

**National Park Service
U.S. Department of the Interior
Denver Service Center**



**Wind Cave National Park
South Dakota**

Black-tailed Prairie Dog Management Plan

Finding of No Significant Impact

May 2006

BACKGROUND

Wind Cave National Park was established in 1903 to protect Wind Cave and the underground resources of this unique site. Wind Cave remains as one of the park's primary features and is recognized worldwide as a significant site. Since the original designation, the purpose of the park has expanded from cave preservation alone to protection of both surface and subsurface resources. Although the black-tailed prairie dog (*Cynomys ludovicianus*) is not specifically identified by name as a resource to be protected in the establishing legislation or its expansions, the prairie dog is an integral element of the mixed-grass prairie habitat and surface ecosystems that the park is mandated to protect.

The black-tailed prairie dog is strongly associated with the prairie ecosystem and has been present within Wind Cave National Park for thousands of years. As of March 2004, active black-tailed prairie dog colonies in Wind Cave National Park occupied approximately 1,855 acres. In August 2005, it was estimated the park had approximately 2,200 acres of prairie dogs, or about 7.8 percent of the present park area. The park area occupied by black-tailed prairie dogs varies according to many environmental variables, but precipitation has a pronounced effect, causing prairie dogs to expand their colonies in dry times and to maintain or shrink colony size when precipitation is near normal or during extended wet periods. Currently the park supports approximately 20 prairie dog colonies. The park's population is notable because it has no recorded instances of plague, thus making it a prime candidate location for potential black-footed ferret (*Mustela nigripes*) reintroduction.

Wind Cave National Park does not have an updated prairie dog management plan that is consistent with the park's current resource conditions and recent changes to regulatory guidance concerning the black-tailed prairie dog. The prairie dog population occupies approximately 2,200 acres, while the 1982 Prairie Dog Management Plan and the park's general management plan call for a maximum of 700 acres. A revised long-term management plan is needed to resolve this conflict and provide the park with management tools to maintain the prairie dog population as one of the park's primary prairie resources.

The primary purposes of developing a management plan for the black-tailed prairie dog at Wind Cave National Park are to propose and evaluate an approach for sustaining a long-term population of prairie dogs that meets other park objectives; to conserve natural processes and conditions; to identify tools to manage the black-tailed prairie dog population in the park; to manage park resources in accordance with the park's general management plan, resource management plan, and *Management Policies 2001*; and to protect public health, safety, and welfare. The resulting plan would be used to manage prairie dogs in the park until the plan is obsolete or no longer feasible.

An environmental assessment was prepared to analyze the impacts of continuing current management (Alternative A, the no action alternative) and of implementing alternatives that propose a range of tools for managing prairie dogs at varying acreages within the park (Alternative B, 3,000 to 5,000 acres; Alternative C, the preferred alternative, 1,000 to 3,000 acres; and Alternative D, 300 to 1,000 acres). The preferred alternative will protect the vitality of wildlife populations, with few adverse effects to natural and cultural resources. The preferred alternative is also, as stated in the response letter to Superintendent Stoll on March 6, 2006 from the South Dakota Department of Agriculture and Game, Fish and Parks, "the most appropriate in terms of conservation and management of black-tailed prairie dogs in accordance with the state management plan" but the letter went on to state that their support was "only with an appropriate buffer." The analysis was prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, regulations of the Council on Environmental Quality (40 CFR 1508.9), the National Park Service *Director's Order #12: Conservation Planning, Environmental Impact Analysis and Decision-making*, and Section 106 of the National Historic Preservation Act of 1966, as amended.

SELECTED ACTION

Alternative C, the Preferred Alternative, is the selected action. This alternative was chosen to represent the middle of the range of acreage alternatives and to include the existing size of the prairie dog population. In effect, this alternative represents natural regulation, with the acreage range allowing for natural variation. In this alternative, the size of prairie dog colonies in the park will be maintained at a sustainable level, for both the long-term viability of the prairie dog population and the availability of forage and habitat for other species within the park.

Under the selected action, the management approach will enable the park to achieve a prairie dog population ranging near the current population size and to incorporate as much accommodation as possible in addressing potential conflicts with neighboring land uses. Incidences of prairie dogs dispersing beyond park boundaries onto adjacent land will be addressed on a case-by-case basis in support of a good neighbor policy, which will be characterized by reasonable and prudent methods to manage movement of prairie dogs out of the park, while still maintaining the prairie dog's ecological role in the park.

With this management approach, the desired future condition for the prairie dog population in Wind Cave National Park will consist of the following major features:

- Colonies comprising a range of 1,000 to 3,000 acres, and
- Adequate and sustainable forage conditions for bison and elk.

The available management tools under the selected action include lethal control tools (rodenticide, shooting by park staff), non-lethal control tools (live trap and relocate), and habitat management tools (management of other species' grazing levels, mowing and mechanical thinning, natural barriers, physical barriers, landowner incentives and conservation easements funded by non-NPS entities). The implementation of tools will be evaluated on a case-by-case basis to determine what will be best to achieve the objective of control while having the fewest adverse effects on resources.

Based on current acreage estimates of about 2,200 acres of prairie dog colonies in the park, it is assumed that actions taken under this alternative will focus on maintaining colony acreage. Over time as colony acreages change, the focus of management activities will be to keep colony acreage within the prescribed range. It should be noted that until the park completes its elk management plan/EIS and reduces the number of elk utilizing the forage base there may be situations that warrant reductions in prairie dog numbers to stay within the available forage base in the park. The primary locations where population control actions will be implemented will likely be near the park boundary, to minimize conflicts with neighboring land uses. The selected action will maintain a population range more likely to be sustainable under threats of potential extirpation by natural or human-caused reduction.

Visitors will continue to be able to view prairie dogs in close proximity via pullouts along U.S. Highway 385, State Route 87, and other park roads. Research opportunities for studying prairie dogs in the park will continue. Issuance of permits and ensuring permit compliance will continue to occur. The park may occasionally be able to provide limited funding for prairie dog research. Wind Cave National Park, along with Badlands National Park, has historically been a control site for plague investigations. This will continue.

Management Zones

Two management zones, to be implemented in combination with the action alternatives, were developed by park staff. The purpose of these zones is to define where specific prairie dog control actions can be implemented and the rationale for using control in those zones.

In the selected action, the **No Prairie Dog Zone** will include developed areas of the park. If prairie dogs burrow in this zone, they will be actively removed by any of a number of techniques.

There will be no formal **Active Management Zone** in this alternative, but prairie dog activities adjacent to park boundaries will be monitored and appropriate management actions will be taken to help prevent prairie dog migration and dispersal out of the park when substantiated, on a case-by-case basis.

Monitoring

The selected action will include a monitoring program to determine the acreage used by prairie dogs and the size of the park's population and to ensure the acreage level and population size would be consistent with the objectives of the plan. Monitoring will include measuring prairie dog colony acreages, sampling range productivity transects, and taking prairie dog burrow counts.

Contingency Plan for Plague

Wind Cave National Park will develop a contingency plan for sylvatic plague in consultation with the U.S. Fish and Wildlife Service. Compliance on proposed actions under the contingency plan will be completed separately from this environmental assessment.

MITIGATION MEASURES

Mitigation measures or conditions are presented as part of the selected action and have been developed to lessen the adverse effects. The following table highlights mitigation measures that will be implemented for the selected action:

TABLE 1. BEST MANAGEMENT PRACTICES AND MITIGATION MEASURES

Public Health and Safety

Park neighbors, park visitors, and local residents will be notified of all activities with the potential to impact them (*e.g.*, shooting by park staff or use of rodenticides).

Cultural Resources

The park will verify the locations of known archeological sites in the vicinity of project areas and will clearly define these areas as sensitive resource areas that are off-limits for vehicle or crew access (without calling attention to the presence of archeological resources). Work limits in the vicinity of important cultural resources will be clearly defined.

