

Negotiated Rulemaking
Docket No. 58-0102-1502

Update to Copper Criteria for Aquatic Life Use

June 2, 2016



Outline

- Review of Options
- Review of Comments Received
- Proposed Direction
- Guidance Development
- Next Meeting and Plans Moving Forward

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Options

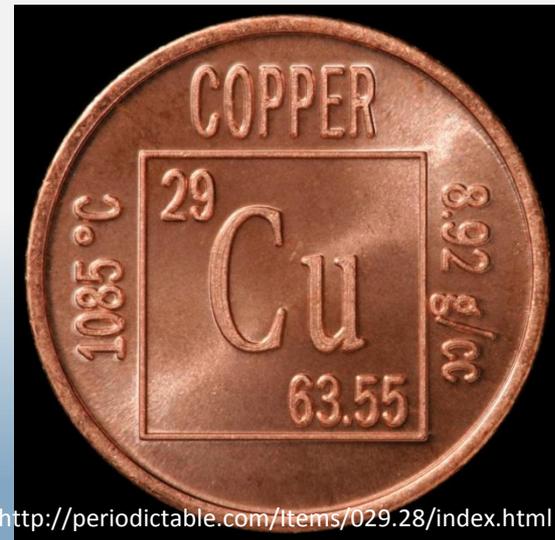
- Four options for discussion and comment



Options

1. Move forward with current preliminary draft rule – all implementation (including defaults) in guidance

Aquatic life criteria for copper are derived from the Biotic Ligand Model, Version X.X.X. (June 2007).



Options

2. Model after EPA's Oregon proposal

- 10th percentile of IWQCs
- Use DRAFT missing parameters approach to produce conservative defaults when data are absent
- Measure pH and temperature



Options

3. *Use low end of distribution of IWQC (10th %ile? Minimum?).*

Use conservative default criteria when data are absent

- Follow NOAA BiOp and expand to all waters (Appendix C)

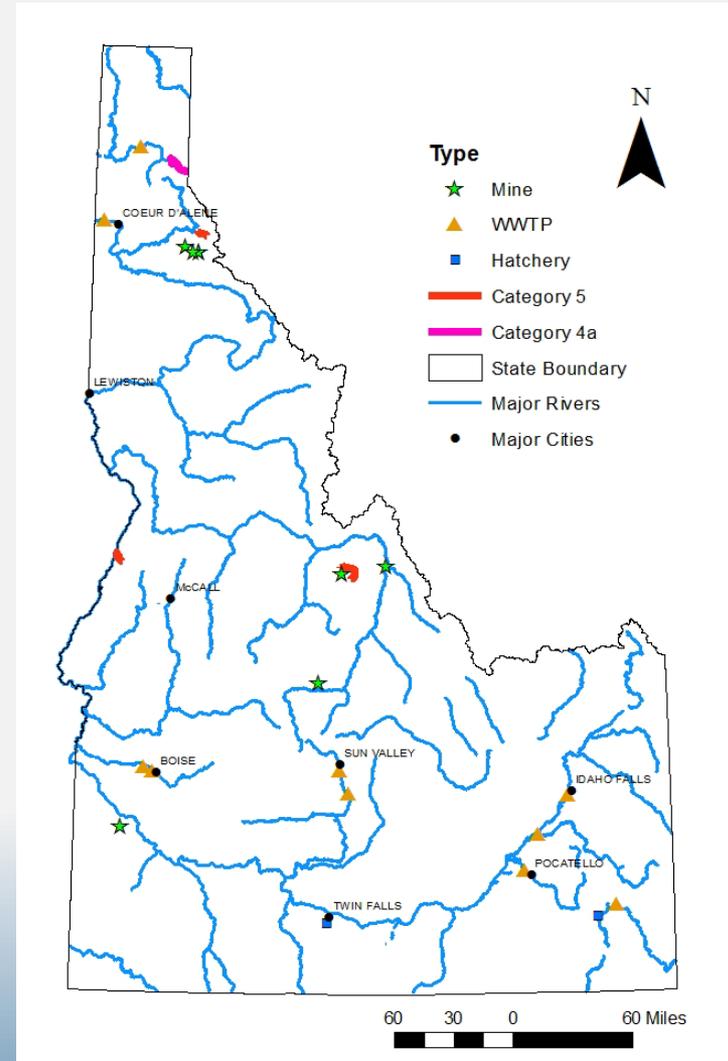


Options

4. *Use low end of distribution of IWQC (10th %ile? Minimum?).*

Collect statewide data to identify critical conditions throughout state

- Develop conservative defaults to use when data are absent



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Review of Comments Received

- Copper Development Association
- Clearwater Paper
- J.R. Simplot Company
- City of Boise
- U.S. EPA Region 10

