



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Kodiak National Wildlife Refuge
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(907) 487-2600

20 May 2014

Dear Reader:

The proposed action described in the Preliminary Supplemental Environmental Assessment (SEA) was approved and determined to have no significant impacts on the human environment. This decision, which pertains to the Service's management of invasive plants in the Kodiak Archipelago, is detailed in a "Finding of No Significant Impact" (FONSI) signed by Anne Marie La Rosa, Refuge Manager on May 19, 2014. Ms. La Rosa concluded that implementation of the proposed action would not constitute a major federal action requiring further environmental analysis.

This decision was based on review and analysis of the SEA and public comments received during the 30-day comment period (March 11-April 10, 2014). Of the six comments received, five were supportive. Concerns expressed and clarifications requested in three letters were considered and addressed in the FONSI. Pending completion of project level site-specific plans and approval of any required permits, the actions proposed in the SEA will be implemented immediately.

More details about the comments and the decision to proceed can be found in the attached copy of the FONSI. Paper copies of the FONSI and SEA documents can be requested by e-mail to Bill_Pyle@fws.gov, by phone to (907) 487-2600, or by mail to Kodiak National Wildlife Refuge, 1390 Buskin River Road, Kodiak, AK 99615. Alternatively, the documents can be found on-line at http://www.fws.gov/refuge/Kodiak/what_we_do/resource_management.html.

Highly invasive plants are regarded as a serious threat to the biological integrity of National Wildlife Refuges. Several species of highly invasive plants have become established in the Kodiak Archipelago. Presently, major infestations occur in the area including Kodiak City, as well as two of six village communities. In addition, numerous minor infestations have been documented in remote areas in and adjacent to Refuge lands. Working in concert with conservation partners, the Refuge looks forward to augmenting our integrated pest management approach, restoring areas adversely affected by highly invasive plants, and conserving native plant, fish, and wildlife habitats.

Thank you for your interest.

Sincerely,

Hansel Klausner
Acting Deputy Refuge Manager

FINDING OF NO SIGNIFICANT IMPACT

Supplemental Environmental Assessment for Integrated Pest Management of Invasive Plants on Kodiak National Wildlife Refuge and Vicinity

SUMMARY

The U.S. Fish and Wildlife Service (Service) adopts the proposed action, which augments its pre-existing program of integrated pest management (IPM) of invasive plants on Kodiak National Wildlife Refuge and Vicinity^{1,2}. *Integrated Pest Management (IPM) is a science-based, decision making process that incorporates management goals, consensus building, pest biology, monitoring, environmental factors, and selection of the best available technology to achieve desired outcomes while minimizing effects to non-target species and the environment and preventing unacceptable levels of pest damage*³. Implementation of the proposed action increases the scope of cooperative IPM to include all land ownerships of the Kodiak Archipelago. However, the actual scope of IPM will be focused more narrowly, systematically, and directly to critical control points, which consist of infestations of highly invasive plants documented on non-Refuge lands and identified as highest risk of spread to Refuge lands. The proposed action allows the Service to lead IPM on non-Refuge lands in cases where conservation partners have insufficient capacity. Consistent with the Service's previous plan, all IPM actions directed to non-Refuge lands by the Service and its conservation partners requires landowner permission. The Service will continue to strictly adhere to requirements specified in the label of aminopyralid-based herbicide such as Milestone™; however, it will remove its voluntary restriction on application of this herbicide near (but not in) water, where appropriate. Collectively, these elements of the proposed action increase the Service's capacity to protect and conserve native plant, fish, and wildlife habitats by reducing the risk of spread of highly invasive plants to Refuge lands, as well as increasing the overall efficiency of cooperative management of invasive plants. The proposed action remains consistent with Service policies and legal directives, while minimizing potential risks to the environment, non-target organisms, and human safety and health. This Finding of No Significant Impact (FONSI) documents the conclusion that the proposed action will not have significant impacts on the quality of the human environment.

