



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**

*National Marine Fisheries Service*

*P.O. Box 21668*

*Juneau, Alaska 99802-1668*

December 12, 2005

Nancy Sonafrank  
Water Quality Standards Section Manager  
Alaska Department of Environmental Conservation  
610 University Drive  
Fairbanks, Alaska 99709

Dear Ms. Sonafrank:

The National Marine Fisheries Service (NMFS) has reviewed proposed revisions to the Mixing Zone sections of the Alaska Water Quality Standards. The Alaska Department of Environmental Conservation (DEC) proposes to adopt regulation changes in Title 18 of the Alaska Administrative Code, dealing with Chapter 70, Water Quality Standards, including the following:

- Expand the prohibition on mixing zones to include lakes.
- Create exemptions to the prohibition on mixing zones in fish spawning habitat.
- Reorganize the mixing zone regulations to improve clarity and reduce redundancy.
- Simplify some technical provisions including ones dealing with risk assessment, flow calculations, and mixing zone models.
- Update a reference to federal technology-based effluent limitations. The proposal includes a new definition for shellfish and provides for consideration of measures that would mitigate the potential adverse effects of mixing zones on aquatic resources.

NMFS provided comments on the original proposed revisions in November 2004, and we appreciate the effort that DEC has taken to address those concerns through the current proposed revisions. However, water quality standards are premised on levels that do not adversely affect fish and/or their habitat, and any mixing zone (i.e., an allowable variance above water quality standards) would adversely affect fish and their habitat. The following specific comments reflect our remaining concerns, either not addressed by the revised regulations or based on the October 17, 2005 revisions.

- 18 AAC 70.240 (c)(4)(D) “the mixing zone will not in streams, rivers, or other flowing fresh waters, result in a reduction in fish or shellfish population levels;”  
Are individual fish kills acceptable? How will the population be tracked to insure that there will not be a reduction in fish populations?



- 18 AAC 70.240 (c)(4)(F) “the mixing zone will not in streams, rivers, or other flowing fresh waters, result in permanent or irreparable displacement of indigenous organisms;”

A variance to water quality standards would allow levels of pollutants that exceed water quality standards, making aquatic habitats inhospitable to fish and other indigenous organisms. A regulation that only prohibits “permanent or irreparable displacement of indigenous organisms” would still allow long term persistent habitat degradation. We recommend using a more protective standard.

- 18 AAC 70.240 (d)(8) DEC will approve a mixing zone, as proposed or with conditions, only if the DEC finds that available evidence reasonably demonstrates that within the mixing zone the pollutants discharged will not “exceed acute aquatic life criteria at and beyond the boundaries of a smaller initial mixing zone surrounding the outfall, the size of which shall be determined using methods approved by the department.”

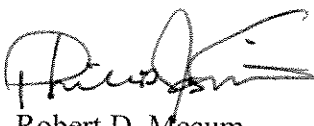
This section will need guidance to clarify what is meant by “... methods approved by the department.” Some examples of the types of those methods would be helpful.

- 18 AAC 70.240 (f) “Notwithstanding subsection (e), the Department may authorize a mixing zone in a spawning area of a lake, stream, river or other flowing fresh water if, after consultation with the Department of Natural Resources, Office of Habitat Management and Permitting, or the Department of Fish and Game if within a legislatively designated special area under AS 16.20, the Department finds that the applicant has;
  1. demonstrated that spawning fish, fish eggs, or alevins are not physically present within the mixing zone when the discharge will occur and the discharge will not adversely affect the capability of the area to support future spawning incubation and rearing activities;
  2. demonstrated the discharge does not contain pollutants that will adversely affect the capability of the area to support present and future spawning, incubation, and rearing.

How does ADEC intend to have the applicant “demonstrate” these requirements?

Thank you for the opportunity to comment. Should you have any questions regarding these comments please contact Ms. Jeanne Hanson at (907) 271-3029.

Sincerely,

  
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Robert D. Mecum  
Acting Administrator, Alaska Region

cc: NMFS FAKR/HCD – Susan Walker  
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