Copper Development Association

- Preference for Option 1
 - Most flexibility for implementation
- Reference 2007 BLM or model “engine” that calculates criteria consistent with 2007 BLM
- Consider Option 4- with contingencies:
 - Ability to update when data are available
 - Path to avoid antidegradation and antibacksliding
 - Acceptance by both permit and standards staff

Clearwater Paper

- Prefer Option 1:
 - Site specific parameters
- Do not support 2-4
 - Concerns with compound conservatism

Simplot

- Prefer Option 1:
 - Site specific data as opposed to defaults

Boise

- Use of site-specific data, monitoring and reporting requirements before effluent limits are established
- Support Option 4 over use of default inputs

EPA

- Recommend that implementation be included in rule or referenced in rule
 - Site selection
 - Critical conditions
 - Estimated defaults
 - Sampling frequency
 - Data screening, processing, and interpretation



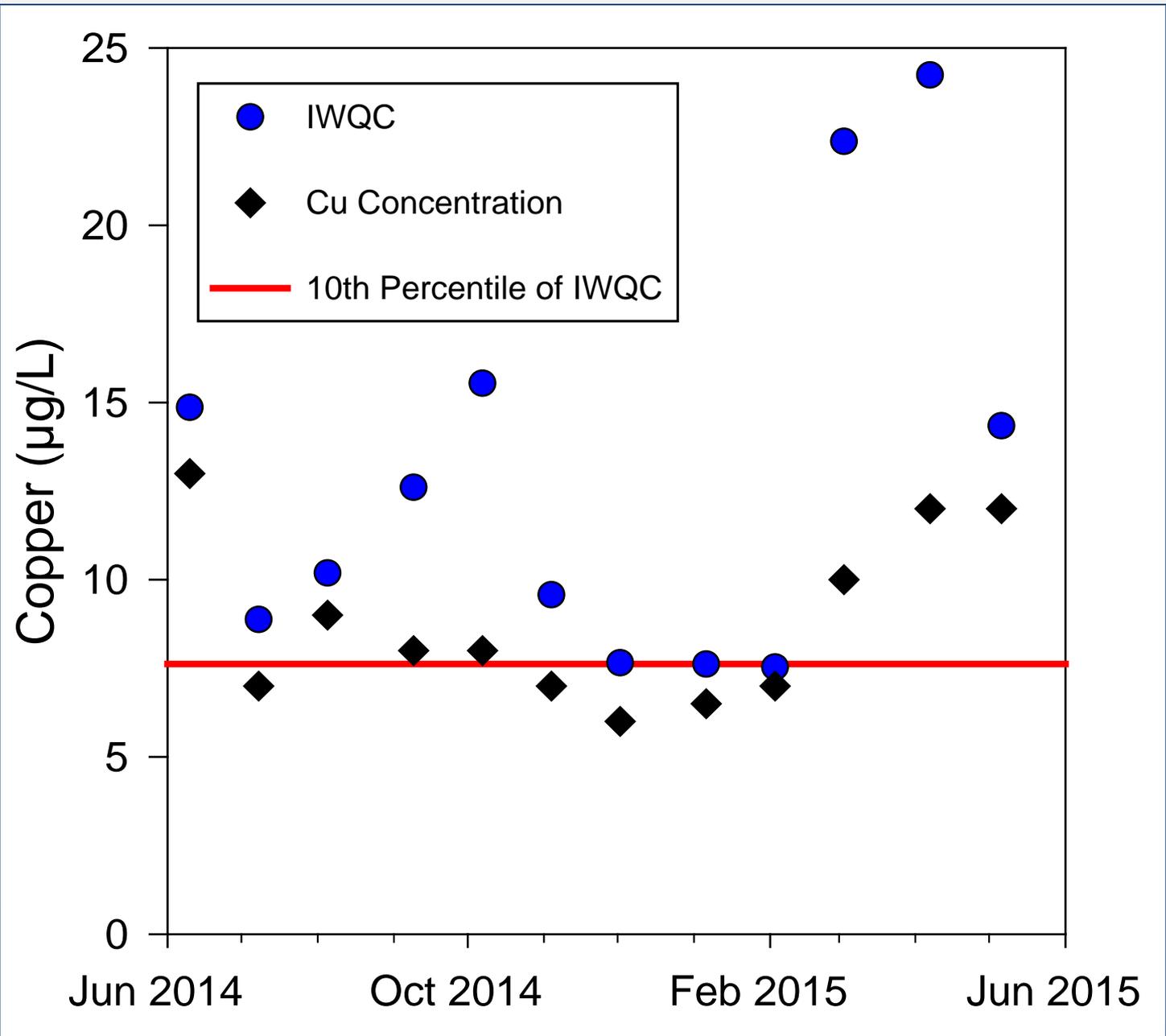
EPA

- Example criteria in table should be removed
- Use of *binding* default inputs, (*Missing Parameters*)
- Do not support Option 1



