FINDING OF NO SIGNIFICANT IMPACT
FIRE MANAGEMENT PLAN
DEVILS TOWER NATIONAL MONUMENT

Devils Tower National Monument (DETO) comprises 1,347 acres in northeastern Wyoming on the northwestern edge of the Black Hills. The flora and fauna of the monument are typical of the Black Hills region of South Dakota and surrounding area in Wyoming (NPS 1998). The Belle Fourche River, which flows through the eastern side of the monument, is part of the Cheyenne River Basin. Devils Tower, one of the most conspicuous geologic features of the Black Hills region, is made up of igneous rock surrounded by sedimentary rock of the Spearfish, Gypsum Spring, and Sundance formations.

Fire represents an ecological factor of significant importance to the monument since it has occurred naturally throughout history. Since the early twentieth century, inhabitants of the Black Hills have actively suppressed wildfire. These suppression activities have altered fire's natural role in ecosystem maintenance. In the last several decades, DETO has used fire to mimic its natural role for hazard fuel reduction and native prairie restoration.

The existing Fire Management Plan has been in place since 1991. A new Fire Management Plan has been drafted to adopt new terminology, documentation guidelines and policy required by a 2002 revision of the National Park Service's Fire Management Policy. The plan is a detailed program for use and control of fire within DETO and provides specific guidance and procedures for accomplishing park fire management objectives. Human safety, protection of facilities and the use of fire to restore the ecosystem are included in the plan.

The environmental assessment is an appendix to DETO's FMP, which provides specific guidance and procedures for accomplishing park fire management objectives. The new FMP addresses the need to make the DETO's comprehensive fire program consistent with new management terminology, documentation guidelines and policy. The Environmental Assessment (EA) describes two alternatives and their environmental consequences, reports on issues sought from the public about the alternatives, and fulfills a necessary step in determining the impacts of the fire management program. Public concerns identified during scoping and evaluated in the EA included visual aesthetics and public health and safety.

PROPOSED ACTION
DETO intends to implement the following alternative:

Alternative A – No Action/Comprehensive Fire Management Program.
This alternative would allow for all wildland fires to be suppressed in such a manner to reduce the threat to human life and facilities while ensuring adequate protection of natural and cultural resources. Suppression actions would consist of hand–dug fire lines, hose lays, engine support, and helicopter support through water drops by bucket and sling loads of supplies. All other tactics would need superintendent approval prior to implementation.

Mechanical hazard fuel reduction would be utilized around historic structures to provide defensible space, which would lessen the risk of damage should a wildland fire occur. This manipulation may include the use of chainsaws and hand crews to move or stack downed

fuel, and/or thinning of dense stands to reduce ladder fuels before introducing fire to the landscape. Debris associated with these projects would be removed from the site or stacked and burned on site. Until the vegetation management evolves from a restoration to a maintenance mode, mechanical methods would be required in some areas to reduce the accumulated fuels to the point where it would be safe and practical to reintroduce fire. For example, in the area north of the tower, the North Terrace unit, thinning with chain saws is necessary prior to having fire visit the area. In areas like this, piles would be created, then burned in the winter when there is snow on the ground. Then it would be possible to use fire as a tool the following year. Mechanical treatments would also be utilized at the landscape level to reduce fire behavior and limit mortality of canopy trees of ponderosa pines. These treatments would consist primarily of cutting 1–8 inch diameter trees and shrubs that have grown in among the mature trees increasing the potential for crown fire.

A goal of the program is to reintroduce fire into the ecosystem at the monument to mimic fire's historic role. This would be done through a rotational series of prescribed fires to achieve *desired future conditions* listed in the plan. Approximately 1,300 acres could be treated over the next 10 years. A treatment schedule covering five years is included in plan's Appendix H: Prescribed Fire Unit Map and Schedule. Prescribed fire would not be utilized unless adequate staffing is available and favorable weather and fuel conditions are met. Reevaluation of the prescribed fire schedule would occur every five years.

