not yet been enough information gathered to evaluate its eligibility for wild and scenic river designation at this time. Little Spring Creek exhibits outstandingly remarkable values, but is considered ineligible for designation as a wild and scenic river because it has been channelized along most of its length.

Classification

Classification is based on development conditions existing in the river corridor at the time of designation. The Wild and Scenic Rivers Act provides three classifications defined as follows:

- Wild river areas are generally inaccessible, except by trail. Wild river areas do not contain roads, railroads, or other provisions for vehicle travel within the river area. The existence of a few inconspicuous roads leading to the boundary of the river area at the time of study does not necessarily bar wild river classification. Wild rivers are free of impoundments with watersheds or shorelines essentially primitive and waters unpolluted. These represent the vestiges of primitive America.
- Scenic river areas are free of impoundments, with shorelines largely undeveloped, but accessible in places by roads.
- Recreational river areas are readily accessible by road or railroad, may have some development along their shorelines, and may have undergone some impoundment or diversion in the past.

- Table D-1 lists the proposed classification for the 10 creeks considered eligible for inclusion in the national wild and scenic rivers system.

Suitability

The suitability phase of the study evaluates whether designation as a national wild and scenic river would be the best way to manage eligible rivers. Suitability considerations include the environmental and economic consequences of designation and the manageability of the river, if designated.

Each of the above 10 eligible creeks has at least one exceptional natural, cultural, or recreational resource value, and most of the creeks have two to several of these values. Therefore, these creeks would make a valuable addition to the national wild and scenic rivers system.

Conclusion

The above-listed eligible creeks within the Great Sand Dunes National Park are free flowing and contain outstandingly remarkable values that make them eligible for inclusion in the national wild and scenic rivers system. Their freedom from impoundments and relatively undeveloped character qualify them as either a wild or scenic river area, depending on each individual proposed classification.

Table D-1. Proposed Classifications

Creek	Classification
Mosca Creek	Scenic
Medano Creek	Scenic
Castle Creek	Wild
Sawmill Creek	Wild
Buck Creek	Wild
Little Medano Creek	Wild
Cold Creek	Wild
Sand Creek (from the headwaters to the mountain front)	Wild
Sand Creek (from the mountain front to where it exits the park)	Wild
Deadman Creek	Wild
Big Spring Creek	Scenic

APPENDIX E: RECORD OF DECISION

National Park Service
U.S. Department of the Interior



Great Sand Dunes National Park and Preserve

Record of Decision

General Management Plan / Wilderness Study / Environmental Impact Statement

July 2007

Approved:

A handwritten signature in black ink that reads "Michael D. Snyder".

Michael D. Snyder
Intermountain Regional Director
National Park Service

A handwritten date in black ink that reads "7/19/07".

Date

**United States Department of the Interior
National Park Service**

RECORD OF DECISION

General Management Plan / Wilderness Study / Environmental Impact Statement

**Great Sand Dunes National Park and Preserve
Colorado**

The Department of the Interior, National Park Service (NPS), has prepared this record of decision (ROD) on the environmental impact statement for the final General Management Plan / Wilderness Study / Environmental Impact Statement (GMP/WS/EIS), Great Sand Dunes National Park and Preserve. This ROD includes a description of the background of the project; a statement of the decision made including common actions, key actions, and mitigating measures/monitoring to minimize environmental harm; synopses of other alternatives considered; findings on impairment of park resources and values; the basis for the decision including a description of the environmentally preferred alternative; and an overview of public involvement and agency consultation in the decision-making process.

BACKGROUND OF THE PROJECT

Great Sand Dunes National Monument operated under a master plan that was approved in 1977. The National Park Service initiated development of a new general management plan (GMP) in mid- 1990; however, this effort was abandoned in 1999, when it appeared that Congress would expand the national monument. The Great Sand Dunes National Park and Preserve Act of 2000 expanded the national monument almost four- fold, authorized conversion of the national monument to a national park, and established the Great Sand Dunes National Preserve. The 1977 master plan is outdated and does not provide background information, a foundation for planning, or management guidance for the expanded national park and preserve. The wilderness study is included as part of the GMP because of legislation, public interest, and timeliness. The 35,955- acre Great Sand Dunes Wilderness Area (created by Congress in 1976) is located within the former national monument. Approximately 40,000 acres of wilderness is located within the national preserve (part of the Sangre de Cristo Wilderness Area established in 1993 and formerly administered by the U.S. Forest Service [USFS]). The wilderness potential of the greatly expanded national park had not been evaluated. The GMP also includes an evaluation of wild and scenic rivers. The final GMP/WS/EIS provides updated management guidance for the national park.

The GMP/WS/EIS provides a framework to help park managers guide programs and set priorities for resource stewardship, visitor understanding, partnerships, facilities, and operations. It was developed with public involvement and tribal and agency consultation. The GMP/WS/EIS describes and analyzes a recommended course of action and two alternatives for managing and using Great Sand Dunes National Park and Preserve. The selected alternative will guide management of the park for the next 15 to 20 years.

RECORD OF DECISION

DECISION (SELECTED ACTION)

Description of the Selected Action (Alternative 2 in the GMP/WS/EIS)

Desired future conditions, or goals, are identified that describe the ideal conditions the National Park Service is striving to attain. They guide actions to be taken by park staff on such topics as natural and cultural resources management, wilderness management, and park facilities and visitor use management. Strategies describing actions that may be taken by park staff to achieve the desired conditions and strategies, combined with actions that are specific to the plan, form the complete GMP for the Great Sand Dunes.

Several actions were deemed *common to all action alternatives* in the draft plan, including the preferred alternative, and those actions are also part of the final plan. They include:

- cooperation with neighbors
- acquisition of subsurface rights
- a position that a NPS- managed bison herd would not likely occur during the life of this plan
- a Medano Ranch irrigation study
- no permitted use of ORVs
- a hunter access permit system
- elimination of unnecessary roads
- treatment of historic structures in the backcountry
- sanitation facilities
- a fee program
- use of Alpine Camp
- boundary adjustments

The National Park Service will continue to work with partners and park neighbors to develop management strategies for elk and bison.

Most of Great Sand Dunes National Park and Preserve will remain wild and undeveloped. Management zones have been established for park lands. Management zones define specific resource conditions, visitor opportunities, and management approaches to be achieved and maintained in each area of the park. Sensitive resources will be protected by actions such as the designation of a “guided learning zone” around Big and Little springs.

