

2014 Triennial Review: Report of Findings to EPA



**State of Idaho
Department of Environmental Quality**

November 2014



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1 Background

Section 303 of the Clean Water Act requires states to modify and improve their water quality standards (WQS) at least once every 3 years. Under this triennial review process, states are to review, and modify and adopt as appropriate, applicable WQS, taking into consideration public concerns, US Environmental Protection Agency (EPA) guidance, and new scientific and technical information.

The Clean Water Act requires states to adopt EPA's recommended criteria or develop their own and routinely review and update WQS to ensure consistency with the requirements of the act. Specifically, §303(c)(1) states the "...State shall from time to time (but at least once each three year period...) hold public hearings for the purpose of reviewing applicable water quality standards and, as appropriate, modifying and adopting standards." This public review period is referred to as the triennial review.

Idaho committed to completing a triennial review during the 2014 calendar year in the 2014 Performance Partnership Agreement (PPA) between the Idaho Department of Environmental Quality (DEQ) and EPA. Three commitments were made by DEQ: (1) provide a schedule to EPA for undertaking a triennial review and to request EPA's input; (2) conduct the triennial review; and (3) prepare a 2014 triennial review report that includes public input and DEQ findings.

2 Planning

To meet the triennial review objective as established in DEQ's PPA, the surface water program staff proposed a 2014 triennial review schedule and sent it to EPA on January 21, 2014 (Appendix A). A DEQ workgroup was assembled consisting of those with direct knowledge and experience with the WQS. The workgroup established a process and list of issues needing review and/or revision. The initial list of potential triennial review items was shared with regional staff for additional input and priorities assessment. DEQ surface water program staff worked with DEQ's information technology group to develop a triennial review webpage, which went live in April 2014. The webpage can be accessed at www.deq.idaho.gov/water-quality/surface-water/standards/triennial-review.

In May 2014, DEQ issued a public announcement (www.deq.idaho.gov/news-archives/2014/may/water-triennial-review-workshops-052814) of three planned public workshops and provided a list of potential triennial review items, posted to DEQ's webpage (www.deq.idaho.gov/media/1117455/potential-triennial-review-items.pdf). The public was invited to review the list and attend the workshops to discuss these and any other WQS topics of concern.

3 Public Workshops

Three public workshops were held at DEQ's State Office in Boise and were telecast live to the five other DEQ regions (Coeur d'Alene, Lewiston, Twin Falls, Pocatello, and Idaho Falls).

3.1 Workshop #1—June 25, 2014

The primary focus of the first workshop was background information on WQS and the purpose of triennial review. The presentation used during the workshop was later posted to DEQ's triennial review webpage at <http://www.deq.idaho.gov/water-quality/surface-water/standards/triennial-review.aspx>.

The first meeting was well attended (Table 1), with several participants initiating discussion on various topics, including temperature criteria and salmonid spawning, man-made waters use designations and use attainability analyses (UAAs), and the effects of impoundments on water quality. DEQ accepted written comments through July 25 on topics specifically addressed during the first workshop. One comment letter and four e-mailed comments were received and were posted to DEQ's webpage at www.deq.idaho.gov/media/1117816/workshop-1-comments.pdf.

Table 1. Workshop #1 participant list.

DEQ Office Location	Attendee Name	Affiliation
Boise (State Office)	Jeff A. Heindel	Idaho Department of Fish and Game
	Don Vernon	Citizen
	Allison Knutson	Citizen
	Travis Ritter	Citizen
	Ken Vose	Star Sewer and Water
	Hank Day	Star Sewer and Water
	Brian Hoelscher	Idaho Power Company
	Hannah Chessin	Idaho Conservation League
	Mike Kasen	HDR
	Michael Clark	Keller Associates
	David Huck	J.R. Simplot
	Robbin Finch	City of Boise/Association of Idaho Cities
	Scott Hauser	Upper Snake River Tribes Foundation
	Sarah Higer	Idaho Power Company
	Shelley Davis	Barker Rosholt & Simpson, LLP
	Lisa Macchio	EPA
	Justin Hayes	Idaho Conservation League
	Steve Burgos	City of Boise
	Miranda Adams	DEQ
	Josh Schultz	DEQ
Mary Anne Nelson	DEQ	
Michael McIntyre	DEQ	
Barry Burnell	DEQ	

DEQ Office Location	Attendee Name	Affiliation
Coeur d'Alene	Michele Anderson	Idaho Department of Lands
	Thomas Herron	DEQ
Idaho Falls	Andy Olson	DEQ
Lewiston*	Clayton Steele	Clearwater Paper
	Cynthia Barrett	DEQ
	John Cardwell	DEQ
Pocatello	Lynn Van Every	DEQ
Twin Falls	Randy MacMillan	Clear Springs Foods
	Balthasar Buhidar	DEQ
	Richard Bupp	DEQ

*The Lewiston office was not able to connect to the system and could not participate.

In response to questions raised at the first workshop, DEQ staff drafted issue papers to provide more in-depth information to the public on each of the topics discussed. The following six issue papers were posted to the triennial review webpage prior to the second workshop:

- Dissolved oxygen
- Downstream waters protection
- Man-made waters
- Salmonid spawning
- Temperature of waters discharged from dams
- Total dissolved gas

3.2 Workshop #2—July 30, 2014

The second workshop drew many of the same participants (Table 2). The discussion centered on DEQ's current and future priorities, a review of the comments received, an examination of the six issue papers posted after the first workshop, and an open-floor discussion of other WQS topics of interest to the participants. These topics included use designations and lake/reservoir outlets; pollution versus pollutant and the connection between water quantity and water quality; and federal actions and the National Oceanic and Atmospheric Administration's (NOAA's) toxics biological opinion. Written comments on these topics were accepted through August 13; only one comment was received (www.deq.idaho.gov/media/1117932/workshop-2-comments.pdf).

