

Existing Uses Evaluation Procedures

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The purpose of this document is to briefly describe the process used by the Alaska Department of Environmental Conservation (DEC) to determine whether water quality is adequate to protect existing uses for the purpose of antidegradation review (Tier 1 and Tier 2). Under the Alaska Antidegradation Policy at 18 AAC 70.015, existing water uses, and the level of water quality necessary to protect existing uses, must be maintained and protected. DEC must find that existing uses are protected as part of its antidegradation analysis, in order to meet this policy.

The method for identifying existing uses is an important first step of antidegradation policy implementation. Therefore, definitions and explanations of **existing** and **designated** uses are provided below. This is followed by a description of DEC's process for determining whether existing uses are protected.

Both federal and state regulations make a very similar distinction between the terms "designated use" and "existing use." These use categories are recognized as having considerable overlap in practice, but have different purposes and rules that apply to each category.

Designated Uses

According to 40 CFR 131.3(f) and Alaska's regulation at 18 ACC 70.990(19), **designated uses** are those specified in state water quality standards regulations for each waterbody or segment, whether or not they are being attained. 18 AAC 70.020 designates the following protected water use classes and subclasses, as well as setting the water quality criteria used to protect each use:

Fresh water: Water supply, including drinking, culinary, and food processing; agriculture, including irrigation and stock watering, aquaculture, and industrial; water recreation, including contact recreation and secondary recreation; growth and propagation of fish, shellfish, and other aquatic life, and wildlife.

Marine water: Water supply, including aquaculture, seafood processing, and industrial; water recreation, including contact recreation and secondary recreation; growth and propagation of fish, shellfish, and other aquatic life, and wildlife; and harvesting for consumption of raw mollusks or other raw aquatic life.

Water quality criteria are established for each designated use. The rigorous process for establishing water quality criteria is designed so that the use is protected when the water quality criteria are met in a given waterbody.

A designated use may be removed only if it is not an existing use and if appropriate justification is provided via a Use Attainability Analysis (UAA), which includes a public participation process [see 40 CFR 131.10(g) and 18 AAC 70.230].

Existing Uses

According to 40 CFR 131.3(e) and Alaska's regulation at 18 ACC 70.990(24), **existing uses** are those uses actually attained in a waterbody on or after November 28, 1975. Federal regulations require that existing

uses be protected whether or not they are included in the water quality standards. With limited exception, existing uses cannot be removed (40 CFR 131.10(h)(1)).

Existing uses are generally a subset of **designated uses**. A use can be (and often is, in Alaska's water quality standards) designated, without that use ever actually occurring in a waterbody. In only rare instances, such as desalination of marine water for drinking water purposes, is an existing use not also a designated use.

Methods for Determining Protection of Existing Uses

In applying Alaska's antidegradation policy, DEC ensures that existing uses are protected and maintained by making use of all available information related to existing uses and water quality, information submitted by the applicant, DEC's knowledge of the waterbody, and by making conservative assumptions regarding existing uses in the absence of comprehensive information. Antidegradation analyses are subject to public notice and participation as part of the permitting process. In permitting actions where DEC may not be aware of all existing uses, this public notice process enables the public to inform DEC of additional existing uses.

Potential impacts to existing uses are a function of the combined effects of discharge and receiving water characteristics on the waterbody. For low risk discharges (e.g., temporary camps, small municipal discharge general permit, construction general permit; in unimpaired waterbodies), DEC uses the following assumptions unless contradictory information is available:

1. All waters are protected for all designated uses as classified under 18 AAC 70.050 unless reclassified under 18 AAC 70.230, i.e., the waterbody is designated as having all applicable uses unless proven otherwise.
2. Designated uses include existing uses.
3. In DEC's permitting actions, permits require that the most stringent water quality criteria are either met at the end of pipe; or, if a mixing zone has been authorized, at and beyond the boundary of the mixing zone.
4. If the most stringent water quality criteria are met, then DEC finds that all designated and existing uses are protected.

For more complex permits or higher risk discharges, DEC follows the additional process:

1. DEC identifies the designated uses that apply to the waterbody.
2. DEC evaluates the identified existing uses in the area based on information in the permit application, public comments and other available evidence, and considers whether these uses are encompassed by the applicable designated uses.
3. DEC evaluates available information about the receiving water including measured concentrations of various pollutants (as well as other tools such as modeling where appropriate) and determines whether water quality meets applicable criteria.
4. DEC makes a finding on whether the existing water quality must be maintained to protect identified existing uses of the waterbody.
5. DEC makes a finding on whether water quality criteria will be met and whether meeting water quality criteria provides the water quality necessary to protect all identified existing uses, including any that are not designated.