

**FINDING OF NO SIGNIFICANT IMPACT  
AND DECISION TO**

**Implement a Comprehensive Terrestrial Invasive Plant Management Strategy  
in the Alaska Region**

**U.S. FISH AND WILDLIFE SERVICE - ALASKA REGIONAL OFFICE  
Anchorage, Alaska**

The U.S. Fish and Wildlife Service (Service) Alaska Region (Region) is working with partners to implement a region-wide integrated pest management (IPM) strategy (Strategy) for terrestrial invasive plants, focused on managing small-scale infestations detected on Service lands and at critical access points off Service lands (e.g., trailheads, boat launches, airstrips, road corridors, waterways, private allotments), in accordance with the National Invasive Species Act, the National Wildlife Refuge System Administration Act, the National Wildlife Refuge System Improvement Act (which amended the National Wildlife Refuge System Administration Act), the Endangered Species Act (ESA), Executive Orders 13112 and 13751, and the Service's IPM policy 569 FW 1 (USFWS 2010(a)). The legal definition of the IPM is "a sustainable approach to managing pests by combining biological, cultural, physical, and chemical tools in a way that minimizes economic, health, and environmental risks" (7 USC § 136r-1). The purpose of the Strategy is to implement a consistent, feasible, and cost-effective IPM strategy for terrestrial invasive plants across the Region.

Terrestrial invasive plants displace native species, alter community composition, and influence ecosystem processes and functions. Historically, terrestrial invasive plants had been largely constrained to disturbed areas that included roadways, trails, construction sites, and urbanized areas, and former ranches (e.g., cattle and sheep ranching in the Aleutians). However, terrestrial invasive plants are spreading beyond the disturbed areas into wildlands of Alaska due to greater human mediated pathways, increasing human disturbance, warmer annual temperatures, and longer growing seasons. There are 333 confirmed non-native plant species in Alaska (AKEPIC May 2021) and most of these are limited in geographic scope and impact on the ecosystem. However, at least of 104 of these non-native species are considered invasive. This Strategy includes prevention, early detection, and rapid response to infestations through a judicious use of the suite IPM strategies to reduce the negative impacts terrestrial invasive plants have on subsistence, cultural, and recreation resources on Service lands and at critical access points to Service lands in Alaska.

The Service's IPM policy mandates the implementation of a science-based decision process for pest and invasive species management. Specifically, the IPM approach requires evaluation of pest biology, infestation characteristics, environmental factors, and reported effectiveness and environmental impact of various methods of pest management. Methods available to invasive plant managers include cultural, physical, biological, and chemical (e.g., herbicides) techniques. Most infestations on or near Service lands have only been monitored or treated primarily with physical methods for multiple years, and the detection of new infestation sites or expanded

infested areas requires additional effort. More aggressive invasive plants are becoming established on and near Service lands and are not contained with current management methods, which point to a need for more effective management strategy that utilizes the judicious use of more treatments methods in a systematic way.

### **Selected Action - Alternative 2 - Regional IPM Strategy with Herbicide**

Alternative 2 activities include following the IPM approach to respond to terrestrial invasive plants on Service lands and at critical access points determined by local staff and their partners when providing financial assistance to invasive plant management projects. Prevention tactics, outreach and education, surveying, physical control methods, restoration of impacts sites and post-treatment monitoring are important components of invasive plant management under this alternative. Alternative 2 also includes the judicious use of the herbicides specified in the EA to manage infestations less than or equal to 20 acres, with the active ingredients and application methods analyzed therein, with each unique infestation site receiving a single herbicide application per year for typically 3 years; timelines for achieving eradication vary based on site and plant characteristics.

Site specific eradication of terrestrial invasive plants is possible under Alternative 2, and combined with prevention and restoration activities would best restore and maintain healthy terrestrial habitats and wildlife and fish they support. Activities would include only actions that would be taken under an invasive species response framework – a set of coordinated actions to verify a report, map the infestation, and eradicate the species before they can spread further and cause harm – which, by definition, are limited in space and time. These activities are laid out in greater detail in the Region’s Rapid Response Plan for Invasive Terrestrial and Emergent Plants (USFWS 2020). This approach minimizes our use of herbicides spatially and temporally, because small or incipient populations are generally treated for a short amount of time, with the goal of eradication.

This alternative was selected over other alternative(s) because it gives managers the ability to hone treatments to individual species and infestation sites. It is known that certain species do not respond favorably to specific types of treatments, and therefore would be impossible to eradicate, within a reasonable timeframe and with currently available resources, if the Service could not employ the full range of IPM methods.