Table 2. Workshop #2 participant list.

DEQ Office Location	Attendee Name	Affiliation
Boise (State Office)	Don Vernon	Citizen
	Lynn Tominaga	Idaho Groundwater Appropriators, Inc.
	Brian Hoelscher	Idaho Power Company
	Scott Hauser	Upper Snake River Tribes Foundation
	Wesley Hipke	Brown & Caldwell
	Karie Pappani	Soil and Water Conservation Commission
	Shelley Davis	Barker, Rosholt & Simpson, LLP
	Lisa Macchio	EPA
	Leigh Woodruff	EPA
	Chris Mebane	US Geological Survey
	Miranda Adams	DEQ
	Josh Schultz	DEQ
	Mary Anne Nelson	DEQ
Don Essig	DEQ	
Coeur d'Alene*	Thomas Herron	DEQ
Idaho Falls	Andy Olson	DEQ
Lewiston	Cynthia Barrett	DEQ
Pocatello	Mitch Hart	Agrium Nu-West
	Lynn Van Every	DEQ
Twin Falls	Jason Brown	City of Twin Falls
	Sue Switzer	DEQ

*The Coeur d'Alene office was not able to connect to the system and could not participate.

Based on many of the questions posed during the second workshop, the WQS staff developed and posted three additional issue papers on the following topics:

- Recreational use and criteria
- Aquatic life and toxics criteria
- Nutrient criteria

3.3 Workshop #3—August 20, 2014

The third and final workshop focused primarily on presenting and discussing the three new issue papers and reviewing a shortened draft WQS priority list

(www.deq.idaho.gov/media/1117956/triennial-review-deq-wqs-priorities-draft-0814.pdf). DEQ developed a draft prioritization of the original list of triennial review items and ranked the list into high, medium, and low categories. DEQ emphasized to the participants (Table 3) that while the intent of triennial review is to solicit feedback from the public on WQS issues of concern, DEQ does have certain objectives to meet and outcomes the agency is accountable for as set forth in agreements with other governing entities.

DEQ water quality administrator Barry Burnell noted that one of DEQ's top priorities for rulemaking within the next year is to develop rules regarding UAAs. DEQ will also need to

finalize a companion guidance document that has been in development to assist stakeholders in understanding when a UAA may be appropriate and the process for conducting one. These priorities are set forth in a report conducted by the Office of Performance Evaluations (OPE), under the direction of Idaho's Legislature, titled *Challenges and Approaches to Meeting Water Quality Standards* (2014), available at <http://legislature.idaho.gov/ope/publications/reports/r1403.pdf>.

DEQ's 2014 PPA with EPA identified several additional priorities and the May 2014 NOAA biological opinion on Idaho's toxics criteria for protection of aquatic life also served to inform DEQ's draft list of WQS priorities presented at the third workshop.

Table 3. Workshop #3 participant list.

DEQ Office Location	Attendee Name	Affiliation
Boise (State Office)	Pat Barclay	Idaho Council on Industry and the Environment
	Robbin Finch	City of Boise
	Lynn Tominaga	Idaho Groundwater Appropriators, Inc.
	Brian Hoelscher	Idaho Power Company
	Heather Ray	Upper Snake River Tribes Foundation
	Leigh Woodruff	EPA
	M. Bain	OTS
	Shelley Davis	Barker, Rosholt & Simpson, LLP
	Justin Hayes	Idaho Conservation League
	Allison Knutson	HDR, Inc.
	Sarah Higer	Idaho Power Company
	C. Lay	Bureau of Reclamation
	Alex Ethridge	US Geological Survey
	Wesley Hipke	Brown & Caldwell
	Norm Semanko	Idaho Water Users Association
	Chris Mebane	US Geological Survey
	Miranda Adams	DEQ
	Mary Anne Nelson	DEQ
	Don Essig	DEQ
	Michael McIntyre	DEQ
Barry Burnell	DEQ	
Coeur d'Alene	Thomas Herron	DEQ
Idaho Falls	Andy Olson	DEQ
Lewiston	Clayton Steele	Clearwater Paper
	Cynthia Barrett	DEQ
	John Cardwell	DEQ
Pocatello	Lynn Van Every	DEQ
Twin Falls	Steve Canton	DEQ (intern)
	Balthasar Buhidar	DEQ

DEQ offered a 37-day comment period, extending the invitation to comment on all WQS topics and specifically requesting comments on the draft WQS priority list. All comments were posted at www.deq.idaho.gov/media/1118089/workshop-3-comments.pdf. DEQ summarized the comments, organized them by category, and provided responses to each category of comments. The summary of comments and responses is included as Appendix B.