A formal wilderness study was conducted as part of this planning process. The wilderness study recommends the addition of about 53,000 acres within the national park expansion lands to the National Wilderness Preservation System.

No significant changes will occur in the main dunes area. However, future vehicle congestion will be addressed by construction of trails to reduce vehicle use, use of a temporary modest

Key Actions in the General Management Plan / Wilderness Study

shuttle bus at peak times, and other management techniques, rather than by expanding parking areas. The following clarification is hereby made *in italics* to the discussion of transportation on page 61 of the final GMP/WS/EIS:

To address existing and growing vehicle congestion in parking areas and along the access roadway to the Dunes parking area on summer weekends, the park would pursue managing traffic by first operating a temporary shuttle service such as the modest shuttle system operated on a trial basis in the summer of 2005. *This shuttle allows people in the visitor center and campground to leave vehicles at those locations.* If congestion and visitor and employee safety along the dunes access road becomes a persistent problem, transportation studies would be undertaken to determine the need, configuration, and feasibility of a more formal transportation system. *If it is determined that the costs of such a system are unavailable or prohibitive then the park might consider adding a small unpaved overflow parking area in the vicinity of the Dunes lot as an interim measure until funds become available for a formal transportation system.*

Medano Ranch, managed by The Nature Conservancy, may eventually come under NPS management. The National Park Service would seek partnerships to maintain structures and provide scheduled visitor activities and educational opportunities at Medano Ranch headquarters.

The NPS preferred alternative for access to the northern portion of the park is a road that would enter the park at the boundary of the Baca Grande subdivision, and terminate in a trailhead with a 10 to 15 vehicle parking area near the mountain front. The road and trailhead would be located north and outside of the Deadman Creek riparian corridor. In consultation with the National Park Service, the USFS will study the need for (and impacts of) providing public vehicle access to USFS lands via Liberty Road or via a route through the park that would connect with Liberty Road. These options are not evaluated in the GMP and would require a separate public and joint agency (NPS/USFS) environmental analysis study.

KEY ACTIONS IN THE GENERAL MANAGEMENT PLAN / WILDERNESS STUDY

General Emphasis

- Dunes area continues to be the main focus of visitor activity.
- New visitor opportunities in northwest backcountry and Medano Ranch.
- New horseback and trail options.
- Seek cooperative or joint facilities (e.g., access routes, trailheads, ranger stations).

RECORD OF DECISION

Management Zones

- Most of the park and preserve are zoned backcountry adventure zone or natural/wild zone.
- Frontcountry zone and dunes play zone—continue existing activities.
- Guided learning zone provides new visitor opportunities and protects sensitive resources.
- Backcountry access zone provides vehicular routes to backcountry destinations.
- Administrative zone for NPS operations and scheduled activities at Medano Ranch.

Wilderness

- Most undeveloped areas of new park land (53,000 acres) recommended for wilderness.

Medano Ranch Headquarters

- Maintain and adaptively use historic structures for NPS administrative purposes (remains open to the public on a limited basis for scheduled activities). Seek partnerships for maintaining structures and providing visitor activities and educational opportunities.

New Trails and Trailheads

- Construct new trailhead in northern portion of the national park and new trails in backcountry adventure zone.
- Link park and preserve trails to outside trails where possible.
- Install new trails in guided learning zone.
- Maintain cooperative trailheads around park, if possible (e.g., Oasis, Baca National Wildlife Refuge, San Luis Lakes State Park).

Public Access to North Portion of Park

- Small backcountry parking area (10–15 vehicles) and trailhead within backcountry access zone improves foot, horseback, and vehicle access to public lands in the northwest.
- No campground in this area.
- Vehicular access route to trailhead to be determined in the future.
- Public vehicle access options to new USFS lands will be considered in a separate, future environmental analysis process.

*Mitigating Measures/Monitoring***Main Dunes Area Carrying Capacity**

- Possible modest shuttle system to transport visitors from remote parking areas to the dunes during peak summer weekends.

Backcountry Carrying Capacity

- New trails in backcountry adventure zone accommodate use only in areas that can tolerate use.
- Guided learning zone protects areas around Big Spring and Little Spring through escorted access
- Sensitive areas (Upper and Lower Sand Creek lakes, Deadman Creek, Big Spring and Little Spring) are monitored and adaptively managed.
- Backcountry areas that join other public lands are managed in collaboration with those agencies.

Dogs

- Within the national park, leashed dogs are allowed only within the frontcountry, dunes play, and backcountry access zones, and the Liberty Road administrative zone.
- Within the national preserve, leashed dogs are generally allowed.
- Only within the national preserve, unleashed dogs are allowed for hunting.

Bison

- An NPS- managed free- roaming bison herd is not likely to occur during the life of the GMP. If additional bison habitat becomes available at some time in the future, this option can be reconsidered by the National Park Service.

MITIGATING MEASURES/MONITORING**General**

- New facilities such as trailheads and trails will be sited in disturbed areas.
- Construction zones will be identified with temporary fencing prior to any construction activity. All protection measures will be clearly stated in construction specifications, and workers instructed to avoid areas beyond the fencing.
- Outdoor lighting for new or rehabilitated facilities will be the minimum amount required to provide for personal safety. Lights will also be shielded and/or directed downward.

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Natural Resources

- New trails will be sited with potential wildlife impacts in mind. Specific measures include the following (Trails and Wildlife Task Force et al. 1998):
 - Considering not only the narrow width of the trail, but also the wider area it may influence.
 - Seeking out degraded areas that have the potential to be used or restored when aligning a trail.
 - Aligning trails along or near human- created ecological edges rather than bisecting undisturbed areas.
 - Keeping trails away from known sensitive species, populations, or communities.
 - Locating trails where they can be screened and separated by vegetation or topography from sensitive wildlife.
 - Providing trail experiences that are diverse and interesting enough that recreationists are less inclined to create their own trails.

- Measures to control dust and erosion during construction will be implemented and could include: water sprinkling dry soil; installing silt fences and sedimentation basins; stabilizing soil with specially designed fabrics, certified straw, or other material; covering haul trucks; employing speed limits on unpaved roads; and revegetating disturbed areas where practicable.