EPA

- Option 2: Support, with magnitude of criteria being specified in rule as the lowest 10th percentile of IWQC
- Option 3: Specify in rule the use of 10th percentile of IWQC, further information on basis of NOAA defaults
- Option 4: Could be supported, require more information on how data would be interpreted





Calculation of BLM Fixed Monitoring Benchmarks for Copper at Selected Monitoring Sites in Colorado

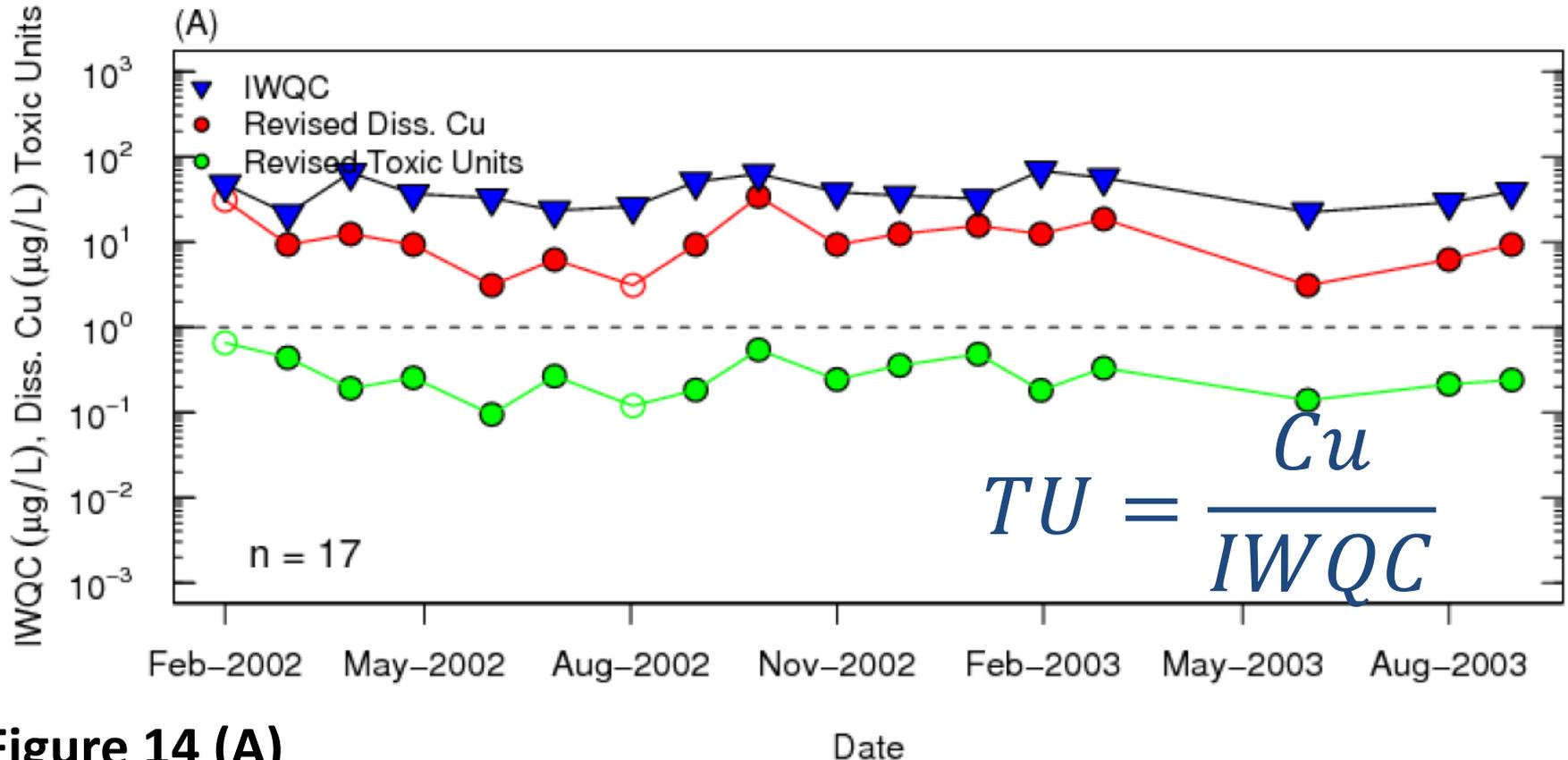


Figure 14 (A)