3.4 Summary of Findings

Workshop discussions and written comments received from participants indicate that the most important WQS items in need of update or revision, according to the public, include the following (listed alphabetically, not in order of importance):

- Antidegradation—short-term degradation and exemptions
- Application of standards—where it is and is not appropriate to apply WQS
- Dissolved gas
- Dissolved oxygen
- Intermittent and ephemeral waters
- Man-made waters
- Nutrient criteria—development of a numeric criteria
- Pollutant trading—rules and guidance needed prior to implementation
- Recreation uses and *E. coli* criteria
- Salmonid spawning—when and where this use exists, criteria to support use
- Updates to toxics criteria and use of the Biotic Ligand Model
- Use designations and use attainability analyses

4 DEQ's Water Quality Standards Priorities

During the 2014 triennial review period, DEQ identified and prioritized WQS issues for the next 3–4 years, based on feedback received from stakeholders and public participants. Recognizing there is much to be done in the way of updates and improvements to the existing rules, DEQ decided on the following path forward after receiving and considering the feedback outlined above. Completion of the following tasks will depend on a number of variables including, but not limited to, staffing and available resources;; 3rd party agreements; timing of EPA's recommended criteria updates; and new or unforeseen issues brought to light during DEQ's next triennial review cycle.

4.1 High Priority

2015

- Update Idaho's toxics criteria for the protection of human health to take into account newer Idaho-specific information of exposure from fish consumption.
- Undertake rulemaking to provide guidance for the designation of uses and development of UAAs, as committed to by DEQ in response to an OPE review (<http://legislature.idaho.gov/oep/publications/reports/r1403.pdf>).
- Update aquatic life criteria for copper, as called for in NOAA's May 2014 biological opinion.

2016

- Use work done on identification of salmonid spawning timing and location to complete designation of waters in Idaho “which provide for or could provide a habitat for active self-propagating populations of salmonid fishes” (IDAPA 58.01.02.100.01.b) to support adoption of EPA’s regionally recommended temperature criterion.
- Adopt new §304(a) recommendation for ammonia criteria.

4.2 Medium Priority

2017–2018

- Simplify recreational beneficial uses to one use, just “contact recreation” (no primary versus secondary), and adopt EPA’s new §304(a) recommendations for *E. coli*.
- Revise dissolved oxygen criteria.
- Update aquatic life criteria for selenium, as called for in NOAA’s May 2014 biological opinion.
- Adopt site-specific selenium aquatic life criterion for certain waters draining Smoky Canyon phosphate mine in southeast Idaho once EPA completes new national selenium criterion recommendation.
- Clarify water quality expectations for manmade waters once national WOTUS rule is finalized.

4.3 Low Priority

2019 and Beyond

DEQ has identified many other issues with the current WQS that should be updated or revised based on existing information; the complete list of priorities, identified by DEQ during this triennial review period, is included as Appendix C.

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Appendix A. 2014 Triennial Review Proposed Schedule (January 2014)



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706 • (208) 373-0502

C.L. "Butch" Otter, Governor
Curt Fransen, Director

January 21, 2014

Ms. Angela Chung
US EPA, Region 10
1200 Sixth Avenue, OW-130
Seattle, Washington 98101

Subject: Idaho Department of Environmental Quality 2014 Triennial Review – Proposed Schedule

Dear Ms. Chung:

As part of DEQ's 2014 Performance Partnership Agreement with EPA, the department has agreed to submit a schedule of important dates regarding the agency's undertaking of a Triennial Review. The following is an outline of the expected dates and events pertaining to this commitment.

January – Submit proposed schedule to EPA.

February through April – Identify and prioritize key components of Idaho's Water Quality Standards that DEQ believes need to be updated and presented to public; this will likely be via the Bulletin and DEQ's website.

May – Taking into account DEQ's priorities, feedback from the public, and the agreements established in the 2014 Performance Partnership Agreement with EPA, DEQ will formally announce Triennial Review undertakings.

June through August – Organize and execute three public workshops to solicit feedback from the public on what DEQ's Triennial Review priorities should be.

September through December – Compile and report to EPA.

If you have any questions regarding this schedule, please do not hesitate to contact me at 208-373-0570 or via email at michael.mcintyre@deq.idaho.gov.

Sincerely,

A handwritten signature in blue ink that reads "Michael J. McIntyre".

Michael J. McIntyre
Surface Water Quality Manager

MJM:MA:ls

c: Lisa Macchio, EPA Region 10
Barry Burnell, DEQ Water Quality Division Administrator
Don Essig, DEQ
Mary Anne Nelson, DEQ

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Appendix B. 2014 Triennial Review Comment Summaries and Responses

Commenter and Identification Number (ID#)

Commenter 1—GEI Consultants

Commenter 2—Lake Pend Oreille Waterkeeper

Commenter 3—Idaho Power Company

Commenter 4—Friends of the Teton River

Commenter 5—Kootenai Valley Resource Initiative

Commenter 6—Idaho Conservation League

Commenter 7—Nu-West Industries

Commenter 8—City of Boise

Commenter 9—Idaho Mining Association

Commenter 10—Hecla

Commenter 11—Idaho Department of Lands

Commenter 12—Agrium

Commenter 13—I-Minerals Inc.

Commenter 14—Idaho Associated General Contractors

Commenter 15—Idaho Water Users Association, Inc.