ALTERNATIVES CONSIDERED

The alternatives considered in this document are the result of agency and public scoping input, and their impacts are analyzed in accordance with the National Environmental Policy Act. All alternatives must be consistent with the purpose and significance of DETO, and they must meet the purpose of and need for action, as well as the objectives for the project.

Alternatives considered included Alternative A -No Action: Comprehensive Fire Program (Preferred Alternative) and Alternative B -Prescribed Fire Program. The prescribed fire alternative included wildland fire suppression and the use of prescribed fire, but did not allow mechanical hazard fuel reduction as part of the program.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

The environmentally preferred alternative is determined by applying the criteria suggested in the National Environmental Policy Act (NEPA) of 1969, which is guided by the Council on Environmental Quality (CEQ). The CEQ defines the environmentally preferred alternative as "… the alternative that will promote the national environmental policy as expressed in the National Environmental Policy Act's S101." Section 101 of the National Environmental Policy Act states that "… it is the continuing responsibility of the Federal Government to …

(1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

(2) ensure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;

(3) attain the widest range of beneficial uses of the environment without degradation, risk of 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 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."

Based on the analysis prepared in this environmental assessment, the environmentally preferred alternative is Alternative A, which is also the preferred alternative. This alternative has more long-term positive environmental impacts with lesser negative impacts. Specifically, Alternative A has long-term positive impacts by mimicking a natural process that would support native plant growth and survival. By supporting native plant species and communities, the Alternative A would also have long-term benefits for the ponderosa pine/mixed-grass ecosystem. In doing so, the Alternative A would promote the policies expressed in numbers 1, 2, 3, and 4 listed above.

WHY THE PROPOSED ACTION WILL NOT HAVE A SIGNIFICANT EFFECT ON THE HUMAN ENVIRONMENT

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

Impacts that may be both beneficial and adverse:

Minor adverse impacts of the proposed action include short-term impacts to air quality, soils resources, visitor use and experience, and wildlife resources and long-term impacts to ethnographic resources. Prescribed fire activity will generate smoke and particulate matter that may impact air quality. Proper timing of fires during appropriate climatic conditions will reduce impacts. Soils resources would be adversely impacted due to prescribed fire and mechanical fuel treatment activities. Fortunately, the use of prescribed fire to reestablish a fire-driven nutrient cycle and increase soil strata stability would result in long-term benefits. Visitor use and experience would also be adversely impacted due to activities in the proposed action. Fuel reduction and prescribed fire activities may require the closure of certain areas to provide for visitor safety and may also result in disturbances due to smoke, odor, and noise. To minimize such impacts, activities will be conducted during times of off-peak use and appropriate climatic conditions. Long-term impacts would be beneficial due to the protection of local resources from intense wildfires and the associated suppression activities. Ethnographic resources would receive direct, minor, long-term adverse impacts from the prescribed fire and fuel reduction activities, but would receive moderate, long-term, indirect, beneficial impacts as the risk of extensive, high-intensity wildfires is reduced. Short-term adverse impacts to wildlife from prescribed fires would be offset by the long-term beneficial impacts that most species would receive when fire's natural role is returned to the ecosystem and habitat variety and plant diversity increase.

Degree of effect on public health or safety:
Suppression of wildland fire is inherently dangerous. Strict adherence to safety guidelines for fire fighting, equipment and procedures would minimize accidents. All prescribed fire operations would be conducted by red-carded firefighters. Impacts to the public include smoke inhalation, and in severe cases consumption of dwellings and loss of life. Areas of the park may be closed to ensure visitor and employee safety during prescribed fires.

Under the proposed action, over time there would be less chance of extreme or widespread wildfires in the area due to the reduction of fuels in the monument and the use of prescribed fire in the monument. This would result in a long-term, indirect, beneficial impact to local and regional health and safety, since the possibility of more severe health and safety impacts due to unplanned fire suppression efforts would be substantially reduced.