Work crews will be educated about the sensitivity and importance of cultural sites, and about the need to protect any cultural/archeological resources encountered. This will include instructions for notifying appropriate park staff and other required agencies if human remains were discovered.

Work crews will be instructed of the illegality of collecting artifacts on federal lands (Archeological Resources Protection Act).

Prairie dog management areas will be accessed using non resource-sensitive routes, while the ground is frozen or is too dry to be easily disturbed, and the type of vehicle used to access project areas will be cleared in advance by the park superintendent.

Natural Resources

Selection of prairie dog control measures will be evaluated by park resource management staff to minimize adverse impacts on prairie dog populations outside areas where control will be implemented.

Use of control measures will be evaluated to minimize potential impacts on non-target species (plants and animals), including species that make use of prairie dog habitat or depend upon them as a prey source.

When raptors are known to be present or reliant on prairie dogs as prey (winter and migration months or breeding seasons, respectively), and if rodenticide were used for prairie dog control, above ground carcasses will be removed quickly, so bald eagles and other protected raptor species do not prey upon poisoned carcasses.

OTHER ALTERNATIVES CONSIDERED

Alternative A, The No Action/Continue Current Management Alternative: Under this alternative, overall active management of prairie dog populations throughout the park would not occur. However, isolated areas would be managed. The park would continue to control prairie dogs in the developed areas. No specific prairie dog population target levels would be defined under current NPS Midwest Regional Director's guidance.

Alternative B, High Acreage Target (3,000 to 5,000 acres): The park's prairie dog population would be encouraged to expand from current conditions of approximately 2,200 acres to total acreage between 3,000 to 5,000 acres. All management tools listed below would be available to achieve the target range of acres. An Active Management Zone, extending about one-quarter mile inside the perimeter of the park, would be established as a zone where prairie dogs would be controlled if conflict with adjacent landowners existed. A No Prairie Dog Zone, where prairie dogs would not be allowed to establish colonies, would include developed areas of the park.

Alternative D, Low Acreage Target (300 to 1,000 acres): The park's prairie dog population would be managed in order to reduce acreage from the current estimate of 2,200 acres to a range between 300 to 1,000 acres. All management tools listed below would be available to achieve the target colony acreages. A No Prairie Dog Zone, where prairie dogs would not be allowed to establish colonies, would include developed areas of the park.

Alternatives Considered and Dismissed

Eradication of all prairie dogs in the park: This approach represents one extreme in the continuum of prairie dog management options. The reasons that this management approach was not retained for full analysis were that it would be against NPS policies specified in *Management Policies 2001* to remove a native species from the park. The park is mandated to protect its resources and the adverse impacts on other species that are interdependent with the prairie dog would be unacceptable if they were eliminated.

Expansion of prairie dogs to all areas of suitable habitat in the park: This approach was considered to represent the opposite extreme from the preceding one in the continuum of prairie dog acreage options. However, it was not retained for full evaluation because it would likely be infeasible for prairie dogs to occupy that large an area in the park (at the present time, about 16 percent of the habitat classed as suitable is occupied by prairie dogs, while about 40 percent of preferred habitat is occupied by prairie dogs). Limits on the efficacy of management tools and the actions of park staff to expand colonies to over four times their current size would be the basis for this infeasibility. Continuous actions to expand the size of prairie dog colonies would be required, at the expense of the vegetation resource and other grazing species, to implement such an approach. This would violate the NPS mandate to maintain sustainable resources and protect vegetative resources.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

The environmentally preferred alternative is the alternative that will best promote national environmental policy expressed in the National Environmental Policy Act as well as NPS *Director's Order #12* and NPS *Management Policies 2001*. The environmentally preferred

alternative will cause the least damage to the biological and physical environment, and will best protect, preserve, and enhance historical, cultural, and natural resources.

Section 101(b) of the National Environmental Policy Act identifies six criteria to help determine the environmentally preferred alternative. The act directs that Federal plans should:

1. Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.
2. Assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings.
3. Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.
4. Preserve important historical, 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 that will permit high standards of living and a wide sharing of life's amenities.
6. Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

Continuing the current conditions under Alternative A would be less effective in meeting these criteria than Alternative C because Alternative A does not meet criterion 3 as well as Alternative C. The prairie dog population size and colony acreage under Alternative C would be similar to Alternative A, but Alternative C will provide a means for a more methodical approach to ensure sustainability and viability of the population over the long term and will have achievable goals and objectives. Alternative C will address potential conflicts with neighboring land uses on a proactive case-by-case basis, thus minimizing any undesirable or unintended consequences.

Alternative C is environmentally preferred over the other action alternatives because it better meets the six criteria listed above. With implementation of Alternative C, the National Park Service will better be able to pursue restoration of a complete ecosystem because the prairie dog colony acreage will provide adequate area to support those species using this habitat without undue degradation of the resource. Vegetative resources will be sustainable considering the forage allocation that will occur with Alternative C. Alternative B, with its high prairie dog population, could alter vegetative conditions because of competition for forage between grazing species (for example, during a drought), and there would be a higher potential for conflicts with neighboring land uses, both of which may represent an adverse impact. Thus, it will not achieve criteria 3 or 5 as well as Alternative C. Alternative D's low prairie dog population could only be achieved with a substantial reduction of the existing prairie dog population. Whether this reduction was accomplished with lethal or non-lethal means, the reduction would represent an adverse impact to a natural resource that the National Park Service is charged with preserving. Additionally, the prairie dog population associated with Alternative D would have a reduced ecological role and have a reduced ability to support other species utilizing that habitat.

Based on the reasons presented above, Alternative C is the environmentally preferred alternative.

THE SELECTED ACTION AND SIGNIFICANCE CRITERIA

As defined in 40 CFR §1508.27, significance is determined by examining the following criteria:

Impacts that may have both beneficial and adverse aspects and which on balance may be beneficial, but that may still have significant adverse impacts which require analysis in an EIS.

No long-term major adverse or beneficial impacts were identified that require analysis in an environmental impact statement.

Both benefits and adverse effects will occur to wildlife species and habitats, as wildlife species that are associated with prairie dog towns will have a long-term minor to moderate benefit from maintaining prairie dog acreages around the same level as currently exist. However, grazing species such as elk and bison will receive a long term, negligible to minor, adverse effect from competition with prairie dogs for forage, based upon forage allocation models. If zinc phosphide were used in lethal control actions, it also could result in short-term, negligible to minor, adverse effects for wildlife species.

Effects on vegetation will primarily be beneficial, as a result of prairie dogs regulating some ecosystem processes and assisting in the maintenance of a diversity of vegetative communities (long term, minor to moderate benefit), as well as the effects of mowing some prairie dog towns, which helps reduce the expansion of exotic vegetation species (long-term, minor benefit). However, mowing will also have a long-term, minor, adverse effect on vegetation structure.

Long-term, moderate benefits from the potential reintroduction of the black-footed ferret could result for ethnographic resources. However, long-term, negligible to minor adverse effects will result from competition for forage between prairie dogs (primary food source of the ferret), bison and elk.

Effects of visitors noticing and experiencing prairie dog control efforts will be short term, negligible, minor, and adverse, but the continued wildlife viewing opportunities of prairie dogs in the park will be long term, minor, and beneficial.

By defining specific management zones for prairie dogs, public health and safety will receive long-term, minor benefits. However, the risks of potential injuries of staff in the field and the potential use of rodenticide and shooting as population reducing tools could result in long-term, negligible to minor, adverse effects on public health and safety.

By maintaining prairie dogs and their localized effects on soils, soils will receive long-term, negligible to minor benefits. The potential for adverse effects on soils from zinc phosphide will be negligible because zinc phosphide quickly degrades into relatively immobile ions with no build-up when applied within guidelines.

The degree to which the proposed action affects public health or safety.