Commenter 16—The International Zinc Association and Windward
Environmental

Commenter 17—Thompson Creek Mining Company

Commenter ID#	Comment Topic	Comment Summary (verbatim comments can be found on DEQ's webpage: www.deq.idaho.gov/water-quality/surface-water/standards/triennial-review)	Response
1	Use of Biotic Ligand Model for metals	Our client, the Copper Development Association (CDA), played a significant role in sponsoring scientific research used in development of the freshwater Biotic Ligand Model (BLM) for copper, which was adopted by the United States Environmental Protection Agency (USEPA) in its latest national ambient water quality criteria (USEPA 2007). It is our understanding that the conclusion of the National Marine Fisheries Service's (NMFS) Biological Opinion regarding Idaho's water quality standards was that the state's current copper standards would have to be updated to be no less stringent than criteria derived using the BLM. CDA is interested in offering its support for DEQ in adoption of such standards and GEI has considerable experience in other states on implementation issues of the BLM on both site-specific and state-wide bases. On behalf of CDA, we would be glad to offer our expertise regarding options for implementing BLM-based standards in Idaho as well. The most challenging step of implementation is collecting the proper data in order to utilize the BLM. Given the number of water quality parameters that affect copper bioavailability, the collection of appropriate data for the BLM is more complex and costly than analyzing for a single parameter, hardness, to derive criteria. To facilitate the adoption of the BLM within the state, DEQ may consider developing geochemical regional estimations of the required BLM parameters that could then be supplemented using site-specific data collected by individual dischargers.	EPA came out with the Biotic Ligand Model (BLM) for copper in 2007. Idaho considered incorporating the BLM in an update to its toxics criteria in 2005, but passed on the option as it was not yet an official recommendation; the model was still being evaluated. Additionally, DEQ was concerned about the complexity of the model and that we would be lacking the data necessary to apply it. The data needs may still be an issue facing the state if we adopt the use of the model. Update of DEQ's copper criteria is a topic that has come out of the National Oceanic and Atmospheric Administration's (NOAA's) biological opinion (BiOp) on Idaho's criteria for toxic substances to protect aquatic life. NOAA has given EPA 3 years to act on Idaho's copper criteria, beginning with the finalization of its BiOp on May 9, 2014. That put an update to the copper aquatic life criteria on our agenda for action in the very near future, apart from triennial review efforts. If Idaho does not act in a timely manner, EPA will have to. Update of Idaho's copper criteria is not scheduled for rulemaking at present, but NOAA's action has caused us to consider this a high priority in the ongoing triennial review.
2	Contact recreation criteria	Primary and secondary contact recreation designations should not be combined due to their associated numeric criteria for <i>E. coli</i> (section 251 titled "Surface Water Quality Criteria for Recreation Use Designations", subsections 01(b)i-iii [single sample values]). The single sample values are substantially different for primary vs. secondary contact recreation, especially with respect to designated swim beaches. It is unclear how these single sample values will be adjusted if the two recreation designations are combined. DEQ should retain the single sample information since an exceedance likely indicates an exceedance of the geometric mean criterion (according to WQS) and also preclude sampling over an extended period of time. The beach action value criteria should be incorporated into any changes regarding <i>E. coli</i> .	The current threshold values for <i>E. coli</i> applicable to primary and secondary contact recreation (406 and 576 cfu/100 mL, respectively), which trigger the need for follow-up monitoring, are not criteria; rather, the numeric criterion for <i>E. coli</i> is 126 cfu/100 mL (geometric mean value) regardless of whether a water body is designated for primary or secondary contact recreation. Thus, DEQ is proposing that we should simplify our contact recreation use by removing "primary" and "secondary" because <i>the criterion applicable for both is the same</i> . DEQ would then consider following EPA's 2012 <i>Recreational Water Quality Criteria</i> recommendations to adopt both a geometric mean and a statistical threshold value as criteria. EPA's recommendations can be found here: http://water.epa.gov/scitech/swguidance/standards/criteria/health/recreation/upload/RWQC2012.pdf .

Commenter ID#	Comment Topic	Comment Summary (verbatim comments can be found on DEQ's webpage: www.deq.idaho.gov/water-quality/surface-water/standards/triennial-review)	Response
2, 4, 6	Numeric nutrient criteria	<p>DEQ should develop numeric criteria for phosphorous and nitrogen per the EPA's directive to states. Numeric nutrient standards would result in more equitable effluent limits and expedite the attainment of water quality standards in numerous 303d listed waters.</p> <p>Idaho's current lack of objective standards for judging whether or not aquatic growth is, or is not, a nuisance results in arbitrary decision making with regard to both determining impairment and developing targets for attaining water quality standards.</p>	<p>DEQ has been examining nutrient criteria for many years. We have found the correlation between nutrient concentrations and response variables—things such as chlorophyll-a, algal density, or periphyton biomass that are often used as an independent measure of effect—to be quite loose, even within ecoregions as EPA has proposed. This makes specifying a suitable broadly applied numeric criteria based on nutrient concentrations alone difficult. We are continuing to work on nutrients and evaluating the appropriateness of adopting a numeric standard for these pollutants.</p>
2	Dissolved oxygen	<p>The effects of altitude on DO, while real, are overemphasized. While the solubility of oxygen does decrease with increasing altitude, this decrease is likely offset due to adiabatic effects on temperature, leading to its reduction (which increases solubility). DEQ suggests adding a statement that DO measurements are corrected to sea level pressure before comparison to criteria. If this suggestion is implemented, then LPOW suggests that a similar correction should be made for adiabatic temperature decreases.</p>	<p>We understand that temperature affects oxygen solubility. The idea of a temperature correction is interesting, but it is unclear what temperature we would/should correct to. Perhaps more importantly, human activities do not alter air pressure in the way they can alter stream temperature.</p> <p>Further considerations to each of these items will be made throughout the rulemaking process if and when DEQ pursues changes to this section of the current rule.</p>
3	Total dissolved gas	<p>If DEQ proceeds with the Dissolved Oxygen rulemaking, it should also consider a companion rulemaking on Total Dissolved Gas (TDG) (58.01.02.250.01.b.). DO saturation is dependent on a number of factors, including anthropogenic effects, temperature, changes in elevation and azimuth. If DEQ undertakes this rulemaking, it should consider these factors in setting the DO saturation criteria. Research developed by McGrath et al., in 2006 demonstrates that short term exposure of up to 120% of saturation does not produce significant effects in migratory juvenile or adult salmonids when compensating depths are available. <i>Also see Weitkamp (2008).</i> In addition to the proposed revisions to 58.01.02.250.02, DEQ should consider the following revisions to 58.01.02.250.01(b):</p> <p><i>250.01(b). The total concentration of dissolved gas not exceeding one hundred and ten twenty (100% 120%) of saturation at atmospheric pressure at the point of sample collection.</i></p> <p>A rulemaking to revise the TDG standard would be compatible as a companion rulemaking to either of the above identified rulemakings, especially in light of the state of the science on this topic. A companion rulemaking of this nature may be a way for DEQ to</p>	<p>The total dissolved gas (TDG) standard applies to “total gas,” primarily nitrogen and oxygen in the atmosphere. While supersaturation with either oxygen or nitrogen can result in “gas bubble disease” in fish, the TDG is more important than the individual gases or varying ratios.</p> <p>An important qualification in the cited McGrath et al. 2006 paper on TDG is “when compensating depths are available.” If we raised the TDG standard to 120%, we'd likely have to limit that to situations where compensating depths occurred. Duration is important as well. If we raise the magnitude (from 110% to 120%), we will have to specify the short-term exposure it applies to.</p> <p>Apart from this, DEQ is considering revising portions of the rule that specifically speak to conditions under which levels of dissolved oxygen less than 6.0 mg/L may be acceptable. For further reading, please see the dissolved oxygen issue paper posted at www.deq.idaho.gov/media/1117767/triennial-review-issue-paper-dissolved-oxygen-0714.pdf.</p> <p>We understand and appreciate the utility of flow-duration</p>