- Wetlands and riparian habitats will be delineated, clearly marked, and avoided during construction. Best management practices will be employed including:
 - work scheduled to avoid the wet season
 - barriers provided between stream channels and trails or paved areas
 - disturbed areas kept as small as possible
 - silt fences, temporary earthen berms and water bars, sediment traps, stone check dams, or other equivalent measures installed prior to construction
 - regular site inspections conducted during construction
 - chemicals, fuels, and other toxic materials stored, used, and disposed in an appropriate manner

- Undesirable species will be controlled in high- priority areas. To prevent the introduction of and to minimize the spread of nonnative vegetation and noxious weeds, the following will be implemented:
 - Minimize soil disturbance.
 - Pressure wash all construction equipment before entering the park.
 - Limit vehicle parking to road shoulders, parking areas, or previously disturbed land.

Mitigating Measures/Monitoring

- Obtain fill, rock, or additional topsoil from the project area. If this is not possible, require weed- free material be obtained from NPS approved sources outside the park.
 - Monitor disturbed areas for two to three years after construction
 - Handling nonnative vegetation in accordance with NPS Director’s Order – 77: *Natural Resource Management Reference Manual*.
- Before surface irrigation of meadows is discontinued on Medano Ranch, a study will be conducted to better understand how this action might affect wetlands, groundwater supplies, federal water rights, the Closed Basin Project. etc.
 - Standard noise abatement measures will be implemented during park operations and construction activities.

Threatened and Endangered Species

- Canada lynx habitat in the preserve will follow the guidelines provided in the Lynx Conservation Assessment and Strategy.
- Activities in the vicinity of bald eagle habitat will follow the Colorado Division of Wildlife (CDOW) raptor guidelines for seasonal avoidance and buffer distances.
- Initiation of a National Environmental Policy Act of 1969 (NEPA) process and additional consultation with the U.S. Fish and Wildlife Service (USFWS) if oil and gas exploration on lands within the park subject to private mineral rights occurs.
- Prior to the implementation of any activity in or near riparian habitat, surveys will be conducted for the southwestern willow flycatcher, yellow- billed cuckoo, bald eagle nests, and bald eagle winter roosts. Additional section 7 consultation with the USFWS may be appropriate if the proposed activity may affect these species.
- Prior to the implementation of any activity in or near dense coniferous forests on steep slopes, surveys will be conducted for the Mexican spotted owl. Additional section 7 consultation with the USFWS may be appropriate if the proposed activity may affect these species.
- Additional consultation with the USFWS will be required if any of the following occurs:
 - Documentation of use by the southwestern willow flycatcher, yellow- billed cuckoo, or Mexican spotted owl of relevant habitats within the national park and preserve.
 - Initiation of activities anticipated to impact the bald eagle winter roost site in the western portion of the park.
 - Identification of additional bald eagle winter roost sites or of bald eagle nest sites within the park.
 - Establishment of den sites by Canada lynx within the park.

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Cultural Resources

- The identification and evaluation of cultural resources in the park are ongoing. As much of the park has not been surveyed for cultural resources, the planning process for facilities, visitor use areas, trails, and other land and resource management actions and practices will include consultation with NPS cultural resource professionals and likely will include surveys for cultural resources. Land and resource projects and practices will be planned to avoid effects to cultural resources to the extent possible, using this cultural resource information. In any case, the National Park Service will comply with section 106 of the National Historic Preservation Act of 1966 (NHPA) in the planning for these actions, including consultation with the Colorado state historic preservation office (SHPO) and other consulting parties, as outlined in 36 *Code of Federal Regulations* (CFR) 800.
- Prior to undertaking ground- disturbing activities, the National Park Service will coordinate with cultural resource professionals to determine if archeological survey is warranted and/or if such activities should be monitored by a professional archeologist for unanticipated discovery of archeological resources. Workers will be informed of penalties for illegally collecting artifacts or intentionally damaging archeological or historic property and of notification procedures in the event that previously unknown resources are uncovered during construction.
- If any archeological resources are discovered, work in the immediate vicinity of the discovery will be halted, the discovery will be secured, NPS cultural resource professionals will document and evaluate the resource, and the National Park Service will take appropriate actions to avoid or mitigate effects to the resource, in consultation with the Colorado SHPO and other consulting parties.
- In the event that human remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) (25 *United States Code* [USC] 3001) will be followed.
- The National Park Service will consult with associated American Indian tribes to develop and implement the programs that respect the beliefs, traditions, and cultural values of the American Indian tribes that have ancestral ties to park lands. The park will maintain government- to- government relations with associated tribes to ensure a collaborative working relationship, and will consult regularly with them before taking actions that will affect natural and cultural resources that are of interest and concern to them. The park will accommodate access to, and ceremonial use of, American Indian sacred sites by American Indian religious practitioners in a manner that is consistent with park purposes and applicable law, regulation, and policy.
- All proposed documentation, recordation, and mitigation measures for archeological, historical, and ethnographic resources that are included in or eligible for listing in the National Register of Historic Places (NRHP) will be stipulated in a memorandum of agreement among the National Park Service, Colorado SHPO (and/or, as necessary, the Advisory Council on Historic Preservation [ACHP]) in accordance with 36 CFR 800.

All practical means to avoid or minimize environmental effects from the selected alternative were adopted.

OTHER ALTERNATIVES CONSIDERED

No-Action Alternative

This alternative was developed to provide a baseline for evaluating the changes and impacts of the three action alternatives. This baseline is characterized primarily by conditions in December 2004, roughly two months after ownership and management of the Baca Ranch was transferred to the U.S. government, and by continuation of current management practices into the future. Most visitor use would continue to be focused in or near the eastern portion of the dunefield. The developed area east of the dunes (main park road, visitor center, and campground) would remain essentially the same. Some visitors would continue to explore backcountry trails and roads, and cross-country horse and hiking use would continue. Some people would enter the north part of the park on foot from the Baca Grande subdivision, via the two county roads that end at the park boundary.

No new areas would be recommended for wilderness. New park lands that were not open to public use before December 2004 would be managed in a conservative manner. That is, there would be no new development, and visitor use would be managed so as to not establish new practices for camping, types and routes of access, etc.

New park areas would be inventoried for natural and cultural resources and managed according to NPS policies that emphasize natural processes (for example, nonnative species, interior pasture fences, and artificial water holes and sources would be removed). Existing trails and trailheads in the park and preserve would be maintained, but there would be no new trails or trailheads. The Nature Conservancy would continue to manage Medano Ranch, including Medano Ranch headquarters. There would be no public use of Medano Ranch. Bison grazing would continue within the park on lands leased or owned by The Nature Conservancy. Leashed dogs would generally be allowed within the park and preserve.