The integration of a defined management zone (the No Prairie Dog Zone) into the selected action improves upon the beneficial effects of the No Action Alternative because there will be identified zones where the park will monitor and ensure the absence of prairie dogs. These areas are primarily areas where the presence of prairie dogs may pose a risk to public health and safety or infrastructure stability. Therefore, the selected action will have a long-term, minor, beneficial effect on public health and safety.

Under the selected action, there will be long-term, negligible, adverse effects from potential injuries to staff during management activities from the handling of prairie dogs and generally being exposed to outdoor field hazards, such as insect bites, slip and fall hazards, and varying climatic conditions. Lethal control actions, including shooting and use of rodenticide, will be available under this alternative. Although there is inherent danger in the use of firearms, lethal reduction by shooting inside the park will only be conducted by NPS staff that will be firearms certified and specifically trained in wildlife sharpshooting. Effects from the use of lethal controls on public health and safety under the selected action are considered long-term and adverse. The effects will be of negligible intensity because these lethal population-reducing tools will not often be necessary because of the acreage targets associated with the selected action and because specific care will be taken in the use of firearms and to follow application safety instructions.

Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

There are no prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas within the project area.

Wind Cave has long been valued by American Indian tribes associated with the park, and there are many traditional stories about holes in the Black Hills that blow wind and that are associated with tribal origins. The Black Hills occupy a very special place in the history, creation stories, and religious beliefs of these groups. Centuries-old American Indian legends tell of a “hole that breathes cool air” near the Buffalo Gap. This “Wind” cave was regarded by Lakota peoples as the site of their origin, and they have many legends about the role the cave played in their culture. The selected action will have no effect on cave resources, as all activities will occur above ground.

The park also contains Wind Cave National Park Administrative and Utility Area Historic District, an area that contains 25 structures considered eligible for the National Register of Historic Places. No historic structures will be affected by anticipated resource management activities of the selected action, as determined by the section 106 consultation with the South Dakota SHPO.

The degree to which the effects on the quality of the human environment is likely to be highly controversial.

With regards to the selected action, there were no highly controversial effects identified during the preparation of the environmental assessment or during the two month public review period which ended March 10, 2006. However, prairie dogs are a contentious issue which can result in a variety of opinions regarding their management. Some people feel that they are a nuisance and should be highly controlled or eradicated, while others would like to see their numbers increase greatly, as their overall population size is much reduced and they are the main prey source for the endangered black-footed ferret. The selected action could potentially provide an adequate black-footed ferret prey base if ferrets were reintroduced in the park, as stated in the U.S. Fish and Wildlife Service response on March 14, 2006. However, prairie dogs also will be managed on the borders of the park on a case by case basis to avoid and/or address neighboring landowner concerns. For these reasons, effects of this selected action are not considered highly controversial.

Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risks.

There were no highly uncertain, unique or unknown risks identified during either preparation of the environmental assessment or during the two-month public review period which ended March 10, 2006.

Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

The selected action neither establishes a National Park Service precedent for future actions with significant effects nor will it represent a decision in principle about a future consideration.

Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.

As detailed in the environmental assessment, no cumulatively significant impacts will occur as a result of the selected action or other related actions. Projects that were considered in conjunction with the selected action for their cumulative effects include relocation of the park's wastewater treatment facility; rehabilitation of a portion of Highway 87 and the visitor center access roads; several other resource management plans for Wind Cave National Park; an NPS regional prairie dog management policy statement; and prairie dog management plans for South Dakota and Fall River County.

Long-term, minor cumulative benefits will result for wildlife, vegetation, socioeconomics, ethnographic resources, visitor use and experience, and water resources. Cumulative effects to endangered and threatened species will be minor and adverse. Public health and safety will have cumulative, moderate benefits, while park operations will have minor to moderate benefits. Soils will receive negligible to minor benefits.

Degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources

The National Park Service determined, and the South Dakota State Historic Preservation Officer concurred on February 13, 2006, that there will be *No Adverse Effect* to historic properties either listed on or eligible for listing on the National Register of Historic Places.

Degree to which the action may adversely affect an endangered or threatened species or its critical habitat

If black-footed ferrets were reintroduced to Wind Cave National Park, the selected action will have a long-term, moderate, beneficial effect (*may affect, but not likely to adversely affect*) on the black-footed ferret.

The effects of lethal prairie dog management actions on the bald eagle should result in *no effect*, because bald eagles are casual visitors to Wind Cave National Park.

The U.S. Fish and Wildlife Service was contacted regarding this project, and the Service stated on March 31, 2005, that if no effect was determined by the National Park Service, no further consultation was necessary. On March 14, 2006, the U.S. Fish and Wildlife Service concurred

with the assessment of *no effect* for American burying beetle and bald eagle and the assessment of *may affect, but not likely to adversely affect, beneficial effects*, for the black-footed ferret.

Whether the action threatens a violation of Federal, state or local environmental protection law

The selected action will not violate any Federal, state, or local environmental protection laws.

IMPAIRMENT

In addition to reviewing the list of significant criteria, the National Park Service has determined that implementation of the selected action will not constitute an impairment to Wind Cave National Park resources and values. This conclusion is based on a thorough analysis of the environmental impacts described in the project's environmental assessment, relevant scientific studies, and the professional judgment of the decision-maker guided by the direction in *Management Policies 2001*. As described in the environmental assessment, implementation of the selected action will not result in major, adverse impacts to a resource or value whose conservation is (1) vital to fulfilling the establishing legislation or proclamation of Wind Cave National Park, (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 the park's general management plan or other relevant National Park Service planning documents.

Although implementation of the project will cause short- and long-term, local adverse effects, in all cases these result from actions taken to conserve vital park resources. Overall, implementation of the selected action will result in benefits to wildlife, vegetation, and endangered and threatened species.

PUBLIC INVOLVEMENT AND CONSULTATION

National Park Service internal discussions led to identification of the main issues and impact topics addressed in the environmental assessment. The primary goals of the project are to propose and evaluate an approach for sustaining a long-term population of prairie dogs that meets other park objectives; to conserve natural processes and conditions; to identify tools to manage the black-tailed prairie dog population in the park; to manage park resources in accordance with the park's general management plan, resource management plan, and *Management Policies 2001*; and to protect public health, safety, and welfare.

The environmental assessment process under NEPA requires agencies to seek outside suggestions and other input about what should be considered in the environmental assessment. This process, called "scoping," involves contacting other federal, state, and local agencies that might have an interest in the proposed action. Consultations with the US Fish and Wildlife Service and the State Historic Preservation Officer were initiated during this process, as well as attempts to consult with the 19 tribes who have affiliation with this area, as detailed in the environmental assessment.

No comments on the environmental assessment were received from the contacted tribes during the two month comment and review period ending March 10, 2006.

The public was invited to comment on the project in a press release issued on January 19, 2006, and posted the same day on the park's website at <http://www.nps.gov/wica>. An open house was held at the park February 16, 2006, also to receive comments. The environmental assessment

was made available for public review and comment from January 24 to March 10, 2006 (a period of 45 days). The environmental assessment also was available on the NPS Planning, Environment, and Public Comment website (<http://parkplanning.nps.gov/publicHome.cfm>) where comments were accepted during the same period. The National Park Service also sent copies of the environmental assessment to various local organizations, libraries, interested parties, and government agencies for their review and comment.

This Finding of No Significant Impact (FONSI), attached to the environmental assessment, presents the National Park Service decision. The entire environmental assessment will not be reprinted.

CONCLUSION

The selected action will not constitute an action that normally requires preparation of an environmental impact statement (EIS). The selected action will not have a significant effect on the human environment. Negative environmental impacts that could occur are short- or long-term and of negligible to moderate intensity. There will be no significant impacts on public health, public safety, threatened or endangered species, or other unique characteristics of the region. There are no unmitigated adverse impacts on sites or districts listed in or eligible for listing in the National Register of Historic Places. No uncertain or controversial impacts, unique risks, significant cumulative effects, or elements of precedence were identified. Implementation of the action will not violate any federal, state, or local environmental protection law nor result in the impairment of park resources or values.

