Docket Number: 58-0102-1803
Effective Date: 2019 Sine die
Rules Title: Water Quality Standards
Agency Contact and Phone: Barry Burnell, 373-0194/Brian Reese, 373-0570

Public Notice
Hearings: [ ]Yes [X] No
Locations and Dates: N/A
Written Comment Deadline: 10/5/18

Descriptive Summary of Rule as Initially Proposed: This rulemaking has been initiated to allow de minimis additions of heat when waters exceed applicable temperature criteria due to man-made causes. Currently, Idaho's point source treatment requirements allow point sources of heat to raise receiving water temperatures up to 0.3°C only when the receiving water is naturally warmer than numeric criteria. There is not an allowance for any increase, however small, when it cannot be shown receiving water temperatures are naturally warmer than criteria.

Idaho has many very small point sources. All add some heat to the waters to which they discharge. And, in most cases, the water bodies to which they discharge are warmer than Idaho's numeric temperature criteria set to protect aquatic life for a portion of each year. Heat is a non-conservative pollutant, and the sources of heat can be relatively small. This rulemaking proposes allowing NPDES/IPDES regulated human sources of heat loading to cause no more than a de minimis 0.3°C increase in receiving water temperatures. This would allow a 0.3°C increase to waters that are exceeding the numeric temperature criteria upstream for the designated aquatic life use even in cases where the exceedance of numeric criteria is not due to natural conditions.

DEQ recommends that the Board adopt the rule, as presented in the final proposal, as a pending rule.

Negotiated Rule Making: [X] Yes [ ] No
The Negotiated Rulemaking Summary is attached.

Costs To the Agency: No additional costs to the agency.

Costs To the Regulated Community: No additional costs to the regulated community.

Relevant Statutes: Sections 39-105, 39-107, and 39-3601 *et seq*., Idaho Code

Idaho Code § 39-107D Statement: This rule does not regulate an activity not regulated by the federal government, nor is it broader in scope or more stringent than federal regulations.

Temporary Rule	[ ] Necessary to protect public health, safety or welfare [ ] Compliance with deadlines in amendments to governing law or federal programs [ ] Conferring a benefit

Docket Number: 58-0102-1803

Section	Section Title	Summary of Rule Changes Based on Public Comment
401	**Point Source Wastewater Treatment Requirements.**	This section has been changed. DEQ's Response to Comments is attached.

DEQ's Response to Comments
Proposed Rule Docket No. 58-0102-1803

1. Idaho Conservation League (ICL)	
2. U.S. EPA Region 10 (EPA)	
3. City of Nampa	

Comment #	Rule Section/ Subject Matter	Commenter	Comment Summary	Response
1	Section 401	**1**	**Contributing to CWA Violations** As stated in our previous comments, we fail to see how allowing thermal discharges into water bodies impaired by temperature would comply with the requirements of the Clean Water Act (CWA). DEQ seems to be reliant upon the "de minimis" nature of heat inputs, but we have yet to see how this scientifically and legally complies with the CWA. We raised these concerns in our previous comments submitted during the negotiated rulemaking and DEQ failed to provide a formal response to this comment. DEQ must respond to our concern prior to proceeding with this proposed rule change.	The Idaho Administrative Procedure Act (APA) requires agencies to "consider fully all written and oral submissions respecting the proposed rule" prior to the adoption of a rule. Idaho Code § 67-5224. The APA does not require agencies to respond to concerns prior to proceeding with the proposed rule change. However, as a matter of practice, DEQ does prepare response to comment documents for review by the Idaho Board of Environmental Quality prior to adoption of a rule. DEQ's response to ICL's comment is included below. The proposed standards revision is a treatment requirement and is not a change to temperature criteria. The applicable underlying criteria remain unchanged.

