

Department of Environmental Quality

**Negotiated Rulemaking Summary
Idaho Code § 67-5220(3)(f)**

**Water Quality Standards, IDAPA 58.01.02
Docket No. 58-0102-1803, Dated August 17, 2018**

This rulemaking has been initiated to allow de minimus additions of heat in waters that exceed applicable temperature criteria.

The Notice of Negotiated Rulemaking was published in the July 2018 issue of the Idaho Administrative Bulletin, a preliminary draft rule was made available for public review on June 25, 2018, and a meeting was held on July 20, 2018. Key information was posted on the DEQ rulemaking web page and distributed to the public. Members of the public participated in the negotiated rulemaking process by attending the meetings and by submitting written comments.

All comments received during the negotiated rulemaking process were considered by DEQ when making decisions regarding development of the rule. For comments that were not incorporated into the draft rule, DEQ's response to those comments is attached. At the conclusion of the negotiated rulemaking process, DEQ formatted the final draft for publication as a proposed rule in the Idaho Administrative Bulletin. The negotiated rulemaking record, which includes the negotiated rule drafts, written public comments, documents distributed during the negotiated rulemaking process, and the negotiated rulemaking summary, is available at www.deq.idaho.gov/58-0102-1803.

**DEQ's Response to Comments/Negotiated Rulemaking Summary
Docket No. 58-0102-1803, Dated August 17, 2018**

1. Ron Harriman (private citizen)	5. Association of Idaho Cities (AIC)
2. Hubert Osborne (private citizen)	6. City of Meridian
3. Idaho Conservation League (ICL)	7. U.S. EPA Region 10
4. City of Boise	

C o m m e n t #	Rule Section/ Subject Matter	Commenter	Comment Summary	Response
1.	General	1. 2. 5. 6.	We support the rule revision.	Thank you for your comment.
2.	General	4.	The City supports IDEQ's approach to calculating wasteload allocations and effluent limits for this non-conservative pollutant.	Thank you for your comment.
3.	Permitting	2.	I do not agree with the wastewater effluent calculations for the City of Nampa.	This comment has been presented to the Boise Regional Office for consideration in the next TMDL.

4.	Idaho Code § 67-5222(1)	3.	DEQ should provide a minimum of thirty days for public comment. "Pursuant to Idaho Code 67-5222(1), DEQ is required to 'afford all interested persons reasonable opportunity to submit data, views and arguments, orally or in writing'."	<p>The process for negotiated rulemaking is set out in Idaho Code § 67-5220. Idaho Code § 67-5220 does not set out specific requirements for public comment opportunities during negotiated rulemaking. DEQ makes negotiated rule drafts available to the public and sets comment deadlines based on upcoming meeting dates and other deadlines. For this rule docket, the public was given five weeks to review the preliminary draft negotiated rule and submit comments. The rule draft was made available to the public via DEQ's web site and email distribution on June 25, the negotiated rulemaking meeting was held on July 20, and the written comment deadline was July 30.</p> <p>The statute cited by ICL, Idaho Code § 67-5222(1), refers to the public participation process for providing comments on proposed rules published in the Idaho Administrative Bulletin. Once the informal negotiated rulemaking process is concluded, the public is given an opportunity to comment on the proposed rule. For this rule docket, the public will be given further opportunity to comment when the proposed rule is published on September 5 with a comment deadline of October 5 (30 days). There will also be an opportunity to provide comments at the November 2018 meeting of the Idaho Board of Environmental Quality.</p>
5.		7.	The EPA recommends DEQ consider revising the rule to allow a 0.3 degrees C increase above numeric criteria or natural background conditions only, and not the ambient water temperature.	<p>DEQ has revised the proposed rule to:</p> <p>01. Temperature</p> <p>c. If temperature criteria for the designated aquatic life use are exceeded in the receiving waters upstream of the discharge due to natural background conditions, then wastewater must not raise the receiving water temperatures by more than three tenths (0.3) degrees C <u>above numeric criteria or natural background conditions, whichever is greater.</u></p>
6.		7	It is not clear how DEQ would determine the ambient temperature conditions in those situations when ambient is above numeric criteria, since this could potentially be a moving target.	See response to comment # 5 above.
7.		3. 7.	Without a demonstration that the ambient level is protective of the aquatic life uses for the specific waterbody, establishing a baseline of ambient temperature and adding a de minimis allowance would be inconsistent with the water quality standards regarding establishing criteria to protect the designated use.	<p>The proposed standards revision is a treatment requirement, and is not a change to temperature criteria. The applicable underlying criteria remain unchanged.</p> <p>See response to comment # 5 above.</p>