Based on the foregoing, it has been determined that an EIS is not required for this project and thus will not be prepared.

Recommended:

Superintendent

Date

Approved:

Midwest Regional Director

Date

Comment/Response Attachment

One hundred twenty-eight comments from 30 documents were received during the comment period. Thirty-nine substantive comments were made in these documents; the remaining were non-substantive. The substantive comments are addressed below. These comments did not result in changes to the text of the environmental assessment; therefore, no errata sheet is provided. Note that the comment number associated with each substantive comment relates to an NPS database and does not reflect the number of comments received.

Comment 25341: *“Alternative C arbitrarily limits total prairie dog colonies to between 1,000 and 3,000 acres. The lower threshold is too low to consider reintroduction of the endangered black-footed ferret and therefore too low to maintain the full prairie dog ecosystem. The upper limit does not allow natural fluctuation of prairie dog populations. It also strongly discourages third parties to pursue conservation incentive agreements with adjacent landowners to resolve border conflicts because any prairie dog colony increases resulting from incentives would be nullified by mandatory poisoning elsewhere in the Park to stay below the 3,000-acre limit.”*

Response: The alternatives were developed with many factors in mind. They were established, representative of the range of alternatives presented during internal and public scoping and to meet as many biological needs as possible. Minimum and maximum acres were established to meet objectives for the plan and the environmental assessment.

This plan is not based upon the reintroduction of black-footed ferrets but upon the purpose and need as outlined on pages 1-3 although the potential for reintroduction is considered in analysis; Alternative C (1,000-3,000 acres) does encompass enough acres to be considered a reintroduction site for black-footed ferrets. It may not be ideal, but the USFWS may consider smaller acreage sites for reintroduction.

Alternative C does allow for natural fluctuations; however, it places limitations on fluctuation. This is true with other wildlife species within the park, specifically bison and elk. With a finite limit on the area within the park boundaries and a limited number of natural predators, the ecosystem of the park does not function as well as it could if there were no limitations. Unfortunately, in some circumstances, this requires park management to step in and take management action.

Conservation incentive agreements can still be pursued regardless of the number of acres of prairie dogs found within the park. Any additional prairie dog acreage outside the park will be a benefit to the conservation of prairie dogs and associated species.

Comment 25348: *“In addition, we feel you have incorrectly labeled Alternative C as the environmentally preferred alternative when in fact it appears to be Alternative B. Table 3 in the Draft EA lists only two main differences between Alternatives B and C: Alternative C may prohibit successful black-footed ferret reintroduction at its lower range, whereas Alternative B may negatively impact elk.”*

Response: It must be remembered that the Environmentally Preferred alternative is not selected on the basis of biology, but on the basis of the six criteria outlined in Section 101(b) of the National Environmental Policy Act (refer to page 36 of the EA).

The park feels that implementation of Alternative C fulfills the six criteria to a greater degree than the No Action Alternative or either of the other two Action Alternatives. As stated in the EA, the National Park Service would better be able to pursue restoration of a complete ecosystem because the prairie dog colony acreage would provide adequate area to support those species using this habitat without degrading the resource. Vegetative resources would be sustainable considering the forage allocation. After an elk reduction program, Alternatives B, C, and D would have enough forage to sustain the wildlife populations presented in the analysis tables. However, having the ability to allow bison and elk populations to fluctuate is an important aspect of wildlife management. Having more than 400 bison, for example, would place additional burden on the forage capacity of the park. Alternative C provides more flexibility than Alternative B in this case, but not as much as Alternative D. Alternative B, with its high prairie dog population, could alter vegetative conditions because of competition for forage between grazing species during drought, and there would be a higher potential for conflicts with neighboring land uses, both of which may represent an adverse impact. Thus, Alternative B would not achieve criteria 3 or 5 as well as Alternative C.

Comment 25464: *“Supports Alternative B (the “High Acreage” Target) for the following reasons: 1) The Park has provided ample evidence that its management of prairie dogs at higher acreages can be accomplished within its stated objectives for other park species (Plan, p. 2); 2) The higher acreage totals are necessary to meet the Park’s legal and policy obligations to restore and conserve wildlife species, ecological processes, and biotic representation; and 3) increased target levels can be achieved with minimal impacts to adjacent landowners.”*

Response: The park could manage for higher acres of prairie dogs, however, the National Park Service recognizes that there are species other than prairie dogs at issue. This includes species that are dependent upon prairie dogs for habitat, as well as species that may compete with prairie dogs. Moving to an extreme, either low or high prairie dog acres, leaves the park with little room for error managing other species/resources. For this reason, the park desires to maintain a buffer of available forage for the other grazers in the park in case a severe drought, or other natural situations were to occur. This would provide greater long-term stability in maintaining appropriate habitat for not only prairie dogs, but for other species utilizing the park area.

Implementing Alternative C would allow the park to meet legal and policy obligations.

Target levels may be achieved, but higher population numbers no doubt will precipitate greater impact to adjacent landowners, as there is no evidence that buffer zones stop impacts. As a result, greater effort will be required by park staff, friends groups, and landowners to mitigate impacts.

Comment 25352: *“...would support the preferred Alternative C if the following changes were made: 1) an increase in the lower threshold to 2,500 acres, which is the minimum number necessary for the U.S. Fish and Wildlife Service to consider reintroduction of the endangered black-footed ferret; 2) removal of the upper threshold to allow prairie dogs*

to ebb and flow naturally over time in response to precipitation and grazing levels. If landowners are not interested in incentives, small buffer zones (1/4-1/2 mile, depending on topography and history of the colony) between the colonies and the boundary should be fenced to prevent bison grazing from allowing the colony to expand further.”

Response: Again, this plan is not based upon the reintroduction of black-footed ferrets, but upon the purpose and need as described on pages 1-3.

Again, Alternative C allows for natural fluctuations, however places limitations on fluctuation. Limits to other species are being implemented as well, especially with regard to bison and elk, the major grazers that would be affected by this alternative.

There is no evidence that buffer zones will limit migration or stop impacts. It is also not one of the objectives of this plan to limit the distribution or impact of bison within the park or alter wildlife interaction. By fencing bison out of prairie dog colonies, the interaction between prairie dogs and bison would be altered and their relationship impacted. In addition, fencing may have additional adverse impacts to other species having important interactions with prairie dogs such as pronghorn.

Comment 25479: *“Among the objectives for this Plan are that the Park will: "Establish the appropriate target prairie dog population levels that are ecologically sound and allow other park objectives to be achieved" (at p. 2). The Park has provided good analysis based on forage production for its entire suite of herbivores at stocking levels for all species (including elk and bison) within National Resource Conservation Service (NRCS) Guidelines that ensure maintenance of rangeland health, e.g., at stocking levels that will not result in impairment of soil or vegetation (Plan, Appendix B, p. 160). Appendix B indicates that the available AUMs for other wildlife species, even under the most ambitious prairie dog acreage targets (5,000 acres of prairie dogs), would result in 8,065 AUMs remaining after grazing by prairie dogs. As proposed under both Alternatives B and C (Plan, Table 8, p. 67; Table 10, p. 69), the total AUMs needed to support other grazers (bison and elk) after the elk reduction program are 7,650.”*

Response: After an elk reduction program, Alternatives B, C, and D have enough forage to sustain the wildlife populations presented in the analysis tables. However, these tables represent a minimum number of bison and elk that the park would be able to carry. Having the ability to allow bison and elk populations to fluctuate is an important aspect of wildlife management. Having more than 400 bison, for example, would place additional burden on the forage capacity of the park. Alternative C provides more flexibility to manage grazing species than Alternative B in this case, but not as much as Alternative D.