ACTION PURPOSE & NEED

The purpose of this Preliminary Supplemental Environmental Assessment (SEA) is to implement tactical changes employed to maintain and increase the effectiveness of our invasive plant management strategy in the Kodiak Archipelago. These changes would augment the Service-approved strategy for management of invasive plants described in a 2010 Environmental Assessment (EA)^{1,2}. The need for this SEA is based on the following factors identified during 2011-13 implementation of the current management strategy:

- We identified additional infestation areas that warrant immediate management action, and other areas that may warrant action in the future, but are outside the scope of the current plan¹. Risks posed by recently discovered invasive plant infestations prompted a need to include additional non-Refuge lands in the scope of management, and to clarify how these changes would affect the IPM priorities.
- The 2010 EA established a framework for Service support of IPM actions conducted by conservation partners on selected non-federal lands. Although this approach has been successful, future progress may be limited where conservation partners do not have the necessary capacity (i.e., funding, personnel, infrastructure, etc.) to manage infestations. Consequently, there is a need to modify the current plan by allowing the Service to take the lead on IPM where partner resources are unavailable and provided landowner permission.
- The 2010 EA made provision for use of aminopyralid-based herbicide such as Milestone, where appropriate, to control broad-leaved species of highly invasive plants (e.g., invasive forbs). In addition, it voluntarily prohibited application of aminopyralid-based herbicide within 10 feet of water bodies. There is a need to remove this voluntary restriction to increase effectiveness of control of invasive forbs near water and to eliminate impacts associated with manual control.

SUMMARY OF PROPOSED ACTION

We presented two alternatives in the SEA distributed for public review and comments: (1) no change to the 2010 EA (no action alternative), and (2) adopt minor amendments to the 2010 EA (proposed action alternative). Under the first alternative, the Service would simply continue the current IPM approach described in the 2010 EA^{1,2}. Under the proposed action, the 2010 EA would be amended to increase the scope of land ownership types eligible for IPM support by the Service (Partners for Fish and Wildlife, etc.); clarify Service IPM priorities; permit Service-led IPM activities on Alaska Native lands, municipal lands, and other federal lands where permission was granted by the landowner; and remove a voluntary restriction on application of aminopyralid-based herbicide. This proposed change would continue to ensure full adherence with requirements of the EPA-approved herbicide label.

SUMMARY OF EFFECTS AND FINDINGS

Natural resources (soils, water quality, vegetation, wildlife, and aquatic resources) would be negligibly impacted from the increased number of areas and acres subject to IPM with herbicide in critical control points on non-Service properties outside the Refuge's legislative boundary. This conclusion is based primarily on relatively minimal increase in the number of IPM-managed acres (e.g., usually less than 5 acres per year), and the numerous restrictions and conditions associated with the use of two herbicide types (aminopyralid, glyphosate) included in the Service's IPM

approach in the Kodiak Archipelago.

The 2010 EA established a framework for Service support of IPM action by conservation partners on selected non-federal lands^{1,2}. Under Alternative 1 (current management) no contingency provision was identified allowing the Service to lead IPM action in cases where a conservation partner was unavailable. Such an absence of IPM would facilitate increased infestation risk to Refuge resources. This consequence would be largely avoided in Alternative 2 because the Service could lead IPM action on non-federal lands where conservation partner was unavailable.

Implementation of Alternative 2 would allow, as needed, control of highly invasive species of broadleaf forbs located near water (less than 10 feet), consistent with the product label for aminopyralid-based Milestone™ herbicide. Risk of negative impact would be negligible due to the limited number and size of areas that would require such control, direct foliar application method, herbicide label requirements (e.g., suitable weather), and best IPM practices that minimized potential for off-site movement and effects. Potential soil disturbance, soil erosion, and stream sedimentation associated with manual control would be minimized since we would discontinue manual control methods described in Alternative 1, except where an infestation consisted of 10 or fewer plants. Under Alternative 2, contamination of water would be prevented by strict adherence to requirements of the herbicide product label coupled with best management practices identified in the Service's 2010 EA and area-specific Pesticide Use Proposals^{1,2}. No substantial difference was identified between the two alternatives in short-term, long-term, and cumulative impacts to worker safety, public safety, and public health.