				The EPA recognizes a de minimis allowance provision for temperature is consistent with the EPA's statements in the Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards "*A State or Tribe may, if it has not already done so, wish to consider adopting a provision in its WQS that allows for a de minimis temperature increase above the numeric criteria or the natural background temperature. A State or Tribe might choose to include a de minimis increase allowance as a way of accounting for monitoring measurement error and tolerating negligible human impacts.*" (U.S. Environmental Protection Agency, 2003. EPA Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards, EPA 910-B-03-002. Pg. 21). As discussed above, and during the 7/20/2018 rulemaking meeting, 0.3°C is within the acceptable NIST uncertainty range for thermometers in water (maximum instability of ± 1.5 °C, maximum non-uniformity ± 0.8 °C) (The NIST Industrial Thermometer Calibration Laboratory, https://ws680.nist.gov/publication/get_pdf.cfm?pub_id=830734.) Because the proposed de minimus allowance is consistent with EPA guidance and is within the measureable error, DEQ believes the proposed rule codifies a treatment standard that accounts for equipment error and has been found to be of "negligible impact."

2	Section 401	**1**	**Utilization of Mixing Zones** ICL raised concerns during the negotiated rulemaking regarding how DEQ intended to implement their stated approach of distributing the 0.3°C amongst multiple discharges within a watershed. In their response to our comment, DEQ cited a 2004 letter from DEQ to the EPA detailing how DEQ planned to distribute this de minimis temperature throughout a watershed (DEQ, 2004). DEQ's 2004 letter sought to clarify their intentions regarding implementation of natural background provisions, stating: *"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."* In order to apply the 0.3°C cumulatively, DEQ's letter proposes to rely on Idaho's mixing zone policy. We have concerns with this approach and do not believe that reliance on Idaho's mixing zone policy is appropriate in this scenario. Idaho's mixing zone policy (IDAPA 58.01.02.060.01.a) states: *"Mixing zones shall not be authorized for a given pollutant when the receiving water does not meet water quality criteria for that pollutant; provided, however, the Department may authorize a mixing zone when the permitted discharge is consistent with an approved TMDL allocation or other applicable plans or analyses"* This language explicitly prohibits the use of a mixing zone – in the absence of an approved TMDL – when a water body is impaired for a pollutant and lacks assimilative capacity, yet this is exactly what DEQ is proposing to do. This approach not only violates Idaho's mixing zone policy, but also violates the Clean Water Act, which prohibits the discharge of pollutants that would cause or contribute to a violation of water quality standards. DEQ's proposed rule would do such that by allowing thermal discharges into water bodies already violating water quality standards. In light of all this, DEQ's approach seems at odds with applicable laws, rules and regulations. As such, DEQ should modify their proposed rule and associated implementation strategy such that it complies with all applicable laws, rules and regulations.	This comment is outside the scope of this rulemaking. The proposed language has been changed to clarify DEQ's intent that the thermal load from a discharge must not raise a receiving water's temperature more than 0.3 degrees C above applicable criteria. The intent of this rulemaking is to make Idaho water quality standards consistent with current EPA Region 10 temperature guidance and TMDL implementation practices (see slides 12 and 13 at https://go.usa.gov/xPXhe to review the PowerPoint slides showing the July 2018 Potlatch River Watershed TMDLs approval letter).

3	Section 401	**1**	**Defining Natural Background Conditions** IDEQ is proposing a process that would define the "natural background" temperature of a water body, then allow point sources to add a 0.3°C thermal load to this calculated value. We foresee this approach being problematic and suggest that IDEQ only utilize the numeric criteria as the regulatory value to which a 0.3°C thermal load is allowed to be added. The state of Oregon attempted to utilize a similar approach in which natural background was calculated and utilized as a baseline condition. This approach was challenged and ultimately struck down by the court, which ordered EPA to remedy the issue. *See* NWEA v. EPA, 2012.[1] *[footnote omitted]* The court found that EPA's approval of Oregon's Natural Conditions Criteria for temperature (NCC) was arbitrary and capricious based on, among other things, the following: (1) the NCC "supplants rather than supplements" the Biologically Based Numeric Criteria, Opinion and Order at 26; (2) the NCC was based on a flawed assumption that historically protective water temperatures would protect salmonids now, id. at 27; (3) the NCC attempts to restore historically higher water temperatures without restoring other conditions that previously allowed salmonids to thrive, id.; and (4) there are "difficulties of estimating the historical water temperatures upon which the NCC depends," which is a "process rife with uncertainty.[2] *[footnote omitted]* Idaho should heed the lessons learned by Oregon and avoid making the same mistakes. The basis for this proposed change has been rejected by a federal court and disapproved by EPA in a sister-state; thus it is inappropriate and inefficient for Idaho to pursue the same approach that has been previously tried and objected to by the federal courts.	See the reply to comment #1. The intent of this rulemaking is to make Idaho water quality standards consistent with current EPA Region 10 TMDL practices found in *EPA Region 10 Guidance for Pacific Northwest State and Tribal Water Quality Standards, EPA 910-B-03-002*. Please see the response to comment #5 to see how the proposed language was adjusted to minimize the changes to IDAPA 58.01.02.401.01.c. and to clarify that the intent of the rulemaking is to allow a de minimis temperature increase above applicable numeric criteria.

