

RESPONSIVENESS SUMMARY

2018-2020 TRIENNIAL REVIEW OF ALASKA WATER QUALITY STANDARDS

Summary

Under Clean Water Act (CWA) section 304(a) states are required to periodically review criteria for water quality accurately reflecting the latest scientific knowledge on the effects of pollution on various designated and existing uses. This process is known as the “triennial review” and as a policy the State of Alaska conducts its review on a three-year cycle. In an effort to promote transparent and accountable governance, the state reviews all comments, submitted as part of the public notification process, and creates a responsiveness summary to formalize its response. This document serves as that response.

Background

The Alaska Department of Environmental Conservation (DEC) has initiated the 2018-2020 triennial review cycle. The triennial review provides an opportunity for the public to review existing water quality standards and DEC-identified issues of concern, and provide feedback on the priorities and commitments DEC makes regarding development and/or revision of the standards. The triennial review process is required for states under the Clean Water Act section 303(c).

Public Announcements were made on the State of Alaska Public Notice webpage, DEC-Water Quality Standards Listserv, and in the Anchorage Dispatch News on November 1, 2017 for a public comment of 60-days ending December 31, 2017. DEC conducted multiple public presentations on the role of the triennial review, issues of interest, and how to submit public comments to the Department at various public and private venues in 2017.

This is a summary of comments received in response to the *2018-2020 Triennial Review Water Quality Standards Issues Summary* (October 2017) public noticed on November 1, 2017.

Table 1: Water Quality Comment Information

Comment Originator	Sets of comments submitted
Government Agencies U.S. Environmental Protection Agency (EPA)	1
Industry Alaska Miners Association (AMA); Alaska Oil and Gas Association (AOGA); Copper Development Association/GEI Consultants (CDA); IDEXX Laboratories (IL)	4
Environmental Non-Governmental Organization Bristol Bay Heritage Land Trust (BBHLT); Center for Biological Diversity (CBD), Cook Inlet Keeper (CIK); Pew Charitable Trusts (PCT); Southeast Alaska Conservation Council (SEACC)	7
Private Citizens Gershon Cohen (GC); LuAnne McVey (LM)	2

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DEC has reviewed and assessed all comments received during the public notice period. DEC will use this information to develop a work plan and schedule for regulations development during the 2018-2020 TR cycle. There will be additional opportunities for the public to comment on specific regulation proposals as they are developed and made available through the public notification process.

Public and Stakeholder Responses to the Triennial Review Issues

14 comment letters were received over the 60 day comment period. The following is a list of topics referenced in comment letters from the general public:

- Priority A: Antidegradation
- Priority A: Toxics manual update
- Priority A: WQS Clarification Package
- Priority A: Variances
- Priority B: Copper (freshwater aquatic)
- Priority B: Copper (marine aquatic)
- Priority B: Manganese
- Priority B: Mixing Zones
- Priority B: Natural Conditions
- Priority B: Temperature
- Priority C: Total Dissolved Solids (TDS)
- General: Fresh/Marine Bacteria criteria:
- General: Clean Water Act (CWA) Mandate
- General: Hawk Inlet Total Maximum Daily Load (TMDL)
- General: Designated Uses
- General: Groundwater
- General: Metal Translators
- General: Ocean Acidification
- General: Protection of Bering Region Waters
- General: Reclassification of uses
- General: Review of 40 CFR 131

Table Two summarizes those comments received during the 60-day public comment period. Specific comments have been generalized with select key statements included for contextual purposes. The commenter initials can be referenced in Table 1. DEC's response to a comment, or similar group of comments, can be found in the right hand column.