8.		3.	DEQ has repeatedly cited the “nonconservative” nature of temperature pollution as a rationale for their unique treatment of this pollutant.	<p>From WA Dept. of Ecology, Procedures to Implement the State’s Temperature Standards through NPDES Permits. Ecology Publication # 06-10-100, available at fortress.wa.gov/ecy/publications/publications/0610100.pdf</p> <p><i>“Non-conservative pollutants are defined as those that are mitigated by natural biodegradation or other environmental decay or removal processes in the receiving stream after in -stream mixing and dilution have occurred. The concentration of non-conservative pollutants is reduced after they are discharged into the receiving stream as a result of these removal processes.</i></p> <p><i>The temperature in effluent is considered a non-conservative pollutant and is reduced (i.e., cooled) after it is discharged into a cooler receiving stream. Cooling happens as a result of the transfer of thermal energy from the warmer effluent to the cooler stream and the thermal energy loss associated with evaporation of the effluent/ receiving water mixture. The rate of effluent temperature reduction is dependent upon many factors: dew point, radiant energy from the sun, receiving water surface temperature, flow, and currents and tides.</i></p> <p><i>It is important to remember that thermal energy is not “in” the water in the same sense that copper atoms and ammonium ions are in water. Thermal energy is absorbed by the water molecules, which is manifested as temperature and a property of the water.”</i></p>
9.			We request that DEQ please provide the statutory and regulatory citations that authorize treating the introduction of temperature in a manner that differs from other pollutants.	40 CFR 130.7 (c) established the dichotomy between heat (i.e., thermal load or temperature) and other pollutants. While (c)(1) addresses establishing TMDLs for “pollutants other than heat,” (c)(2) states that the standard to be met via a temperature TMDL is to “assure protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife” not “to attain and maintain the applicable narrative and numerical WQS” as in paragraph (1) for pollutants other than heat. Paragraph (c)(2) also speaks to accounting for the “dissipative capacity” of heat.
10.		3. 7.	Recommend that DEQ consider additional language that states the 0.3 degrees C allowance is cumulative across all point sources where the criteria apply.	See response to comment # 5 above. Also, the February 5, 2004 letter from Toni Hardesty to Director Smith clarified that DEQ’s intent for de minimus heat additions will be applied cumulatively as “the maximum allowable increase from all sources combined when natural background temperatures exceed applicable numeric criteria.” (see attached)

11.		3.	Please provide the definition of ambient water temperature as it would be interpreted and applied under the proposed rule, as well as an explanation of how DEQ decided upon the definition and application approach.	Although the comment is no longer applicable (see the response to comment # 5 above) the Surface Water Ambient Monitoring Plan (available at deq.idaho.gov/water-quality/surface-water/monitoring-assessment/) outlines DEQ's approach to collecting and integrating ambient water quality monitoring data from a variety of monitoring programs, including the Beneficial Use Reconnaissance Program (BURP), National Aquatic Resource Surveys, Trend Monitoring Network, and special studies.
12.	250. Beneficial Use criteria	3.	Please explain the process DEQ will use to assess and demonstrate that the new standard will remain protective of beneficial uses.	This is not setting new criteria. We will continue monitoring through our standard procedures. DEQ determines whether a water body full supports its beneficial uses by evaluating whether the applicable water quality standards and criteria are being achieved through a process that uses biological and aquatic habitat parameters, as well as traditional water quality data, to assist in assessing beneficial use status.
13.		3.	Please consider cumulative heat additions when defining the method for allocating thermal exceedances to multiple dischargers.	Wasteload allocation is addressed through a TMDL and is outside the scope of this rulemaking. See also response to comment # 10.
14.		3. 7.	DEQ should communicate and explore options used by other states for addressing temperature through water quality standards revisions and other CWA programs, such as TMDLs and NPDES permits. DEQ should also investigate technology options which may provide reasonable solutions to problematic situations.	Thank you for your comment. DEQ frequently looks at methods used by neighboring states and communicates with neighboring agencies. DEQ referenced a Washington Department of Ecology document in comment # 9, above, and has reviewed Methods to Reduce or Avoid Thermal Impacts to Surface Water: A Manual for Small Municipal Wastewater Treatment Plants (Ecology Publication # 07-10-088, available at fortress.wa.gov/ecy/publications/publications/0710088.pdf).
15.		6.	The City supports DEQ's use of 316(a) variances as a mechanism for temperature limit compliance.	Thank you for your comment.

