

Chapter II: Purpose and Need

Introduction

This chapter describes the purpose and need for the Northern Rocky Mountains Invasive Plant Management Plan, the law, policy and regulation setting for the plan, and public participation that has occurred to date. It also identifies the impact topics which frame the discussion for the following two chapters (Affected Environment and Environmental Consequences).

It contains the following sections:

- Purpose of the Plan
- Need for the Plan
- Relationship to Laws, National Park Service Policy and Park Planning Documents
- Public Participation Summary
- Issues
- Impact Topics
- How to Comment on this Environmental Assessment

A. Purpose of the Plan

Recently, the NPS undertook a holistic, comprehensive approach to nonnative invasive plant management. As part of this approach, the NPS formed a series of nonnative plant management teams (EPMTs) distributed primarily throughout the U.S. to assist parks in dealing with the rapidly spreading threat to the integrity of park natural and cultural resources posed by invasive plants. Whereas parks had been dealing with species and methods on a case-by-case basis, the use of EPMTs has allowed the parks to routinely treat invasive plants with proven effective methods and crews. While most invasive plant management in these parks has been analyzed and documented for the purposes of NEPA under applicable agency categorical exclusions, there are some actions that the parks would like to undertake that blur the line between these allowable activities with negligible or minimal effects and activities that may have initial minor to moderate adverse effects, followed by long-term beneficial effects.

Without this plan, existing nonnative invasive plant management in most Northern Rocky Mountains parks would continue to be conducted using applicable categorical exclusions. NPS Director's Order 12: *Conservation Planning, Environmental Impact Analysis and Decision-making*, however, directs parks to undertake review of existing programs and management actions to determine if more holistic environmental analysis should be undertaken. As a result, the 10 parks applied for joint funding to not only create a formal plan for nonnative invasive plant management (acknowledging new treatments and invasive plant management goals) but also to analyze impacts individually and collectively through additional environmental analysis. Analysis of existing park programs showed that most had not yet undertaken a broad scale planning process to determine how to manage nonnative invasive plants.

This Invasive Plant Management Plan would provide guidance regarding nonnative invasive plant management for a period of approximately 10 years for the partner parks.

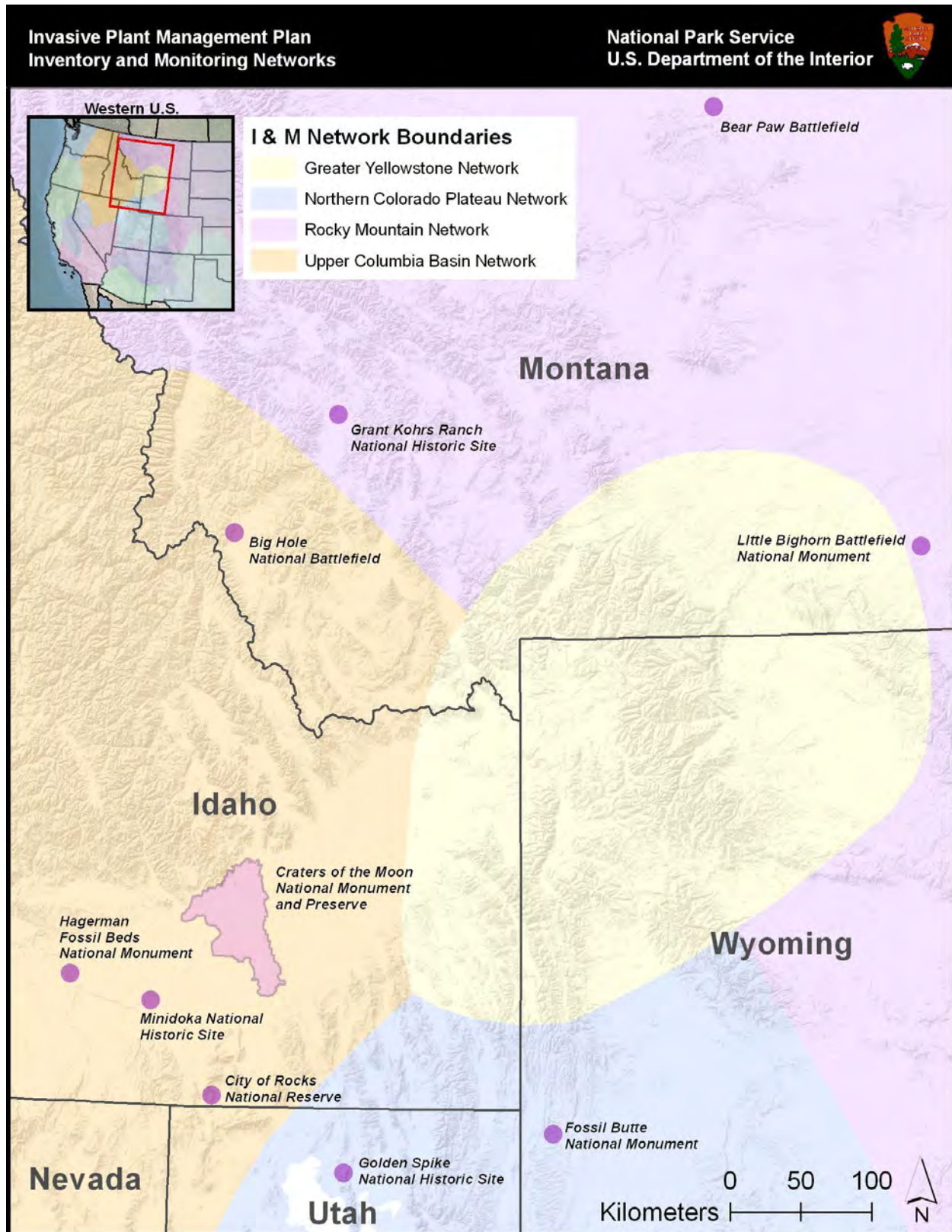
The NRM-EPMT works in Inventory and Monitoring (I & M) Networks, or ecoregions, in the Upper Columbia Basin (UCBN), Upper Colorado Plateau (UCPN) and the Rocky Mountains (ROMN) (Figure 13). Because these parks have similar landscapes and are served by the same EPMT, this plan encompasses 10 parks served by the NRM-EPMT and analyzes actions the NRM-EPMT and the individual parks may take in the ongoing management of invasive plants. This plan would enable ongoing nonnative invasive plant management at the 10 parks and could expand programs, including analyzing other treatment methods not currently being used by some of the parks.

A coordinated Invasive Plant Management Plan (IPMP) for parks in the Northern Rocky Mountains would provide a mechanism for early detection of new invasive species and management of current infestations in the parks by park staff and the NRM-EPMT. Coordination through a combined IPMP would increase the ability of the team to provide a rapid response to immediately halt the invasion and spread of new species. Recent quick and coordinated action by the NRM-EPMT prevented the drop of millions of seeds of a highly invasive plant in a very remote and rugged area in one of the parks. The additional coordination provided by an integrated plan common to the 10 parks would focus and expand this effort.

B. Need for the Plan

- Northern Rocky Mountains parks lack flexible and documented invasive plant management processes, and do not fully take advantage of IPM techniques and adaptive management to direct invasive plant management activities and to prioritize management actions, target plants and resources.
- The use of adaptive management would allow parks to manage new occurrences of nonnative invasive species as they arise and become pests.
- There are a variety of nonnative invasive plant management techniques currently used or that could be used in the future in the 10 parks. These treatment methods include cultural, manual/mechanical, biological, chemical (herbicides) and prescribed fire techniques. These treatments are used alone or in combination to manage nonnative invasive species. Improvement of the selection of treatment methods is needed to ensure that the parks are identifying and using effective methods that minimize adverse impacts on park natural and cultural resources.
- A plan would facilitate compliance with federal and state noxious weed laws and documentation of results through the Government Performance and Results Act (GPRA).
- Without an Invasive Plant Management Plan, it is difficult for parks to communicate and document their needs and objectives to park partners and to foster collaboration on plans and projects. Similarly the parks lack guidance to increase education and awareness about invasive plants for park staff and the public.
- The lack of an Invasive Plant Management Plan makes it difficult to integrate internal processes, plans, activities and resources among parks and across divisions, regions and programs.
- There is currently limited coordination of monitoring to help the parks understand the status and effectiveness of nonnative plant management efforts or to assist in making better management decisions.
- Current invasive plant management practices and policies are not well documented and are unclear to park partners or the public.
- Nonnative invasive plants are adversely affecting the qualities of designated wilderness and wilderness study areas in Craters of the Moon National Monument and Preserve.

