



National Park Service  
U.S. Department of the Interior  
Bryce Canyon National Park  
Bryce, Utah

## **Finding of No Significant Impact Vegetation Management Plan**

### **Background**

In compliance with the National Environmental Policy Act, the National Park Service prepared an environmental assessment to examine various alternatives and environmental impacts associated with the proposal to implement a Vegetation Management Plan at Bryce Canyon National Park (BRCA). Managing vegetation is a serious challenge facing the park. The diverse communities of plants present in BRCA are being altered from a variety of sources. Alterations in vegetation may be due in part to changes in fire regimes, introduction and spread of invasive species, human disturbance of native and sensitive plant species, and other possible factors such as climate change and pollution.

The National Park Service is directed to maintain and restore, to the extent possible, the natural conditions and processes in the park, including natural abundance, diversity, and genetic and ecological integrity of native vegetation. This directive is reflected in Bryce Canyon's Government Performance Reporting Act that includes Park goals pertaining to disturbed land restoration, invasive plant control, and desired condition of natural landscapes. A Vegetation Management Plan would implement strategies aimed to preserve, protect, and restore the natural abundance, diversity, and distribution of native vegetation.

### **Selection of the Preferred Alternative**

Three alternatives were evaluated in the environmental assessment including: Alternative I (No Action) - this alternative describes an approach to vegetation management that does not include a comprehensive invasive plant treatment plan with limited monitoring and restoration efforts; Alternative II (Full use of Integrated Pest Management techniques - fire, mechanical, chemical, and biological control - to manage invasive plants; implementation of a sensitive plant species monitoring/protection program; implementation of a restoration program) - this alternative would use a full range of integrated pest management techniques and implement comprehensive sensitive plant management and native plant restoration programs; Alternative III (Limited use of Integrated Pest Management techniques - fire and mechanical - to manage invasive plants; implementation of a sensitive plant species monitoring/protection program; implementation of a restoration program) - similar to Alternative II except it eliminates the potentially controversial use of chemical and biological methods for control of invasive vegetation.

Alternative II is the National Park Service's preferred alternative because it best meets the purpose and need for the project as well as the project objectives to: 1) preserve, protect, and restore the natural abundance, diversity, and distribution of native plant populations, including sensitive plant species, 2) minimize/mitigate the effects of human activities on native plant populations and the communities and ecosystems in which they occur, 3) eradicate, reduce, or contain infestations of known invasive plants, 4) prevent further introductions of invasive species already present in the park, as well as new species

introductions, and 5) establish decision-making tools and protocols that would guide treatment plan development for vegetation management activities.

Alternative II proposes the implementation of vegetation management strategies pertaining to fire, invasive plants, restoration, and sensitive plants. Under this alternative integrated pest management procedures would be employed to determine whether to use fire, mechanical, chemical, or biological methods to control invasive vegetation. A comprehensive program of restoration treatments of disturbed areas would be established and a mechanism set up by which conservation and restoration measures would be incorporated into future projects. A protocol for the inventory and monitoring of sensitive plants would be established and sensitive plant management would be incorporated into project planning and compliance. Vegetation Management Strategies employed under this alternative would include the following:

### Fire

Fire would continue to be used to help meet vegetation management objectives in accordance with the Fire Management Plan (NPS 2005). Wildland and prescribed fire would continue to be used to restore natural ecosystems that have been modified by prolonged fire exclusion, remove/reduce non-native plant species, and improve vegetative compositions to natural levels.