Comment 25501: *“The Park has stated that the objectives of this plan include: "Establish[ing] and maintain[ing] a black-tailed prairie dog population within the park that achieves a sustained minimum population size and distribution that is sufficient to fulfill the ecological keystone role of the species," and "Conserv[ing] regional biological diversity, especially rare and imperiled species." Unless the Park adopts the higher acreage targets, it cannot reasonably meet these objectives. Black-footed ferrets are perhaps the most useful indicator of all as to whether the abundance and distribution of prairie dogs is fulfilling an ecologically functional role.”*

Response: The park feels that Alternative C meets the objectives of the plan. More acres of prairie dogs would add strength to a black-footed ferret objective but the park must consider other factors than just ferret reintroduction, such as forage for other grazers (bison, elk, pronghorn, deer, etc.), residual cover for ground-using wildlife (sharp-tailed grouse, meadowlarks, and grasshopper sparrows), and the diversity of vegetative resources. The Park is attempting to maintain a balance and provide habitat for all wildlife species that inhabit the park.

Comment 25487: *“The Park has a legal and policy obligation to provide habitat sufficient for the conservation of endangered and other trust species. Federal agencies have an “affirmative obligation to conserve under section 7(a)(1)” of the Endangered Species Act. Pyramid Lake Paiute Tribe, 898 F.2d at 1416-1417 (9th Cir. 1990). An agency has a specific, not generalized, duty to conserve species listed pursuant to the act (See Sierra Club v. Glickman, 156 F.3d 606, 615-616 (5th Cir. 1998)) which includes helping recover endangered species.”*

Response: The park is familiar with *Sierra Club v. Glickman*, 156 F.3d 606, 615-616 (5th Cir. 1998)) and this ruling, along with guidance of *NPS Management Policies 2001* (4.4.2.2 and 4.4.2.3) is helping the park to meet these obligations. The NPS strives to restore native species where adequate habitat exists or can be restored to areas and the species can be self-sustaining. This plan is an important step in completing our affirmative responsibility to protect present resources and potentially restore extirpated species. The present population of 2,200 acres of prairie dog colonies is the highest acreage ever documented within the park. However, there are other significant resources within the park that also need to be considered in order to meet these obligations. For this reason, Alternative C lays the foundation of providing an adequate range of prairie dog colonies within the park while providing for other species such as bison and elk. Upon completion of this plan, the park can complete the Black-footed Ferret Reintroduction Plan/EA. That plan will determine the feasibility of a reintroduction of ferrets to the park. As has been stated before, the USFWS is looking for smaller areas to reintroduce ferrets, and the park may be suitable.

The National Park Service will continue to undertake active management programs to inventory, monitor, restore, and maintain listed species’ habitats. *Management Policies 2001* also discusses managing designated critical habitat, essential habitat, and recovery areas to maintain and enhance their value for the recovery of threatened and endangered species. This is being addressed through this plan.

Comment 25351: *“Alternative C may prohibit successful black-footed ferret reintroduction at its lower range, whereas Alternative B may negatively impact elk. If this is the only significant difference in outcome between the two, it seems apparent that an alternative favoring an endangered species over a common species would represent the environmentally preferred alternative, rather than the reverse.”*

Response: As previously stated, this plan is not based upon the reintroduction of black-footed ferrets, but upon the purpose and need as outlined on pages 1-3. True, the potential for reintroduction is considered in analysis and the park feels Alternative C (1,000-3,000 acres) does encompass enough acres to be considered a reintroduction site for black-footed ferrets. It may not be ideal, but the USFWS may consider areas with smaller prairie dog colony sites for ferret reintroduction.

However laudable the effort to reintroduce an endangered species into the natural environment, it can't be done at the expense of other species that belong to the ecosystem. Ultimately, the decision to reintroduce the black-footed ferret will be made by the USFWS based on the merits of the reintroduction environment and will consider the potential effects on other wildlife species. Also, as noted above, Alternative C better meets environmentally preferred alternative criteria 3 and 5 better than Alternative B with respect to fluctuating wildlife populations and the potential for land use conflicts.

Comment 25496: *“Black-footed ferrets are one of North America's most endangered mammals, an obligate predator of prairie dogs, and acutely in need of adequate sites for their recovery. Moreover, black-footed ferrets were formerly present in the Park (Anderson et al. 1986) and are now extinct. The principle reason that ferrets are no longer found within the Park, and ferret endangerment in general, is that poisoning programs directed at prairie dogs reduced habitat locally below critical thresholds for ferret populations to persist. Vortex modeling of prairie dog abundance and distribution and black-footed ferret population persistence highlights the need for higher acreage targets (Miller 2005). The probability of extinction of a ferret population at a carrying capacity of 20 over 50 years is approximately 88%, compared to only a 56% probability of extinction for a population of carrying capacity of 30 (Miller 2005, p. 37). Given the rule of thumb of about 100 acres needed for every female ferret (Forrest et al. 1985), the difference between a 2000 acres and 3000 acre target is literally the difference between meeting the objective of having a reasonable chance of conserving a ferret population (a rare and imperiled species) and failing to conserve them entirely. As acreages increase beyond 3000 acres, the probability of persistence continues to increase (only a 30% chance of extinction over 50 years at a carrying capacity of 40, for example). Lower target acreages are not only suboptimal, they would provide essentially no functional ferret habitat, and likely poor functionality for the host of other prairie dog associates.”*

Response: The park agrees that higher acres of prairie dogs would be beneficial for a black-footed ferret reintroduction effort. However, there are many objectives and other aspects of this prairie dog management plan that must be considered when measuring the success of the plan. This plan is not intended to address the reintroduction of black-footed ferrets, but to meet the purpose and need for a black-tailed prairie dog management plan as described on pages 1-3. The reintroduction of the black-footed ferret will likely be addressed in a separate plan and environmental assessment. While the feasibility of reintroduction will be studied at that point, the USFWS data suggest that smaller prairie dog colonies can support ferrets with better success than the statistics cited above suggest.

Comment 22510: *“The Park can maintain higher target acreages with minimal impacts to neighbors. The Park has indicated as one of its objectives that it will: “Implement actions that recognize the public / neighbor interface (the boundary area) and the need to foster a “good neighbor” policy. The analysis provided in the Plan clearly indicates that even with the highest target acreages proposed under Alternative B that prairie dog colonies are not likely to encroach within 1/4 of a mile of the Park Boundary, except in the northwest corner of the Park (Figure 4, p. 29), adjacent to Custer State Park and the U.S. Forest Service. While the maintenance of any buffer is problematic, there is some*

evidence that a buffer may limit further encroachment if vegetative structure is maintained that discourages prairie dog expansion. This distance is well within a reasonable range of management alternatives (see, e.g., Record of Decision for Black-Tailed Prairie Dog Conservation and Management, Nebraska National Forest, Final Environmental Impact Statement, Nebraska National Forest, Chadron, NB, August, 2005)."

Response: This statement is correct but it is only one of many issues considered. The park could still have high numbers of prairie dog acres and foster a good neighbor policy because under Alternative C the park would manage conflicts on a case-by-case basis. Other issues that must be considered and understood in this equation are that the park must maintain enough forage within its boundaries to provide for the other grazers and enough residual cover must be maintained to meet the needs of other animals such as sharp-tailed grouse, meadowlarks, and insects.

Maintaining a vegetative buffer as a natural barrier is one of many management tools addressed on pages 23-25.

Comment 25451: *"Re Park operations: As previously stated, the adverse effect on Park operation should be in the short term, while the long term effect should be beneficial. Once the population is reduced to the smaller target level of Alternative D, less effort would be required to maintain that target level. In summary, a smaller population will annually produce fewer off spring than a larger population, so the ongoing control efforts will be reduced. This same logic applies to the concern of visitors seeing the control efforts -- less concern in the long term, because of reduced control efforts with a smaller population. Consider this the same with your concern about injury to park staff while working out doors -- less effort required once the population is reduced."*

Response: This statement (park operations) can either be short-term or long-term. The effect on park operations will persist beyond the duration of the project. It will be an on-going effort, regardless of the alternative selected. One way or the other, park staff will be involved short- and long-term whether it is controlling, monitoring, mapping, or discussions with neighbors.