Figure 13: NPS Ecoregions Encompassed by the 10 Partner Parks



C. Relationship to Laws, Regulations, Executive Orders, National Park Service Policy, and Park Planning Documents

See Appendix D for a description of the *Federal Laws, Regulations, Executive Orders, Policies, and Park Planning Documents* that pertain to this plan. State Laws that pertain to this plan are described below.

1. Federal Laws

Among the federal laws that pertain to the development and implementation of the Invasive Plant Management Plan include the following:

- National Park Service Organic Act (1916) (16 USC 1)
- National Park Service General Authorities Act (1970, as amended in 1978)
- National Parks Omnibus Management Act (1998) (PL 105-392, 112 Statute 3497)
- National Environmental Policy Act (NEPA) (1969) (42 USC 4341 *et seq.*)
- Clean Water Act (CWA) (1972, 1977 as amended) (33 USC 1241 *et seq.*)
- Clean Air Act (CAA) (1977 as amended) (42 USC 7401 *et seq.*)
- Endangered Species Act (ESA) (1972) (16 USC 1531 *et seq.*)
- Antiquities Act (1906) (16 USC 431-433) (P.L. 59-209, 34 Stat. 225)
- Historic Sites Act (1935) (P.L. 74-292, 49 Stat. 666)
- Archeological Resources Protection Act (ARPA) (1979) (16 U.S.C. 470aa-470mm) (P.L. 96-95)
- National Historic Preservation Act (NHPA) (1966 as amended) (16 USC 470) (P.L. 89-665, 80 Stat. 915; as amended by P.L. 91-243, P.L. 93-54, P.L. 94-422, P.L. 94-458, P.L. 96-199, P.L. 96-244, P.L. 96-515, P.L. 98-483, P.L. 99-514, P.L. 100-127, and P.L. 102-575)
- Wilderness Act (1964) (P.L. 88-577) (16 USC 1131-1136)
- Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) (1947) as amended (P.L. 92516) (82 Stat. 973) (7 U.S.C. 135 *et seq.* 1972 amendments known as the Environmental Pesticide Act) and P.L. 94-140 (89 Stat. 751)
- Hazardous Materials Transportation Act (49 USC 5101-5127) (P.L. 93-633, 101-615, 103-311)
- Occupational Safety and Health Act of 1970 (29 USC 651-678) (P.L. 91-596)
- Government Performance Results Act of 1993 (GPRA) (31 USC 1115 *et seq.*) (P.L. 103-62)
- Plant Protection Act (Plant Protection Act of 2000, 7 U.S.C. 7701 *et seq.* (supersedes the Federal
- Noxious Weed Act of 1974, except Sections 1 and 15) (2000)
- Consolidated Natural Resources Act of 2008 (P.L. 110-229)

2. Regulations

Among the federal laws that pertain to the development and implementation of the Invasive Plant Management Plan include the following:

- Occupational Health and Safety (OSHA) Hazard Communication Standard (29 CFR 1910.1200)
- OSHA Respiratory Program Standard (29 CFR 1910.134)

3. Executive Orders

Among the federal laws that pertain to the development and implementation of the Invasive Plant Management Plan include the following:

- Floodplain Management Executive Order 11988 (1977, 42 CFR 26951, PL 93-234 Section I) (as amended by Executive Order 12148, 1979, 44 FR 43239, 42 USC 4321)
- Protection of Wetlands Executive Order 11990 (1977, 42 FR 26961) (as amended by Executive Order 12608, 1987, 52 FR 34617, 42 USC 4321)

- Control of Invasive Species Executive Order 13112 (February 1999) (64 FR 6183) as amended by EO 13286 (68 FR 10619) (42 USC 4321)
- Consultation and Coordination with Indian Tribal Governments Executive Order 13175 (2000) (65 FR 67249) (25 USC 450)

4. State Laws

Idaho

Idaho has about 510 nonnative weed species throughout the state (<http://invader.dbs.umt.edu/query/area.asp>). Of those, 36 species are on Idaho's designated "noxious" weed list and by law, are required to be controlled and exterminated.

In 2001, then governor Dirk Kempthorne issued an executive order that established the Idaho Invasive Species Council. In 2004, the council hosted the first Idaho Invasive Species Summit to bring together federal, state and local governments and private organizations and individuals (State of Idaho 2005).

Title 22 of the Idaho code (Agriculture and Horticulture, Chapter 24: Noxious Weeds), section 22-2407 states:

"LANDOWNER AND CITIZEN DUTIES. (1) It shall be the duty and responsibility of all landowners to control noxious weeds on their land and property, in accordance with this chapter and with rules and regulations promulgated by the director."

Section 22-2402 (1) (12) defines "Noxious weed" as any plant having the potential to cause injury to public health, crops, livestock, land or other property; and which is designated as noxious by the director. In addition to the 36 designated species, there are eight additional species of concern. A list of Idaho's Noxious Weeds as of the date of publication of this plan can be found in Appendix E: *State Noxious Weed Lists*.

Other definitions include:

Containment means halting the spread of a weed infestation beyond specified boundaries.

Control means any or all of the following: prevention, rehabilitation, eradication or modified treatments.

Eradication means the elimination of a noxious weed based on absence as determined by a visual inspection by the control authority during the current growing season.

Prevention means any action that reduces the potential for the introduction or establishment of a plant species in areas not currently infested with that species.

Key provisions of this regulation include:

- Landowners are required to control noxious weeds on the state list (Statute, Title 22, Chapter 24)
- Anyone applying restricted use or state-limited-use pesticides by any means must be certified as a Pesticide Applicator or be supervised by a certified Pesticide Applicator. Certified Pesticide Applicators must receive at least six hours of approved pest management continuing education each year to maintain certification.
- Laws and regulations governing pesticide use in Idaho are set forth in Idaho Administrative Code 16-228 and found in the Idaho Pesticide Application Act (RCW 17.21) and the Idaho Pesticide Control Act (RCW 15.58).

According to Idaho's action plan, "Science tells us that the longer an invasive species has to establish itself, the more difficult and expensive it is to manage. In other words, the sooner we can intercept an invasive species, the more cost effective the solution. Therefore the strategies outline in (sic) reflect these priorities: (1) preventing new invaders from ever arriving, (2) quickly detecting and eradicating those that make it here, and (3) managing existing problems" (State of Idaho 2005). The 22 individual proposed actions in the plan address:

- Early Intervention – Prevention, Early Detection, and Rapid Response,

- Containment, Control and Restoration,
- Reaching Important Audiences through Education and Training,
- Broadening Knowledge through Research and Technology Transfer,
- Assuring Adequate Funding,
- Creating an Adequate, Effective Legal Structure, and
- Coordinating Our Efforts (State of Idaho 2005).

Idaho pesticide regulations and certification testing may be obtained from:

Idaho State Department of Agriculture
Division of Agricultural Resources
2270 Old Penitentiary Road
P.O. Box 7723 CRT
Boise, Idaho 83707
(208) 332-8600

Blaine County Cooperative Weed Management Area

A single sheet flyer from the Blaine County CWMA identifies Dalmatian toadflax, spotted knapweed and diffuse knapweed as the three worst noxious weeds in Blaine County. According to the flyer, landowners have five days from receipt of notice to take action against weeds on their land. A supporting website: http://www.blainecounty.org/noxious_weeds.htm is listed (Blaine County CWMA n.d.). There are also Lost Rivers, Power County and Tri-County CWMAs.

Idaho State Department of Agriculture

The Idaho State Department of Agriculture, together with the USFS began a weed free program in January 1996 for national forest lands in Idaho. Since then, the USFS has used this program to regulate users of national forest lands in Idaho, who must use certified weed free forage and straw (including alfalfa hay, grass hay, alfalfa/grass hay, grain hay, straw and forage cubes, but not including grain and pellets) (Idaho State Department of Agriculture no date).