Dunefield Focus—Maximize Wilderness Alternative

Most visitor use and visitor activities would be focused in or near the eastern edge of the dunefield. Most of the rest of the park and preserve would remain wild and undeveloped, allowing natural processes to continue with minimal human influence. Backcountry areas would be primitive and rugged, providing outstanding opportunities for solitude and adventure. A large portion of the park expansion lands would be recommended for future designation as wilderness.

Existing trails and trailheads would be maintained. Most visitors would continue to visit the main dunefield area (main park road, visitor center, dunes parking lot, and picnic area). Parking and related support facilities such as restrooms could be expanded in the frontcountry zone if dunes parking areas filled too often. A new multiuse trail for bicyclists and pedestrians

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would extend from near the park's main entrance to the visitor center, dunes parking lot / picnic area, and Pinyon Flats campground. A gate for horse access would be provided on the north boundary of the national park, and pedestrian access from the Baca Grande subdivision would continue.

The National Park Service would seek acquisition of Medano Ranch and would manage it as a natural/wild area. Ranch structures would not be maintained (or would be removed after documentation). Leashed dogs would be restricted to parking areas, picnic areas, and car campgrounds within the national park—dogs would not be permitted in the national preserve.

Three Public Nodes Alternative

Most visitors would gain access to the park and preserve via three areas of “nodes.” Visitor facilities and trails would be concentrated in or near the three nodes, and the rest of the park and preserve would remain largely undeveloped. This alternative would provide diverse options for visitors to experience different portions of the dunes system.

The first node, located at the existing developed area east of the dunes, would remain essentially the same. The second node would be located at the Medano Ranch headquarters. The National Park Service would seek acquisition of Medano Ranch and would manage the ranch headquarters as a public day- use area, most historic ranch structures would be maintained, and guided hiking and horseback tours to nearby high interest areas could be provided. The third node, located in the northern part of the park, would include a backcountry trailhead and a primitive campground if an appropriate public vehicle access route can be identified via the Baca National Wildlife Refuge of Baca Grande subdivision.

Dogs would not be permitted in areas where there is increased potential for or a history of conflicts with visitors or with wildlife; otherwise leashed dogs would be allowed. In this alternative, no new wilderness would be recommended. The USFS, in consultation with the National Park Service, may study the need for (and impacts of) providing public vehicle access to USFS lands via Liberty Road or via an extension of Cow Camp Road to the mountain front. These options would be studied in a separate NPS/USFS environmental analysis study.

FINDINGS ON IMPAIRMENT OF PARK RESOURCES AND VALUES

National Park Service policy (*Management Policies* 2001) requires analysis of potential effects to determine whether or not alternatives or actions will impair park resources. The fundamental purpose of the national park system, established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park resources and values. NPS managers must seek ways to avoid, or minimize to the greatest extent practicable, adversely impacting park resources and values. However, laws do give NPS management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the park purposes as long as the impact does not constitute impairment of the affected resources and values.

Findings on Impairment of Park Resources and Values

Although Congress has given NPS management discretion to allow certain impacts within parks, that discretion is limited by the statutory requirement that the National Park Service must leave park resources and values unimpaired, unless a particular law directly and specifically provides otherwise. The prohibited impairment is an impact that, in the professional judgment of the responsible NPS manager, will harm the integrity of park resources or values, including opportunities that will otherwise be present for the enjoyment of those resources or values. An impact to any park resource or value could constitute impairment. An impact will be more likely to constitute impairment to the extent that it has a major or severe adverse effect upon a resource or value whose conservation is:

- necessary to fulfill specific park purposes identified in the establishing legislation or proclamation of the park,
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park
- identified as a goal in the park's GMP or other relevant NPS planning documents

Impairment might result from NPS activities in managing the park, visitor activities, or activities undertaken by concessioners, contractors, and others operating in the park. The environmental impact analysis identified and analyzed the following impact topics:

- Archeology
- Historic Structures
- Cultural Landscapes
- Vegetation
- Ecologically Critical Areas
- Federal Threatened and Endangered Species
- Wildlife, Including Colorado State- Listed Species
- Soils and Geologic Resources
- Wetlands
- Water Resources
- Visitor Use and Experience
- Scenic Resources and Visual Quality
- Socioeconomics
- Health and Safety
- National Park Operations
- Operations of Other Entities and Management Agencies

The environmental impact analysis identified no impairment of park resources or values.

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BASIS FOR DECISION

Process

The planning team and Great Sand Dunes Advisory Council (Advisory Council) conducted field trips, and gathered and studied information and park resources, visitor use and values, and planning issues. With this information, the team and the Advisory Council developed four preliminary concepts for alternatives (including a no- action alternative) for managing natural and cultural resources and visitor use. These concepts were presented to the public in a newsletter, and comments from the public and other agencies were gathered and reviewed.

Based on public input and further consideration, the planning team developed three draft alternatives, each with an accompanying option for new wilderness from these preliminary concepts. The team also dismissed certain ideas or actions from further consideration. These draft alternatives were then presented in a newsletter and at public meetings, and again comments were collected and reviewed. Possible consequences of the alternatives were discussed, neighboring agencies were consulted, and additional field trips were conducted. Based on all of this information, certain elements of the GMP alternatives were modified.

The next major step was to identify (develop) a preferred NPS alternative. The four revised alternatives: “no- action,” “dunefield focus—maximize wildness,” “three public nodes,” and “dispersed use—joint facilities,” were evaluated. The planning team used an evaluation process called “choosing by advantages.” This process evaluates different choices (in this case, the four management alternatives) by identifying and comparing the relative advantages of each according to a set of criteria. In this case, the criteria were based on park purpose, significance, and fundamental resources and values. The Advisory Council reviewed the criteria and Council comments were incorporated.

The criteria area listed below (not in priority order):

- Preserves natural diversity and natural processes (especially fundamental resources and values).
- Preserves human connections (cultural resources), especially fundamental resources and values.
- Provides for visitor opportunities (especially fundamental resources and values).
- Supports park education and research programs.
- Provides for efficient NPS operations and for employee and visitor safety.
- Considers interests of neighboring agencies, communities, and public comments.