Comment 25481: *"There are more than enough AUMs available to support elk and bison even at the Park's proposed high acreage prairie dog target levels, densities that would not, under the NRCS guidelines, result in any impairment to the soil or vegetation in the Park while maintaining healthy ungulate populations."*

Response: As previously stated, after an elk reduction program, Alternatives B, C, and D have enough forage to sustain the wildlife populations presented in the analysis tables. However, these tables represent a minimum number of bison and elk that the park would be able to carry. Having the ability to allow bison and elk populations to fluctuate is an important aspect of wildlife management. Having more than 400 bison, for example, would place additional burden on the forage capacity of the park. Alternative C provides more flexibility than Alternative B in this case, but not as much as Alternative D.

Comment 25344: *"These examples (see comment 35341) indicate that the preferred Alternative C does not meet the National Park Service Midwest Region Prairie Dog Management Policy Statement that "parks should allow for natural prairie dog*

abundances, distribution, and conditions wherever possible." Rather than allowing for natural prairie dog abundances, distribution, and conditions wherever possible, this alternative would restrict prairie dogs in all but 3,000 acres of the Park."

Response: In a park with a finite amount of land resources and other species to take into account, a balance must be sought. As stated in the plan, prairie dog acreages will be allowed to fluctuate between 1,000 and 3,000 acres. However, just as with other species, there are limitations.

The document does not state that prairie dogs will always be in the same areas of the park, but they will be unnaturally controlled to some degree. Distribution may change, although limited, with the control effort. The natural abundance, distribution, and conditions are being met to the extent possible while operating within a fixed area and a fixed allocation of forage for the other wildlife species using the park.

Comment 25434: *"Re pg 49, Visitor use and experience topic: Can the comments of Alternative D be verified? What percentage of the visitors come to the Park to view prairie dogs, as compared to the percentage who come to visit the Cave? Some change in the location of the proposed location of prairie dog towns in Alternative D, to along Highway 385, would make them more visible to the visitors. Further, it is doubtful that many visitors would witness, or even recognize, the action of population control."*

Response: There is no data comparing visitors viewing prairie dogs to those entering the cave. It is given that there are varying reasons for visiting a National Park. Cave tours, hiking, wildlife viewing, examining wildflowers and a host of other personal reasons are all afforded in National Parks. A significant number of visitors enter the park and, whether planned or serendipitously, stop and view wildlife, including prairie dogs. Numerous times each year, permits are given for filming wildlife and the majority of these are for filming prairie dogs and bison.

It must be remembered that the maps presented in the plan are not proposed locations for colonies, but a conceptual view to depict the relative area of each alternative. The location of the prairie dog colony adjacent to Highway 385 in the conceptual depiction of Alternative D was selected because it is already there and in approximately the same size and distribution (compare the current distribution on page 9 and the conceptual distribution of Alternative D on page 34) as that which might be reached under Alternative D. However, removing prairie dog colonies from current areas, particularly along roadways and trails, will have an adverse impact on wildlife viewing capability, as outlined in the plan.

The use of lethal control of a wildlife species is not an action visitors normally expect to view when entering a National Park. It would be unreasonable to assume that all control action, particularly under Alternative D in which so much control would need to occur, would take place out of view of the visiting public.

Comment 25432: *"Re pg 49, Park operations topic: Alternative D statement is short sighted, indicating an adverse effect due to the "large amount of staff time for extensive prairie dog control." The increased required staff time required to reduce the current population to under 1000 acres, would soon be offset by the reduced amount of time to keep the population under 1000 acres, as compared to significantly more time required to keep a larger population of up to 3000 acres from exploding (note above statement about*

235% growth from 2003 to 2004). Certainly, a smaller population will grow less in numbers annually than the larger population, and thus take less time and cost to contain.”

Response: The population growth from 2003 to 2004 was not within the park alone. The comparison in the effects is based on present park operations with about 2,200 acres of prairie dog colonies. As a result, under Alternative B, the increased need for control in the Active Management Zone and potential activities needed to encourage prairie dog colony expansion would result in a long-term, minor to moderate, adverse effect on park operations. Alternative D would involve a large amount of staff time for extensive prairie dog control efforts (not only population reduction, but also long-term maintenance), even though there would be less time needed to respond to landowner complaints. The effects on park operations would be long-term, moderate, and adverse. The effects of Alternative C would be similar to those of the No Action Alternative (or present conditions), with the exception of the park having additional management tools (i.e., ability to control population) and case-by-case management, which would require additional staff time. The park staff feels the effects of Alternative C would be long-term, negligible to minor, and adverse.

Comment 25435: *“Re pg 50, Public health and safety topic: The stated, “adverse effects from continual potential for injuries from park staff working in outdoor field conditions” is overstated. The less effort to contain a smaller population should have less adverse effects, than the greater effort to contain a larger population, as stated above in Park operation topic. Also, since less containment efforts should make the adverse effects from use of rodenticide and shooting smaller than the effect under Alternative C.”*

Response: Because of the need to conduct management efforts, the work needed to reduce the population to 1,000 acres would be greater than to maintain the population at the present acreage. Once the population targets are reached, the management efforts will be dictated by landowner complaints and case-by-case NPS response under Alternative C or by activities in a buffer zone under Alternative B. Alternative D would require continual management at a relatively high level (i.e., at levels greater than Alternatives B or C) to maintain the depressed population level.

Regardless of the alternative selected there will be potential adverse effects on health and safety. However, there is less exposure potential under Alternative C.

Comment 25438: *“Further, a smaller population reduces the probability of plague, which should improve the health impact to the public, a difference from the higher population alternatives.”*

Response: It is unclear what this statement is referring to. Is the comment stating that with a smaller population, the probability of plague entering the population is reduced, or is it stating that once entering the population the probability of plague spread is reduced?

To date, no plague has been documented in any rodent population within the park. A smaller population would not guarantee a barrier or significantly reduce the “probability” of plague entering the park, as plague is found in other rodents as well. Wild rodents around the world are infected with plague. Rock squirrels, ground squirrels, prairie dogs, wood rats, chipmunks, and other rodents and their associated fleas, suffer plague outbreaks. Deer mice and voles may also

be carriers. Rabbits and wild carnivores also pick up the infection from rodent outbreaks. In addition, domestic cats and dogs are infected by fleas or eating infected wildlife. (Plague Information - CDC Division of Vector-Borne Infectious Diseases [DVBID] <http://www.cdc.gov/ncidod/dvbid/plague/info.htm>).

A smaller population may reduce the “probability” for plague to be spread among prairie dogs, but this is no guarantee either and would not eliminate the risk to the public, as there are other species than prairie dogs that can carry plague.

Comment 25428: *“Re pg 39: Alternative D indicates, “The low prairie dog population would put the prairie dog population at potential risk of becoming unsustainable.” That finding is unbelievable, considering concentrated efforts by numerous ranchers have been unsuccessful in totally eradicating prairie dog towns. The SDUS Extension Connector, volume 2, issue 3, states, “Mapping completed by the South Dakota Game, Fish, and Parks shows an increase in numbers of up to 235% from 2003 to 2004.” Further, the explosive growth of towns with no control, and as experiences within the Park, cast significant doubt on the creditability of this statement.”*

Response: There is a higher potential risk of losing sustainability with 300 acres of prairie dogs than there is with 3,000 acres. As colonies get smaller, the less sustainable they become. The unsustainable terminology was addressed in this document to help deal with exigent circumstances such as a plague outbreak. The 235% is on a much larger scale than what the Park is dealing with. While it is true that the prairie dog has shown to be considerably resistant to total eradication, expansion of the population over the entire state of South Dakota is not an appropriate comparison to the situation in the park.