Implementation of Alternative 2 would result in a net long-term positive impact to natural resources compared to Alternative 1. As described in Alternative 2, targeting of critical control points on non-Refuge lands would lead to a net reduction in the probability of spread of invasive plants from critical control points to Refuge lands. Correspondingly, potential impacts of new infestations would be prevented and therefore minimized.

PUBLIC INVOLVEMENT

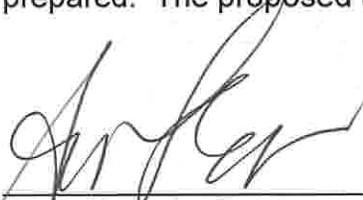
The Service provided two primary opportunities for public involvement during development of the SEA. These consisted of a scoping assessment, conducted before SEA development, and a 30-day public review of the SEA, conducted after it was developed. Both efforts are summarized below. In February 2013, the Service distributed a scoping letter to 85 parties (individuals, conservation organizations, municipalities, congressional representatives, Alaska Native organizations, local newspaper, etc.). We received two comments; neither identified any issues of concern related to the proposed action. One comment voiced support for the proposed action and the other expressed concern about the adequacy of the public notification in the legal notices section of the local newspaper. In response, the Service proceeded with

SEA development and, following completion, we increased the visibility and information detail in the newspaper notice regarding the SEA public-review opportunity.

In March 2014, the Service notified the same parties that it sought review and comments of the SEA during a 30-day period. Responses were received from five organizations and one business. Three responses supported Alternative 2 (the proposed action) without modification. Two supported Alternative 2 and suggested two clarifications. The sixth response opposed a primary feature of both alternatives presented in the SEA, namely, selective use of herbicide, where appropriate, as an IPM tool. Please refer to the attachment for the Refuge's responses to concerns about pesticide use, as well as suggested clarifications to the proposed action. In summary, the Service acknowledged requirements for pesticide application on lands owned or leased by the state of Alaska; we clarified the steps of process for evaluation and classification of newly discovered infestations as critical control points; and we addressed the status of invasive orange hawkweed on Kodiak Island, as well as scope of use and human safety concerns associated with the use of the herbicide aminopyralid in support of IPM.

FINDING OF NO SIGNIFICANT IMPACT

Based on review and evaluation of the SEA, public comments, and our responses to these comments, I have determined that the proposed project is not a major federal action that would significantly affect the quality of the human environment as defined in Section 102 (2) c of the National Environmental Policy Act of 1969⁴. This determination is made after full consideration of the context and intensity of the project. Furthermore, there are no apparent irreversible or irretrievable commitments of resources, significant potential impacts to the quality of the human environment, and potential impacts to any federally-listed threatened or endangered species or their habitats. Invasive plant management using an integrated approach including, as appropriate, conservative and judicious use of herbicides, is consistent with Department of Interior and Fish and Wildlife Service policies, and other applicable laws including the Alaska National Interest Lands Conservation Act, which established legal purposes of the Kodiak NWR and Alaska Maritime NWR to conserve fish and wildlife populations and habitats in their natural diversity, to provide opportunity for continued subsistence uses by local residents, and to ensure water quality and necessary water quantity on Refuge lands. The proposed action will not establish a precedent for any future action with significant effects. I agree with this conclusion, and therefore find that an EIS does not need to be prepared. The proposed action may be implemented immediately.



Anne Marie La Rosa
Refuge Manager

5/19/14

Date

Attachment. Responses to public comments on the Preliminary Supplemental Environmental Assessment (SEA): Integrated Pest Management of Invasive Plants on Kodiak National Wildlife Refuge and Vicinity, March 2010.