The team identified the relative advantages of each alternative for each of the six criteria. Each advantage (not each criterion) was given a point value that reflected its importance. Then, by adding up the scores for each alternative, the team was able to determine how the four alternatives compared overall. Costs of implementing the alternatives were then compared to examine the relationships between advantages and costs.

Results

The relative advantages of the alternatives for each criterion are summarized below.

Preserves natural diversity and natural processes (especially fundamental resources and values). The dunefield focus—maximize wildness alternative scored highest for this criterion. This alternative had the greatest amount of new wilderness proposed and most of the natural/wild management zone. It therefore had the least habitat fragmentation, least wildlife disturbance, and permitted a return to a more natural hydrologic regime. The management zones and minimal access would probably lead to relatively light use of the Baca and Medano Ranch areas, which would decrease the possibility of invasion of nonnative plants into biologically special areas.

Preserves human connections (cultural resources), especially fundamental resources and values. The dispersed use—joint facilities alternative scored highest for protection of cultural resources, archeological resources, historic structures, and cultural landscapes. Its wilderness recommendation, overlaid with the guided learning zone, would help protect sensitive areas by limiting vehicle access. People would not be permitted to drive to areas containing especially sensitive resources. This alternative would maintain and preserve the Medano Ranch headquarters historic structures and cultural landscape via administrative and related adaptive use. This would provide an additional level of protection to sensitive cultural resources in and near the Medano Ranch area. The large backcountry adventure zone would permit trail construction leading away from sensitive areas.

Provides for visitor opportunities (especially fundamental resources and values). The dispersed use—joint facilities alternative scored highest for this factor. It would accommodate growth in visitation, and provide an appropriate range of visitor opportunities. (The quality of visitor experiences was judged more important than having a wide variety of experiences that may not relate to the park's fundamental resources and values). A modest shuttle system would provide options for transporting visitors to the dunes area during peak visitor use periods. The guided learning zone would encourage a different type of park experience and provides protective measures for especially sensitive resources. A northern access point would be important for addressing neighboring agency needs and providing options for access to the northern portion of the park.

Supports the park's education and research programs. The three public nodes alternative scored highest for this criterion because it would permit environmental education and interpretive options at Medano Ranch headquarters and would not limit vehicle access (no new wilderness recommendation) for researchers and educators.

Provides for efficient NPS operations and for employee and visitor safety. The no-action alternative scored highest for this criterion due to no increase in fire risk and no access limitations (via wilderness recommendation) for administrative purposes. Also, Medano Ranch would be maintained by The Nature Conservancy, which would mean park staff would remain free for other operational tasks. Limited visitor access to new lands would keep additional patrol, response, and maintenance needs (and staff) to a minimum. No new services to provide or facilities to maintain would help keep park operations small and streamlined.

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Considers interests of neighboring agencies, communities, and public comments. The dispersed use—joint facilities alternative scored highest for this criterion. It would preserve historic structures and landscapes at Medano Ranch and recommend new wilderness (which may affect management by some other agencies, but also preserves wilderness values that are highly valued by the public). It would provide flexibility to consider various access options to USFS lands and the mountain front. It would also provide some measure of administrative access for park and agency staff, new recreational opportunities for visitors, and partnering opportunities that could enhance socioeconomic interests in the San Luis Valley.

After studying the advantages of the revised alternatives according to the six criteria in the foregoing discussion, the planning team developed the NPS preferred alternative. The dispersed use—joint facilities alternative provided the overall best value (greatest total advantage for the cost expended), so the team started with this alternative, then studied the choosing by advantages results to see where elements of other alternatives could be incorporated to add advantages without adding much additional cost. In this way, certain other elements were incorporated to build the NPS preferred alternative. Having taken this step, the planning team eliminated the dispersed use—joint facilities alternative from detailed analysis and discussion in the GMP/WS/EIS to keep the document manageable and understandable, and because many of its key elements had been incorporated into the NPS preferred alternative.

The reason for the modification to the GMP/WS/EIS on page 61 (discussed earlier and regarding a possible future shuttle service) is to clarify how congestion will be managed if funds do not become available for a transportation system.

Environmentally Preferred Alternative

The environmentally preferred alternative is determined by applying the criteria suggested in NEPA, which is guided by the Council on Environmental Quality (CEQ). The CEQ provides direction that

...the environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in NEPA section 101: (1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations; (2) assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings; (3) attain the widest range of beneficial uses of the environment without degradations, risk to health or safety, or other undesirable and unintended consequences; (4) preserve important historic, cultural, and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity, and variety of individual choice; (5) achieve a balance between population and resource use, which will permit high standards of living and a wide sharing of life's amenities; and (6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

Summary of Public Involvement

The NPS preferred alternative has the most advantages compared to the other alternatives. It also meets the purpose and need for the GMP. By managing the park in a conservative manner, protecting certain sensitive resource areas via the guided learning zone, limiting new facilities, recommending wilderness, and protecting key historic resources and cultural landscapes, the NPS preferred alternative realizes criteria 1 through 5. The alternatives do not differ much with respect to criterion 6.

After review of the alternatives' environmental consequences, it was determined that the NPS preferred alternative is also the environmentally preferred alternative. This alternative best realizes the full range of national environmental policy goals as stated in section 101 of NEPA.

SUMMARY OF PUBLIC INVOLVEMENT

To date, public involvement for the *Great Sand Dunes National Park and Preserve General Management Plan* has included:

- one preliminary community- based workshop (about 40 participants)
- 12 public meetings in five communities (total attendance about 222)
- four wilderness hearings in four communities (testimony by about 50 individuals)
- five newsletters (334 comments received)
- 60- day public review of the draft GMP (3,394 comments received)
- quarterly (or more frequently) Advisory Council public meetings since January 2003
- numerous informal and formal meetings in communities by the Advisory Council, park superintendent, and park staff

Preliminary Workshop

A three- day workshop, "Community- Based Ecosystem Stewardship," was held in Alamosa, Colorado, on November 19–21, 2002. The National Park Service hosted the workshop with the goal of developing solid working relationships among people committed to effective management of public lands within Great Sand Dunes National Park and Preserve. Approximately 40 participants, primarily from the San Luis Valley and representing various formal and informal groups, attended. Participants also included representatives from neighboring federal and state land management agencies.

Scoping

In January 2003, the public was notified of the Great Sand Dunes GMP effort via three methods: (1) a *Federal Register* notice of intent to prepare an environmental impact statement, (2) distribution of Great Sand Dunes GMP Newsletter 1, and (3) a press release announcing public scoping meetings for the GMP.