The actions involved with the use of prescribed fire and manual fuel reduction would involve more controlled conditions and pre-planning for the protection of health and safety, as well as appropriate notification and permitting prior to taking action. Also, prescribed fires and fuel reduction activities would be planned for seasons of low visitor use whenever possible. All prescribed fires will have an updated approved prescribed fire plan that contains measures to provide for public and firefighter safety. In addition, prescribed fire notices in local newspapers, brochures for the public and phone calls to adjacent landowners will advise them of burn times and precautions that may be taken. Therefore, the potential for adverse impacts related to fire control efforts, setting of fires for prescribed burns and slash pile burns, smoke release, and use of chainsaws and equipment for thinning and limbing would be lessen, resulting in negligible or minor, adverse, short-term impacts. These impacts are often very localized, with few off-site adverse health and safety concerns to nearby residents.

In conclusion, the action would provide long-term, moderately beneficial impacts resulting from the increased protection from extreme wildfire, which can create situations with higher health and safety risks. It would also result in more localized, negligible to minor, short-term adverse impacts from the prescribed fire and fuels reduction activities.

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:
As described in the EA, no major adverse impacts or impairment to natural or cultural resources were identified for the proposed action. There are no prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas affected.

Degree to which effects on the quality of the human environment are likely to be highly controversial:
As indicated in the EA, there are no highly controversial effects due to the proposed action. In fact, there would be less chance of extreme wildfires in the area due to the reduction in fuels and the use of prescribed fire within the monument. This would result in a long-term, indirect, beneficial impact to visitor use and enjoyment, since the possibility of larger scale destruction of natural and cultural resources would be substantially lessened, as

would generation of noise, smoke, odors, and reduced visibility. Avoiding wildfire damage and the resultant disruption to visitors, especially during the high tourist season, would increase the beneficial impacts of this alternative.

Prescribed fires and thinning/slash pile burning would generally be undertaken in certain limited locations during the pre- and post-visitor use seasons when fire danger is lower and fewer visitors are present. Also, fire and slash burning would be done when climatic conditions are appropriate to ensure that smoke would not interfere with visitors at the park or cause major indirect adverse impacts to viewsheds. More frequent instances of visitor use restrictions and disturbance may occur due to smoke and odor, and noise from equipment, vehicles, and chainsaws during these activities. However, these impacts would be very short-term and localized. Therefore, these activities would have negligible to minor short-term adverse impacts on visitor use and experience.

Implementation of the proposed action would result in minor to moderate and mostly short-term adverse impacts during the periods of fuels reduction and prescribed fire activities that would require restrictions on park use. However, long-term beneficial impacts would result from the increased protection from extensive wildfires and the resultant improved landscape scene.

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

As previously described, the action would provide long-term, moderately beneficial impacts to public health and safety resulting from the increased protection from extreme wildfire. It would also result in more localized, negligible to minor, short-term adverse impacts from the prescribed fire and fuels reduction activities. Mitigating measures, such as timing of activities, will reduce the effects to public safety. Therefore, there were no highly uncertain or unique or unknown risks identified.

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:

Director's Order #18: Wildland Fire Management states that, "Each park with vegetation capable of burning will prepare a fire management plan to guide a fire management program that is responsive to the park's natural and cultural resource objectives and to safety considerations for park visitors, employees and developed facilities." The proposed action follows the policy and guidelines outlined in the DO and corresponding reference manual. Because this action is mandated by the above policy and is consistent with current policies and guidelines, actions for this project will not set any NPS precedent.