### Invasive Plant Management (IPM)

This alternative proposes the implementation of the full range of appropriate IPM techniques available and fully implements the 10 Steps for Invasive Plant Management. This alternative would provide for proactive, responsible, and adaptive (defined below) integrated invasive species management. The integrated approach is defined as a system for the planning and implementation of a program, using an interdisciplinary approach, to select a method for containing or controlling an undesirable plant species or groups of species using all available methods including prevention, education, physical or mechanical methods, biological control agents, herbicide methods, prescribed fire, and general land management. It is a multidisciplinary, ecological approach to managing unwanted plant species. This integrated approach incorporates mechanical treatments and herbicide applications, which have been used at BRCA in the past, with the ability to use biological control agents and implementation of a comprehensive prevention program. Prevention is the most effective, economical, and ecologically sound approach to managing invasive species with zero risk to resources of value. Under this alternative, chemical herbicides could be used for the treatment of species that are not effectively treated with mechanical methods or for large dense populations of invasive plants. Following chemical treatments, these areas may be maintained using alternate methods such as reseeding or planting to enhance native vegetation biodiversity. Mechanical methods would be used for scattered individual plants.

This alternative also allows for the use of biological control which involves the release of host-specific predators or pathogens that suppress the invasive plant population. Bio-control agents are not capable of completely eradicating an invasive plant population, because as the number of host plants declines, so does the population of bio-control agents. However, bio-control can be a useful tool in reducing the initial size or density of an invasive plant infestation, making other treatments more efficacious. Biological control is not currently being considered at BRCA. However, under this alternative if an appropriate biological control agent becomes available or a new invasive species becomes established for which there is a biological control agent, bio-control could be used. All biological control methods would be approved by the USDA Animal and Plant Health Inspection Service and evaluated to ensure they do not impact non-target plant species. Before use of a biological control agent, the Park would have to obtain approval from the regional integrated pest management coordinator through the National Park Service Pesticide Use Proposal System (PUPS).

## Restoration

Under this alternative the park would implement a program of comprehensive restoration treatments for disturbed areas, including meadow habitat occupied by Utah prairie dogs (UPD). This effort would involve a full inventory of disturbed sites within the park. As part of the inventory, these sites would be assessed for degree of disturbance and priority need. The restoration process would also involve evaluation of success and execution of any necessary follow-up treatments.

Re-vegetation would be a required component of all construction/maintenance projects that would cause measurable ground disturbance that warrants restorative actions. The restoration methods used would depend on the location, size, and type of disturbance. For projects that include excavation, topsoil would be conserved and placed near the surface when filling in any trenches or other human-made depressions to act as a seed source for bolstering the re-vegetation of a site.

There are various techniques that could be employed in restoring native vegetation. The techniques used depend in part on the desired condition, size of disturbance, and type of disturbance. No active restoration may be necessary if bare ground/rock is the desired condition or if the disturbed site is small enough that there is sufficient desired vegetation in close proximity to re-vegetate the site naturally. Disturbances that involve the loss of topsoil or major compaction of the soil may require soil amendments or loosening of the soil. Restoration techniques would include but are not limited to:

- loosening soil/tilling;
- soil amendments;
- seeding;
- shrub/sapling plantings;
- exclosures;
- restricting access to a site using down trees, signs, and fencing; and
- erosion-control: recontouring or waterbarring concentrations of runoff created by trails or roads to protect and ensure re-vegetation.

All seeding and planting would be done with species native to BRCA. As outlined in NPS Management Policies (NPS 2006), the restoration of native plants would be accomplished using organisms taken from populations as closely related genetically and ecologically as possible to park populations, preferably from similar habitats in adjacent or local areas. Deviations from this general policy may be made where the management goal is to increase the variability of the park gene pool to mitigate past, human-induced loss of genetic variability. Seed can be collected from within the park for use in restoration projects. The BRCA Seed Collection Reference Manual (NPS 2007) provides information on collection times, collection methods, and cleaning techniques for 29 native plant species commonly used in restoration projects at BRCA. Seed collected in BRCA can be grown in a nursery (on- or off-site) to be used as seedlings for planting or as a source of seed. Slender wheatgrass (*Elymus trachycaulus*) and nodding brome (*Bromus anomalous*) have been successfully grown at the NRCS Upper Colorado Environmental Plant Center from seed collected at BRCA. These grasses were grown for multiple years and provided hundreds of pounds of seed. Finally, seedlings and saplings would be salvaged from construction sites. Prior to the start of any projects involving ground disturbance, small shrubs and saplings would be transplanted.