Newsletter 1, January 2003

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- provided an overview of the Great Sand Dunes system and the Great Sand Dunes National Park and Preserve Act of 2000
- introduced the Great Sand Dunes Advisory Council
- discussed the concepts of general management planning and wilderness review
- outlined GMP issues and a general schedule for development of the GMP
- invited the public to attend four public scoping meetings about the GMP

Scoping Public Meetings

Seventeen people attended the Alamosa, Colorado, meeting held on February 13, 2003. Twenty- three people attended the Crestone, Colorado, meeting on February 14, 2003. Twelve people attended the Golden, Colorado, meeting held on February 20, 2003, and 13 people attended the Westcliffe, Colorado, meeting on February 21, 2003. Many questions were answered and about 33 comments were received at these meetings. Superintendent Steve Chaney held a supplemental informal question and answer session in Crestone in April 2003. About 80 people attended this meeting.

Great Sand Dunes National Park Advisory Council members also held formal and informal meetings with various groups and individuals to identify planning issues and concerns. Council members then shared this information with the planning team during Council meetings.

Seventy written scoping comments were received by mail, e- mail, or Internet between February 13, 2003 and May 31, 2003.

Planning Framework

All GMP planning must be done within the framework of the purpose and significance of the park and applicable laws. The public was invited to contribute to the development of that planning framework.

Newsletter 2, November 2003

- provided a synopsis of comments received from Newsletter 1 and the public scoping meetings
- reviewed the park purpose, significance, mission, and interpretive themes
- outlined special park mandates including the Advisory Council, water resources, wilderness, hunting, fishing, trapping, domestic livestock, and the Closed Basin Project
- discussed fundamental resources and values including the dunes system, natural diversity, human connections, and visitor opportunities
- updated the planning steps and status of the wilderness review

Summary of Public Involvement

Seventeen written comments were received by mail, e- mail, or Internet between June 23, 2003 and January 3, 2004.

Newsletter 3 April 2004

- summarized comments received from the second public comment period
- revised and condensed fundamental resources and values statements
- summarized an interagency meeting related to Great Sand Dunes planning
- provided a wilderness review update
- provided a Great Sand Dunes National Park Advisory Council update
- provided a planning steps update

Alternative Development

After identifying issues and concerns and establishing a planning framework, the National Park Service identified desired future conditions (goals) consistent with addressing these concerns and issues, and developed management zoning strategies that would achieve the goals identified above. Finally, alternative ways of achieving those goals were developed with public input.

Newsletter 4, July 2004

- discussed parkwide desired conditions (goals)
- provided an overview of the draft management zones
- updated the status of the wilderness review
- provided an Advisory Council update
- discussed alternative management concepts

Twenty- four comments were received by mail, e- mail, or Internet between January 4, 2004 and August 19, 2004.

Newsletter 5, January 2005

- presented refined alternatives
- discussed actions considered but dismissed
- provided a planning steps update
- invited the public to attend four public meetings

Alternative Development Public Meetings

Ten people attended the Alamosa, Colorado, meeting held on January 31, 2005; about 40 people attended the Crestone, Colorado, meeting on February 1, 2005; four people attended

RECORD OF DECISION

the Golden, Colorado, meeting held on February 8, 2005; and six people attended the Westcliffe, Colorado, meeting on February 2, 2005. Many questions were answered and about 50 comments recorded at these meetings.

About 140 additional written comments were received by mail, e-mail, or Internet between August 20, 2004 and February 24, 2005.

Using input from the public and considering the probable environmental consequences and costs of the alternatives, the planning team developed a preferred alternative. A draft general management plan and environmental impact statement was produced and distributed for public review.

Newsletters and draft documents were also available online.

Great Sand Dunes National Park Advisory Council meetings, which were held every few months and were open to the public, included additional opportunities for public comment. Great Sand Dunes Superintendent Steve Chaney also held several separate, informal question and answer sessions in Crestone as the need arose. These sessions were well attended.

Draft General Management Plan / Wilderness Study / Environmental Impact Statement

The draft GMP/WS/EIS for Great Sand Dunes National Park and Preserve was on public review between May 1 and June 30, 2006. A total of 3,394 comments were received via written letters, e-mails, and Web responses. In addition, four public meetings with wilderness study hearings were held in Crestone, Alamosa, Westcliffe, and Denver, Colorado, in mid-May.

There were 3,394 written comments received during the comment period. Of those, 3,326 were letters with nearly identical content (form/campaign letters). Nearly 50% of the comments came from the San Luis Valley and about 66% were from individuals.

The following summarizes the primary GMP topics addressed in the comments (wilderness study comments are found at the end):

Access. This topic generated by far the most comments. There are subtopics of access to the northwest portion of the park, access to national forest lands (including Liberty Road), as well as access in general. Nearly all the agencies and organizations commented on access to the northwest portion of the park, as did most individuals. The focal point of the issue was using roads through Baca Grande subdivision or the Baca National Wildlife Refuge, and how far into the park motor vehicles would be allowed. The plan proposes to defer implementation of this decision until a cooperative planning effort specific to the issue can be conducted.

Most of the respondents from the Baca Grande subdivision opposed access through the subdivision, although some supported it. Most of the general public supported access through the subdivision; however, they also favored ending motorized access at a trailhead located away from sensitive resources (at or near the park boundary). The USFS, CDOW, and several individual supporters proposed using or preserving the possibility of using Liberty Road for

Summary of Public Involvement

public motorized access to the Baca Mountain Tract for hunting and recreation. A similar number of Baca Grande residents, organizations, and individuals specifically opposed opening Liberty Road to public motorized access.

The USFWS cited their policies for new roads in a refuge, concluding that constructing a road into the park through the refuge is inappropriate for the foreseeable future. Friends of the San Luis Valley National Wildlife Refuge asked the National Park Service to drop all reference to that option in the preferred alternative. Finally, several individual respondents specifically stated that motorized access to the park backcountry would be inappropriate.