Comment 25442: *“Re Wildlife: Present elk population is estimated at 850, with an estimated present population or 455 bison in the Park. Alternative C, Tables 9 and 10, attempt to justify sufficient forage for a significantly reduced number of elk (175 - 425) and bison (330 -400). Those numbers have not been achieved, and an accepted management plan has not been created for such reduction. It would seem premature to project there will be sufficient forage for a large prairie dog population at this time. The additional forage available under Alternative D would be welcome for other wildlife.”*

Response: The plans in question are not complete and the population numbers have not been achieved to-date. The park is using an established method to project forage availability. Without such an exercise, the applicability of any plan would be suspect. Simply stating that reducing prairie dog numbers will provide forage for other wildlife species does not take into account that these other species may not be in balance to begin with. The overall goal of the park is to bring wildlife populations into a balance with the ability of limited park acreages to support them. These plans will build upon each other and they will all take the same forage allocation numbers into consideration while making management decisions. In addition, the park has placed all acres of prairie dogs into an early seral stage thereby accounting for their vegetation consumption.

Comment 25443: *“Regarding the adverse effects on other wildlife due to zinc phosphide use for control of prairie dogs, in the long term, less control will be required, and thus less use of zinc phosphide, to maintain a smaller population than would be required to*

maintain the larger population of Alternative C. Alternative D would be the better choice here.”

Response: Control efforts under Alternative D would probably not diminish over the long-term, because it would take continual effort to keep the prairie dog population at a depressed level. The potential risks to other wildlife associated with the use of zinc phosphide would be greater under Alternative D.

Comment 24782: *“The Cheyenne River Basin Prairie Dog Erosion Study (prepared for the Nebraska National Forest Plans Revision Appeals Coalition by Robert D. Nielsen), shows that erosion is a major concern in prairie dog towns localities.”*

Response: The National Park Service recognizes that the effects of prairie dog foraging, clipping, and burrowing influences soils. Although soil erosion is an important consideration, we do not share the position that erosion in prairie dog colonies is a major concern. Black-tailed prairie dogs are a native wildlife species and part of the natural environment. Additionally, erosion is a natural process and an outcome of the interaction of wildlife and the earth. Some species remove vegetation that aids in reduction of erosion, while some species provide additional habitat for other species to increase. There are numerous studies that indicate the activities of prairie dog are beneficial to soil genesis and reduce erosion.

Comment 24744: *“Would fox, coyote, wolfs, and carnivorous birds such as the hawk and golden or bald eagles eat the poisoned carcasses and die. Or would the dead animal carcasses be picked up and put into a safe area where the animals and or poison would not contaminate people, animals or water. The prairie dog issue would need critical supervision and immediate disposal of the poisoned carcasses. Is the poison safe or with rain or moisture, absorb into the ground and other animal and plants be killed by it. Hazardous material training would be needed as poison is extremely dangerous. Will the poisoning bring the animals into the endangered species level or could they breed without deformity?”*

Response: Information that addresses these concerns is already included in the analysis of impacts for Alternative C in the environmental assessment. Information regarding the effects of zinc phosphide on wildlife can be found on pages 68 and 69 of the EA.

Similar information is stated for the bald eagle in the “Endangered and Threatened Species” section on pages 83 and 84 of the document. Measures for ensuring protection when applying zinc phosphide are addressed in the “Public Health and Safety” section on pages 104 and 105.

Comment 25385: *“When prairie dog colonies approach neighboring lands, financial incentives or easements should be available.”*

Response: Financial incentives or easements are included as part of each action alternative. Refer to pages 24 and 25 in the environmental assessment for specifics.

Comment 24769: *“I would so like to see some type of guidelines for potential co-existence in some circumstances of development. I realize that baseball fields and prairie*

dog burrows don't go together, but when you say developed areas, don't you mean buildings and parking lots? What is the harm of prairie dogs being near them?"

Response: As stated in the "Purpose and Need" section on page three of the plan, "There is also concern that the burrowing activities of prairie dogs can compromise infrastructure or facility integrity (e.g., roadbanks or foundations), which could pose hazards to public health, safety, and welfare. As a result, management is needed to ensure that prairie dog activities do not create potential unsafe or hazardous conditions that could affect the public." Because there was a need for this type of management with regards to prairie dogs, a No Prairie Dog Management Zone was developed, which calls for no prairie dogs in certain areas of the park, including the campground and around park buildings and infrastructure.

Comment 25182: *"Wind Cave National Park (WCNP) stated in their DEA that they also would like to maintain a "good neighbor" policy as suggested by the state plan. Therefore, the alternative that best fits the needs in accordance with the state management plan is the most appropriate alternative."*

Response: All action alternatives include the "good neighbor" policy as an overall objective. For this reason, aspects of all action alternatives address this, through the creation of a buffer zone (Alternative B), through management on a case-by-case basis with park neighbors (Alternative C), or through reducing the population size to a point where limited dispersal would be expected (Alternative D).

Comment 25247: *"Alternative C would allow WCNP to maintain prairie dog acres at the current levels, yet manage them to allow for responsible vegetative and wildlife resource management. With this acreage goal, WCNP plans to handle landowner concerns/complaints on a case-by-case basis, much like the previous alternative. Therefore, control may occur along the park boundaries where adjacent land use conflicts occur thereby employing a "good neighbor" policy. As such, there is no need for an active management zone. This alternative seemingly meets the needs of responsibly managing prairie dogs while addressing landowner complaints. We would support this alternative but only with an appropriate buffer. Alternative C is the most appropriate in terms conservation and management of black-tailed prairie dogs. However, it does not indicate a plan to implement a buffer zone to control prairie dogs (as in Alternative B) on properties bordering Wind Cave National Park. We suggest considering an appropriate quantifiable buffer to include as a part of Alternative C (i.e., one-mile)."*

Response: No buffer zone was selected for Alternative C, because, as the commenter states, "With this acreage goal, WCNP plans to handle landowner concerns/complaints on a case-by-case basis, much like the previous alternative. Therefore, control may occur along the park boundaries where adjacent land use conflicts occur thereby employing a "good neighbor" policy. As such, there is no need for an active management zone." The suggestion of a one-mile buffer zone would include a very large portion of the park, which would not give the park flexibility to meet the other objectives of the plan, such as "Establish and maintain a black-tailed prairie dog population within the park that achieves a sustained minimum population size and distribution that is sufficient to fulfill the ecological keystone role of the species." In conclusion, a buffer zone of 1 mile would be unnecessary to achieve the plan's objectives and would also hinder meeting other objectives, making it unreasonable for inclusion in an alternative.

Comment 24821: *“Another consideration is what prairie dog shooting will look like to visitors who may witness it happening or who may encounter deceased prairie dogs who have obviously been killed this way. Does this portray the mission of the National Park Service in a positive way?”*

Response: These aspects were considered in the analysis of alternatives’ effects on Visitor Use and Experience. Visitors’ ability to witness lethal control would be very limited. See page 101 of the environmental assessment for a more detailed analysis. NPS interpretive/educational efforts would continue and would provide visitors with information about responsible prairie dog management.

Comment 25338: *“With increasing pressure on prairie dogs in other recovery areas (e.g. Conata Basin), it is important to significantly expand, not just maintain or slightly enhance current prairie dog populations. This is critical not just for prairie dogs but for all the other species that rely heavily on prairie dog populations and associated burrows etc. in the grassland ecosystem.”*

Response: As stated in an earlier response, the present population of 2,200 acres of prairie dog colonies is the highest acreage ever documented within the park. Considering the complexity of managing the park and its limited resources, a large expansion of prairie dog acreage may not be an ideal situation for the park ecosystem, as it would result in a noticeable reduction in mixed-grass prairie acreage and a reduction in forage for other wildlife species, such as bison and elk. For this reason, Alternative C lays the foundation of providing an adequate range of prairie dog colonies within the park while providing for other species.

