



Invasive Non-native Plant Management Environmental Assessment

Frequently Asked Questions

What is the purpose of this Environmental Assessment?

The purpose of this Environmental Assessment (EA) is to solicit public input into an Integrated Pest Management (IPM) program proposed by the National Park Service (NPS) for the North Cascades National Park Service Complex (park complex): North Cascades National Park, Lake Chelan National Recreation Area, and Ross Lake National Recreation Area. The purpose of the proposed IPM program is to protect natural ecosystem dynamics, including the vegetation, wildlife, and other terrestrial and aquatic resources and processes that are threatened by invasive, non-native plants.

What is being proposed?

This EA proposes to implement an IPM program to control invasive, non-native plants, restore impacted areas, and detect and prevent new infestations. IPM is a decision-making process that helps to decide if a treatment is necessary, where the treatment should be administered, when a treatment should be applied, and what strategies should be integrated for immediate and long-term results. Approximately 225 non-native plant species exist within the park complex; however, only 40 of them are deemed invasive and targeted for control (Table 2-5 on page 44 of the EA lists the 40 species). Proposed treatments include manual/mechanical techniques, spot treatment with herbicides, cultural techniques, and biological control agents. Twenty-five invasive plant projects are currently identified throughout the park complex; however, additional projects similar in scope could be undertaken throughout the life of the plan.

What are some of the key characteristics of this proposed Integrated Pest Management program?

- Targets and prioritizes 40 invasive, non-native plant species for control
- Uses a new decision-making tool to prioritize species that pose the greatest risk to park resources
- Includes a requirement to use weed-free certified feed for recreational and administrative stock use in the park complex, which is consistent with requirements on adjacent U.S. Forest Service lands

Why is this Integrated Pest Management program necessary?

The program is needed because invasive plants can alter entire ecosystems. For example, they can displace native vegetation and habitat for native animals, affect water quality and increase soil erosion, change soil nutrients, and alter fire regimes. Currently, a number of invasive plant infestations are not being treated due to the lack of a comprehensive plan that is supported by an environmental analysis and informed by public input. This EA has been prepared to overcome this gap by expanding management of invasive plant species over a wider geographic area and with a greater variety of tools and techniques for control, including herbicides.

How does this plan connect with invasive plant management throughout the region?

In addition to federal law, which requires federal agencies to control invasive plants on federal lands, the NPS and other federal land management agencies are subject to Washington state law, which holds landowners responsible for controlling noxious weeds on their property. Each year the State Noxious Weed Control Board adopts the State Noxious Weed List, which determines what plants will be considered noxious weeds and where control will be required in the state. The IPM approach outlined in this EA is similar to the approach identified by the neighboring Mount Baker-Snoqualmie and Okanogan-Wenatchee National Forests. The alignment between state and federal approaches facilitates a more holistic, ecosystem-based management of invasive plant species. By design, this increases the likelihood of success in managing and minimizing the impacts of invasive plants across the greater North Cascades ecosystem. More information about invasive plant management on US Forest Service lands can be found at:
<http://www.fs.fed.us/r6/invasiveplant-eis/Region-6-Inv-Plant-Toolbox/>.

Where would the proposed work take place?

Most invasive plant populations are currently confined to frequently disturbed areas (e.g., roadsides, gravel pits, transmission line corridors, and former home sites) within Ross Lake National Recreation Area and Lake Chelan National Recreation Area. There are, however, some infestations within North Cascades National Park, including the Stephen Mather Wilderness, that are targeted for control.

How is invasive plant control prioritized?

The NPS prioritizes invasive plant control projects based on the Washington State Noxious Weed List classification as well as park-specific concerns (such as infestations within designated wilderness or infestations that are small within the park complex but larger in elsewhere in the state). To determine park priorities for invasive plant control, the NPS developed a decision-making tool that uses action thresholds to determine when treatment strategies should be implemented. Action thresholds are met if an invasive species:

- Alters ecosystem processes
- Outcompetes native species
- Does not outcompete natives, but:
 - » Prevents recruitment/regeneration of native species
 - » Reduces/eliminates resources (e.g., the loss of habitat and soil nutrients occurring due to the change in the fire cycle caused by cheatgrass invasion)
 - » Provides resources to non-native animals (e.g., reed canarygrass, which may provide both shelter and feeding opportunities for the invasive redbreasted sunfish on Ross Lake)
- May overtake or exclude native species following disturbance
- Is listed as required to control on a state, county or federal noxious weed list
- Occurs in high quality/high value habitat or resource areas, including designated wilderness

The priority list of invasive species is dynamic, and will likely change as new species are found within the park complex or as more is learned about existing species and infestations.

What types of herbicides are proposed?

Twelve herbicides are proposed for use, all of which are registered by the US Environmental Protection Agency and Washington State. However, in the future, the NPS may consider using additional herbicides if a risk assessment has been conducted for the active ingredient and the use of the herbicide is consistent with actions and potential impacts identified in the EA. The number of herbicide treatments in the park complex would increase to treat several species now targeted.