Montana

Montana has about 500 nonnative weed species throughout the state (<http://invader.dbs.umt.edu/query/area.asp>). Of those, 32 species are on Montana's designated "noxious" weed list and by law, are required to be controlled and exterminated. A list of Montana's Noxious Weeds as of the date of publication of this plan can be found in Appendix E: *State Noxious Weed Lists*).

In Montana, "a weed is defined as any plant that interferes with management objectives for a given area of land (or body of water) at a given point in time. Once a plant has been classified as a weed, it attains a "noxious" status by Rule as described in the Montana County Weed Control Act. Noxious weeds are defined as "plants of foreign origin that can directly or indirectly injure agriculture, navigation, fish or wildlife, or public health" (<http://agr.mt.gov/weedpest/pdf/2008weedPlan.pdf>).

On the Montana list, the following definitions apply:

Priority 1A: These weeds are not present in Montana. Management criteria will require eradication if detected; education; and prevention.

Priority 1B: These weeds have limited presence in Montana. Management criteria will require eradication or containment and education.

Priority 2A: These weeds are common in isolated areas of Montana. Management criteria will require eradication or containment where less abundant. Management shall be prioritized by local weed districts.

Priority 2B: These weeds are abundant in Montana and widespread in many counties. Management criteria will require eradication or containment where less abundant. Management shall be prioritized by local weed districts.

Priority 3: Regulated Plants (not Montana listed noxious weeds)

These regulated plants have the potential to have significant negative impacts. The plant may not be intentionally spread or sold other than as a contaminant in agricultural products. The state recommends research, education and prevention to minimize the spread of the regulated plant.

Montana pesticide regulations and certification testing may be obtained from:

<http://agr.mt.gov/pestfert/enforcement.asp> and <http://agr.mt.gov/licensing/commercialapp.asp>.

Utah

Of the noxious weed species in Utah, 27 species are on Utah's designated "noxious" weed list and by law, are required to be controlled and exterminated. A list of Utah's Noxious Weeds as of the date of publication of this plan can be found in Appendix E: *State Noxious Weed Lists*).

Utah Noxious Weed Act (Chapter 4-17-1 to 4-17-11)

This law defines

- "county noxious weed" as: "any plant which is not on the state noxious weed list, is especially troublesome in a particular county, and is declared by the county legislative body to be a noxious weed within its county (Chapter 4-17-3); and
- "noxious weed means any plant the commissioner determines to be especially injurious to public health, crops, livestock, land or other property" (Chapter 4-17-4).

The law also set up a state weed committee and among other provisions, authorized county commissioners to create a county weed board and to create a noxious weed fund to implement the law. The law requires that county weed boards publish a notice of annual updates to county noxious weed lists by May 1st of each year. A county weed supervisor is employed by the weed boards to identify and treat noxious weeds. The law requires landowners to control weeds within five days of receiving notice or for the county to treat areas without landowner notice if not done and to charge the landowner for it. There are also provisions for appeal of notices (Chapter 4-17).

In Utah, the following definitions apply:

Class A weeds have a relatively low population size within the State and are of highest priority being an Early Detection Rapid Response (EDRR) weed.

Class B weeds have a moderate population throughout the State and generally are thought to be controllable in most areas.

Class C weeds are found extensively in the State and are thought to be beyond control. Statewide efforts would generally be towards containment of smaller infestations.

Each county in Utah may have different priorities regarding specific State designated Noxious Weeds and is therefore able to reprioritize these weeds as they see fit for their own needs.

Utah pesticide regulations and certification testing may be obtained from the Utah Department of Agriculture and Food. The address in Box Elder County is:

Utah Department of Agriculture and Food
Box Elder County USU Extension
195 W. 1100 S. 2nd Floor
Brigham City, UT 84302

Wyoming

Wyoming has about 327 nonnative weed species throughout the state. Of those, 24 species are on Wyoming's designated "noxious" weed list and by law, are required to be controlled and exterminated. A list of Wyoming's Noxious Weeds as of the date of publication of this plan can be found in Appendix E: *State Noxious Weed Lists*).

Wyoming Weed & Pest Control Act of 1973 (W.S. 11-5-102)

Under the Wyoming law,

- "Declared weed" means any plant which the board and the Wyoming weed and pest council have found, either by virtue of its direct effect, or as a carrier of disease or parasites, to be detrimental to the general welfare of persons residing within a district (viii);
- "Designated list" means the list of weeds and pests from time to time designated by joint resolution of the board and the Wyoming weed and pest council (x);
- "Designated noxious weeds" means the weeds, seeds or other plant parts that are considered detrimental, destructive, injurious or poisonous, either by virtue of their direct effect or as carriers of diseases or parasites that exist within this state, and are on the designated list (xi).

This law created county Weed and Pest Control Districts having the same boundaries as the county and set up a means to create a district board of directors to manage county weed and pest control programs. It sets up provisions for assessing properties infested by weeds and identifies fines for noncompliance with requests for removal of the weeds. It also authorized a county property tax to carry out its provisions. It also authorizes cities and towns to implement their own districts if they were of a certain size. The law also sets up priority treatment of leafy spurge if a program is in effect.

Wyoming Weed Management Strategic Plan (Wyoming State Weed Team 2003)

"This plan is designed to assist and encourage the people of Wyoming to maintain healthy ecosystems with desirable, sustainable vegetation consistent with the land management goals of affected agencies, organizations and individuals." Three strategies were identified to implement the plan: cooperation among the many diverse agencies, organizations and individuals, development and implementation of integrated weed management programs, and program assessment. The plan contains a number of objectives and specific actions to meet them for each strategy.

Wyoming pesticide regulations and certification testing may be obtained by attending an annual class or independent study followed by an exam scheduled through the local county cooperative extension office or Wyoming Department of Agriculture.

5. Policies

National Park Service Management Policies (NPS 2006)

Management Policies governs the way park managers make decisions on a wide range of issues that come before them. The following sections contained within *Management Policies* pertain specifically to the subject of this EA:

- Partnerships
- Definition of Native and Exotic Species
- Management of Exotic Species
- Removal of Exotic Species Already Present
- Pest Management
- Pests
- Integrated Pest Management Program
- Pesticide Use
- Biological Control Agents and Bioengineered Products
- Pesticide Purchase and Storage

In addition, the following Director's Orders and Guideline apply to this plan:

- Director's Order 28: Cultural Resources Management (NPS-28: Cultural Resources Management Guideline)
- Director's Order 77-7 (DO 77-7): Integrated Pest Management (IPM)

- NPS-77: Natural Resources Management Guideline (1991)

The Invasive Plant Management Plan is consistent with and has been derived from these policies.

6. Park Planning Documents

Each of the parks has a comprehensive, monument or general management plan that describes the park and its proposed management in detail. In addition, parks often have implementation plans, such as fire management plans, resources management plans and cultural landscape inventories/reports that offer more specific information about proposed park management actions for these resources. Sections from these plans pertaining to the management of nonnative invasive plants are contained in Appendix D. This project is consistent with these plans.

E. Appropriate Use

Section 1.5 of *Management Policies* (NPS 2006), “Appropriate Use of the Parks,” directs the National Park Service to ensure that allowable park uses would not cause impairment of, or unacceptable impacts on, park resources and values. A new form of park use may be allowed within a park only after a determination has been made in the professional judgment of the park manager that it will not result in unacceptable impacts.

Section 8.1.2 of *Management Policies* (NPS 2006), Process for Determining Appropriate Uses, provides evaluation factors for determining appropriate uses. All proposals for park uses are evaluated for:

- consistency with applicable laws, executive orders, regulations, and policies;
- consistency with existing plans for public use and resource management;
- actual and potential effects on park resources and values;
- total costs to the Service; and
- whether the public interest will be served.

Park managers must continually monitor all park uses to prevent unanticipated and unacceptable impacts. If unanticipated and unacceptable impacts emerge, the park manager must engage in a thoughtful, deliberate process to further manage or constrain the use, or discontinue it.

Section 8.2 of *Management Policies* states: “To provide for enjoyment of the parks, the National Park Service will encourage visitor use activities that

- are appropriate to the purpose for which the park was established, and
- are inspirational, educational, or healthful, and otherwise appropriate to the park environment; and
- will foster an understanding of and appreciation for park resources and values, or will promote enjoyment through a direct association with, interaction with, or relation to park resources; and
- can be sustained without causing unacceptable impacts to park resources and values.”