## Sensitive Plants

A more comprehensive sensitive plant management program would be implemented under this alternative. All data on sensitive plant localities would be compiled in GIS to produce maps to help identify important conservation areas within the park and direct mitigation measures related to development projects in the vicinity of sensitive plant locations. Projects located near known

populations or projects that would be disturbing new ground in the breaks environment would require a sensitive plant survey. If sensitive plants are observed to be within a project area, the project may need to be re-evaluated to determine if there is an alternative that would have less of an impact on sensitive plants. If there is not another feasible alternative then steps would be taken to mitigate the impacts. Locations of sensitive plants would be flagged to prevent trampling by staff or vehicles. If necessary, sensitive plants would be inventoried and transplanted to a similar location. A map of sensitive plant localities would also facilitate selection of sites for monitoring. Those populations located in proximity to sites heavily used by visitors would be a priority for monitoring to determine if management intervention, such as fencing or signage, is necessary to help protect these populations. Permanent sensitive plant plots have been established and would continue to be monitored under this alternative.

### Mitigation Measures

- Herbicide Application:
  - All project participants would receive herbicide training from a Utah State pesticide applicator certified project leader. Project participants would understand and abide by the established personal protective equipment (PPE) requirements and rules outlined on the product label. Rubber gloves, long sleeve shirts, and eye protection may be required PPE for application of herbicides. Job hazard analyses for herbicide application would be reviewed frequently with all project participants.
  - All information and instructions on the herbicide label would be strictly followed. Herbicide containers would be properly labeled. Application equipment and chemicals would be stored in appropriate storage facilities separate from food and personal items. Material Safety Data Sheets (MSDS) would be maintained for all chemicals. The MSDS contains fire and explosive hazard data, environmental and disposal information, health hazard data, handling precautions, and first aid information. All participants would review the MSDS with the project leader and understand first aid instructions described on the MSDS.
  - If the label instructions for the herbicide and application method recommend limiting exposure to humans and pets, the area would be closed during treatment. Treatments would occur when the least number of visitors would be impacted by the closure. Treatments that pose no risk to humans may be done at any time. All herbicide mixing and loading of sprayer tanks would occur in designated staging areas where there would be no impacts to native plant communities. To prevent drift, herbicide would not be applied during windy conditions or when rainfall is threatening.
  - Only Plateau, RoundUp, Milestone, Fusilade, and Habitat (or the generic equivalents) would be used between 50' and 500' of active UPD colonies. These herbicides are rated 'practically nontoxic' to terrestrial organisms according to EPA's toxicity scale. Outside of 500' from active UPD colonies, the park may use Garlon (or the generic equivalent) to treat invasive species. Only one application using Garlon/site would be conducted within the same year. If additional herbicides are developed or discovered to be more effective at treating exotic plants, the park would contact the USFWS for authorization of those products.
- Historic Properties:

- Mechanical treatments in close proximity to historic and prehistoric cultural resource sites would only be implemented under the supervision of a Cultural Resource Specialist to avoid the possibility of disturbing subsurface archeological material or undermining remaining standing architecture.
  - The park's Cultural Resource Specialist would work closely with the park biologist and invasive plant management crews in the location and identification of historic and prehistoric structures. Park staff conducting invasive plant management work would be trained yearly in cultural site awareness to learn how to identify and avoid archeological and historical resources on the ground. Should presently unidentified archeological resources be discovered during project implementation, work in that location would stop until the resources are properly recorded by an NPS archeologist and evaluated under National Register of Historic Places eligibility criteria in consultation with the Utah State Historic Preservation Officer and affiliated tribes as appropriate. If the resources are determined eligible, appropriate measures would be implemented either to avoid resource impacts or to mitigate disturbance. In compliance with the Native American Graves Protection and Repatriation Act of 1990, the NPS would also notify and consult affiliated tribal representatives for proper treatment of human remains, funerary, and sacred objects, should these be discovered. All workers would be informed of penalties for illegally collecting artifacts or intentionally damaging any archeological or historic property in the vicinity. Should any unusual treatment conditions or locations arise related to historic properties, park staff would contact the Cultural Resource Specialist to determine how to proceed.
- Mapping of Invasive Plant Species - Newly discovered invasive plant species and infestations would be mapped with a GPS unit and the park's resource staff would be notified. All workers' clothing and footwear and all tools and equipment would be cleaned at the sites to ensure that seeds or propagules from invasive plants are not transported to new locations.
  - Job and Tool Use Safety - A job hazard analysis (JHA) that outlines job hazards and safety precautions would be developed for each activity and all participants would receive tool safety training and would be required to use the appropriate PPE for each associated task. The use of tools would follow procedures outlined in the JHA.
  - Visitor Experience - NPS staff would be available to provide educational and informational messages to any groups encountered during project implementation. Infestations located near heavily used areas would be mechanically controlled (if feasible) and the work would be completed when visitors would be least impacted.
  - Soil Compaction and Biotic Community Disturbance:
    - The project leader would determine the access route that would cause the least disturbance to sensitive soils and vegetation. Access to areas would use existing wildlife or hiking trails wherever possible. If no trails exist, the project leader would determine whether single or multiple paths would be used depending on which would cause the least impact.
    - The minimum number of trips would be conducted into sensitive areas for treatments and/or monitoring.

- If equipment such as a utility vehicle (UV) or tractor is used for invasive plant treatments the lightest/smallest equipment would be used. No such equipment would be used on wet soils that would be subject to compaction. Equipment would be cleaned on-site to prevent the transport of invasive species to uninfested areas.
- Best Management Practices (BMPs) - The most current and scientifically-based Best Management Practices would be utilized in order to protect all natural and cultural resources within the park including soil erosion control, as outlined in DO 77 (Natural Resource Protection), and wetlands protection, as outlined in DO 77-1 (Wetlands Protection).
- Special Status Species:
  - The proposed project would include provisions for the discovery of previously unknown or undiscovered threatened, endangered, or special status species. These provisions require the cessation of project activities until park staff evaluates the project impact on the discovered species and conducts additional Section 7 consultation with the USFWS if necessary.
  - All project participants would be informed about special status species and what actions should occur if a special status species is encountered.
  - In order to minimize negative impacts to migratory birds, any invasive tree species (e.g. tamarisk, Russian olive) greater than 2" diameter at breast height would be cleared by a biologist prior to being cut and stump treated, or the tree will be treated after July 31st to avoid interference with the breeding/nesting season.
  - Restoration efforts at Sheep/Swamp and Yellow Creeks (where sightings of southwestern willow flycatcher and yellow-billed cuckoo are documented) would occur after the breeding season.
  - All project participants would be informed about the special status of the UPD and what actions are authorized within active UPD colonies, including distance restrictions and approved tool use.
  - Vegetation treatment (mechanical/herbicide treatments) within 500' of active UPD colonies would not occur until pups have emerged from burrows (~June 15) and would be completed by August 31st to reduce interference with pre-hibernation foraging. This would reduce impacts to UPD during especially critical life history periods of the species.
  - The use of motorized equipment within 500' of active UPD colonies for vegetation treatments (that do not involve ground disturbance) would be conducted during the dormant season when possible. If motorized equipment is necessary during the active season, treatments would occur after the pups emerge (June 15 – August 31) and would be limited to two hours per day during the less active period of the day (approximately 10 a.m. to 2 p.m.). Motorized equipment used for vegetation treatments includes such items as string trimmers and chainsaws.
  - No motorized vehicles (including ATVs, cars/trucks, tractors, heavy equipment, etc.) would be used overland within 0.5 miles of occupied UPD habitat.