Commenter ID#	Comment Topic	Comment Summary (verbatim comments can be found on DEQ's webpage: www.deq.idaho.gov/water-quality/surface-water/standards/triennial-review)	Response
		<p>efficiently address an additional area of its regulations without the added cost of a separate rulemaking. Finally, given the rulemaking timeline anticipated by DEQ, IPC requests that DEQ revise its timeline and consider the TDG rulemaking at an earlier date, regardless of whether it is combined with another rulemaking.</p> <p>At present, DEQ allows the application of the "10% rule" in making use support determinations, which allows temporary exceedances (i.e., 10% of the time) of temperature standards. A flow duration curve can be used to represent flows 10% of the time (i.e., the lowest 10th percentile of flows), which would allow an additional alternative for making use support determinations.</p>	<p>curves in evaluating rich data sets, those with ample measurements of both flow and water quality. We see nothing in our water quality standards that impedes their use.</p>
3	Oxygen demanding materials	<p>DEQ should consider the following rule language revision, or something similar, to address the inconsistency between the rule as written and naturally occurring circumstances:</p> <p style="padding-left: 40px;"><i>200.07. Oxygen-Demanding Materials. Surface waters of the state shall be free from oxygen-demanding materials in concentrations that would result in an anaerobic <u>substandard</u> condition.</i></p>	<p>This issue is closely related to nutrients and developing numeric criteria and is something DEQ intends to revise. If we begin rulemaking to revise the dissolved oxygen criteria, natural conditions are an important consideration that we will weigh in on. We assume "substandard condition" is a reference to the numeric criteria specified in section 250 of the water quality standards. This is a logical cross-reference and we will take it under consideration.</p>
5	Temperature criteria	<p>The KVRI supports Application of Temperature Criteria Standards (IDAPA 58-01.01/070.07) section where the Director may raise the temperature criteria as they pertain to a specific water body upon the determination that existing uses would be fully supported at a higher temperature/criteria. A process should be identified in the rules for the development of site-specific numeric temperature criteria for waters/watersheds where the ranges of natural temperatures are higher than the current generic numeric criteria.</p>	<p>DEQ agrees that natural background conditions may prohibit the attainment of Idaho's temperature standards in certain waters and watersheds within the state. DEQ believes that the current rules allow for flexibility in these situations but that it may be necessary to reevaluate the applicability of existing designations through use attainability analyses.</p>
6	Toxics criteria and NOAA BiOp	<p>DEQ needs to respond to the recent NOAA BiOp on the matter of toxics criteria. Failure to do so in a timely manner will result in significant challenges to the issuance of NPDES permits in Idaho.</p>	<p>DEQ agrees that this is a high priority. We plan to undertake rulemaking to update certain criteria for toxic substances to protect aquatic life as identified by the National Marine Fisheries Service in its May 2014 NOAA biological opinion. Revision of Idaho's aquatic life copper criterion will likely be first.</p>