### **Other Alternatives Considered and Analyzed**

#### **Alternative 1 - Regional IPM Strategy without Herbicide (No Action)**

Under Alternative 1, the Service would continue to respond to terrestrial invasive plants on Service lands and access points determined by local staff and their partners, employing IPM methods; however, regionally analyzed actions would exclude the use of herbicide. Prevention tactics, outreach and education, surveying, physical control methods, restoration of impacts sites and post-treatment monitoring are important components of invasive plant management under this alternative. Alternative 1 would generally rely on physical control methods to contain, and to the greatest extent possible, eradicate priority species. Physical control methods involve blanketing, damaging, or removing invasive plants by hand or using hand tools/barrier clothes.

The current strategies for managing invasive plant species are designed and determined by local Service staff, and in conjunction with their partners when working off Service lands and waters. These strategies may prioritize simple actions (e.g., surveying, mapping) that are achievable with local staff and resources over those that may be more effective at a regional scale. In general, infestations exceeding 0.01 hectares (0.024 acres) of perennial invasive plants may require enormous physical effort to eradicate or control, and may not be feasible with limited staff or volunteers and time available during the growing season. Due to the constraints of relying on surveying only or primarily physical treatment methods, localized response plans allow infestations to go untreated, or infestations are treated with tools that do not meet the ultimate objectives of eradication or maximum control. Using only localized responses with only physical methods can permit invasive species to negatively impact the local environment, surpass larger thresholds, and become more difficult and costly to manage; thus leaving the opportunity for further spread.

The purpose and needs of the project would not be met under Alternative 1. Not utilizing the comprehensive suite of IPM strategies across the Region would undermine the Service's ability to meet the purposes of the Region's National Wildlife Refuges and Wilderness areas, and would compromise biological integrity and diversity on Service lands (USFWS Policy 601 FW 3).

### **Summary of Effects of the Selected Action**

In compliance with the National Environmental Policy Act (NEPA) an Environmental Assessment (EA) was prepared on the Strategy to provide a decision-making framework that 1) explored a reasonable range of alternatives to meet project objectives, 2) evaluated potential issues and impacts to Service administered lands, resources and values, and 3) identified mitigation measures to lessen the degree or extent of these impacts. The EA evaluated the effects associated with two alternatives. It is incorporated as part of this finding.

### **Implementation of the agency's decision would be expected result in the following environmental, social, and economic effects:**

Alternative 2 would maximize the likelihood of eradicating site-specific invasive plant infestations and restore the native habitat for fish, wildlife, and plants. Maximizing the potential treatment methods applied during adaptive management of invasive terrestrial plants would hasten the restoration trajectory of native fish, wildlife, and plant communities, especially when managing highly aggressive invasive plants.

Under Alternative 2, impacts to air would be negligible and largely consistent with Alternative 1, although dust and ash from disturbance could be reduced if only chemicals were used. Impacts to water quality from invasive species control actions under Alternative 2 would be negligible.

The Region anticipates negligible effects from Alternative 2 based on low active ingredient toxicity to fish. Combined overall with the beneficial ecological effects of removing invasive plants, the negative effects to invertebrates including native bees would be negligible to minor. Case studies from outside of the Region have illustrated invertebrate populations being positively impacted after herbicide applications were used to remove riparian invasive plants. Birds and

mammals would benefit from the removal of invasive plants, and there would be negligible adverse effects to birds and mammals because direct toxicity of all three herbicides is relatively low. Birds and mammals may be temporarily and indirectly affected by herbicide use through reduction in food, cover, or other habitat components.

Under Alternative 2, using herbicides as part of the IPM strategy may decrease the impacts of non-chemical methods (e.g., erosion, turbidity) although herbicides may also cause short-term negative impacts to native vegetation. Herbicides applied as part of an IPM strategy can minimize soil disturbance and reduce the number of years disturbance is required. Because soil disturbance is minimized, restoration of vegetation may be more rapid following treatment. Under Alternative 2, impacts to land use and resources for human use would be negligible to minor, based on the limited duration, following all label directions and Service Best Management Practices, and community and tribal engagement processes and outreach. Treatment of invasive species, regardless of whether herbicides were used or not, would still result in temporary displacement of wildlife and humans from the treatment area during active treatment.

This alternative helps meet the purpose and needs of the Service as described above because it would restore native plant communities and sustain or restore subsistence and recreation opportunities. The Service has determined that the proposed action is compatible with the purposes of Service lands in Alaska and the mission of the Service.

**Measures to mitigate and/or minimize adverse effects have been incorporated into the selected action. These measures include:**

Limiting management of infestations by size of area to less than or equal to 20 acres (within a specific area on or adjacent to Service land) in coordination with other applicable land owners will minimize effects within a localized area. The active ingredients and application methods will be restricted to a single herbicide application per year for typically 3 years; recognizing timelines for achieving eradication vary based on site and plant characteristics.