- Only hand-pulling of weeds is authorized within 50' of an active UPD burrow.
- No more than 20% of habitat within 500' of active UPD colonies would be treated within one season; follow-up treatments can occur for up to 2 years after the initial treatment in the same 20% area with reseeding efforts to occur following the last year of treatment. New treatment areas within the same colony would not be selected until rehabilitation is completed on previously treated sites (i.e. previously treated areas have been reseeded and no further vegetation removal is expected for at least a 5 year period). This method ensures that no greater than a 20% loss in vegetation would occur in the area surrounding active colonies. A maximum of 40% of habitat would be treated between 500' and .5 mile from an active UPD colony within one season. First year/initial treatments would not be performed on two colonies in the same season if those colonies have functional connectivity (e.g., the Mixing Circle Junction colony and the Mixing Circle colony).
- Reseeding of treated areas within 500' of active UPD colonies would use a native seed mix (seed collected from plants from within BRCA or a local genetic strain).
- Rehabilitation efforts of UPD habitat will strive to produce vegetation characteristics that optimize colony establishment and success (USFWS 2009) including the following parameters:
  1. 1-20% ground cover of warm season grasses
  2. 12-14% ground cover of cool season grasses
  3. 1-10% ground cover of forbs
  4. 0-8% ground cover of shrubs (<10% canopy cover)

### Alternatives Considered and Environmentally Preferred Alternative

Three alternatives were evaluated in the environmental assessment including: Alternative I (No Action) - involves an approach to vegetation management that does not include a comprehensive invasive plant treatment plan with limited monitoring and restoration efforts; Alternative II (Preferred Alternative) - would use a full range of integrated pest management techniques and implement comprehensive sensitive plant management and native plant restoration programs; Alternative III - similar to Alternative II without the use of chemical and biological methods for control of invasive vegetation.

Alternative II, Full use of Integrated Pest Management (IPM) techniques (fire, mechanical, chemical, and biological control) to manage invasive plants; implementation of a sensitive plant species monitoring/protection program; implementation of a restoration program, is also the Environmentally Preferred Alternative. The Council on Environmental Quality defines the environmentally preferred alternative as "...the alternative that will promote the national environmental policy as expressed in the National Environmental Policy Act's §101." 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) assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
- (3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

- (4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity, and variety of individual choice;
- (5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and
- (6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources."

Alternative II is the environmentally preferred alternative because it surpasses both Alternative I and Alternative III in realizing the full range of national environmental policy goals as stated in Section 101 of the NEPA. Although Alternative I does include sensitive plant management, it is not as comprehensive as the preferred Alternative. Alternatives I and III do not provide for comprehensive invasive plant management treatments on a large scale across the park. The control of invasive plant species populations are expected to be less successful under these two alternatives. While Alternative III does result in the least amount of public controversy over perceived potential impact to resources and humans, it does not result in decreased risk to long-term health of native plant communities and natural processes in comparison with Alternative II. Alternative II would provide the highest level of protection of the natural and cultural resources over the long-term.

#### **Why the Preferred Alternative 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. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.***

Resource topics that were addressed in the EA because the resultant impacts may have been greater-than-minor include soils, vegetation, wetlands, special status species, wilderness character, park operations, and cultural landscapes. All other resource topics were dismissed because the project will result in minor or less impacts to those resources. No major effects are anticipated as a result of this project.

Implementation of the preferred alternative will result in some adverse impacts; however, the overall benefit of the plan, particularly to vegetation resources, outweighs these negative effects. The adverse effects are summarized as follows: Short-term adverse impacts to soil resources (in upland and wetland areas) are expected primarily due to the localized impacts of mechanical treatments and restoration activities. Some minor adverse impacts on wetland plants may occur during treatments within wet meadow habitat. Minor, adverse short-term impacts to UPD are anticipated from mechanical treatments that would temporarily disturb prairie dog habitat and colony behavior, but would result in long-term improvements to colony habitat. Wilderness resources may be negatively impacted during mechanical, chemical, and biological treatments with specific adverse impacts to the wilderness characteristics of untrammeled, natural, and solitude. Minor adverse effects to park operations are anticipated due to the additional duties, staff, and administrative procedures required to implement a management plan. The cultural landscape would experience minor, adverse impacts as a result of disturbance to sites from invasive plant treatments and plant restoration activities.