Commenter ID#	Comment Topic	Comment Summary (verbatim comments can be found on DEQ's webpage: www.deq.idaho.gov/water-quality/surface-water/standards/triennial-review)	Response
6	Water quality trading	DEQ's current rules contain scant mention of this important mechanism and the guidance document that the State finalized several years ago is seriously flawed and likely provides guidance on issues that exceed what is authorized in statute and rule. Developing robust rules on this issue is critical if this mechanism is to become more utilized.	DEQ recognizes the importance of water quality trading. DEQ also agrees that the framework for trading needs to be further developed. DEQ participated in a regional process with EPA and the states of Oregon and Washington that resulted in a document outlining general trading principles. DEQ plans on evaluating whether some of these principles should be incorporated into DEQ's current trading guidance document.
6	Anti-degradation	Short Term Degradation and Exemptions DEQ is currently exempting non-restoration activities that cause 'short term' degradation to water quality from Tier II review. This practice is not supported by the current antidegradation rules.	DEQ believes that certain activities that are short-term in nature (e.g., discharge of fill materials) may not be considered degradation and thus are not subject to a Tier 2 review under DEQ's Antidegradation Policy.
6	Ammonia	Idaho should consider for adoption the new EPA recommendation on ammonia criteria.	DEQ is considering the adoption of updated criteria to protect aquatic life, including EPA's new recommended criteria for ammonia.
7, 9, 10, 11, 12, 13, 14, 17	Waters of the State	Clarify the definition of waters and waters of the State in the regulations to make it consistent with the statutory definition. Given the proposed US Environmental Protection Agency/US Army Corps of Engineers joint rule on Waters of the US, it seems work on defining or changing standards on ephemeral or intermittent streams is premature. This issue should be tabled until after a final rule on Waters of the US is published.	We recognize that there are some inconsistencies between the definition in rule and the statutory definition of waters of the state found at Idaho Code §39-3602. It should be noted, however, that the water quality standards (WQS) currently include sections that deal with more than Clean Water Act surface water programs. For example, §850 addresses hazardous material spills, which include spills that reach both surface and ground water, and §§851 and 852 address petroleum releases from petroleum storage tanks to both surface water and ground water. These sections are authorized by the Environmental Protection and Health Act, which defines waters of the state in a manner that is consistent with the current WQS definition. See Idaho Code §39-103. Therefore, any changes to the definition would have to continue to recognize the different authorities DEQ has outside of the Clean Water Act surface water programs. Our current triennial review has identified changes in how we deal with intermittent and ephemeral waters as a low priority, which likely means no rulemaking related to this issue for 3 or more years. We hope the waters of the US question going on nationally would be resolved by then. See also comment and response below under "Intermittent and ephemeral waters."

Commenter ID#	Comment Topic	Comment Summary (verbatim comments can be found on DEQ's webpage: www.deq.idaho.gov/water-quality/surface-water/standards/triennial-review)	Response
7, 9, 10	Use designations and use attainability analyses	Designate beneficial uses for undesignated water bodies and provide rules for Use Attainability Analyses. The rulemaking to allow UAA is important to set forth the appropriate information and procedural components for designating appropriate beneficial uses that are reflective of actual conditions. Guidance is needed for the regulated community in addressing designations or changes in designations to provide a realistic basis for making determinations as to risk management, design of environmental protection measures and planning for economic development.	DEQ has completed several use attainability analyses over the past two decades and believes we can continue to do so based on federal regulations that allow it. However, we believe the process could be clarified with guidance and a foundation in state water quality standards. DEQ agrees that this is a high priority and is preparing for rulemaking on this subject in the coming year.
7, 9, 10, 11, 17	Intermittent and ephemeral waters	<p>Clarify the application of standards to temporary waters. Non-perennial flows should be addressed specifically and separately as a high priority to avoid an erroneous presumption that they should be protected for cold water aquatic uses.</p> <p>A new use category for intermittent, ephemeral and seasonal waters is appropriate. Water quality standards for temporary waters should be developed using scientifically defensible methods that appropriately addresses the lack of fully established biologic communities in these waters.</p> <p>The application of numeric standards to optimal flows does not make sense for temporary waters. It is recommended that a new use category be created within the rules to define and delineate temporary waters, and set separate procedures and standards for this group of waters.</p> <p>A mechanism to address these temporary waters, both in terms of designation and applicable standard, should be devised to streamline the manner in which these waters are managed, without the cumbersome and expensive UAAs for each and every rill within the State.</p> <p>While we concur that the optimum flows identified in the rule do not make sense for all channel sizes, we do not concur that adding the words "absent information to the contrary" will provide any greater clarity.</p>	<p>DEQ recognizes a need for uses, criteria, and monitoring and assessment methods specific to nonperennial waters of the state. Developing appropriate uses, criteria, and methods will take significant study. Such a study would take considerable time and could serve as the basis for assigning different beneficial uses and specific criteria to protect those uses. DEQ has identified this issue as low priority, given current workloads and staffing.</p> <p>Addition of the words "absent information to the contrary" was our simple suggestion to allow the flexibility to find if a different optimal flow was more appropriate in a particular setting. We acknowledge that a more fitting use category and associated criteria is a more robust solution for handling nonperennial waters of the state.</p>