Alternative Selection and Overall Plan. The overwhelming majority of agency, organizational, and individual respondents gave overall support for the preferred alternative. Descriptive words such as strongly, enthusiastically, and heartily were common. The Environmental Protection Agency rated the preferred alternative as “LO,” which indicates a lack of objections (their highest rating). There were, however, some suggestions to change elements of the preferred alternative, primarily as it addressed wilderness and access. The USFS, CDOW, and several individuals (form letters) challenged the adequacy of the document for an insufficient range of alternatives, primarily related to access (Liberty Road), and elk management. The Colorado Historical Society questioned the adequacy of the identification and evaluation of historic properties, and disagreed with some of the findings of effect. The USFWS questioned the sufficiency of the information to adequately evaluate the nature of effects on some federally listed species.

Wildlife Management/Hunting. About a third of respondents, including the USFS, CDOW, and individuals via form letters, addressed this topic. Some thought the GMP should be more specific about elk management. Some expressed concern that management of the elk herd in the area would be hampered if motorized access and harassment techniques to accommodate harvesting through hunting were hindered by closed roads and no mechanized equipment, which they felt would be the case with the wilderness recommendation proposed in the preferred alternative. Some expressed concern about NPS permit requirements to carry firearms and game through the park. Some suggested that the park be opened for hunting, while others were concerned about the impact of hunting on the Baca Grande subdivision (from where it is allowed on adjacent USFS land). A few comments were received from organizations and individuals that supported natural methods of wildlife management, including reintroduction of natural predators.

Facilities. About half the organizations and individuals commented on facilities. Most wanted no new facilities in the park. They felt new facilities such as roads, parking areas, and campgrounds should be located outside or at the boundary of the park. Only a few individuals wanted to see minimal new development of primitive campgrounds and roads. Several horseback groups and riders asked for improved horse trailer parking near the visitor center.

Bison. This topic was primarily addressed by organizations rather than individuals. The Nature Conservancy and several supporting groups presented information and arguments against the proposal in the preferred alternative that the National Park Service would likely not manage a herd of bison if The Nature Conservancy stops managing its herd. The Jicarilla Apache Tribe supported retaining bison.

RECORD OF DECISION

Sensitive and Fragile Resources. Most of the organizations and many individuals supported inclusion of all the naturally fragile and sensitive areas (such as Deadman Creek and riparian areas) within the wilderness areas recommendation for increased protection and for directing visitors away from these areas. Those organizations and letters also supported the expedited purchase of mineral rights on the former Baca and Medano Ranch property, archeological surveys of the entire park with subsequent protection of archeological sites, and removal of roads to qualify more land for wilderness designation. A few individuals supported protecting cultural resources through the use of the guided learning zone.

Wilderness Study/Recommendation. The wilderness study was conducted within the GMP, but to comply with special wilderness study requirements public involvement for the wilderness study has been somewhat separated. Distinct hearings were held during the public meetings, and written comments regarding wilderness were compiled separately. There was substantial support for the wilderness recommendation presented in the GMP. Most organizations, most unaffiliated individuals, Saguache County, and more than 3,000 form letters supported the recommendation. There was a significant amount of information provided related to the benefits of wilderness designation. Many organizations and 3,000- plus form letters supported additional lands (northwest and southwest corners of the park) in the wilderness recommendation. CDOW and some individuals expressed concern about wilderness designation interfering with elk management. The USFS thought there should be more information on existing roads, wilderness condition, and restoration needs. Backcountry Horsemen and some unaffiliated individuals were opposed to wilderness designation for various reasons.

*Consultation***CONSULTATION**

Consultation with agencies and tribes for the development of this GMP/WS/EIS was initiated in 2004. A series of interagency meetings (for federal and state agencies) on the GMP/WS/EIS were hosted by the National Park Service during the planning process. The first meeting was held in November 2004, to aid understanding of the different agencies' missions, roles, and concerns related to management of lands in and near the Great Sand Dunes. The second meeting was held in April 2004, and its purpose was to share the National Park Service and Advisory Council's preliminary ideas about management alternatives for the national park and preserve and to get feedback on these ideas. The third meeting was held in March 2005, and its purpose was to gather input from the agencies on more detailed alternatives for the park.

Two key federal agencies involved in the GMP planning process are the USFWS (San Luis Valley National Wildlife Refuge) and the USFS Rio Grande National Forest, land management agencies on the east and west side of the park and preserve. The USFWS sent a comment letter on the draft GMP. The USFWS stated that their policies probably would not allow an access road through the refuge to the northwest corner of the park. The access would have to be directly tied to a wildlife- dependent activity and the USFWS would have to justify the road for refuge purposes first. The National Park Service and USFWS held a follow- up meeting on July 28, 2006, to discuss and clarify USFWS comments. The USFWS sent a follow- up letter stating that public vehicle access across the refuge would not occur during the life of the GMP.

The USFS Rio Grande National Forest also sent a comment letter on the draft GMP. They expressed the desire for the GMP to leave the option open to analyze a vehicle access alternative to USFS lands and invited the National Park Service to be a cooperating agency in their planning effort for the Baca Mountain Tract. The USFS also expressed concerns for elk management and a simple permitting system for hunters and other USFS users.

The Environmental Protection Agency reviewed the draft GMP and gave the document a rating of "Lack of Objections," which indicates that the agency considers the document adequate overall.

Consultation Under Section 7 of the Endangered Species Act

The National Park Service initiated Endangered Species Act, section 7 consultation with the USFWS (Colorado field office) in January 2005, to determine the presence of federally listed threatened, endangered, and candidate species in the park. The USFWS responded on February 15, 2005, with a list of species potentially occurring in Alamosa and Saguache counties. The National Park Service delivered the draft GMP/WS/EIS to the USFWS, along with a letter requesting concurrence, in April 2006. Comments by the USFWS on the draft GMP/WS/EIS prompted a meeting between the National Park Service and the USFWS on September 20, 2006, to discuss revised treatment of the yellow- billed cuckoo, southwestern willow flycatcher, bald eagle, and Mexican spotted owl in the final GMP/WS/EIS. A revised memo requesting concurrence with the determinations for federally threatened, endangered, and candidate species, along with relevant sections of the revised GMP/WS/EIS was delivered to the USFWS on December 14, 2006. Additional consultation took place regarding the NPS

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preferred alternative, and the revised text serves as the biological assessment for this consultation. The USFWS issued a letter of concurrence on January 24, 2007.

Compliance with Section 106 of the National Historic Preservation Act

The National Park Service initiated consultation with the Colorado SHPO in January 2005. The Colorado SHPO responded on January 13, 2005, indicating that it concurred with the intent to use the NEPA process and documentation to comply with section 106 of NEPA.