Nonnative invasive plant management is a routine function in parks. There are a suite of treatment methods that when selected from would ensure that unacceptable impacts to park resources and values would not occur. The proposed revision to the invasive plant management program in the 10 park units is consistent with their comprehensive, monument or general management plans and other park planning documents. As a result, nonnative invasive plant management is an appropriate use at the 10 parks.

F. Public Participation Summary

Public involvement is a key part of the NEPA process. In this part of the process, the general public, federal, state, local agencies and organizations are provided an opportunity to identify concerns and issues regarding the potential effects of proposed federal actions. Native American Tribes were also provided an earlier opportunity to comment. The opportunity to provide input is called “scoping.” Scoping is an opportunity early in the planning and EA or EIS process for the public, organizations, and other agencies to suggest issues and alternatives that should be considered by the NPS in preparing a plan and environmental analysis.

Internal scoping is the effort to engage professional staff of the park and other NPS staff. The 10 partner parks conducted internal scoping from December 2007, when this project originated, until this document was published. A variety of comments were received from park, regional and other staff regarding what should be in the plan and what impacts should be included. An interdisciplinary team comprised of staff from each of the parks was developed. The interdisciplinary team defined the purpose and need, identified ongoing and potential management actions, determined the likely issues and impact topics and provided related information about each of the parks.

Public scoping was conducted through the following means: a press release announcing the intent of the proposal and its evaluation by the NPS was released between February 1 and 15, 2008 by the 10 parks. The press release was also mailed to interested park constituents, including adjacent landowners, at each of the 10 parks. This resulted in publication in numerous local and national news media, including in the Wood River Journal, now the Idaho Mountain Express (Blaine County, Idaho), Silverstate Post (3-5-08) (Powell and Granite counties in southwest Montana), Kemmerer Gazette (south Lincoln County), and the Friends of the Little Bighorn Battlefield internet homepage.

During the public scoping process for this Plan / EA which took place from February 1, 2008 to March 15, 2008, eleven comment letters were received. Five of these were received from agencies: USFWS (MT), USFS (Wisdom Ranger District of the Beaverhead-Deerlodge National Forest), IDPR, State of Idaho, Department of Agriculture (IDAG), and Wyoming Game and Fish Department (WGFD). Other comment letters included four from individuals, none from non-profit organizations, and one from county commissioners (Lincoln County, Wyoming). Two were received via email on the Planning, Environment and Public Comment website (<http://parkplanning.nps.gov/gosp>).

These letters contained approximately 66 substantive comments, including three outside the scope of the current proposal. Another approximately 11 comments offered opinions about the purpose and need or the need for nonnative species control. Table 2: *Public Scoping Comments* shows which parks received letters during public scoping.

Table 2: Public Scoping Comments

Park Unit	Number of Letters from Individuals or Businesses	Number of Letters from Agencies or Counties
City of Rocks	2 (individuals)	1 (agency)
Craters of the Moon	1 (business)	1 (agency)
Fossil Butte	3 (individuals)	2 (agency, county)
Golden Spike	0	0
Grant-Kohrs	1 (individual)	0
Hagerman Fossil Beds	0	0
Little Bighorn	0	0
Minidoka	0	0
Nez Perce (Bear Paw)	0	0

Park Unit	Number of Letters from Individuals or Businesses	Number of Letters from Agencies or Counties
Nez Perce (Big Hole)	1 (individual)	1 (agency)
Montana Parks (Grant-Kohrs, Little Bighorn, Big Hole, Bear Paw)	n/a	1 (agency)

Note: Public scoping comments were grouped into the following comment categories.

a. Information the EA should Include

- Include lists of nonnative plants known to occur in each park.
- Identify whether there are nonnative plants that would not be controlled and why.
- Explain “naturalized” nonnative species.
- Include a glossary of acronyms and terms.
- The plan should use and explain invasive plant management prevention and control techniques.

a. Prevention

- Identify what early detection methods would be used to identify new nonnative species.
- The plan should include a strong prevention element, including for measures associated with fire suppression operations.

b. Determining Priorities

- Identify how control methods for priority nonnative species are selected.
- Identify strategies for control of nonnative plants, including how these strategies are selected and whether all areas would be treated the same.
- Identify how priorities are determined for treatment of nonnative species.
- State whether practical control technology exists for all nonnative plants.
- Recreational facilities serve as dispersal points for weeds and should be a priority for treatment.

c. Treatment Methods

- (three comments) The plan should use a variety of / all proven treatment methods, such as hand-pulling, herbicide treatment and biological control (including use of herbivores, such as goats).
- The plan should consider non-chemical means of controlling weeds in developed areas to minimize public exposure to herbicides.
- Where multiple means of controlling nonnative plants are available, these should be indicated.
- Use control measures that focus on preventing seed dispersal.
- Consider the multiple mechanisms by which nonnative plants invade (e. g., transport by wind, water, animals, humans) and the pros and cons associated with manipulating the ways nonnative invasive plants can enter or spread within the park.

d. Herbicide Use

- (two comments) Consider limiting the use of herbicides by using non-chemical means to control nonnative plants where appropriate.
- Explain means and constraints (what, when, where and how) regarding selecting herbicide use.
- Identify management objectives for herbicide use.
- Carefully consider the timing of herbicide use. Many herbicides should be sprayed either before forbs emerge in the spring or after forb dormancy in the fall.
- Carefully consider the areal extent of herbicide use.
- Control measures should avoid contamination of waterways.

e. Environmental Impacts

- The plan should clearly state when environmental effects of an invasive plant management control practice are unpredictable.
- (two comments) The plan should consider both beneficial (e.g., supplies food, cover, and habitat for wildlife; stabilizes disturbed soil) and adverse (e.g., displaces native species; toxic or unpalatable to wildlife; can alter fire regimes) impacts from nonnative plants.
- The plan should consider beneficial (e. g., conserve park resources, restore habitat for native species) and adverse (introduction of chemical pollutants; damage to or killing of native plants) associated with nonnative weed control practices.
- Address cumulative effects by park and treatment, including potential effects on adjacent lands.
- Consider indirect effects of treatment methods (including from introduction of biological control insects and herbicide effects on non-target species).
- Consider potential impacts on sage-grouse.
- Control measures should avoid contamination of waterways.

f. Education

- (two comments) Include education as a component of the invasive plant management program.

g. Monitoring and Record-keeping

- Include effectiveness monitoring as a component of the nonnative plant treatment program.
- Identify the means of recordkeeping (including treatment location, type, herbicide application rate, weed abundance, treatment effectiveness) that would be used by the parks.

h. Safety

- Identify safety measures (including spill prevention/clean-up measures) used to protect employees and park visitors from exposure to adverse effects from treatment methods (including temporary closure of affected areas).
- Allow optional use of additional safety equipment by employees and volunteers.

i. Adaptive Management

- (three comments) Allow for the use of new herbicides and new biological control agents or other more effective treatments as they become available.

j. Partnerships

- The plan should include collaborative means, including cooperation with other public and private groups, to control nonnative plants.
- Employ the use of cooperative weed management areas for treatment.
- Acknowledge the Idaho Invasive Species Council in weed management control efforts for Idaho parks.

k. Adjacent Lands Issues

- Avoid the use of pesticides adjacent to lands with organic agricultural or ranching operations.
- Ensure that existing agreements to maintain pesticide free areas are maintained.
- Ensure that advance notification of pesticide application is provided to adjacent landowners.
- Use non-chemical means to control nonnative plants in certified organic grazing areas.
- Provide advance notice and secure permission to control weeds on non-NPS lands.
- Use cooperative weed management areas to define roles and partnerships to control nonnative invasive plants in boundary areas.

1) *Issues and Concerns Addressed in this Document*

All of the above issues and concerns raised through public scoping are addressed in this document except for those identified under the next heading.

There were no issues raised through public scoping that constituted new alternatives or alternatives considered but dismissed.

2) *Issues and Concerns NOT Addressed in this Document*

The following issues generated through public scoping are not within the scope of this project and are therefore not analyzed in detail in the document.

- Consider cooperative projects, such as chaining or logging to restore forest and rangeland health, increase forage and improve watersheds.