Why use herbicides?

In order to control certain invasive species, herbicide use is often the only effective method. Although some level of control for many invasive species could be achieved using manual, mechanical, and cultural treatments, implementation would be prohibitively expensive, time-consuming, and ultimately would not result in a significant level of control for many species. For example, the spread of weeds that are annual or biennial species (such as some knapweed species, mullein, and herb Robert) that do not occur in large densities can usually be controlled by pulling. Because reproduction of these species relies primarily on the ability of the plant to produce seed, physical removal can often be an effective control method if the entire root is removed. However, with perennial species, which may reproduce by fragmentation of roots or shoots as well as seeds, herbicides are necessary to ensure death of the entire plant. Manual or mechanical removal would exacerbate infestations of perennial species because new growth would occur from remaining portions of the plant left in the ground, and ground disturbance could spread this material to new locations. Herbicide application can also be more effective in treating areas that contain persistent seed banks; because the seeds of some species remain viable for many decades, manual treatment methods would be prohibitively expensive to implement.

Will herbicide applications affect my drinking water?

This proposed IPM program does not call for any in-water treatments of herbicides. Therefore, the risk to drinking water from herbicides is extremely low. Additionally, only minute amounts of diluted herbicide solutions may be expected to enter the surface water as a result of over-spray, run-off occurring from the leaves of treated vegetation, or rain events shortly after application.

How will the risks from the use of herbicides be minimized?

To minimize the risk of herbicide exposure, the proposed IPM program will use several Best Management Practices, including:

- Herbicides will be selected to maximize the effectiveness of the treatment on the target invasive plant and to minimize the potential effects on non-target plants.
- Use herbicides that are registered for aquatic use (i.e., those that degrade rapidly in aquatic environments and have low or non-toxicity to organisms)

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- Spray when conditions are appropriate (i.e., when forecasts are clear, the chance of rain is extremely low, and/or water levels are at their lowest)
 - Post public notices that inform people about when and where treatments are happening

Most herbicide work would be accomplished by spot spraying, which involves the use of manually pressurized backpack sprayers. This technique allows for more precise application to targeted invasive plants, reducing the potential to impact native plants in the vicinity of the treatment area. NPS policy requires pesticide applications to be performed by or under the supervision of certified applicators licensed under the procedures of a federal or state certification system. Appendix E of the EA contains a full list of Best management Practices that would be implemented to minimize herbicide impacts. Appendix J contains fact sheets that summarize results of the best available research on the potential effects of herbicides.

Will I be required to treat invasive plants on my property?

The NPS has no authority to mandate weed control on private property. However, Washington state law requires landowners to control certain species. For more information, please visit the Washington State Noxious Weed Control Board website at <http://www.nwcb.wa.gov/>. In addition, NPS staff is available to provide technical assistance to landowners interested in treating invasives on their property.

Will stock users be required to use weed-free feed as required on adjacent U.S. Forest Service land?

Stock (horses, mules, llamas, etc.) are one of the main sources of weeds in backcountry areas. Therefore, this plan will phase in a new requirement to use weed-free feed within the park complex (for both day and overnight use). This requirement is consistent with regulations on all U.S. Forest Service lands in the state. All stock users, including the NPS, will be required to use feed that is certified weed-free and will be encouraged to use weed-free feed at least 24 hours prior to visiting. Implementation will involve a two-year transitional period focusing on education and public outreach. For more information about weed-free feed, go to <http://agr.wa.gov/PlantsInsects/WWHAM/WWHAM.aspx>.

Where can I review the Environmental Assessment?

The complete EA is available for download at http://parkplanning.nps.gov/noca_invasive_plants. Printed copies are also available in Stehekin at the Golden West Visitor Center and in Sedro-Woolley at the Park and Forest Information Center. A limited number of hard copies are available upon request by contacting Shelley Kluz at (360) 854-7201.

How do I submit comments?

Comments may be submitted in person during a public meeting, on-line through the project website, or via regular mail. To ensure the most accurate and timely processing of comments, we prefer to receive them electronically through the project website (http://parkplanning.nps.gov/noca_invasive_plants). You can also submit comments via regular mail: Superintendent, Attn: Invasive Plant Management EA, North Cascades National Park Service Complex, 810 State Route 20, Sedro-Woolley, WA 98284.

When does the comment period end and when would the plan be implemented?

The public review process for the EA begins November 14, 2011 and concludes January 11, 2012. One of the three alternatives, or a modified version, as presented in the EA will be chosen for implementation based upon public and agency review. The regional director of the NPS Pacific West Region will approve the final plan and implementation is expected to begin in spring 2012.

When and where will public meetings be held?

December 5, 2011	December 7, 2011
Golden West Visitor Center	Park and Forest Information Center
Stehekin	810 SR 20, Sedro-Woolley
5-7 p.m.	5-7 p.m.