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

As previously described, impacts of the proposed action were to air quality, soils resources, visitor use and experience, ethnographic resources and wildlife resources. By conducting fire management activities during appropriate times, such as off-peak use and pre- or post-visitor use season, and during appropriate climatic conditions, some effects to air quality and visitor use and experience were mitigated and no significant cumulative effects were identified. In addition to the minor adverse, short-term impacts on soils and wildlife

resources, long-term beneficial impacts will also occur. Mitigation measures, such as leaving a mosaic of vegetation to stabilize soils, rehabilitating areas to pre-fire conditions, using minimum impact suppression tactics guidelines, and favoring wet-line or scratch line methods over heavy, will reduce adverse impacts and no significant cumulative effects on soils will occur. Careful planning of fires and continued consultation with the tribes and SHPO, and the decreased potential for intense wildfires will minimize impacts to ethnographic resources. Conducting prescribed fires and mechanical hazard fuel reduction activities during appropriate seasons to minimize impacts on breeding animals will help mitigate impacts to wildlife resources. Leaving a mosaic pattern on the landscape will also mitigate impacts. As the proposed action will lead to an increase in habitat variety, diversity of plant communities, and increased nutritional quality and availability of forage as indicated in the EA, no significant cumulative effects on wildlife were identified.

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:
All cultural sites within the park are protected by federal legislation (Antiquities Act of 1906, 1979 Archeological Resources Protection Act, Executive Order 11593) and Section 110 of the National Historic Protection Act. The management of cultural resources is guided by NPS-28: Cultural Resource Management Guideline. A 1997-98 survey of the monument found 21 historic and 49 prehistoric archeological sites (Molyneaux 1998). Historic sites consist of the old park entrance road, homestead site, trails, trading post and cabins and graffiti. All prehistoric sites are open, lithic scatters with the exception of two rock paintings and a hearth. The monument has also been surveyed for ethnographic resources (Hanson and Chirinos 1997) and a variety of ethnographic sites has been recorded and are managed in consultation with the tribes.

DETO has fourteen items on the List of Classified Structures (LCS). Four of the structures are log buildings built by the Civilian Conservation Corp (CCC) in the late 1930's. These four buildings are still in use by park management as a Visitor Center, Ranger Office, fire hose box, and Entrance Station. The 3 mile park entrance road and associated 5 road culvert types [A, B(2), C(3), E K] totaling nine structures. The remaining is a wooden stake ladder built in 1893 on the Tower's face for the first ascent.

Compliance with §106 of the National Historic Preservation Act was completed when a concurrence with the NPS determination of no adverse effect by the Wyoming State Historic Preservation Officer was received on 12/06/04.

Degree to which the action may adversely affect an endangered or threatened species or its critical habitat:
In response to the NPS request for formal consultation, the U.S. Fish and Wildlife Service (USFWS) concurred with the NPS determination of "may affect, but is not likely to adversely affect" the federally threatened bald eagle (*Haliaeetus leucocephalus*) (correspondence dated 12/20/04). In support of the determination, the NPS also committed to the following conservation measures:

1) Project areas with suitable habitat will be informally surveyed for bald eagle nests and roosts prior to conducting the activity. Suitable nesting habitat is any mature stand of

conifer or cottonwood trees in association with rivers, streams, reservoirs, lakes, or any significant body of water. Suitable roosting habitat is defined as any mature stand of conifer or cottonwood trees.

2) Disturbance-free spacial (one mile) and temporal buffers for any future nests (February 15th – August 15th) and winter roosts (November 1st – April 15th) identified will be observed.

3) Clearing of live or dead conifer or cottonwood trees greater than 12 inches in diameter at breast height along the Belle Fourche River and associated wetlands will be avoided to the extent possible to help preserve potential bald eagle roosting or nesting habitat.

4) Project activities will not be implemented in areas where bald eagles are known to be present.

Based on a lack of suitable habitat for these species within the monument, the NPS also determined this plan would have no effect on the federally endangered black-footed ferret (*Mustela nigripes*) and threatened Ute ladies'-tresses (*Spiranthes diluvialis*),

Whether the action threatens a violation of Federal, state, or local environmental protection law:
The proposed action violates no federal, state, or local environmental protection laws.