The overall benefit of implementing the preferred alternative is that vegetation resources will be improved to a moderate degree. The treatment of invasive plants will directly benefit the native vegetation of the park by reducing competition and displacement from invasive species. Impacts to sensitive plant species will be moderate and beneficial in the short- and long-term as more sensitive plant



populations are monitored and impacts from construction projects and visitors are mitigated. The park's only federal listed mammal species, the Utah prairie dog, will benefit in the long-term from implementation of the preferred alternative as colony habitat is improved and enhanced.

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

The use of herbicide is a component of the preferred alternatives. Herbicides do pose a risk to employees and visitors. Mitigation methods, such as required training and certification for all applicators, would be employed. As long as mitigation methods for herbicide use are followed, the impact to employee health and safety would be minor and is not considered unacceptable. Treatment areas will be at a magnitude and distance from visitor activities that should not pose health or safety risks to people in the park.

***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***

The preferred alternative will not impact unique characteristics of the geographic area including prime farmlands, wild and scenic rivers, or ecologically critical areas because these resources do not exist in the project area. The cultural landscape, including the Bryce Canyon Lodge (a National Historic Landmark) will have minor impacts during vegetation management but the long-term integrity of the cultural landscape is anticipated to improve as non-native species are removed and sites are restored to the appropriate vegetative communities. The actions of the preferred alternative are designed specifically for the purpose of preserving and restoring native plant populations including those species found in natural wetland, stream, riparian, or other aquatic habitats. For this reason these actions are excepted from the Statement of Findings and compensation requirements (DO 77-1 Wetland Protection).

The park received a letter from the Corps of Engineers (May 11, 2010), U.S. Army Engineer District, Sacramento, with a determination that the proposed project would not result in the discharge of dredged or fill material within waters of the U.S. and therefore a Department of the Army Permit was not required.

***The degree to which the effects on the quality of the human environment are likely to be highly controversial***

Throughout the environmental process the proposal to implement a vegetation management plan for the park was not highly controversial, nor are the effects expected to generate future controversy. The initial 30-day scoping period for the project did not generate controversy nor did the 30-day public review period. The park received letters of support and interest in the project from a few individuals/organizations.

***The degree to which the possible effects on the quality on the human environment are highly uncertain or involve unique or unknown risks***

Under the preferred alternative, visitors would continue to have opportunities to enjoy, learn about, or be inspired by park resources and values. Implementation of the preferred alternative would not change the quality of the human environment available to visitors including interpretive talks, evening programs, hours of operation, scenic drives, or access to facilities. Conversely, there would be a progression towards a minor, beneficial improvement of the visitor experience from the restoration of native plant communities. The risks of using herbicide and mechanical treatment methods to remove non-native plant species have been addressed. In the future, if biological treatments would be considered for the park, those treatments would undergo an environmental review process to avoid any risks to the human environment.

***The 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***

Appropriate management of vegetation resources is a vital component of promoting ecosystem health and diversity within national parks and is a mandated action for the NPS. The proposed vegetation management plan is consistent with the park's general management plan and other related park plans. The preferred alternative is not expected to set a precedent for future actions with significant effects; however, the action would allow for the future use of biological control of non-native vegetation, if a suitable biological agent was identified for use in the park. In the future, if biological treatments would be considered for the park, those treatments would undergo an environmental review process to avoid significant effects on park resources.

***Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.***

Cumulative effects were analyzed in the Environmental Assessment, and no significant cumulative impacts were identified.

***The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.***

After applying the Advisory Council on Historic Preservation's criteria of adverse effects (36 CFR Part 800.5, Assessment of Adverse Effects), the National Park Service concludes that implementation of the preferred alternative will result in a "no historic properties affected" determination. The State Historic Preservation Officer concurred with this determination in a letter dated March 3, 2010.

