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#### DNR proposes adding Beck Lake to Elodea eradication effort on Kenai Peninsula

(Palmer, AK) - The Department of Natural Resources is seeking public input on a preliminary supplemental environmental assessment that recommends including Beck Lake in the ongoing multi-agency project to eradicate the invasive aquatic plant Elodea from Kenai Peninsula lakes. In 2013, prior to the discovery of an Elodea infestation in Beck Lake, DNR had approved an environmental assessment for Elodea eradication in Stormy and Daniels Lake.

Adding Beck Lake to the ongoing project will support the multi-agency goal of eradicating Elodea from all Kenai Peninsula waterways where it has been discovered, and thereby protecting the ecological integrity of those waterways. Eradication efforts for the specified lakes include use of herbicides as a part of an Integrated Pest Management Plan.

A copy of the preliminary supplemental assessment and the 2013 environmental assessment are available at: <a href="http://plants.alaska.gov/invasives/index.htm">http://plants.alaska.gov/invasives/index.htm</a>. In addition to recommending the addition of Beck Lake to the eradication project, the supplemental assessment includes a "no action" alternative. The deadline for public comments is May 29.

To submit a comment or ask questions, please contact Brianne Blackburn by phone at 907-745-8785, by fax at 907-746-1568, by e-mail at <a href="mailto:blackburn@alaska.gov">brianne.blackburn@alaska.gov</a>, or by mail at Attention: Brianne Blackburn, Stormy and Daniels Lake Elodea Project: Environmental Assessment, Alaska Department of Natural Resources, Division of Agriculture, Plant Materials Center, 4310 S. Bodenburg Spur Rd., Palmer, AK 99645.

## **Preliminary Supplemental Environmental Assessment**

# Stormy and Daniels Lake Elodea Eradication Project (August 2013)

April 2014

#### Prepared by

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#### 1.0 Introduction

In 2013, the Department of Natural Resources (DNR) and the U. S. Fish and Wildlife Service (Service) approved a strategy for managing the invasive aquatic plant elodea in both Stormy and Daniels Lake on the Kenai Peninsula (DNR 2013). Selected management strategies included applying the herbicides fluridone and/or diquat to reduce the biomass and ultimately eradicate elodea to reduce the threat that the highly invasive species will disperse elsewhere in the Swanson River and Bishop Creek drainages, or into other lakes, waterbodies, wetlands, streams, and rivers. Treatment plans were proposed and approved through the preliminary Environmental Analysis (EA) completed in August 2013. Following this process, on-going surveys revealed a third lake, Beck Lake, to be infested with elodea in addition to the previously identified Stormy and Daniels Lake.

This document adopts in part and supplements the Environmental Assessment for the proposed Treatment of Stormy and Daniels Lake for the Purpose of Eradication of Elodea and Maintaining Ecological Integrity of Waterways on the Kenai Peninsula, finalized by DNR and the Service August 2013. A copy of the EA is available online at: <a href="http://plants.alaska.gov/invasives/index.htm">http://plants.alaska.gov/invasives/index.htm</a>.

We present two alternatives in this Supplemental Environmental Assessment (SEA): (1) no change to the 2010 EA (no action alternative), and (2) adopt amendments to the 2013 EA (proposed action alternative). Under the first alternative, DNR and the Service would continue its current management plan to treat elodea in Stormy and Daniels Lake as described in the 2013 EA. Under the second alternative (proposed action), the 2013 EA would be amended to increase the scope of the treatment to include Beck Lake in addition to Stormy Lake and Daniels Lake. The proposed change would continue to ensure consistent action towards the management goal of eradicating the highly invasive elodea from the Kenai Peninsula.

We believe the changes proposed in this preliminary SEA would not significantly alter the analysis of impacts for any of the resource areas evaluated in the 2010 EA, nor would it result in any substantive changes in the approved action, and therefore we are not proposing to conduct a new environmental analysis. We believe the proposed amendment falls within the scope of analysis documented in the 2013 EA and that the potential impacts resulting from documenting these changes have been adequately evaluated in this SEA.

This preliminary SEA will be made available for public comment for a 30-day period. Comments received by the public, stakeholders, and agencies will be reviewed and considered. The DNR will disclose its final decision and supporting rationale following the close of the public comment period.

#### 1.1 Purpose and Need for Action

The overall purpose and need for the management of elodea on the Kenai Peninsula is described in the 2013 Environmental Assessment. Readers are referred to these documents for details. The purpose of this preliminary SEA is to implement changes that incorporate new information regarding the extent of elodea on the Kenai Peninsula. The need for this action is based on the following factors identified in the 2013 field season:

- Elodea, the first submerged freshwater invasive plant to become established in Alaska, has the potential to spread rapidly on the Kenai Peninsula affecting ecological and economic values.
- Based on surveys of 68 lakes in 2013, it appears that elodea populations are constrained to three lakes (Stormy, Daniels and Beck) in two watersheds north of the community of Nikiski.
   Stormy and Daniels Lakes were identified in the 2013 EA, but Beck Lake was not identified until later.
- As these early populations of elodea become better established, motor boats, anchors, fishing
  gear, float planes and even waterfowl will be a greater risk to act as a pathway to spread Elodea
  further on the peninsula.