The methods and objectives called for by this comment are not among those that would be used in the 10 parks to control nonnative invasive plants.

- Include treatment of nonnative wildlife in the scope of the plan to deal with zebra snails, nonnative insects, whirling disease, etc.
- Consider treatment for Idaho aquatic nuisance wildlife species in the plan.

The Invasive Plant Management Plan (IPMP) is purposely limited in scope to plants.

G. Issues

The following issues were among those considered by the parks in determining the purpose and need for the plan:

- Existing monitoring programs are not flexible enough to help the parks respond to new information or to change management priorities and actions.
- Documenting results from monitoring programs currently does not direct future invasive plant management decisions.
- Guidance would be provided – specifics would have to be put into that guidance.
- There are currently no documented decision processes in use to help in systematic decision-making regarding nonnative invasive plant management.
- Some park resource personnel need a more complete understanding of the principles of IPM and what IPM techniques and tools are available.
- Additional baseline information is needed to help determine the scope of the problem and to increase the effectiveness of treatments.
- It is unknown how climate change is affecting or may affect the spread of nonnative invasive plants.
- More emphasis on preventing the introduction and spread of nonnative invasive plants is needed.
- Systematic identification of existing federal and state weed laws may not have fully occurred for some of the 10 partner parks.
- Confirmation that the most critical species are being treated with the right methods is needed. It is currently unknown whether conflicts exist among NPS policy and federal and state laws regarding the need to treat weed species.
- Without communication parks cannot effectively collaborate with their federal, state and local partners in weed management efforts.
- Although most parks have identified cooperative weed management areas, some may need to become more involved with existing areas or to form one.
- The public and/or park staff may not understand the IPM process or IPM activities.

- It is difficult for park staff and the public to understand the scope or scale of the vast extent of the invasive plant management problem.
- While the public may be willing to assist with invasive plant management, they may not be able to identify native vs. nonnative invasive species. The plan should identify techniques that even a public that can't identify specific plants can use to reduce the spread of nonnative invasive plants (such as cleaning shoes/boots, bikes, cars).
- The public and park staff may not know which plants are nonnative and/or invasive.
- Some partner agencies and organizations may not understand the reasons to treat nonnative invasive plants in parks with a primary emphasis on cultural resources protection.
- If herbicides are used, educating the public and park staff regarding why they may be the most effective, least harmful method is needed.
- The plan should identify all of the weed management techniques the parks are currently using or plan to use in future control efforts.
- The plan needs to emphasize the need to integrate invasive plant management actions among divisions.
- Because there is no systematic coordinated invasive plant management plan or program, strategies to integrate other park programs (fire management, inventory and monitoring, etc.) have not always been identified.
- Education about the EPMT program within the NPS across divisions, parks, regions and programs has not been consistent or available.
- Staff training to focus understanding of the impact of daily activities (routine and project work) is not available. Cooperation among resources management, planning, interpretation and maintenance staff is needed to effectively manage nonnative invasive plants.
- A plan which identifies the similarities among different parks and regions regarding invasive plant management is currently unavailable.
- Management decisions are currently based on limited monitoring information.
- Effectively communicating successes and failures would lead to better management decisions.
- Effectively documenting and communicating accomplishments would result in better use of effective new techniques and tools.
- The inventory, treatment and monitoring program for nonnative invasive plants is neither systematic, nor fully documented.
- Park and NRM-EPMT databases on invasive weeds are often duplicative and difficult to merge.
- Other parks, park partners and the public do not know what is being done to control nonnative invasive plants in the partner parks.
- Evaluation of the current invasive plant management program in the partner parks has not occurred. The parks want to ensure that they are using the best available tools and to ensure effective, accountable decision-making.
- Decisions are not always communicated, nor widely understood.
- Except associated with GPRA, there is no annual workplan or accomplishments report for the 10 partner parks.
- Effective communication of accomplishments is currently unavailable but could be fulfilled by a joint website.
- National risk assessment and approved label use information for pesticides used within the parks have not been communicated.
- Management zones to determine the best treatment, given current conditions, have not been established.
- Park best management practices (BMPs) and their use of state certified applicator standards have not been communicated.
- There has not always been consultation with technical experts to ensure that the best information and methods are being used.

- Parks have not always communicated what they are capable of doing in terms of existing staff and funding. Similarly, parks have not always communicated what additional work could accomplish with more staff and/or funding.
- It is not clear whether the invasive plant management activities consistently undertaken by parks are sustainable.
- There is currently no clear definition of a sustainable plant management policy or action.
- Clear links have not been established in a coordinated invasive plant management program among the parks and widely accepted documentable written safety standards.
- To improve implementation of an effective safety program across the partner parks, those standards now being used by some parks need to be documented and communicated to other parks.
- Park visitors and local residents should be aware of techniques each park uses to ensure their safety related to invasive plant management performed in their midst.
- Parks must document compliance with community right-to-know laws regarding pesticide use.
- A synthesis of baseline data/effective invasive plant management techniques that would assist partner parks in making better decisions, based on the best available technical and scientific information, is unavailable.

H. Impact Topics

Specific impact topics were developed to address potential natural, cultural, recreational, social and park operations impacts that might result from the proposed Alternatives as identified by the public, NPS, and other agencies, and to address federal laws, regulations and executive orders, and NPS policy. Impact topics are the resources of concern that may be affected by the range of alternatives considered in this EA. Environmental Screening Forms produced by each of the 10 parks were to derive issues and impacts for further evaluation in the EA. Environmental Screening Forms were mandated by NPS DO-12: *Conservation Planning, Environmental Impact Analysis and Decision-making*. Comments received from the public during scoping were also considered in the impact topic screening process. A brief rationale for the selection or non-selection of each impact topic is given in this section.

1. Impact Topics Analyzed

Impacts of the alternatives on the following topics are presented in this EA: air quality; geology; paleontological resources; soils; water resources; wetlands; vegetation; wildlife; special status species; prehistoric and historic archeological resources; historic structures / cultural landscapes; visitor experience; soundscape; wilderness; grazing and livestock trailing; human health and safety; hazardous materials; and park operations.

PHYSICAL RESOURCES

Air Quality: Under the Clean Air Act (CAA) (42 USC 7401 *et seq.*), most of the 10 parks are designated class II areas. Class II areas allow only moderate increases in certain air pollutants, while class I areas (primarily large national parks and wilderness areas) are afforded the highest degree of protection. Craters of the Moon Wilderness Area is a class I area.

Under the CAA, park managers have an affirmative responsibility to protect park air quality related values (including visibility, plants, animals, soils, water quality, cultural resources and visitor health) from adverse air pollution impacts. The CAA establishes specific programs that provide special protection for air resources and air quality related values associated within class I areas. Section 118 of the CAA requires park units to meet all federal, state, and local air pollution standards. The use of herbicides and the use of fire have the potential to affect air quality; therefore this topic has been retained for analysis.

Geological / Paleontological Resources: *Management Policies* (NPS 2006) calls for analysis of geology and geological hazards should they be relevant. Geological resources, including paleontological resources (fossils) (both organic and mineralized remains in body or trace form) will be protected, preserved, and managed for public education, interpretation, and scientific research (NPS 2006). Mechanical/manual control techniques may impact geological / paleontological resources such as fossils. Chemical treatments may also affect geological resources, such as caves. The lava tubes and other cave formations in Craters of the Moon however would not be affected because they are volcanic. Therefore this topic has been retained for analysis.

Soils: *Management Policies* (NPS 2006) require that the NPS understand and preserve, and prevent, to the extent possible, the unnatural erosion, physical removal, or contamination of the soil. Mechanical and chemical treatments of nonnative species have the potential to have a measurable impact on soil resources; therefore this topic has been retained for further analysis.