On September 19, 2006, the National Park Service met with staff of the Colorado SHPO and clarified its intent not to use the NEPA process and documentation to comply with section 106 of the NHPA for specific projects identified within the GMP, diverging from previous statements. The National Park Service will comply with section 106 in accordance with 36 CFR 800 as it proceeds with further projects and plans as identified in the actions identified below. Additional consultation took place regarding cultural resources in the GMP/WS/EIS. The Colorado SHPO issued a letter of concurrence on January 18, 2007.

FUTURE ACTIONS REQUIRING COMPLIANCE WITH SECTION 106 OF THE NHPA

Action	Section 106 Compliance
<ul style="list-style-type: none"> ▪ New bicycle lanes along the park entrance road 	The National Park Service will comply with section 106 in accordance with 36 CFR 800 for the proposed new bicycle lanes.
<ul style="list-style-type: none"> ▪ Entrance station replacement in a new location near the park entrance 	The National Park Service will comply with section 106 in accordance with 36 CFR 800 for the proposed entrance station replacement.
<ul style="list-style-type: none"> ▪ Adaptive use of Medano Ranch headquarters for an NPS administrative center, and for public uses on a limited, scheduled basis 	The National Park Service will comply with section 106 in accordance with 36 CFR 800 for the proposed adaptive reuse and other management of Medano Ranch. This would include consultation on rehabilitation, maintenance (including lack of maintenance), new construction, and other management of Medano Ranch including structures and landscape elements.
<ul style="list-style-type: none"> ▪ Management and maintenance (including lack of maintenance) of other buildings and structures including but not limited to the superintendent's residence, cabins in wilderness areas, stamp mill, etc. 	The National Park Service will comply with section 106 in accordance with 36 CFR 800 for the management including maintenance (including lack of maintenance) or removal of buildings and structures. This would include evaluation of NRHP eligibility.
<ul style="list-style-type: none"> ▪ New access road and trailhead in the backcountry access zone in the northern portion of the park 	The National Park Service will comply with section 106 in accordance with 36 CFR 800 for proposed new access road and trailhead in the northern backcountry access zone.
<ul style="list-style-type: none"> ▪ New trails in undetermined locations within the backcountry adventure and guided learning zones 	The National Park Service will comply with section 106 in accordance with 36 CFR 800 for all proposed new trails.

Consultation

FUTURE ACTIONS REQUIRING COMPLIANCE WITH SECTION 106 OF THE NHPA

Action	Section 106 Compliance
<ul style="list-style-type: none"> ▪ New hiking/biking path connecting Pinyon Flats campground to dunes parking area and visitor center 	<p>The National Park Service will comply with section 106 in accordance with 36 CFR 800 for the proposed new hiking/biking path connecting Pinyon Flats campground to the dunes parking area and visitor center.</p>
<ul style="list-style-type: none"> ▪ Other projects and management plans (i.e., elk management plan, wilderness management plan, noxious weed management plan, commercial services management plan) 	<p>The National Park Service will comply with section 106 in accordance with 36 CFR 800 regarding other management plans and projects. The 1995 nationwide programmatic agreement among the National Park Service, National Conference of State Historic Preservation Officers, and the ACHP will be followed.</p>

American Indian Consultation

The National Park Service initiated consultation with affiliated tribes on January 5, 2004, when a letter was sent to each tribe notifying them of the GMP effort. The letter included as enclosures the GMP newsletters published to date. It also invited the tribes to participate in the planning effort. A year later, on January 11, 2005, a letter was sent to each tribe inviting representatives to participate in a March 2005 meeting of the Great Sand Dunes National Park Advisory Council; the Oglala Lakota and Jicarilla Apache tribes responded affirmatively and participated in the meeting. On February 8, 2005, the National Park Service sent another letter to the tribes regarding a land exchange effort that is not directly related to the GMP. This letter included a reminder that the National Park Service also seeks their input on the GMP. Park staff conducted follow-up meetings and telephone calls with representatives from several tribes throughout the planning process.

More than 20 American Indian tribes have been informed of the ongoing general management planning process, and were sent the draft GMP and invited to participate in further consultation. Two tribes, the Comanche Tribe and the Pueblo of Laguna, responded to the draft GMP/WS/EIS with letters, and two tribes requested consultation meetings.

Southern Ute Tribe. On June 5, 2006, members of the GMP planning team met with the NAGPRA coordinator of the Southern Ute Tribe in the cultural affairs office at tribal headquarters in Ignacio, Colorado. The draft plan was presented and discussed. The only comment was for the National Park Service to keep the plan as flexible as possible so it could react to future changing conditions.

Jicarilla Apache Tribe. On June 6, 2006, members of the GMP planning team met with several members of the Jicarilla Apache Tribe at tribal headquarters in Dulce, New Mexico. Attendees included the president and vice president of the Jicarilla Apache Culture Committee and the director of the Jicarilla Apache Culture Center. The team presented the plan and discussed details and issues. The only issue that generated any significant discussion was the NPS proposal to probably not continue a bison herd if The Nature Conservancy chooses to

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discontinue bison management. The genetic condition of the existing herd and the confirmed presence of cow genes was discussed. The tribal representatives commented that the genetic purity was not the important factor. How the herd is fed (free range) is more important. It was pointed out that the National Bison Association is working to remove cow genes from bison. It was also pointed out that the State of Colorado designates bison as a wild animal. The tribe expressed an interest in the bison herd being managed as wild in its natural state, much the same as elk and deer. Also discussed was that the current land used to manage the herd (40,000 acres) was too small for a free-ranging herd and that it might be more feasible if more land becomes available for a free-roaming bison herd. With that in mind, the discussion ended with a desire on the part of the tribe to change the wording in the GMP, putting more emphasis on being flexible to possible changing future conditions than on “probably not continue.” They would send formal comments on the draft GMP, which would include new wording for the bison issue.

CONCLUSION

As described in the “Mitigation” section, all practical means to avoid or minimize environmental effects from the selected alternative have been adopted. Because there would be no major adverse impacts to resources whose conservation is (1) necessary to fulfill specific purposes in the establishing legislation or proclamation for Great Sand Dunes National Park and Preserve; (2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or (3) identified as a goal in relevant NPS planning documents, there would be no impairment of park resources or values. After a review of these effects, the alternative selected for implementation will not impair park resources or values and will not violate the NPS Organic Act.