16.		6.	The City encourages DEQ to address EPA's suggestion of presenting information about the process of determining natural background conditions and ambient conditions in modified waterways.	<p>See response to comment #5.</p> <p>Discussions of determination of natural background are outside the scope of this rulemaking.</p> <p>A DEQ discussion of natural background conditions is found in the Water Body Assessment Guidance, 3rd Edition, section 5.2.3, which is available at deq.idaho.gov/media/60179244/water-body-assessment-guidance.pdf and on DEQ's website (see http://www.deq.idaho.gov/water-quality/surface-water/standards/natural-background-conditions/).</p>
17.		6.	The City encourages DEQ to hold additional stakeholder meetings to explore EPA recommended topics.	<p>Thank you for your comment.</p> <p>The suggested topics were outside the scope of this rulemaking and may be taken up in a separate rulemaking or guidance development process.</p>



STATE OF IDAHO

**DEPARTMENT OF
ENVIRONMENTAL QUALITY**

1410 North Hilton, Boise, ID 83706-1255, (208) 373-0502

Dirk Kempthorne, Governor
C. Stephen Allred, Director

February 5, 2004

Randall F. Smith
Director, Office of Water
US EPA Region 10
1200 Sixth Avenue
Seattle, WA 98101

RE: Response to your letter of January 23, 2004 requesting clarifications on implementation of the natural background provisions in Idaho's water quality rules.

Dear Mr. Smith:

By this letter the Idaho Department of Environmental Quality (DEQ) would like to clarify implementation of the natural background provisions in Idaho's water quality rules. We want to formally relay our present interpretation of our natural background provisions, particularly with regard to questions of clarification asked for in your letter of January 23, 2004. Please be aware that whatever the particulars we intend to: a) protect designated and existing beneficial uses; b) do the best we can to truthfully represent natural background conditions; and c) make use of sound science in identifying or estimating what that condition is.

With regard to point 1 in your letter, the DEQ "Concepts" document will be transmitted to our regional water quality managers as a guide to staff on applying the natural background provisions. This document will also be made available as a guide to any that seek further information on how DEQ plans to determine natural background conditions.

Responding to your itemized concerns about the provisions specific to allowing *de minimus* temperature increases above natural conditions in 58.01.02.401.03.v, we would like to clarify the following:

- 1) As stated in our rules, the 0.3°C limit on human caused increase in temperature only applies when the estimated natural background temperature is above the applicable numeric criteria.
- 2) It is our intent that the 0.3°C increase limit for temperature be applied cumulatively, i.e., this is the maximum allowable increase from all sources combined when natural background temperatures exceed applicable numeric criteria.

The Idaho mixing zone policy (WQS §060) has a direct bearing on these cumulative concerns. When implementing this mixing zone policy, Idaho DEQ will ensure that a single point source will be limited to no more than a 0.3°C increase above natural condition or numeric criteria for no more than 25% of river flow. We note that the allowable heat load that would result in a 0.3°C increase at the edge of a mixing zone using ¼ of the river volume results in a 0.3°C / 4 increase (0.075°C) for the entire volume. It would take four sources, each at the maximum allowable load, to reach a

0.3°C increase. Because temperature is a non-conservative property of water, the four sources would have to be in relatively close proximity to cause a problem. This is a rare, if not unheard of, situation in Idaho.

- 3) Your concern for potential adverse effects in the immediate vicinity of a discharge plume is a general concern we share, but is not specific to natural background or temperature. Our mixing zone policy, at 58.01.02.060.01.b, speaks to avoiding interference with existing beneficial uses. In addition, our rules include general prohibition on acutely toxic conditions in the zone of initial dilution, preserving the integrity of the water body as a whole, and prohibition of adverse effects. This gives us the flexibility to address "near field" discharge plume effects, including temperature. Our analysis of thermal plumes will include consideration of the limitations expressed in EPA's Regional Temperature Guidance of April 2003.

Regarding point 3 in your letter, we agree that proper public involvement is a must. Use of natural background provisions will always occur in the context of some other action such as a TMDL, §401 certification, or listing decision, just like application of any other water quality standard. When we notice those actions for public comment and make supporting documents available for public review, any information relating to natural background condition determinations will be included.

We also agree that a means of centrally tracking and reporting natural background determinations for each water body is important. We will explore options to make this information readily accessible to the public, possibly by incorporation into our assessment database / integrated report, along with tracking of TMDLs.

To the extent we become aware that natural conditions are unsafe to human health, we will work with public health agencies in Idaho with reporting responsibilities to publicize health risks. We will also strive to factor natural conditions in to appropriate use designation for aquatic life.

Finally, we agree to continue working with EPA on the technical tools and the science needed to develop 303(d) lists, NPDES permits and TMDLs based on natural condition determinations.

Sincerely,

Toni Hardesty
Water Programs Administrator

TH:DE:bmm

c: Christine Psyk, EPA
Paula van Haagen, EPA
Leigh Woodruff, EPA IOO
Doug Conde, Idaho Attorney General, IDEQ
Michael McIntyre, IDEQ
Don Essig, IDEQ