Water Resources (Water Quality and Quantity and Wetlands): The 1972 Federal Water Pollution Control Act, as amended by the Clean Water Act (CWA) of 1977, is a national policy to restore and maintain the chemical, physical, and biological integrity of the nation's waters, to enhance the quality of water resources, and to prevent, control, and abate water pollution. *Management Policies* (NPS 2006) provides direction for the preservation, use, and quality of water in national parks. The purpose of the CWA is to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." To achieve the goal of the CWA, the Army Corps of Engineers (ACOE) evaluates federal actions that result in potential degradation of waters of the United States and issuing permits for actions consistent with the CWA (under Section 404). The EPA or its designee – the states – reviews permits and actions under Section 401. Section 401 of the CWA as well as NPS policy requires analysis of impacts on water quality. The use of herbicides may have the potential to contaminate ground and/or surface water and may have impacts to rivers, streams, and water quality. Potential effects on water quantity could also occur from the use of cultural techniques such as irrigation or washing vehicles from the actions proposed in the Invasive Plant Management Plan as well as from mixing pesticides; therefore this topic has been retained.

Wetlands: EO 11990 *Protection of Wetlands* requires federal agencies to avoid, where possible, adversely impacting wetlands. In addition, §404 of the CWA authorizes the ACOE to prohibit or regulate, through a permitting process, discharge or dredged or fill material or excavation within waters of the United States.

The ACOE identifies three criteria for the identification of wetlands including hydrophytic vegetation, hydric soil, and positive indicators of wetland hydrology (ACOE 1987). The ACOE and EPA jointly define wetlands (under their administration of the CWA) as:

Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas (33 CFR 3 § 328.3, 2004).

DO 77-1: *Wetland Protection* requires that the NPS use the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin *et al.* 1979) as the standard for defining, classifying, and inventorying wetlands. This system generally requires that a positive indicator of wetlands be present for only one of the indicators (vegetation, soils, or hydrology) rather than for all three parameters as mandated by ACOE and EPA. As with the ACOE, NPS policies for wetlands *Protection*, proposed actions that have the potential to adversely affect 0.10 acre or more of wetlands must be addressed in a *Statement of Findings*. The use of herbicides may have the potential to contaminate ground and/or surface water and may have impacts to wetlands. As stated in 2006 *Management Policies* (NPS 2006) and DO 77-1 *Wetlands Protection*, strive to prevent the loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands. Therefore this topic has been retained for analysis.

BIOLOGICAL RESOURCES

Vegetation: NEPA calls for examination of the impacts on the components of affected ecosystems. *Management Policies* (NPS 2006) calls for protecting the natural abundance and diversity of park native species and communities, including avoiding, minimizing or mitigating potential impacts from proposed projects. Proposed nonnative plant treatments including mechanical and chemical treatments could impact native plant communities. The removal of vegetation could also cause loss of vegetation or changes in plant community composition; therefore this topic has been retained for analysis.

Wildlife: NEPA calls for examination of the impacts on the components of affected ecosystems, including terrestrial and aquatic wildlife and fish. NPS policy is to protect the natural abundance and diversity of park native species and communities, including avoiding, minimizing or mitigating potential impacts from proposed projects. The use of proposed control methods (especially herbicide use) has the potential to affect wildlife; therefore this topic has been retained for analysis.

Special Status Species: The Endangered Species Act (ESA) requires an examination of impacts to all federally-listed threatened or endangered species. *Management Policies* (NPS 2006) calls for an analysis of impacts to state-listed threatened or endangered species and federal candidate species. Under the ESA, the NPS is mandated to promote the conservation of all federal threatened and endangered species and their critical habitats within the parks. *Management Policies* includes the additional stipulation to conserve and manage species proposed for listing. The proposed actions may have impacts to some of these species or their habitats; therefore this topic has been retained for analysis.

CULTURAL RESOURCES

Prehistoric and Historic Archeological Resources: Compliance with ARPA in protecting known or undiscovered archeological resources is necessary. *Management Policies* (NPS 2006) call for ongoing inventory and analysis of the significance of archeological resources found within parks. In addition to the NHPA and *Management Policies*, NPS DO 28B *Archeology* affirms a long-term commitment to the appropriate investigation, documentation, preservation, interpretation, and protection of archeological resources inside units of the National Park System. As one of the principal stewards of America's heritage, the NPS is charged with the preservation of the commemorative, educational, scientific, and traditional cultural values of archeological resources for the benefit and enjoyment of present and future generations. The treatment of nonnative invasive plants may have impacts on archeological resources; therefore this impact topic is retained for further analysis.

Historic Structures / Cultural Landscapes: Consideration of the impacts to cultural resources is required under provisions of Section 106 of the NHPA as amended, and the 1995 *Programmatic Agreement among the National Park Service, the National Conference of State Historic Preservation Officers, and the Advisory Council on Historic Preservation* (ACHP). It is also required under *Management Policies* (NPS 2006). Federal land management agencies are required to consider the effects proposed actions have on properties listed in, or eligible for inclusion in, the National Register (i.e., Historic Properties), and allow the ACHP a reasonable opportunity to comment. The National Register is the nation's inventory of historic places and the national repository of documentation on property types and their significance. Agencies are required to consult with federal, state, local, and tribal governments/organizations, identify historic properties, assess adverse effects to historic properties, and negate, minimize, or mitigate adverse effects to historic properties while engaged in any federal or federally-assisted undertaking (36 CFR Part 800).

Historic Properties may be objects, structures, buildings or cultural landscapes. Cultural landscapes are settings humans have created in the natural world. They reveal the ties between the people and the land. These ties are based on the need to grow food, build settlements, recreate, and find suitable land to bury their dead. They range from prehistoric settlements to cattle ranches, from cemeteries to pilgrimage routes and are the expressions of human manipulation and adaptation of the land. Because ongoing and

proposed treatment of invasive plants may affect historic structures and/or cultural landscapes listed on or eligible for the National Register, this topic has been retained for analysis.

RECREATIONAL / SOCIAL RESOURCES

Visitor Experience: According to *Management Policies* (NPS 2006), the enjoyment of park resources and values by people is part of the fundamental purpose of all park units. The NPS is committed to providing appropriate, high quality opportunities for visitors to enjoy the parks, and will maintain within the parks an atmosphere that is open, inviting, and accessible to every segment of society. The parks provide opportunities for forms of enjoyment that are uniquely suited and appropriate to the superlative natural and cultural resources found in the parks. *Management Policies* (NPS 2006) also states that scenic views and visual resources are considered highly valued associated characteristics that the NPS should strive to protect. Among the impacts that may be considered in this section are visitor access, opportunities and experience, soundscape and scenic resources. This section therefore also includes visitor access as well as interpretation and education. Management of invasive plants may affect visitor use by preventing visitors from experiencing or enjoying all or parts of the parks for short periods of time when some areas of the parks may be closed due to treatments. Therefore this topic has been retained for analysis.

Soundscape: In accordance with *Management Policies* (NPS 2006) and DO 47 *Sound Preservation and Noise Management*, an important component of the NPS mission is the preservation of natural soundscapes associated with national park units. Visitor surveys have also identified natural quiet and solitude (soundscapes) as high value experiences in the parks and the proposed alternatives may affect visitor experiences. In addition, the noise generated from mechanical treatment, such as off-highway vehicles (OHV) on all-terrain vehicle (ATV) and utility vehicle (UTV) mounted sprayers, chainsaws, and mowing equipment may affect the natural soundscape at the parks, therefore this topic has been retained for analysis and is included in *Visitor Experience*.

Wilderness: NPS wilderness management policies are based on provisions of the 1916 NPS Organic Act, the 1964 Wilderness Act, and legislation establishing individual units of the national park system. These policies establish consistent service-wide direction for the preservation, management, and use of wilderness and prohibit the construction of roads, buildings and other man-made improvements and the use of mechanized transportation in wilderness. All park management activities proposed within wilderness are subject to review following the minimum requirement concept and decision guidelines. The public purpose of wilderness in national parks includes the preservation of wilderness character and wilderness resources in an unimpaired condition, as well as for the purposes of recreational, scenic, scientific, education, conservation, and historical use. Because invasive plant management may affect wilderness in Craters of the Moon National Monument and Preserve, this impact topic has been retained for analysis.

Grazing and Livestock Trailing: Legislation establishing several of the parks has allowed for the retention of grazing or livestock trailing. Because nonnative invasive plant removal may affect or be affected by grazing and livestock trailing, this topic has been retained for analysis.

Human Health and Safety / Hazardous Materials: *Management Policies* (NPS 2006) states that the NPS and its concessioners, contractors, and cooperators will seek to provide a safe and healthful environment for visitors and employees. Employees and visitors may be exposed to herbicides through respiratory, dermal or dietary routes (touching or eating); therefore this topic is retained for further analysis.

