



ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
Division of Water

**Factsheet**  
**Guidance for Determining Water Quality Impairments from Aquatic Invasive Species**

**1. Why develop guidance?**

Every two years the Alaska Department of Environmental Conservation (ADEC) is required to report on the health of Alaska's waters. Most waters are categorized by whether various pollutant parameters meet or exceed Alaska's Water Quality Standards. Aquatic invasive species (AIS) impact waterbody health, but are not considered a "pollutant," and guidance is needed for how to appropriately categorize this impact in the biennial report.

**2. What are aquatic invasive species?**

AIS are non-native marine, estuarine, or freshwater organisms, such as fish or plants, that, when introduced into new habitats, negatively affect aquatic ecosystems as well as human use of these natural resources. These non-native species impact our environment and the biodiversity in these systems in many ways; in addition to the severe and permanent damage to the habitats they invade, AIS also harm people and their communities by hindering economic development; preventing recreational, commercial and subsistence activities; decreasing the aesthetic value of nature; and serving as vectors for disease.



*Elodea* spp. in Chena Slough (photo courtesy of Mitch Osborne).

**3. Where have aquatic invasive species been found?**

AIS are established in aquatic environments globally. They can be found in southeast, southcentral, and interior Alaska. The Alaska Department of Fish and Game and Department of Natural Resources can provide more details as to where specific AIS are located within the state (see agency contacts and websites below).

**4. Why are aquatic invasive species a concern in Alaska?**

AIS negatively impact Alaska's environment, economy, and public health. AIS can carry diseases, pathogens, and parasites that harm wildlife and humans. They can alter habitats, and outcompete and prey on our native plants and animals. Once established, AIS can disrupt commercial, recreational, and subsistence fisheries, municipal water supplies, hydropower infrastructure, shipping, and recreational access. In Alaska, we rely heavily on our natural resources for recreation, tourism, economic growth, and the support of a subsistence lifestyle, and these impacts can cause financial hardships for people and communities as a whole.

**5. How do aquatic invasive species impact water quality?**

AIS can impact water quality by reducing or eliminating its designated uses. Designated uses are the component of Alaska's Water Quality Standards which are the human and ecological uses of a waterbody that are recognized and protected. They represent the goals the public has agreed should be attained in a waterbody. Examples of designated uses include water supply, water recreation, and

growth and propagation of fish, shellfish, other aquatic life and wildlife. If an AIS establishes in a waterbody and causes a reduction in native aquatic species, this would be an impact to the designated use protecting aquatic life. The guidance developed provides a framework for determining when designated uses and water quality impacts are a result of AIS.

## 6. How can I learn more about this draft guidance or make comments?

You are invited to comment on this guidance until July 28, 2016. More information is available by contacting the agency contacts below or on their websites.

The draft guidance is available at ADEC's website; <http://www.dec.state.ak.us/wqsar/index.htm> or by request from Chandra McGee.

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