

FINDING OF NO SIGNIFICANT IMPACT

For

Interior Alaska Elodea Eradication Project

The Alaska Region of the U.S. Fish and Wildlife Service (Service) is working with the State of Alaska Department of Natural Resources (DNR), the Alaska Department of Environmental Conservation (DEC), and other partners on a proposal to eradicate aquatic invasive plant species of the genus *Elodea* from interior Alaska. To date *Elodea* has been identified as being present in four freshwater bodies in interior Alaska: Chena Slough; Totchaket Slough; Chena Lake; and the Chena River.

Elodea has demonstrated a high potential to propagate, spread, and establish new populations displacing native plants and disrupting ecosystem functions. Its presence and propensity to spread has the potential to result in significant degradation of fish and wildlife habitat throughout the Yukon River drainage and other areas of Alaska. *Elodea* can also choke waterways impeding recreational and commercial use of waterbodies by boats or floatplanes. The State of Alaska and many other supporting agencies, including the Service, are working towards the eradication of *Elodea* from Alaska.

Working with other agencies, the DNR developed an Environmental Assessment (EA) that analyzed impacts to both the biological and human environment of three alternatives for *Elodea* management in interior Alaska. The first was a no action alternative, which would halt public education and outreach, end monitoring, and make no attempt to control or eradicate known or future infestations of *Elodea*. Both the second and third (preferred) alternatives involve using an Integrated Pest Management Plan approach to manage and eradicate *Elodea* from interior Alaska. The second alternative is restricted to mechanical removal methods for *Elodea* (such as diver-assisted, suction dredge harvest).

The preferred alternative analyzed in the Final EA entails treating infestations with localized suction dredging and fluridone, a systemic herbicide. Fluridone has been used successfully to eradicate *Elodea* from waterbodies in other areas of Alaska. Fluridone would be introduced to the four waterbodies in both liquid and pelleted forms. Multiple treatments spanning three or four years in each waterbody may be necessary to completely eradicate the *Elodea* populations. While other methods were considered, Fluridone is the least detrimental and has the fewest long term impacts to the environment. The preferred alternative was selected as it has the highest probability of success while meeting the goal for the project, which is to eradicate *Elodea* from the infested waterbodies, prevent *Elodea* from spreading to other waterbodies and maintain the ecological integrity of Alaska's waterways by having minimal non-target impacts.

Several aquatic herbicides that are used for aquatic plant management were considered as a means of treating the *Elodea* infestations in interior Alaska. Fluridone (Sonar™) was selected

based on: 1) Environmental Protection Agency (EPA) approval for use in aquatic ecosystems, 2) the low risk posed to the environment, wildlife, and human health and safety, 3) its efficacy in treating aquatic plants at extremely low dosage, including long-term residue monitoring studies by EPA, SePRO Corporation, and non-governmental, and non-industry entities, 4) DEC approval of several different formulations including liquid and time-released pellets noted above, and 5) its effectiveness in selectively eradicating Elodea from waterbodies in other areas of the state (Anchorage and the Kenai Peninsula). As described in the Final EA, Fluridone is a systemic herbicide that is absorbed through leaves, shoots, and roots of susceptible plants and interferes with the synthesis of RNA, proteins, and carotenoid pigments in plants, thereby disrupting photosynthesis. Disruption of photosynthesis prevents the formation of carbohydrates that are necessary to sustain the plant.

The Final EA describes the potential effects of the preferred alternative in detail. In summary, the preferred alternative may result in:

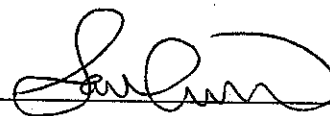
- Negligible impacts to very local air quality from vehicle and boat motor emissions;
- Short-term decrease in dissolved oxygen levels and an increase in suspended organic material in the treated waterbodies as the Elodea plants break down;
- Long-term beneficial increase in water quality and restoration of native plant communities;
- Groundwater, downstream sloughs, rivers, and wetlands should not be impacted by the application of fluridone;
- Very low concentrations of Fluridone in stream and lake sediments for a short period of time;
- Short-term adverse impact on native plants during treatment, but the communities are expected to shift completely to native plants post-treatment (long-term beneficial effect);
- Short-term impacts to wildlife through the reduction of aquatic forage plants;
- Potential short-term adverse impacts to aquatic invertebrates from treatment with fluridone, however, the end result is long-term improvements to fish habitat;
- Restricted access during the period of herbicide application, but long-term benefits to recreation by restoring navigability and sport fishing habitat;
- Short-term impact on land use (unable to use water from the sloughs and lake during treatment for irrigating sensitive crops), but there will be no long-term impacts; and
- A long-term beneficial impact for subsistence users by restoring fish habitat and improving navigability.

Because one of the alternatives involved the potential use of herbicides, considerable efforts have been made to gather public input and explain the proposed project through a number of outreach methods and venues over a considerable period of time. The Final EA describes these on-going efforts in more detail. The Draft EA describing these alternatives and their potential impacts was made available for a 30-day public comment period and public meetings were held in Fairbanks,

North Pole, and Nenana to present the findings of the document. Four formal comments were received (see page 63 of the Final EA) and all were in support of the preferred alternative.

Based on my review and evaluation of the Final EA and other supporting documentation, I have determined that the proposed action of eradicating aquatic invasive plant species of the genus *Elodea* from interior Alaska using an Integrated Pest Management Plan, which will include the application of the herbicide Fluridone, is not a major Federal action which would significantly affect the quality of the human environment within the meaning of Section 102(2)(c) of the National Environmental Policy Act of 1969. Therefore, preparation of an Environmental Impact Statement on the proposed action is not required and a Finding of No Significant Impact is warranted.

The EA, prepared by the Alaska Department of Natural Resources, has been adopted by the Service according to rules contained in 40 CFR 1506.3. Copies of the Final EA are available upon request from the Service, Room 110, 101 12th Ave., Fairbanks, AK 99701 or at the ADNR website at: <http://plants.alaska.gov/invasives/InvasivesNews.htm>



Sarah C. Conn, Ph.D., Project Leader

Fairbanks Fish and Wildlife Service Field Office,

U.S. Fish and Wildlife Service Alaska Region

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