4	Section 401	**1**	**Demonstration of Protecting Beneficial Uses** This proposed rule, if ultimately approved, would effectively change the numeric criteria for temperature on a case-by-case basis. As such, DEQ must have a process for demonstrating that this new standard (i.e. – 0.3°C above WQS or natural background) remains protective of beneficial uses. We request that DEQ please explain what their process will be for making such a demonstration. If DEQ has yet to formalize a process then it would be prudent to postpone this rulemaking until such a time that DEQ has the necessary provisions in place to satisfy all requirements of the CWA.	The proposed changes do not set new criteria. DEQ will continue monitoring beneficial uses through our standard procedures. From the EPA 2003 Region 10 Temp Guidance: "The data and information currently available to EPA appear to indicate that an increase on the order of 0.25 °C for all sources cumulative (at the point of maximum impact) above fully protective numeric criteria or natural background temperatures would not impair the designated uses, and therefore might be regarded as de minimis." (U.S. Environmental Protection Agency, 2003. EPA Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards, EPA 910-B-03-002. Pg. 21)

5	Section 401	**2**	The EPA has reviewed the proposed rule and offers the following comments for your consideration. The proposed rule at IDAPA 58.01.02.401.01.c. is as follows (strikeout indicates language proposed for deletion and underline is new language): *58.01.02.401. Point Source Wastewater Treatment Requirements.* *01. Temperature**.** The wastewater must not affect the receiving water outside the mixing zone so that:* ***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 above numeric criteria or natural background conditions, whichever is greater.* The EPA is pleased to see the proposed rule reflects the concerns the EPA provided to DEQ in our July 30, 2018 comment letter. The proposed rule would allow the current Total Maximum Daily Load development procedures and National Pollutant Discharge Elimination System permitting practices to continue, which we understand was DEQ's primary intent. The proposed rule is also consistent with other relevant Idaho water quality standards. However, as currently written, the proposed rule could be used in non-TMDL settings. If it is DEQ's intention to use this provision in non-TMDL settings, EPA recommends that DEQ provide additional clarification on how it would be used in those instances. Given DEQ's intent is to revise and align the rule language consistent with current practices, for simplicity purposes the EPA recommends DEQ include a new separate provision to address circumstances where the 0.3 degree C de minimis temperature increase above numeric criteria could be granted to point sources. This would provide additional clarity with respect to when a de minimis allowance could be granted in each circumstance; the current provision regarding a de minimis allowance above natural background remains unchanged, and the new provision would address when the de minimis allowance could be granted above the applicable numeric criteria. The EPA recognizes a de minimis allowance provision for temperature is consistent with the EPA's statements in the Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards. [1] [1]U.S. Environmen1al Protection Agency, 2003. EPA Region IO Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards, EPA 910-B-03-002, Region 10 Office of Water, Seattle, Washington.	DEQ has changed the proposed language to minimize the changes to IDAPA 58.01.02.401.01.c. and to clarify the intent of the rulemaking. 01. Temperature 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 above the natural background conditions. d. If temperature criteria for the designated aquatic life use are exceeded in the receiving waters upstream of the discharge, then wastewater must not raise the receiving water temperatures by more than three tenths (0.3) degrees C above applicable numeric criteria.