Regarding the scope of land ownership types eligible for IPM support under the revised EA (SEA), please be aware that there are new additional state requirements for application of pesticides to state owned/leased lands.

We have reviewed recent amendments and additions to the Alaska Administrative Code governing pesticide control (18 AAC 90.500; 18 AAC 90.640; 18 AAC 90.645; 18 AAC 90.650). We will comply with these requirements in cases where the Service plans to support pesticide application, or direct pesticide application, on state owned/leased lands.

It is unclear whether the SEA will address the management of newly discovered infestations if not previously identified as a “critical control point”.

Newly discovered infestations of highly invasive species on Refuge lands would be promptly addressed by the Service. Where an infestation is newly discovered on non-Refuge lands, the response planning process would include the following steps: (1) prompt review of the infestation characteristics and determination whether Service classification as a critical control point was warranted because of potential threat to Refuge resources; (2) follow-up coordination with the Kodiak Soil and Water Conservation District to determine whether it had the necessary resources required to plan and conduct the response action; (3) provision of Service support, as requested and available, for landowner-approved response action by the District; and (4) leadership by the Service in a landowner-approved response action in cases where the District resources were not available.

Orange hawkweed has probably been in the Kodiak area for about 100 years.

Orange hawkweed was first introduced to Alaska in the 1950s; the first documented Alaska record was collected in the Juneau area in 1961⁵. Interviews with Kodiak-area residents conducted by the Kodiak Soil and Water Conservation District indicated that orange hawkweed was likely imported as an ornamental in the 1960s⁶.

When does a plant become established rather than invasive?

Potential invasiveness of non-native plants varies broadly. Many introduced non-native plants, particularly annuals such as common vegetables, are regarded as non-invasive. Invasiveness potential of non-native perennial plants also varies, as described in the Alaska Invasive Species Ranking document⁷. Relatively few species, including orange hawkweed, are regarded as highly invasive based on our understanding of impacts to

native plant species and communities documented for Alaska, the lower 48 conterminous states, and other temperate-zone countries^{7, 8, 9, 10}. Managers of National Wildlife Refuges are directed to protect native plant species, minimize the impact of invasive species, and restore native species and habitat conditions in invaded ecosystems¹¹. They also are directed to conserve biological diversity and ecosystem health via partnered management initiatives including control of exotic species on non-Refuge lands^{11, 12}. On Kodiak Refuge, management of invasive species is restricted to the most highly invasive species that have the greatest potential to degrade native plant, fish, and wildlife habitats¹.

How does hawkweed or [other] invasive plants harm anything on the Refuge or Kodiak Island compared to the great harm that a poisonous herbicide can cause?

The Service has documented the impact of orange hawkweed to native meadows at Camp Island^{1, 13}. Native meadow comprises a major habitat on the Refuge. Native meadow plants provide essential food and cover to birds and mammals including brown bear¹⁴. In 2002, the year before we started to manage hawkweed, it dominated plant cover and had apparently displaced most native grasses and forbs in the largest infestation sites. Similar displacement effects have been observed elsewhere where orange hawkweed has been introduced to suitable habitats outside its native European range^{8, 9, 10}.

The Service has used an IPM approach to control orange hawkweed^{1, 4}. A component of this approach has frequently included site- and plant-specific application of herbicide, most recently Milestone™, an aminopyralid-based commercial herbicide formulation¹⁵. Selection of this herbicide was based on rigorous review of Refuge purposes, goals, and objectives; Fish and Wildlife Service policy; consultation with technical experts including the University of Alaska Cooperative Extension Service and Service-employed Environmental Contaminants Specialists; and technical information on hawkweed biology and effectiveness of various control methods including herbicide¹. Aminopyralid is considered quite non-toxic (e.g., non-carcinogenic, non-mutagenic, and non-teratogenic) to vertebrates including humans^{16, 17}. Due to this result, the U.S. Environmental Protection Agency classified Milestone as a "Reduced Risk" herbicide, one that has low-impact on human health, low toxicity to non-target organisms (birds, fish, and plants), low potential for groundwater contamination, lower use rates, low pest resistance potential, and compatibility with Integrated Pest Management^{17, 18}.