Commenter ID#	Comment Topic	Comment Summary (verbatim comments can be found on DEQ's webpage: www.deq.idaho.gov/water-quality/surface-water/standards/triennial-review)	Response
7, 8, 9, 10, 15	Man-made waters	<p>Clarify the definition of man-made waterways. Add a beneficial use category for man-made waterways. We recommend that this issue be a high priority. To the extent that artificial ponds, impoundments and lakes are not excluded from the definition of waters of the United States, we recommend they be included in the definition of Man-made waterways subject to a new beneficial use category that protects the waters for which they were constructed.</p> <p>Essentially every Municipal Separate Storm Sewer System (MS4), multiple Multi-Sector General Permits (MSGP), multiple Construction General Permits (CGP) permits and a number of municipal wastewater facilities discharge, at least in southern Idaho, to manmade waters, making this issue of critical importance for permitting, impaired water listing, and TMDL development. The appropriate protections for manmade waters (default or use for which the manmade structures were constructed) and related NPDES permit requirements, impaired waters listings, and TMDL development obligations are all dependent on the uses that manmade waters are determined to be protected for.</p> <p>IWUA maintains a firm position in opposition to CWA jurisdiction over, or regulation of, irrigation and drainage facilities. We urge you to drop the above-mentioned proposed priorities, and any related priorities, from further consideration in DEQ's Triennial Review or, alternatively, that these items be assigned the lowest possibility priority.</p>	<p>Idaho's requirement for man-made waters (IDAPA 58.01.02.101.02) is that they should be protected for the uses for which they were originally developed, insofar as there are no other existing beneficial uses related to the water body. A large number of water bodies are currently undesignated. As Idaho moves forward designating water bodies, we believe it is important to have a beneficial use category or categories for those man-made waters that do not have existing uses so the appropriate water quality standards may be applied. Creating a new use designation also requires developing criteria necessary to support the use.</p> <p>DEQ understands the pressing nature and importance of developing appropriate use designations and associated criteria in relation to total maximum daily loads and discharge permits. As this is of great interest to dischargers to man-made waterways, man-made waters will be a medium priority. We anticipate addressing this issue in the near future.</p> <p>DEQ appreciates IWUA's position regarding jurisdiction over irrigation and drainage facilities. To the extent EPA or the Army Corps of Engineers asserts jurisdiction, however, man-made waterways need to continue to be protected under state WQS only for the purpose for which they were created.</p>
16	Use of the Biotic Ligand Model for zinc criteria	<p>Idaho's current zinc criteria are now almost 20 years old. Research conducted since the 1995 criteria were released has added a substantial amount of data on the toxicity of zinc to a number of freshwater species. In addition to hardness, it is now well understood that several other water chemistry variables influence the bioavailability and, hence, toxicity of zinc. The biotic ligand model (BLM) is a tool to predict the toxicity of zinc, and other metals, to aquatic life over a range of water chemistry conditions (and not just over a range of hardness conditions). We strongly recommend that the DEQ adopt the BLM as the basis for freshwater zinc criteria in Idaho.</p>	<p>Idaho will likely be proposing adoption of the Biotic Ligand Model (BLM) for copper in the near future. At that time, we can certainly evaluate the merits of adopting the BLM for zinc as well.</p>

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Appendix C. Water Quality Standards Priorities Grouped by Issue and Rule Section(s) for Potential Rulemaking Packages

Issue	Rule Section(s)	Needed Action	Priority
Numeric Criteria for Toxic Substances – Human Health	210	<p>Update Idaho's toxics criteria for the protection of human health to take into account newer local information of exposure from consumption of fish.</p> <p>Additional items of lower priority that may fit with update of human health criteria:</p> <ul style="list-style-type: none"> • In subsection 01, Criteria for Toxic Substances, paragraph (a) inappropriately applies column C2 criteria (human health organism only basis) to protection of aquatic life. • In the statements about application of toxics criteria (a, b, and c), the words "waters designated for" occurs, implying these criteria do not apply to undesignated waters; should be changed to "waters protected for." • There is no statement about whether the human health criteria are for dissolved or total analysis of a sample. While this likely only applies to metals and the practice has been to use totals, the intent should be explicitly stated. • In the table of criteria, the wrong footnote (k, which refers to chlorine residual concentrations) on the asbestos criterion is used. Remove "k" footnote from table. Footnote "b" should clarify that the methylmercury fish tissue criterion is based on fresh weight. • It would be helpful to identify in the table of criteria which of the human health criteria are carcinogens. 	High— rulemaking currently underway
Use Attainability Analysis (UAA)	100	<p>Rulemaking is needed in order to provide guidance for the designation of uses and development of UAAs, as committed to by DEQ in response to an OPE review (http://legislature.idaho.gov/ope/publications/reports/r1403.pdf).</p>	High— rulemaking likely to be initiated in 2015
Copper	210	<p>Update aquatic life criterion for copper, as called for in NOAA's May 2014 biological opinion.</p> <p>Additional items of lower priority that may fit with update of copper criterion: 03. Applicability. (b) Low flow design discharge conditions. This language has caused some confusion; questions arise about where and when or even if any exceedance of criteria is allowed. Language needs to be revised to be clear that exceeding criteria is expected and is okay within the mixing zone and will even occur outside the mixing zone on occasions when receiving water flows are less than design flows.</p> <p>Update aquatic life criteria for lindane and dieldrin.</p>	High— rulemaking likely to be initiated in 2015
Salmonid Spawning	250.02(f)	<p>DEQ would like to use work done on identification of salmonid spawning timing and location to complete designation of waters in Idaho "which provide for or could provide a habitat for active self-propagating populations of salmonid fishes" so as to support adoption of EPA's regionally recommended temperature criterion.</p>	High— rulemaking not initiated before 2016
Ammonia	250.02(d)	<p>Adopt new §304(a) recommendation for ammonia criteria.</p>	High— rulemaking not initiated before 2016