Comment 25431: *“Re pg 45: Alternative D impact states, “the effects to ungulate species and their forage would be adverse and negligible.” This is contrary to the finding of the USD study referenced above, which found significantly less desirable forage for livestock within prairie dog towns.”*

Response: As stated in the “Wildlife” section analysis for Alternative D, the reduction in prairie dog populations to between 300 to 1,000 acres would, over time, result in increases in mixed-grass prairie and would result in more AUMs available to ungulate species, although adequate forage already exists. For these reasons, the effect was determined to be negligible. The U.S. Fish and Wildlife Service, in their 2004 press release, Black-tailed Prairie Dog Removed from Candidate Species List, stated that “...constant digging and clipping of grasses by prairie dogs causes soil turnover that results in changes of the composition of vegetation on the prairie. These changes actually can improve the nutritional quality of existing grasses and encourage growth of high forage quality forbs.” Thus, by reducing prairie dogs, access to the nutritional quality (not amount of forage, as presumably analyzed in the USD study) would be reduced, representing an adverse negligible effect.

Comment 25356: *“Black-footed ferrets are an endangered member of the prairie dog ecosystem and require large complexes of prairie dogs to maintain viability. Unless Wind Cave boundaries change in the future, the park may never have enough prairie dog acres to maintain a viable ferret population. But Wind Cave can still play an important location for ferret reintroduction on an experimental basis. The U.S. Fish and Wildlife*

Service Black-footed Ferret recovery coordinator has noted that additional adequate-sized prairie dog complexes for ferret reintroduction do not exist today and therefore smaller protected complexes will be necessary until large complexes are one day restored. He has specifically mentioned the potential to reintroduce ferrets to Wind Cave on many occasions, most recently in a presentation in Rapid City on February 26, 2005. The more prairie dog acres, the better for this possibility, but 2,500 acres has been mentioned as a number that may be practical for ferret reintroduction experimentation. We therefore encourage you to include this number as a minimum population goal in all alternatives.”

Response: As previously stated, this plan is not based upon the reintroduction of black-footed ferrets, but upon the purpose and need as outlined on pages 1-3. True, the potential for reintroduction is considered in the analysis and the park feels Alternative C (1,000-3,000 acres) does encompass enough acres to be considered as a reintroduction site for black-footed ferrets. The U.S. Fish and Wildlife Service, in a March 16, 2006 response letter to the environmental assessment, concluded that Alternative C would have beneficial effects for black-footed ferrets, were they to be reintroduced.

Comment 24819: *“I also am concerned about visitor safety and access during periods when this method is to be used. Will portions of the park be closed to visitors during this procedure?”*

Response: The National Park Service is highly cognizant of the potential impacts of their management actions on public health and safety. All necessary measures to ensure safety for the respective management activities will be employed. The park will decide on a case-by-case basis whether it will be necessary to close part of the park because of management actions. The decision to close a part of the park will depend upon the location within the park of the management action, the time of the year, and other factors considerate of visitor safety and access.

Comment 25354: *“Only three National Park System units contain significant populations of black-tailed prairie dogs: Wind Cave, Badlands, and Theodore Roosevelt. This makes Wind Cave incredibly important for educating the visiting public of the value of this animal as a keystone species. The prairie dog's keystone role should be maintained by allowing prairie dog colonies to change in size, location, population density, and vegetative condition over time rather than keeping them "in check" in only certain locations and only with certain vegetative conditions.”*

Response: Under Alternative C, prairie dogs are not limited to certain locations or certain vegetative conditions in the park. Furthermore, the park feels that the objective of maintaining the prairie dog's keystone role is maintained by Alternative C, because managing prairie dog acreage between 1,000 and 3,000 acres in the park has sufficient latitude around the existing population size to maintain its keystone role.

Comment 25376: *“The best, cheapest, and most permanent solution over time to keep prairie dogs from occupying the very limited locations where they now approach boundaries is to maintain tall vegetation. This can be done in Wind Cave by eliminating*

bison grazing and burning in these areas. This could involve no more than a few hundred yards of fencing at each of the 3 prairie dog colony locations. Based on bison behavior in other locations, possibly simple 3-strand barbed wire fence, possibly electrified, would do the job. It is worth the experiment to find out. These options are not found in the Draft EA. Please include these options in all final alternatives.”

Response: Vegetation barriers, managing other species’ grazing levels, and prescribed burns are already included in all action alternatives in the environmental assessment. See pages 23 and 24 in the document for more information on these management tools. By fencing bison out of prairie dog colonies, the interaction between prairie dogs and bison would be altered and their relationship adversely affected. In addition, whether electrified or not, fencing may have additional adverse impacts to other species having important interactions with prairie dogs such as pronghorn and burrowing owls.

Comment 24792: *“...question the accuracy of the current estimate of 2,200 acres inhabited by the dogs! I have some experience estimating acreage and would place it more like 4,500 to 5,000 acres right now.”*

Response: Prairie dog colony acreages were measured by walking the perimeter of the clipped areas of the colonies and recording locations using a Global Positioning System (GPS) unit and then using GIS computer software to calculate the acreages. This is one of the most accurate methods currently available to determine area.

Comment 25339: *“Very few areas exist across the Great Plains in which black-tailed prairie dog towns are fully protected from human impacts such as poisoning, shooting, and habitat loss. Add sylvatic plague to the list of threats to prairie dogs and protected areas are reduced to only a few small locations. Wind Cave National Park is one such area currently free from all of these threats. We strongly encourage you to keep Wind Cave free from human-caused threats by selecting a prairie dog management alternative that allows prairie dog populations to fluctuate naturally within the Park’s boundaries while maintaining a minimum population necessary for associated wildlife to thrive.”*

Response: Alternative C is the management alternative that best achieves the objectives stated in the comment. In a park with a finite amount of land resources and other species to take into account, a balance must be sought. As stated in the plan, prairie dog acreages will be allowed to fluctuate between 1,000 and 3,000 acres. It does not state that the prairie dogs will always be in the same areas of the park but they will be unnaturally controlled. Distribution may change, although in a limited manner, over time. The natural abundance, distribution and conditions are being met to the extent possible while operating within a fixed area and a fixed allocation of forage for the other wildlife species using the park.

Comment 25353: *“Prairie dogs should be allowed to survive in the Park wherever they choose so long as they do not interfere with another equally important management goal. In cases where their presence does interfere with other goals, action can and would be taken to solve the conflict regardless of whether or not an upper threshold exists. The two most important wildlife issues within the park are maintaining the important genetically pure bison herd and the important plague-free prairie dog ecosystem. Both rely on the*

grassland habitat within the park. Based on research from Wind Cave, they are not mutually exclusive but rather benefit from each other to a large degree.”

Response: The Park feels that Alternative C addresses the issue raised by this comment, as this alternative balances prairie dog population levels with bison and elk levels, based upon forage allocation modeling. The upcoming bison management plan will further address bison management in the park.

Comment 25531: *“The prairie dog acreage selected in the preferred alternative (1,000 to 3,000 acres) would be among the fewest acres attempted under a ferret reintroduction. If possible, it would be valuable to manage for the upper end of this acreage and possibly consider key expansions if they could further reintroduction opportunities without causing encroachment concerns.”*

Response: As stated earlier, the present population of 2,200 acres of prairie dog colonies is the highest acreage ever documented within the park. Considering the complexity of managing a park of this size, a large expansion of prairie dog acreage may not be an ideal situation for the park ecosystem, as it would result in a noticeable reduction in mixed-grass prairie acreage and a reduction in forage for other wildlife species, such as bison and elk. For this reason, Alternative C lays the foundation of providing an adequate range of prairie dog colonies within the park for black-footed ferret reintroduction while providing for other species such as bison and elk.