Our use of aminopyralid is dictated by the legal requirements of the herbicide label (e.g., refer to the Milestone label for example¹⁵). The Service and Service-supported partner applications involve very small amounts of the active herbicide ingredient targeted directly to hawkweed foliage by ground-based applicators, further reducing the potential for any non-target effects^{1, 2}.

In reference to aminopyralid herbicide, it has already caused a lot of problems with growing of broadleaf plants, if the manure is used on them.

Service use of aminopyralid-based commercial formulations such as Milestone is dictated primarily by technical evaluations and the product label^{1, 15, 16, 17}. Consistent with this label, the Service restricts application of Milestone, where appropriate, to non-cropland areas including wildlife management areas, wildlife openings, wildlife habitats, and recreation areas^{1, 2}. Used as directed by the label, Milestone is an effective tool for control of orange hawkweed and other highly invasive broadleaf forbs^{1, 13}. On some infestation sites of the Kodiak Archipelago, hawkweed is intermixed with native vegetation including species of native forbs. We acknowledge that Milestone can kill or injure non-target plants, specifically broad-leaved forbs intermixed with targeted invasive plants^{1, 2}. We minimize impact to non-target plants from ground-based applications by strict adherence to requirements of the herbicide product label for species-specific volume and suitable weather conditions, as well as use of a highly targeted spot-spraying method which directs herbicide to foliage of invasive plants^{1, 2}. Based on our observations, grasses re-colonize sites where hawkweed is eliminated within a year followed by gradual re-establishment of native forbs^{1, 13}. Restoration of infestation sites to native species is the long-term objective^{1, 2}.

Birds, small animals, and large animals that eat sprayed vegetation will leave [aminopyralid-contaminated] feces which may affect broadleaf salmonberry plants.

The herbicide product label for Milestone specifically prohibits the export of manure from areas where livestock grazed within three days of Milesone application¹⁵.

With respect to the Service's management of invasive plants, we acknowledge that some birds, small animals, and large animals may consume vegetation sprayed with commercial formulations of aminopyralid such as Milestone¹. We also acknowledge that these animals may excrete aminopyralid-contaminated feces outside of the area where aminopyralid was applied. However, we consider the potential for substantial impact to non-target vegetation to be negligible given the very small area subject to application of aminopyralid, the even more limited area where animals may excrete aminopyralid-contaminated urine or feces, and the moderate dissipation rate of aminopyralid residues^{16, 17}.

Regarding salmonberry, an abundant and widely-distributed species of shrub native to the Kodiak Archipelago, we are aware of no instances where it was killed by Service-led applications of aminopyralid-based product such as Milestone. However, there are some cases where we physically removed the stems of salmonberry to facilitate access and directed application of Milestone to foliage of highly invasive herbs growing

underneath salmonberry. In general, aminopyralid is considered ineffective at control of shrubs, as reflected in the herbicide label information for Milestone¹⁵.

The Refuge was established to leave everything as nature intended and not to interfere.

Management of lands and waters of National Wildlife Refuges are directed by federal laws, regulations, policy, and Refuge-specific purposes and management plans. For an overview of the relationship between these directives and invasive plant management by Kodiak Refuge we refer readers to discussion of legal authorities in section 1.3 of the Service's 2010 Environmental Assessment¹. Principle among Service's directives is the Fish and Wildlife Service policy 601 FW 3 pertaining to biological integrity, diversity, and environmental health¹¹. This policy states that these elements will be restored where degraded, and that restoration may include active manipulation practices as necessary. Consistent with this directive, one of the Refuge's management objectives states: "Where invasive plants are detected, initiate collaborative control and eradication actions¹⁹."

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