			During the July 20, 2018, negotiated rulemaking meeting discussions, DEQ clarified that its intent is to apply the 0.3 degrees C increase cumulatively across all point sources. The EPA recognizes DEQ has been applying the current 0.3 degrees C allowance cumulatively, however this is not clear in either the current provision or the proposed revision. As stated in the EPA 's July 30, 2018 comment letter to DEQ, the EPA recommends DEQ consider adding language to the rule that states the 0.3 degrees C allowance is cumulative across all point sources where the criteria apply. DEQ's response was that clarification on this matter was provided to EPA in a February 5, 2004 letter from Toni Hardesty of DEQ to Randall Smith of the EPA. We would like to reiterate the July 30, 2018 comment to add the clarifying language in the final rule; however, if DEQ does not specify in the final rule that the intent is for the provision to apply cumulatively, then we recommend at a minimum, that DEQ develop guidance reiterating clearly the intention, and describing how it would be implemented in TMDLs and NPDES permits. Furthermore, the EPA notes that DEQ's 2004 clarification letter addresses the current version of the de minimis provision which only speaks to situations in which temperature exceed criteria naturally, and the 0.3 degrees C allowance above natural is to be applied cumulatively across all point sources in those situations. The proposed revision also addresses situations where temperature of the receiving water does not exceed criteria naturally, and situations where 0.3C allowance would be applied to the applicable numeric temperature criteria. This situation is not addressed in DEQ's 2004 clarification letter. While it could be DEQ's intent that the 0.3C provision apply cumulatively in these circumstances as well, the EPA recommends DEQ provide clarification in writing, with preference that the clarification be included in rule language. The EPA understands that in some situations, implementing the current provision at 58.01.02.401.c. can result in temperature waste load allocations and temperature permit effluent limits that may not be readily achievable, and that Idaho is interested in exploring water quality standards revisions to help address these situations on a case-by-case basis. The EPA encourages DEQ to coordinate with other states and consider a range of options to address temperature through water quality standards revisions and other CWA programs, such as TMDLs and NPDES permits. As DEQ is aware, the states of Oregon and Washington are facing similar issues and are exploring how best to address temperature through CW A programs. This involves consideration of water quality standards revisions that may be used on a state-wide or case-by-case basis, such as variances and site-specific (individual or performance-based) approaches. The work on variances in other states such as Colorado and Wisconsin may be worthwhile for DEQ to consider. The EPA is committed to providing technical support to DEQ to evaluate these approaches.	

6.	Section 401	**3**	The City of Nampa (City) would like to express its support for the proposed rulemaking to allow de minimus additions of heat in waterbodies that exceed applicable temperature criteria (Docket No. 58-0102-1803). The City believes that this approach provides practical and realistic water quality protection to waterbodies. The Nampa Wastewater Treatment Plant (WWTP) discharges to Indian Creek, whose background temperatures have been shown to exceed Idaho's numeric temperature criteria set for the protection of aquatic life for specific times during the year. Indian Creek is a complex, intermittent waterbody with multiple input sources. This rulemaking would continue to limit the City's anthropogenic thermal loadings yet allow for heat loading of no more than a de minimus 0.3 degrees Celsius increase in Indian Creek temperatures. This allowance is protective of water quality, reasonable for point sources, and allows for other innovative approaches to be considered for temperature mitigation.	Thank you for your comment.

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	

Comment #	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'."	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. 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.
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.	DEQ has revised the proposed rule to: 01. Temperature 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>.
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.	The proposed standards revision is a treatment requirement, and is not a change to temperature criteria. The applicable underlying criteria remain unchanged. See response to comment # 5 above.

8.		**3.**	DEQ has repeatedly cited the "nonconservative" nature of temperature pollution as a rationale for their unique treatment of this pollutant.	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 *"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.* *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.* *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."*
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.	See response to comment #5. Discussions of determination of natural background are outside the scope of this rulemaking. 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/).
17.		**6.**	The City encourages DEQ to hold additional stakeholder meetings to explore EPA recommended topics.	Thank you for your comment. The suggested topics were outside the scope of this rulemaking and may be taken up in a separate rulemaking or guidance development process.

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