#### 1.2 Background

As documented in the EA, neither elodea nor other exotic submerged freshwater plants were known to occur on the Kenai Peninsula until very recently. Pfauth and Systsma (2005) did not detect elodea in Vogel, Johnson and Longmere Lakes as part of a larger regional survey of exotic aquatic plants in 2005. However, in September 2012, elodea was incidentally found while Stormy Lake was being treated with rotenone for northern pike. In October 2012, ADF&G and USFWS staff documented elodea in Daniels Lake and in May 2013, immediately after ice-out, a more comprehensive survey by boat confirmed that Daniels Lake was in the early stages of infestation with elodea distribution restricted to five areas along the shoreline. This information led to the drafting and approval of the 2013 EA.

With the recognition that a strategic approach to elodea management could not be determined without a more comprehensive understanding of its distribution on the Kenai Peninsula, USFWS staff surveyed 68 lakes on the western peninsula during summer 2013 (Figure 1) targeting waterbodies that were exposed to likely routes of infection: public boat launches, multiple private homes, road accessible or floatplane charters. Other partners surveyed Beluga Lake in Homer, Trout and Juneau Lakes on Chugach National Forest, and Bear Lake near Seward. Elodea was found in only one additional lake, the 200-acre Beck Lake in the Bishop Creek watershed (Figures 1, 2). Significantly, no other nonnative submerged aquatic plant was detected.

The Kenai Peninsula is in the early stages of infestation by elodea. Based on surveys of 68 lakes in 2013, it appears that elodea populations are constrained to three lakes (Stormy, Daniels and Beck) in two watersheds north of the community of Nikiski. Inflow and outflow of the known infested lakes are a concern as plant fragments may spread to adjacent water bodies, and from there to the connected waters of the Kenai Lowlands on the eastern peninsula. Likely initial vectors on the peninsula are aquaria (Bowmer et al. 1995) and discarded commercial lab kits. However, as these early populations of elodea become better established, motor boats, anchors, fishing gear, float planes and even waterfowl will become the greater risk. Upon evaluating the new 2013 survey information, we have prepared this preliminary SEA.

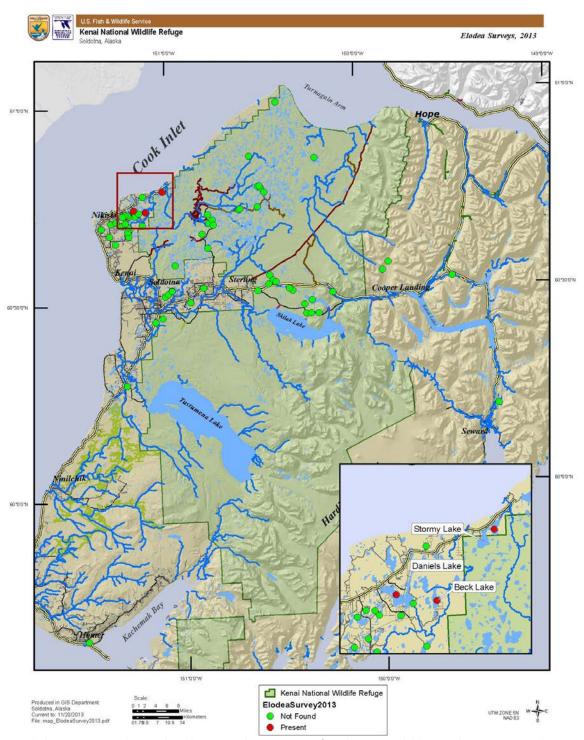


Figure 1. Elodea occurs in Beck, Daniels and Stormy Lakes. It was not found in 65 at-risk lakes on the Kenai Peninsula surved in summer 2013: Afonasi, Arc, Barabara, Barbara, Barr, Bear, Bernice, Big Merganser, Bishop, Bottenintnin, Breeze, Cabin, Cecille, Dolly Varden, Douglas, Duck, East Mackey, Engineer, Forest, Georgine (Georgina), Headquarters, Hidden, Imeri, Island, Jean, Johnson, Kelly, Kivi, Lily, Little Merganser, Longmere, Lower Ohmer, Lure, Marie, McLain, Mosquito, Paddle, Parsons, Peterson, Pond, Portage, Pot, Rainbow (Rainbow Trout), Rock, Salamatof, Scout, Spirit (Elephant), Sport, Tern, Thetis, Timberlost, Tirmore, Union, Upper Ohmer, Vogel, Watson, Weed, West Mackey, and Wik.