According to the EPA regarding hazardous materials (40 CFR 261.33) some herbicides can become hazardous waste when discarded. Based on NPS policies, the parks would not purchase herbicides unless they would be used within the year of purchase. In addition, disposal of the herbicide container is in accordance with local hazardous waste regulations, usually including triple washing and puncturing of the container. Since the proposed action would produce a small amount of hazardous materials, this topic has been retained.

Park Operations: Impacts to park operations and visitor services are often considered in EAs to disclose the degree to which proposed actions would change park management strategies and methods and what additional costs (including staffing) are associated with the proposal. Therefore this topic has been retained.

2. Impact Topics Dismissed From Further Analysis

The topics listed below either would not be affected or would be affected only negligibly by the alternatives evaluated in this EA. Therefore, these topics have been dismissed from further analysis. Negligible effects are localized effects that would not be detectable over existing conditions.

Floodplains: Floodplains are areas of low-lying land that are subject to inundation by the lateral overflow of waters from rivers or lakes with which they are associated. EO 11988 (Floodplain Management) requires an examination of impacts to floodplains, including the potential risk involved in placing facilities within floodplains. It states that federal agencies must:

...take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values served by floodplains...

Accordingly, agencies must determine whether a proposed action is located in or would impact the 100-year floodplain. The 100-year floodplain is designated by the Federal Emergency Management Agency (FEMA) as those low-lying areas that are subject to inundation by a 100-year flood (i.e., a flood that has a one percent chance of being equaled or exceeded in any given year).

Ethnography / Traditional Cultural Resources: Many of the parks encompassed by this plan have a long history of use by prehistoric and contemporary Native Americans. Analysis of impacts to known resources is important under the NHPA and other laws. The NPS defines ethnographic resources as any “site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it” (DO-28, *Cultural Resource Management Guideline*:181). Traditional Cultural Properties (TCPs) or other sites are associated with the cultural practices and beliefs of a living community that are rooted in that community’s history and are important in maintaining the continuing cultural identity of the community.

There would continue to be no or negligible impacts on known ethnographic resources in the 10 parks from the implementation of Alternative 1. No specific ethnographic resources have been identified at City of Rocks, Craters of the Moon, Fossil Butte, Golden Spike, Grant-Kohrs, Hagerman Fossil Beds, or Minidoka. At these parks, there would continue to be no effect on known ethnographic resources. Letters sent to the tribes associated with these parks raised no issues about potential effects of this invasive plant management plan. If later ethnographic resource concerns were identified from ongoing consultation with affiliated tribes, these would be investigated further to avoid impacts.

At the other parks (Little Bighorn and Nez Perce – Bear Paw and Big Hole), where the cultural landscape is itself considered an ethnographic resource, removal of nonnative invasive species could continue to result in negligible to minor localized adverse effects, however, there would be no other physical alteration or increased use of any areas of traditional cultural importance to tribes associated with the parks.

In all of the parks, traditional plant resources could be damaged or destroyed by manual treatments that are being conducted nearby. Biological treatments with herbivores could result in the trampling or consumption of traditionally used species. Although nonnative invasive plant treatments can affect traditionally gathered plant populations, the continued spread of invasive plants can also affect these. As a result, there would be overall benefits from the removal of nonnative invasive plants. If traditional

gathering areas are known, herbicides would not be used in these areas to limit effects of this type of treatment. This would also limit indirect effects such as herbicide drift, water runoff and accidental spills. Although prescribed fire and mechanical treatments have the potential to destroy plants used by the tribes, these methods are typically employed in areas that have sustained substantial loss of native vegetation and therefore, would be less likely to contain traditionally used plant resources. Overall, native plant communities, including traditionally gathered plants would be enhanced because weed infestations would be treated, alleviating competitive pressures for water, nutrients, and space, with improvements in the quantity and diversity of native plants.

At Little Bighorn, there would also be no known impacts on ethnographic resources. The park has conducted a variety of nonnative invasive plant treatments over many years and no issues have been identified associated with the seventeen historically affiliated tribes, including the Crow Tribe, whose reservation lands include part of the park. Ongoing consultation with these tribes, however, would continue and if areas of concern were identified, these would be investigated further to avoid impacts. Traditional offering sites used by the tribes would be avoided during prescribed fires and herbicide treatments.

In some parks, some areas are currently specifically excluded from nonnative invasive plant treatment with herbicides, to limit effects. For instance, the location of the Nez Perce encampment in 1877 at Big Hole Battlefield would not initially be considered for herbicide application. If a compelling need for application later arose, however, the proposal would be reviewed for compliance with Section 106 of the NHPA in close consultation with the Nez Perce people. At Little Bighorn warrior markers and casualty sites are used for prayer offerings and are avoided. Removal of nonnative invasive plants could allow a return to the conditions in the parks at the time of their use by Native American Indians, a long-term minor beneficial effect.

To ensure that there would be no or negligible impacts, the following mitigation measures have been incorporated into Alternative 2:

- Tribes would be informed of proposed treatment plans and could engage in consultation. Potential adverse impacts to tribal interests would be avoided based on consultation and mitigation measures.
- Parks would identify traditional use plants and traditional offering sites, if any, in consultation with tribes. If these were present, staff involved in nonnative plant treatment would be trained in identification and etiquette and they would be avoided in plant collection and/or treatment areas.
- During the planning phase for invasive plant control activities, managers would coordinate with affiliated tribes to ensure there would be no adverse impact to traditional cultural properties.

Because there would be no or negligible impacts to traditionally associated areas as a result of nonnative invasive plant treatment, this topic has been dismissed from additional analysis.

Museum Collections: *Management Policies* (NPS 2006) and other cultural resources laws identify the need to evaluate effects on NPS collections if applicable. The collections at the parks would not be affected by the proposed plan, except by the potential addition of material for the collections if any is found (see mitigation measures under *Archeological Resources* in the *Environmental Consequences* section). Requirements for proper management of museum objects are defined in 36 CFR 79. Implementation of the alternatives is expected to add a negligible amount of reports, plans, and data to be catalogued and/or archived, therefore impacts to museum collections will not be addressed as an impact topic.

Prime and Unique Farmlands: The Farmland Protection Policy Act of 1981, as amended, requires federal agencies to consider adverse effects to prime and unique farmlands that would result in the conversion of these lands to non-agricultural uses. Prime or unique farmland is classified by the USDA, Natural Resources Conservation Service (NRCS), formerly the Soil Conservation Service, and is defined as soil

that particularly produces general crops such as common foods, forage, fiber, and oil seed; unique farmland produces specialty crops such as fruits, vegetables, and nuts.

Prime farmland is one of several kinds of important farmland defined by the USDA. It is of major importance in meeting the nation's short and long-range needs for food and fiber. Because the supply of high-quality farmland is limited, the USDA recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of our nation's prime farmland.

Prime farmland is defined by the USDA as:

...land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion, as determined by the Secretary [of Agriculture]. Prime farmland includes land that possesses the above characteristics but is being used currently to produce livestock and timber. It does not include land already in or committed to urban development or water storage (7 USC 73 §§ 4201 et seq., 1981).

Unique farmland is defined by the USDA as:

...land other than prime farmland that is used for production of specific high-value food and fiber crops, as determined by the Secretary [of Agriculture]. It has the special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high quality or high yields of specific crops when treated and managed according to acceptable farming methods. Examples of such crops include citrus, tree nuts, olives, cranberries, fruits, and vegetables. (7 USC 73 §§ 4201 et seq., 1981).

There are no prime or unique agricultural soils known from the seven of the 10 participating parks.

At Grant-Kohrs, 31B Varney Clay Loam (0-4 percent slopes) and 24B Con Loam (0-4 percent slopes) are considered prime farmland if they are irrigated. These areas are irrigated.

At Little Bighorn the Tour Road alignment traverses three areas designated as farmland of statewide importance as well as two areas designated as prime farmland if irrigated. The soil characteristics in the vicinity of the visitor center are consistent with farmland of statewide importance but it would likely not be designated as this since its long-term use is inconsistent with designation as prime farmland.