Impairment:
In addition to reviewing the list of significance criteria, the National Park Service has determined that implementation of the proposal will not constitute an impairment to DETO's resources and values. This conclusion is based on a thorough analysis of the environmental impacts described in the Fire Management Plan Environmental Assessment/Assessment of Effect, the public comments received, relevant scientific studies, and the professional judgment of the decision-maker guided by the direction in NPS *Management Policies*. Although the plan/project has some negative impacts, in all cases these adverse impacts are the result of actions taken to preserve and restore other park resources and values. Overall, the plan results in benefits to park resources and values, opportunities for their enjoyment, and it does not result in their impairment.

PUBLIC INVOLVEMENT
The environmental assessment was made available for public review and comment during a 30-day period ending October 29th, 2004. A total of 3 responses were received. This total includes 1 letter from an agency (Wyoming Game and Fish Department), 1 letter from a governmental entity (Crook County Board of Commissioners), and 1 letter from an organization (Bear Lodge Multiple Use Association or BLMUA). Two of the letters clearly state, among other things, a position for the preferred alternative, and one had no concerns. The following is a summary of the comments and, where appropriate, the park's responses:

- The Wyoming Game and Fish Department stated that they did not have any terrestrial wildlife or aquatic concerns pertaining to the proposed fire management plan.

- The BLMUA expressed support for the suppression of all wildland fires within the park. Two substantive comments presented by BLMUA, one concerning visitors' impressions of the visual impacts of prescribed fire and the other, the methods used to control noxious weeds, are addressed in the attached errata sheet.

- The Crook County Board of Commissioners expressed concern that the emphasis on Minimum Impact Suppression Tactics could prevent the use of the most effective and safe methods to suppress wildland fires where short reaction times and potentially catastrophic circumstances are involved. Additionally, the Board suggested that special care be taken when using prescribed fire to treat the most visible areas of the park. On the former concern, the park fully intends to use the most effective and safe methods to suppress wildland fires, because the protection of life and property is the highest priority of the fire program. For the latter, the park has given great consideration to the impacts to viewsheds and aesthetics due to prescribed burns; mechanical treatments would be performed in conjunction with prescribed burns in order to lessen the size and visual impacts of burned areas. The Board also identified three text errors in the document, which are addressed in the attached errata sheet.

The park appreciates all the public comments. The FONSI and errata sheets will be sent to all commentors.

Consultation with tribal governments occurred concurrently with the public review of the EA. The park also welcomed comments on the park's Fire Management Plan from tribal governments during a previous consultation meeting held Oct 13-14, 2003, in Rapid City, SD. No comments from tribal governments were received.

REFERENCES

Hanson, Jeffery R. and Sally Chirions. 1990. Ethnographic assessment and overview of Devils Tower National Monument. Report date October 1990. 80 pages.

Molyneaux. 1998. Archeological survey and Registry Evaluation at Devils Tower National Monument, Crook County, Wyoming. Archeology Laboratory, May 2000, University of South Dakota.

National Park Service. 1998. *Resources Management Plan: Devils Tower National Monument*. 3rd edition

CONCLUSION

The proposed action does not constitute an action that normally requires preparation of an environmental impact statement (EIS). The proposed action will not have a significant effect on the human environment. Negative environmental impacts that could occur are minor or moderate in intensity. There are no significant impacts on public health, public safety, threatened or endangered species, sites or districts listed in or eligible for listing in the National Register of Historic Places, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown 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.