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Table 2: Triennial Review Comments and Responses			
Topic	Comment Summary	Commenter	DEC Response
Priority A: Antidegradation	<ul style="list-style-type: none"> • DEC needs to complete antidegradation implementation regulations. • Establishing a Tier 3 process should be a high priority in the coming year. • DEC should consider a moratorium on issuing discharge permits on nominated Tier 3 waters until a determination process can be adopted. 	AMA, CIK, EPA, GC, LM, SEACC,	DEC continues to actively work on a path forward for the Outstanding Natural Resource Water (ONRW or Tier 3) nomination and designation process that is consistent with state and federal requirements. DEC anticipates that this discussion will continue into 2018 and will involve additional opportunities for public input. DEC anticipates the adoption of final antidegradation implementation regulations for Tier 1 and Tier 2 waters in 2018.

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<p>Priority A: Update Alaska's Toxics Manual including human health criteria (HHC), ammonia, and cadmium</p>	<ul style="list-style-type: none"> • Various comments indicate general support of DEC's efforts to revise HHC and the Toxics manual. Specific comments addressed: <ul style="list-style-type: none"> ○ DEC cannot consider single elements of HHC equation (e.g., fish consumption rate) in isolation of other elements ○ DEC should adopt a fish consumption rate of 175 grams/day for consistency with other Region 10 states • There is concern that the expenditures required for treatment to proposed levels may not result in quantifiable benefits to human health and the environment. • The adoption of mercury and methylmercury are of concern to APDES permittees. • The adoption of ammonia and selenium are of concern to APDES permittees. Example comments are: <ul style="list-style-type: none"> ○ Much of the research is focused on species not present in Alaska; ○ Treatment to proposed levels may not be practicable; and ○ DEC should not adopt EPA-recommended 2013 ammonia criteria unless DEC can streamline various water quality standards implementation tools to allow existing dischargers to demonstrate existing criteria are protective of aquatic life. 	<p>AMA, CIK, EPA, SEACC</p>	<p>DEC acknowledges the concerns raised by these comments. DEC is currently reviewing the proceedings of the DEC Human Health Criteria (HHC) Technical Workgroup and actions being taken by EPA and other states at the national level. As DEC moves forward on the HHC project it will continue to review the relationship(s) between the factors that contribute to the development of water quality criteria for toxic pollutants and associated DEC policy decisions. DEC intends to conduct outreach on the findings of the HHC Technical Workgroup, implications of certain policy options, and implementation concerns being raised by the regulated public, tribes and other stakeholders.</p> <p>DEC and EPA have been and will continue to engage one another on ways to facilitate application of new or revised criteria and to develop implementation tools (e.g., reclassification, site-specific criteria, and variance requests) within the legal framework of the Clean Water Act.</p>
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Priority A: WQS Clarification Package	<ul style="list-style-type: none"> DEC should adopt definitions of fresh and marine waters at 18 AAC 70.990 	CIK, IL	DEC agrees with this comment and will consider future regulatory language clarifying this issue.
Priority A: Water Quality Standards Variances	<ul style="list-style-type: none"> DEC should adopt the authority to implement variances. Specific comments include: <ul style="list-style-type: none"> DEC should look for opportunities to simplify adoption of “minor” variances or requests for reclassification Variances should be implemented as part of the permitting process rather than a separate rulemaking There was expressed concern that variances may undermine the goals of the Clean Water Act and should be used as “rare exceptions.” 	AMA, AOGA, CIK	DEC acknowledges the concerns raised by commenters and anticipates conducting stakeholder outreach on this issue as part of rulemaking efforts. DEC is currently developing draft regulatory language in accordance with federal rule at 40 C.F.R 131 while continuing to be mindful of Alaska’s unique regulatory environment.
Priority B: Copper – Aquatic life criteria (freshwater)	<ul style="list-style-type: none"> DEC should adopt the EPA 2007 recommended criteria for freshwater aquatic life that applies the Biotic Ligand Model as a statewide practice. One comment noted that current application of the hardness standard is not sufficiently protective of fish, particularly salmonids, for headwaters in the Bristol Bay region. One comment suggested adoption of a hardness based (low) aquatic life copper criteria set at 2.0 µg/L to address olfactory effects on salmonids. 	BBHLT, CIK, CDI, SEACC	DEC recognizes the utility of the biotic ligand model (BLM) in developing and applying water quality criteria for copper that is protective of aquatic life. DEC also recognizes the complications of adopting such an approach on a statewide basis when water quality data is generally limited to a select number of waters generally located in urban environments. Currently DEC implements the BLM on a site-specific basis, which is consistent with EPA’s <i>Aquatic Life Ambient Freshwater Quality Criteria – Copper 2007 Revision</i> (EPA-822-R-07-001). As DEC becomes more familiar and adept at applying the BLM, DEC will seek additional opportunities to implement the BLM in state water pollution control programs.