Within Minidoka and the immediate surrounding area, the Barrymore-Starbuck soils complex and the Power silt loam soil are considered prime farmland soils, if they are irrigated with an adequate supply of water. Because Minidoka is not irrigated and has no irrigation water rights, these soils cannot be classified as prime farmland.

Proposals in this plan would not affect the status of these areas as prime farmland; there would be no conversion of farmland to nonagricultural uses. Prime farmland areas would be improved by the removal of nonnative invasive plants. No other soils in the parks are considered prime farmland. Impacts on prime farmland would be negligible and beneficial. Additional analysis of impacts from removal of nonnative invasive plants on prime and unique farmlands has been dismissed.

Energy Consumption: Implementation of the proposed actions would not cause measurable increases or decreases in the overall consumption of electricity, propane, wood, fuel oil, gas or diesel associated with visitation or for park operations and maintenance. As a result, energy consumption has been dismissed from additional analysis.

Lightscares or Night Sky: In accordance with *Management Policies* (NPS 2006), the NPS strives to preserve natural ambient lightscares, which are natural resources and values that exist in the absence of human-caused light. Nonnative plant control activities would have no impact on natural lightscares

because all work would occur during daylight hours. Therefore, lightscape, or night sky, will not be addressed further as an impact topic.

Land Use: *Management Policies* (NPS 2006) states, "...the Service will cooperate with federal agencies; tribal, state, and local governments; nonprofit organizations; and property owners to provide appropriate protection measures. Cooperation with these entities will also be pursued, and other available land protection tools will be employed when threats to resources originate outside boundaries." The proposed action would not directly or indirectly affect park boundaries, zoning and/or land use outside the parks' boundaries. Although the alternatives may have negligible effects on land use, overall land use would not change as a result of the implementation of the alternatives. The overriding land use would remain as parklands. No additional facilities would be constructed. Therefore, land use is not addressed as an impact topic.

Environmental Justice: EO 12898 requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing disproportionately high and adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. This EO does not apply to the subject of this EA. The actions evaluated in this EA would not adversely affect socially or economically disadvantaged populations. Implementing nonnative plant management treatments would have no disproportionately high and adverse human health or environmental effects on minorities or low-income populations or communities. The nonnative plant management plan would not impact the exclusion or separation of minority or low income populations from the broader community or disrupt community cohesiveness and economic vitality. Therefore, environmental justice has been dismissed from additional analysis.

Wild and Scenic Rivers: Under the Wild and Scenic Rivers Act (16 U.S.C. 1271-1287), "...certain selected rivers of the Nation, which with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations." There are no wild and scenic rivers in or proposed within any of the 10 participating parks; therefore this impact topic has been dismissed from further analysis.

Indian Trust Resources: Indian trust assets are owned by Native Americans but held in trust by the United States. Secretarial Order 3175 ("Identification, Conservation and Protection of Indian Trust Assets") requires that any anticipated impacts to Indian trust resources due to a proposed project or action by agencies within the Department of the Interior be explicitly addressed in environmental documents. The federal Indian trust responsibility is a legally enforceable fiduciary obligation on the part of the United States to protect tribal lands, assets, resources, and treaty rights, and it represents a duty to carry out the mandates of federal law with respect to American Indian and Alaska Native tribes. The lands within the parks are not held in trust by the Secretary of the Interior for the benefit of Indians due to their status as Indians. Neither alternative would affect Indian trust resources; therefore this topic was dismissed from detailed analysis.

Socioeconomics: Socioeconomic impact analysis is required, as appropriate, under NEPA and *Management Policies* (NPS 2006) pertaining to gateway communities. The local and regional economy and most business of the communities surrounding the park are based on tourism and resource use. Manufacturing, professional services, and education also contribute to regional economies. Managers are concerned about the economic impact of invasive plants continuing to spread within the parks. Although some negligible impacts on visitation could occur if invasive plants remain untreated, the alternatives considered would not change local and regional land use or impact local businesses or other agencies in the long term. Both alternatives however would provide a beneficial negligible short-term impact to local economies (e.g. minimal increases in employment opportunities and revenues for local businesses and government generated from invasive plant management activities and workers).

Climate Change and Sustainability: The long-term effects of global climate change are uncertain; however it is clear that the earth is experiencing a warming trend that affects ocean currents, sea levels, polar sea ice, and global weather patterns. Although these changes may affect winter precipitation patterns and amounts in the parks, it would be speculative to predict localized changes in temperature, precipitation, or other weather changes, in part because there are many variables that are not fully understood and there may be variables not currently defined. Although it is also likely that changing weather patterns may affect the distribution of both nonnative and native plant populations, analysis of the degree to which effects may occur over the timeframe of this plan would be speculative and would not change the way noxious weeds are managed in the parks. Therefore the effects of future climate changes or speculation about changes that would occur in native and nonnative plant populations are not discussed further.

I. How to Comment on this Environmental Assessment

This EA is being made available to the public, federal, state and local agencies and organizations through press releases distributed to a wide variety of news media, direct mailing, placement on park websites and announcements in press releases as well as in some local public libraries and other public places.

Park	Environmental Assessment Availability
City of Rocks	City of Rocks Visitor Center, Almo, Idaho Tracy Store, Almo, Idaho Rock City Mercantile, Almo, Idaho Albion Public Library, Albion, Idaho Oakley Public Library, Oakley, Idaho Burley Public Library, Burley, Idaho http://parkplanning.nps.gov/ciro
Craters of the Moon	Craters of the Moon Visitor Center, Arco, Idaho Arco Public Library, Arco, Idaho Hailey Public Library, Hailey, Idaho Community Library, Ketchum, Idaho http://parkplanning.nps.gov/crmo
Fossil Butte	Fossil Butte Visitor Center, Kemmerer, Wyoming Lincoln County Library, Kemmerer, Wyoming http://parkplanning.nps.gov/fobu
Golden Spike	Golden Spike Visitor Center, Brigham City, Utah Tremonton Library, Brigham City Library http://parkplanning.nps.gov/gosp
Grant-Kohrs	Grant-Kohrs Ranch Visitor Center, Deer Lodge, Montana William K. Kohrs Memorial Library (Deer Lodge) http://parkplanning.nps.gov/grko
Hagerman Fossil Beds	Hagerman Fossil Beds Visitor Center, Hagerman, Idaho Twin Falls Library http://parkplanning.nps.gov/hafo
Little Bighorn	Little Bighorn Visitor Center, Crow Agency, Montana Big Horn County Library, Hardin, Montana Little Bighorn College Library, Crow Agency, Montana http://parkplanning.nps.gov/libi
Minidoka	Hagerman Fossil Beds Visitor Center, Hagerman, Idaho Twin Falls Library http://parkplanning.nps.gov/miin
Nez Perce: Bear Paw	Blaine County Library, Chinook, Montana Nez Perce National Historical Park Research Center, Lapwai, Idaho http://parkplanning.nps.gov/nepe
Nez Perce: Big Hole	Big Hole Visitor Center, Wisdom, Montana Salmon Public Library, Salmon, Idaho Darby Public Library, Darby, Montana

Park	Environmental Assessment Availability
	Anaconda-Deer Lodge County Library, Anaconda, Montana Nez Perce National Historical Park Research Center, Lapwai, Idaho http://parkplanning.nps.gov/nepe

Copies of the document may be obtained from PEPC, the nearest park site included in this plan (as noted above), or from Craters of the Moon, the host park, for the plan:

Internet: <http://parkplanning.nps.gov/gosp> (PEPC Project Number 20520)

Superintendent
Craters of the Moon National Monument and Preserve
P.O. Box 29
Arco, Idaho 83213

Phone: (208) 527-3257 or *Fax:* (208) 527-3073

Written comments will be accepted at the following email address or can be posted at the following website:

Email: crmo_information@nps.gov

Internet: <http://parkplanning.nps.gov/gosp> (PEPC Project Number 20520)

Written comments may also be sent to the individual park unit superintendents (see list of park addresses following the title page).

Responses to substantive comments on the EA will be addressed in the proposed Finding of No Significant Impact (FONSI) or will be used to prepare an Environmental Impact Statement (EIS) (if warranted).

Note: For more information about specific agency and staff consultation, see Chapter VI: *Consultation and Coordination, List of Persons and Agencies Consulted / Preparers*.