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

Approved: _____ 12/27/04
for Intermountain Regional Director — Date

Errata
Fire Management Plan Environmental Assessment
Devils Tower National Monument

The following are the National Park Service's responses to substantive comments on the Devils Tower National Monument Fire Management Plan and EA. The "Responses to Comments" section addresses those comments that warranted clarification or explanation. The "Changes in the Environmental Assessment Text" section presents direct changes in the text of the EA. In clarifying and editing the text of the EA, the park was not compelled either to (1) modify a considered alternative or to (2) evaluate a new alternative to meet the purpose and need. Additionally, the text clarifications and edits did not warrant a revision to the effects analysis for the alternatives. The combination of the EA and this errata form the complete and final record on which the FONSI is based.

CHANGES IN THE TEXT

Page 8, Line 27:
Replace "~~Crook County Fire Protection District~~"

with

"Crook County Volunteer Firefighters"

Page 9, Line 1:
Replace "~~Use wildland and prescribed fire as appropriate as a tool to meet resource management objectives~~"

with

"Use prescribed fire as appropriate as a tool to meet resource management objectives"

Due to safety concerns, wildland fire use was never intended to be a fire management option at Devils Tower National Monument; the statement of this goal was incorrect in the original text.

Page 45, Line 13:
Replace "~~Hulett Volunteer Fire Protection District~~"

with

"Hulett Volunteer Fire Department"

Page D-16, Line 11:
Replace "~~The NPS has found no adverse effects for either alternative of this plan on the following species: black-footed ferret (*Mustela nigripes*), bald eagles(*Haliaeetus leucocephalus*), Ute ladies'-tresses orchid (*Spiranthes diluvialis*).~~"

with

"The NPS has determined both alternatives of this plan to have no effect on the endangered black-footed ferret (Mustela nigripes) and threatened Ute ladies'-tresses orchid (Spiranthes diluvialis), and also determined that each may affect, but are not likely to adversely affect the threatened bald eagle (Haliaeetus leucocephalus). In support of this determination, the NPS commits to the following conservation measures:

5) Project areas with suitable habitat will be informally surveyed for bald eagle nests and roosts prior to conducting the activity. Suitable nesting habitat is any mature stand of conifer or cottonwood trees in association with rivers, streams, reservoirs, lakes, or any significant body of water. Suitable roosting habitat is defined as any mature stand of conifer or cottonwood trees.

6) Disturbance-free spacial (one mile) and temporal buffers for any future nests (February 15th – August 15th) and winter roosts (November 1st – April 15th) identified will be observed.

7) Clearing of live or dead conifer or cottonwood trees greater than 12 inches in diameter at breast height along the Belle Fourche River and associated wetlands will be avoided to the extent possible to help preserve potential bald eagle roosting or nesting habitat.

Project activities will not be implemented in areas where bald eagles are known to be present."

Further analysis of monument wildlife data and suitable habitat for the bald eagle led the NPS to determine that each considered alternative may affect, but are not likely to adversely affect the bald eagle.

RESPONSES TO COMMENTS

Public comments were carefully reviewed for substantive comments. Substantive comments are those that challenge the accuracy of analysis; dispute information accuracy; suggest different viable alternatives; provide new information that requires a change in the proposal; or recommendations relevant to the implementation of the proposal. Of the public comments received on the EA, the following comments have been determined to be substantive. The park's responses follow each comment.

Comment: *We suggest that an effort be made to measure visitors' short and long-term views regarding the impacts of prescribed fire on overall Park aesthetics, with special attention to visually sensitive areas.*

Response: On an annual basis, the park surveys its visitors regarding their satisfaction with their visit. Under its current format and design, the survey would accommodate visitor comments and concerns regarding the visual impacts of the fire program. The park intends to bring all survey responses regarding fire management to the attention of the fire program.

Comment: *We encourage the use of a combination of methods (i.e. herbicides, bugs, prescribed fire) to more effectively control the three main noxious weed infestations within the Park – Canada Thistle, leafy spurge and hound's tongue.*

Response: The park agrees with this comment. DETO is currently engaged in a thirteen-park exotics plant management planning effort; the preferred alternative of that effort is an integrated pest management program consistent with the commentor's recommendation.