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Priority B: Copper – Aquatic life criteria (marine)	DEC should consider the adoption of updated copper criteria for marine aquatic life that applies the Biotic Ligand Model as a statewide practice once EPA has issued a final recommendation.	CDI	DEC has reviewed the 2016 <i>draft</i> Estuarine/Marine Copper Aquatic Life Ambient Water Quality Criteria and provided comments to EPA to consider. DEC plans to continue monitoring EPA’s efforts to finalize the criteria and consider how such criteria would be implemented in Alaska’s water pollution control programs.
Priority B: Manganese	DEC should revise the state human health criteria for manganese from 0.05 mg/L to the EPA lifetime advisory value of 0.3 mg/L.	AMA	DEC will continue to engage with EPA on this issue and consider potential implications of revising the human health criteria for manganese and the scientific basis for this criterion.
Priority B: Mixing Zones	<ul style="list-style-type: none"> • The existing prohibition on mixing zones in anadromous waters and certain resident species is not legally or scientifically defensible and that DEC should revisit and re-propose regulatory language allowing mixing zones for non-aquatic life criteria in all state waters. • There is an opposing concern that any efforts to revise the current mixing zone regulations should be to increase the stringency of the regulation and review requirements. 	AMA, CIK	DEC and EPA are actively engaged on this issue and continue to look for opportunities to implement mixing zones in a manner that is protective of designated uses while not creating an impracticable regulatory burden on discharge permit holders.

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<p>Priority B: Natural Conditions</p>	<ul style="list-style-type: none"> • One comment proposes DEC should resubmit DEC 2009 Guidance for the Implementation of Natural Conditions-Based Water Quality Standards (effective 12/28/2006). • It was also proposed that natural conditions is best addressed through the antidegradation review process rather than create a “stand alone” natural conditions policy. 	<p>AMA, CIK</p>	<p>DEC and EPA are actively engaged on this issue and continue to look for opportunities to implement Alaska’s Natural Conditions Guidance in a manner that is protective of designated uses while not creating an impracticable regulatory burden on discharge permit holders. Implementation of water quality standards that consider natural conditions is an issue of national interest and one in which DEC will continue to closely monitor.</p>
<p>Priority B: Temperature (freshwater)</p>	<ul style="list-style-type: none"> • DEC should consider adoption of a 7-day average of daily maximums as a criteria duration value. • DEC should consider adoption of narrative language that provides for additional maximum temperature protection in cold climate waters. • DEC should consider narrative language that provides for the protection of cold water refugia. 	<p>CIK</p>	<p>DEC appreciates these comments and will consider what policy options are available and potential implementation issues that may arise from making revisions to the current temperature criteria.</p>
<p>Priority C: Dissolved Inorganic Substances, Total Dissolved Solids (TDS)</p>	<p>DEC should (1) continue to allow TDS for aquatic life to range from 500-1000 mg/L and (2) Reconsider applicability of drinking water criterion of 500 mg/L as it has no evidence of adverse health effects and it is based on secondary MCL which DEC is not required to apply.</p>	<p>AMA</p>	<p>DEC does not intend to include revisions to the existing criteria for TDS at this time but continues to gather information on this issue, evaluate potential sources, and identify waters affected by TDS in discharges. DEC will consider the relationship between TDS and designated uses on a case-by-case basis in accordance with DEC regulation.</p>