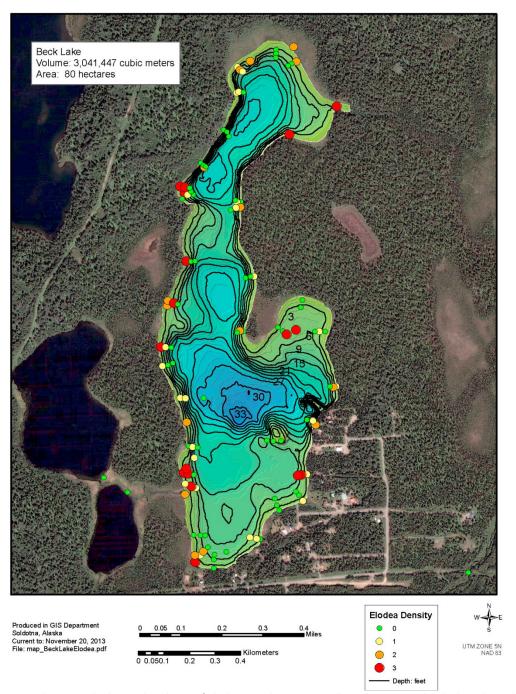


Figure 2. Distribution and relative abundance of Elodea canadensis X *nuttallii* in 200-acre Beck Lake based on a boat survey with throw rakes in July/September 2013.

#### 1.3 Agency Authorities

The Alaska Department of Natural Resources is authorized to control and eradicate the spread of pests per Alaska Statute (AS 44.37.030). The management strategies outlined in the 2013 EA and this SEA

have been developed in conjunction with the U. S. Fish and Wildlife Service and other stakeholder agencies, organizations, and individuals through the Kenai Peninsula Cooperative Weed Management Area. This information has been presented to the public with invitation to participate in the development of project goals in public meetings in February 2013 and April 2014.

#### 2.0 Alternatives

In this section, we present two alternatives. The first alternative would continue the current management plan to treat elodea in Stormy and Daniels Lake as described in the 2013 EA. Under the second alternative the 2013 EA would be amended to increase the scope of the treatment to include Beck Lake in addition to Stormy Lake and Daniels Lake.

#### 2.1 Alternative 1: Continue Management at Stormy & Daniels Lake (no action alternative)

Under the first alternative, DNR and the Service would continue its current management plan to treat elodea in Stormy and Daniels Lake with the treatment objectives to reduce the aquatic invasive plant elodea biomass and eradicate elodea within these waterbodies using the herbicides fluridone and diquat, as described in the 2013 EA. This alternative would not allow for eradication of elodea across the entire Kenai Peninsula as the objective was originally stated in the 2013 EA. Elodea would remain in Beck Lake representing a high risk of spread to other waterbodies and re-infestation of Stormy and Daniels Lake post-treatment.

#### 2.2 Alternative 2: Amend Management to Include Beck Lake (proposed action alternative)

Alternative 2 would amend the 2013 EA to increase the scope of the treatment to include Beck Lake in addition to Stormy Lake and Daniels Lake following the same management objectives outlined in the 2013 EA including treatments using the herbicide fluridone. Beck Lake represents the only other known Kenai Peninsula waterbody with elodea. The proposed change would continue to ensure consistent action towards the management goal of eradicating the highly invasive elodea from the Kenai Peninsula and therefore reducing ecological and economic impacts of elodea. All herbicide use will, by law, strictly conform to the herbicide product label and all permits.

Category	Alternative 1:	Alternative 2:
	Stormy Lake (403 surface acres)	Stormy Lake (403 surface acres)
Geographic Scope	Daniels Lake (621 surface acres)	Daniels Lake (621 surface acres)
		Beck Lake (197 surface acres)
Herbicide Use	Diquat	Diquat
	Fluridone	Fluridone

#### 3.0 Affected Environment

In the 2013 EA, the environmental review and comments chapter summarizes the relevant physical, biological, and social components of the ecosystem, some of which could be affected by actions associated with the eradication of elodea by DNR and its partners. We incorporate by reference the

narrative presented in the 2013 EA for this chapter for Stormy and Daniels Lake including narrative analyses and the analysis presented in the FONSI including our responses to public comment.

Specific information on Beck Lake is included below.

Location	Size	Outflow	Adjacent Land Ownership
• T8N, R11W (Section	• 196.8 acres	• 0.6-mile outflow	• The southeast shoreline of Beck
36) and T7N, R11W	• 12.5ft mean	into Bishop Creek	Lake is within private land
• 2.7 miles south of the	depth		ownership (21 parcels)
Cook Inlet shore, 4.6			• The Kenai Peninsula Borough,
miles east of Nikiski			Alaska Mental Health Trust
and south of the Kenai			Authority, and CIRI have
Spur Highway			significant holdings

#### 4.0 References Cited

- Alaska Department of Natural Resources (DNR). 2013. Stormy and Daniels Lake Elodea Eradication Project: Environmental Assessment. Kenai Peninsula, Alaska.
- Bowmer, K. H., S. W. L. Jacobs and G. R. and Sainty. 1995. Identification, biology and management of *Elodeacanadensis*, Hydrocharitaceae. Journal of Aquatic Plant Management 33:13-19.
- Pfauth, M. and Sytsma, M. 2005. Alaska Aquatic Plant Survey Report. Center for Lakes and Reservoirs, Portland State University, Portland, OR.