Pesticides traveling to surface and groundwater resources will be minimized by following label directions, including application rates and appropriate formulations; using targeted application methods under a response framework, and following Service BMPs. Under Alternative 2, minimizing sedimentation and runoff into aquatic environments by using herbicides instead of soil-disturbing methods (especially for rhizomatous invasive species) will reduce impacts of sedimentation on fish and their habitats.

The proposed action will not have a significant impact on the Region's resources and uses for several reasons:

- All impacts from the proposed actions were determined to be minimal and short-term, because treatments would be in compliance with the Service's IPM Policy and with all label requirements, and occur on a small percentage of the Region and would have minimal impact on non-target species;
- The action will result in beneficial impacts to the human environment in the long term, including the biodiversity and ecological integrity of the refuge, as well as the wildlife-

dependent recreational opportunities and socioeconomics of the local economy, with only negligible adverse impacts to the human environment as discussed above;

- The adverse direct and indirect effects of the proposed action on air, water, soil, habitat, wildlife, aesthetic/visual resources, and wilderness values are expected to be minor and short-term. The benefits to long-term ecosystem health that these efforts will accomplish far outweigh any of the short-term adverse impacts discussed in this document;
- The action, along with proposed mitigation measures, are consistent with providing for public health and safety, including safety of Service staff, partners, volunteers, and visitors;
- There is no scientific controversy over the impacts of this action and the impacts of the proposed action are relatively certain; and,
- Service lands are unique areas protected for conservation of fish, wildlife and habitat. The Service uses an adaptive management approach to management. TWe monitor and reevaluate management efforts to ensure that the programs continue to support conservation of natural resources including biological integrity, biological diversity and ecosystem health, protection of cultural resources, provide for public health and safety, and that these ensure management activities do not contribute to any cumulative detrimental impacts to fish, wildlife and habitats and beneficial uses. This project is being implemented in a manner consistent with this adaptive approach to land management.

### **Public Review**

The proposal has been thoroughly coordinated with all interested and/or affected parties. An initial public scoping period was opened for 15 days in February 2021. The Service invited tribes and Alaska Native Corporations to consult informally or formally on the Strategy, and solicited input from agencies that may have jurisdiction by law, entities with special expertise, and entities that may be affected by management actions to provide a broader perspective on relevant issues.

The draft EA was available during a 30-day public comment period from September 8, 2021, to October 8, 2021. The Region solicited input of interested stakeholders on the Draft EA in a scoping letter to over 270 stakeholders via email. Additionally, input from the public was solicited via publishing a scoping public notice in the Anchorage Daily News for 2 weeks during the 30-day comment period. The Region also solicited input via the Region's social media platforms. Staff from the Region were also invited by the Kenai Peninsula and the Anchorage CISMAs to discuss the EA and hear comments from those partnerships. The Region received comment letters from eight entities with comprising 40 unique comments.

A summary of substantive comments and Service responses were prepared. The Final EA was updated to provide additional detail on the Strategy.

### **Finding of No Significant Impact**

Based upon a review and evaluation of the information contained in the Final EA as well as other documents and actions of record affiliated with this proposal, the Service has determined that the proposal to implement the Alaska Region Terrestrial Invasive Plant Management Strategy does not constitute a major Federal action significantly affecting the quality of the human

environment under the meaning of section 102 (2) (c) of the National Environmental Policy Act of 1969 (as amended). As such, an environmental impact statement is not required.

**Decision**

The Service has decided to:

- Implement a regional comprehensive integrated pest management strategy with the judicious use herbicide for terrestrial invasive plants, focused on managing incipient (i.e., initial, emerging), small-scale infestations detected early on Service lands and at critical access points off Service lands in collaboration with local landowners and other partners in accordance with the Service’s IPM policy 569 FW 1 (USFWS 2010(a)).

Analyses related to other Service mandates (e.g., Endangered Species Act, Wilderness Act) and policies will be completed as warranted on a site specific basis. This action is compatible with the mission and purpose of the Service and is consistent with applicable laws and policies.

<b>BRIAN GLASPELL</b>	Digitally signed by BRIAN GLASPELL Date: 2022.03.23 14:47:49 -08'00'	_____
Assistant Regional Director – National Wildlife Refuge System		Date
<b>PETER FASBENDER</b>	Digitally signed by PETER FASBENDER Date: 2022.03.16 15:28:45 -08'00'	_____
Assistant Regional Director – Fisheries and Ecological Services		Date