Issue	Rule Section(s)	Needed Action	Priority
Contact Recreation Use and Criteria	100	02. Recreation. Simplify to one use, just "contact recreation" (no primary or secondary).	Medium— rulemaking not initiated until 2017 or later
	251	E. Coli Bacteria. Adopt EPA's new §304(a) recommendations.	
Nondesignated Surface Waters	101	02. Man-made Waterways. Consider additional clarification of what man-made waters are and expectations for their quality. This may include the possibility of creating a man-made waters beneficial use category; if so, would need to develop criteria specific to support a man-made water beneficial use. Additional item of lower priority that may fit with this revision: Private Waters. Revise to be consistent with federal rule at 40 CFR 131.33(h).	Medium— rulemaking not initiated until 2017 or later
Dissolved Oxygen (DO)	250.02(a)	Current criteria do not match EPA's 1986 "Gold Book" recommendations; DEQ has a minimum of 6.0 mg/L at all times, while EPA's recommendation is for a minimum of 4.0 mg/L coupled with a 30-day mean of 6.5 mg/L. EPA's recommendations may not work with ESA concerns, but state criteria are out of date and lack the sophistication to deal with variable conditions. EPA's recommendations for DO contain language on natural conditions that Idaho's current rules lack. This is a problem since Idaho's elevation leads to lower atmospheric pressure and lower DO saturation concentrations. Alternatively, DEQ could add a statement that DO measurements are to be corrected to sea level pressure before comparison to the criteria.	Medium— rulemaking not initiated until 2017 or later
Selenium	210	Update aquatic life criterion for selenium, as called for in NOAA's May 2014 biological opinion.	Medium— rulemaking not initiated until 2017 or later
	27X	Adopt site-specific selenium aquatic life criterion for certain waters draining Smoky Canyon phosphate mine in southeast Idaho.	
Surface Water Use Designations	100–160	Designate appropriate uses for those water bodies that have been assessed as fully supporting. Revise current use designations as necessary through UAAs. Additional items of lower priority that may fit with update of use designations: <ul style="list-style-type: none"> • Correct spelling and boundary errors for water bodies in sections 110–160. • Add a clarifying statement to the introductory paragraph to section 100 mirroring federal regulations that says "in no case will waste transport or assimilation be a designated use for any water." This is already in the definition of beneficial use but may be helpful to add here as well. • Try to clear up the situation with regard to Bull Trout and Kootenai River Sturgeon, which are not currently recognized as uses but have their own special criteria. • Revise definition of "seasonal cold" to better describe the use. Reference Idaho Department of Fish and Game fisheries management descriptions. • Add use categories for intermittent and man-made waters. • Add language to clarify that the most sensitive use is to be protected, and the corresponding criteria apply. 	Low
Small Public Water Supplies	252.01(b)i	Add the following water body AUs to the designated small public water supplies table: <ol style="list-style-type: none"> 1. Orofino Creek, City of Pierce. ID17060306CL039_04 2. Canal Gulch Creek, City of Pierce. ID17060306CL039_02 3. Big Meadow Creek, City of Troy. ID17060306CL061_02 4. Elk Creek, City of Elk River. ID17060308CL030_03 Add a statement in this section clarifying that the column C1 toxics criteria apply to domestic water supplies.	Low

Issue	Rule Section(s)	Needed Action	Priority
Application of Standards to Intermittent Waters	070.06	Expand this section to include ephemeral waters. Optimum flows identified in the rule do not make sense for all channel sizes and should be revised. A simple fix for this situation may be to preface sentences about optimum flows with the words “absent information to the contrary,” so as to provide flexibility. Another option may be to define a new use category for waters that are seasonal.	Low
Analytical Procedures	090	Out of date; needs to be updated and expanded.	Low
Violation of Water Quality Standards	080	01. Discharges Which Result in Water Quality Standards Violation. (a) Downstream waters/protection has become important on a national scale. Language here likely needs to be revised and strengthened; see: http://water.epa.gov/scitech/swguidance/standards/narrative.cfm . Short Term Activity Exemption (STAE). Some of the items listed under “b” probably don’t fit the requirements of “a” (e.g., dredge and fill activities, not as a broad category, perhaps in a more limited sense of maintaining navigation or flood control). Item “x” under “b”—“activities which result in overall enhancement or maintenance of beneficial uses”—would likely fit better under paragraph “a.” The STAE provision is intended to apply to individual activities of short duration and unique characteristics where typical permit conditions or nonpoint-source best management practices are not applicable. Should clarify that STAEs are not intended for project activities that are considered routine nonpoint source activities and project activities that can otherwise meet the intent of IDAPA 58.01.02.350 with the application of best management practices, monitored for effectiveness and modified if needed.	Low
Dissolved Oxygen Standards for Waters Discharged from Dams, Reservoirs, and Hydroelectric Facilities	276	Add DEQ’s expectations for temperature of waters flowing out of lakes and reservoirs to this section or to the next reserved section (277). In essence, a stream that is an outlet of a lake or reservoir should initially have similar quality to the water in the lake or reservoir.	Low
Total dissolved gas (TDG)	300	Gas Supersaturation. Consider adding a statement that the criteria in this section do not apply during periods of involuntary spill (i.e., flood conditions).	Low
	054.03	Use of Data Regarding pH, Turbidity, Dissolved Oxygen, and Temperature. Add total dissolved gas to this “10% rule.” May be more fitting to add the applicability of a TDG 10% rule into Section 300, Gas Supersaturation, 01, Applicability of Gas Supersaturation Standard.	
Deleterious Materials	200.03	Take the statement “These materials do not include suspended sediment produced as a result of nonpoint source activities” out and incorporate the idea/limitation instead in definitions of various materials/substances in definition section; these words really are not needed given the separate narrative for sediment.	Low
Excess Nutrients	200.06	Develop numeric nutrient criteria.	Low
Water Quality Trading	055	Revise and expand language regarding water quality trading.	Low
Antidegradation Implementation	052	Define and clarify handling of short term/temporary degradation.	Low