***The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.***

Informal consultation with the USFWS was initiated on April 8, 2009 and resulted in a may affect, not likely to adversely affect the threatened Utah prairie dog (concurrence received on February 18, 2010). Mitigation measures were developed (as outlined above) to ensure that no adverse affect to Utah prairie dogs would occur due to project implementation.

***Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment***

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

**Appropriate Use, Unacceptable Impacts, and Impairment**

Sections 1.5 and 8.12 of NPS Management Policies underscore the fact that not all uses are allowable or appropriate in units of the National Park System. The proposed use was screened to determine consistency with applicable laws, executive orders, regulations, and policies; consistency with existing plans for public use and resource management; actual and potential effects to park resources; total costs to the Park Service; and whether the public interest would be served. Appropriate management of vegetation resources is a vital component of promoting ecosystem health and diversity of BRCA. Development of appropriately timed and executed vegetation management techniques would ensure that unacceptable impacts to park resources and values would not occur. The proposed vegetation management plan is consistent with the park's general management plan and other related park plans. With this in mind, the NPS finds that development and implementation of a vegetation management plan is an acceptable use at Bryce Canyon National Park.

The impact threshold at which impairment occurs is not always readily apparent. Therefore, the Service applies a standard that offers greater assurance that impairment will not occur. The Service will do this by avoiding impacts that it determines to be unacceptable. These are impacts that fall short of impairment, but are still not acceptable within a particular park's environment. Park managers must not allow uses that will cause unacceptable impacts; they must evaluate existing or proposed uses and determine whether the associated impacts on park resources and values are acceptable. Because the application of mitigating measures is expected to be successful in ensuring that no major adverse impacts would occur, implementation of the preferred alternative would not result in any unacceptable impacts.

In addition to reviewing the definition of "significantly" under the NEPA regulations, the NPS has determined that implementation of the preferred alternative would not constitute an impairment to the integrity of Bryce Canyon National Park's resources or values as described by NPS Management Policies (NPS 2006 § 1.4). This conclusion is based on the NPS's analysis of the environmental impacts of the proposed action as described in the EA, the public comments received, relevant scientific studies, and the professional judgment of the decision-maker guided by the direction in 2006 NPS Management Policies. The EA identified less than major adverse impacts on soils, vegetation, wetlands, special status species, wilderness character, park operations, and cultural landscapes. 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 May 15, 2010. To notify the public of this review period, the National Park Service

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The EA identified less than major adverse impacts on soils, vegetation, wetlands, special status species, wilderness character, park operations, and cultural landscapes. 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 May 15, 2010. To notify the public of this review period, the National Park Service distributed a letter to various agencies, interested parties and members of the public on the Bryce Canyon National Park's mailing list. Copies of the document were sent to government officials and public libraries state-wide; and posted on the internet at the National Park Service Planning, Environment, and Public Comment website (<http://parkplanning.nps.gov/>). Two comment letters were received from local and federal government during the public review and comment period. The letters supported the NPS Preferred Alternative and concurred with the analysis in the environmental assessment. One email comment was received from the U.S. Fish and Wildlife Service during the review period stressing the importance of avoiding mechanical treatments in migratory bird habitat during the nesting season. Mitigation measures as identified above incorporate this comment. In addition, the park will survey potential treatment areas in known or suspected nesting habitat prior to mechanical treatments.

### Conclusion

As described above, the preferred alternative does not constitute an action meeting the criteria that normally require preparation of an environmental impact statement (EIS). The preferred alternative will not have a significant effect on the human environment. Environmental impacts that could occur are limited in context and intensity, with generally adverse impacts that range from localized to widespread, short- to long-term, and negligible to moderate. There are no unmitigated adverse effects 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, the National Park Service has determined that an EIS is not required for this project and thus will not be prepared.

Approved: \_\_\_\_\_

Mary Gibson Scott, Acting Director, Intermountain Region

7/10/10  
Date