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General Comment: Bacteria criteria in fresh/marine waters	DEC should consider amending secondary recreational contact water bacteria indicator from fecal coliform to <i>E. coli</i>	IL	DEC thanks the commenter for their interest in this issue. For several years EPA has been developing recommended secondary contact recreation criteria for bacteria. DEC will continue to monitor this issue and EPA efforts towards development of draft criteria.
General Comment: Clean Water Act Mandate	Climate change and a reduction in funding of DEC have created a serious threat to DEC's ability to protect designated uses. DEC should act on certain issues rather than continuing to conduct policy analysis	SEACC	DEC appreciates this comment and is actively engaged with other state resource agencies in developing potential responses to threats to Alaska's water quality resources.
General: TMDL Monitoring; Hawk Inlet	DEC should require Hecla Mining to conduct the monitoring recommended under the TMDL and undertake a repeat of the pre-mining baseline assessment in Hawk Inlet during this Triennial Review period.	SEACC	DEC appreciates this comment; however the subject matter is outside of the purview of the Water Quality Standards and the triennial review process.
General: Designated Uses; Drinking Water and Irrigation Standards Applicability	DEC is encouraged to seek additional flexibility in determining the applicability of State's drinking water and irrigation criteria.	AMA	DEC is actively engaged with EPA in seeking additional opportunities to develop more flexibility under the auspices of the Clean Water Act and state regulatory requirements. DEC will continue to monitor this issue on a state and national scale.
General: Groundwater regulation	DEC should consider revisions to WQS to address application of aquatic life and other applicable criteria to groundwater when such uses may be limited or non-existent.	AMA	DEC appreciates this comment. DEC is actively engaged with EPA and other state agencies on issues associated with the application of certain designated uses to groundwater, other potential approaches used by states, and the implications of developing groundwater-specific water quality criteria. DEC will continue to work on this issue on a case-by-case as well as in the context of statewide policy development.

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General: Use of Metal Translators	DEC should develop and adopt specific procedures to allow development of waterbody-specific translators that reflect the actual ratios of total to dissolved metal concentrations	AMA	DEC thanks the commenter for their interest in this issue. Development and application of translators is available on a site-specific basis for APDES permits under 18 AAC 83.
General: Ocean Acidification	DEC should adopt revised water quality standards to address ocean acidification. It is recommended that Alaska (1) modify its water quality standard for pH; (2) adopt an additional standard for aragonite saturation; and (3) set acceptable calcification rates for target calcifiers.	CBD	Ocean acidification and the myriad of factors that contribute to it are of interest to DEC and other state agencies. DEC is a participant in Alaska's Climate Change Executive Roundtable and numerous scientific efforts to monitor changes to Alaska's waters. DEC plans to continue monitoring this issue and potential effects on designated uses at various scales.
General: Protection of Bering Region Waters	<ul style="list-style-type: none"> • DEC should consult with the aforementioned federally recognized tribes on site-specific criteria to maintain and protect the current water uses in the northern Bering Sea and Bering Strait; and • DEC should work with the tribes to petition the Environmental Protection Agency to establish no discharge zones for vessels in State waters. 	PCT	DEC acknowledges this comments and will continue to work with Bering region tribes, state and federal agencies, and other interested parties in the protection of Alaska's natural resources in the Bering region.
General: Reclassification and Site-specific criteria adoption	DEC should look for opportunities to simplify the WQS approval process including use of alternative methods for analyzing physical and chemical criteria for intermittent discharges.	AMA, AOGA	DEC and EPA are actively seeking ways to simplify and streamline the regulatory process within the confines of the Clean Water Act and its administrative requirements. This is an issue of importance to many states and one in which DEC is actively participating.