Calculation of BLM Fixed Monitoring Benchmarks for Copper at Selected Monitoring Sites in Colorado

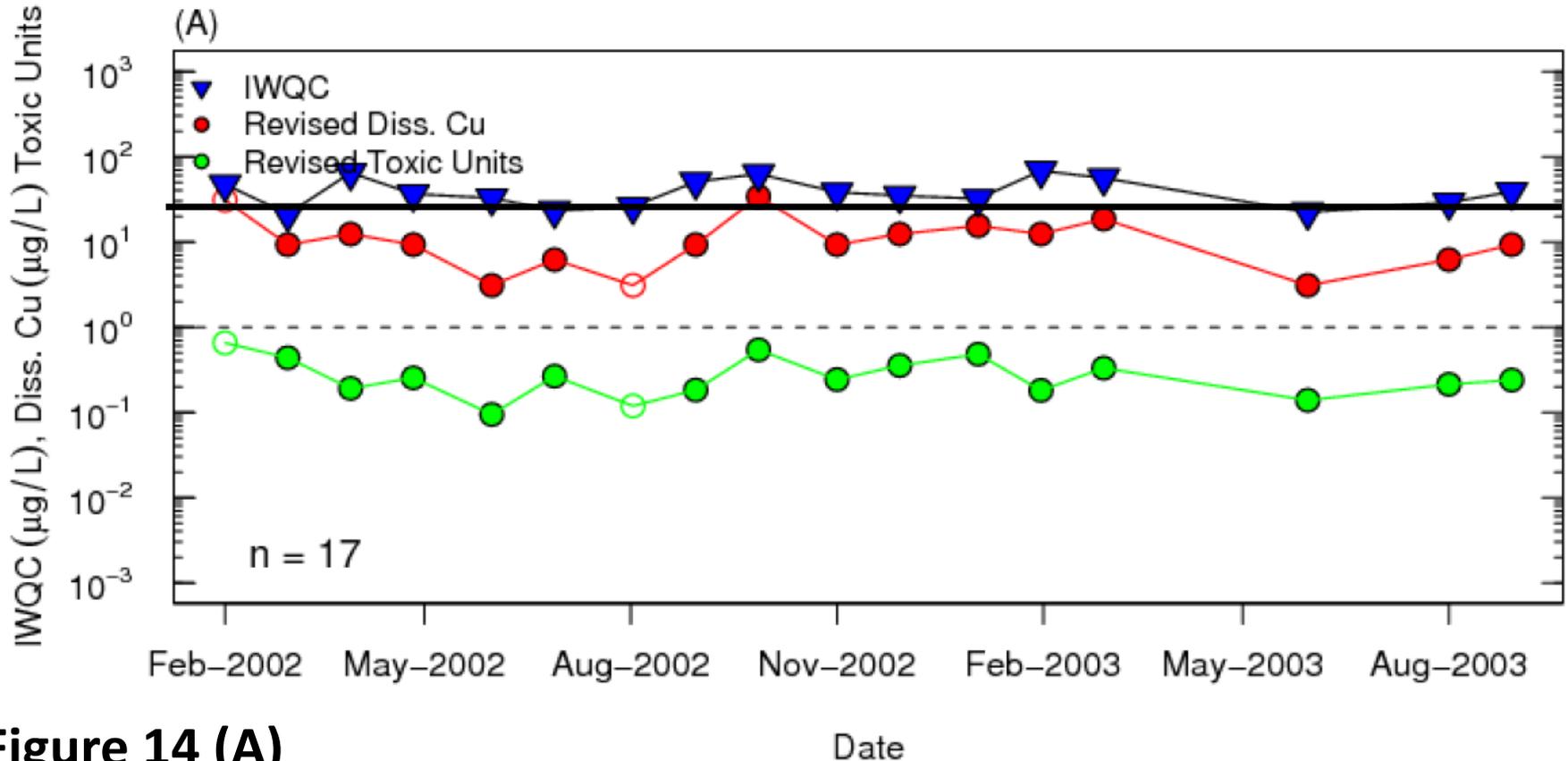


Figure 14 (A)



Calculation of BLM Fixed Monitoring Benchmarks for Copper at Selected Monitoring Sites in Colorado

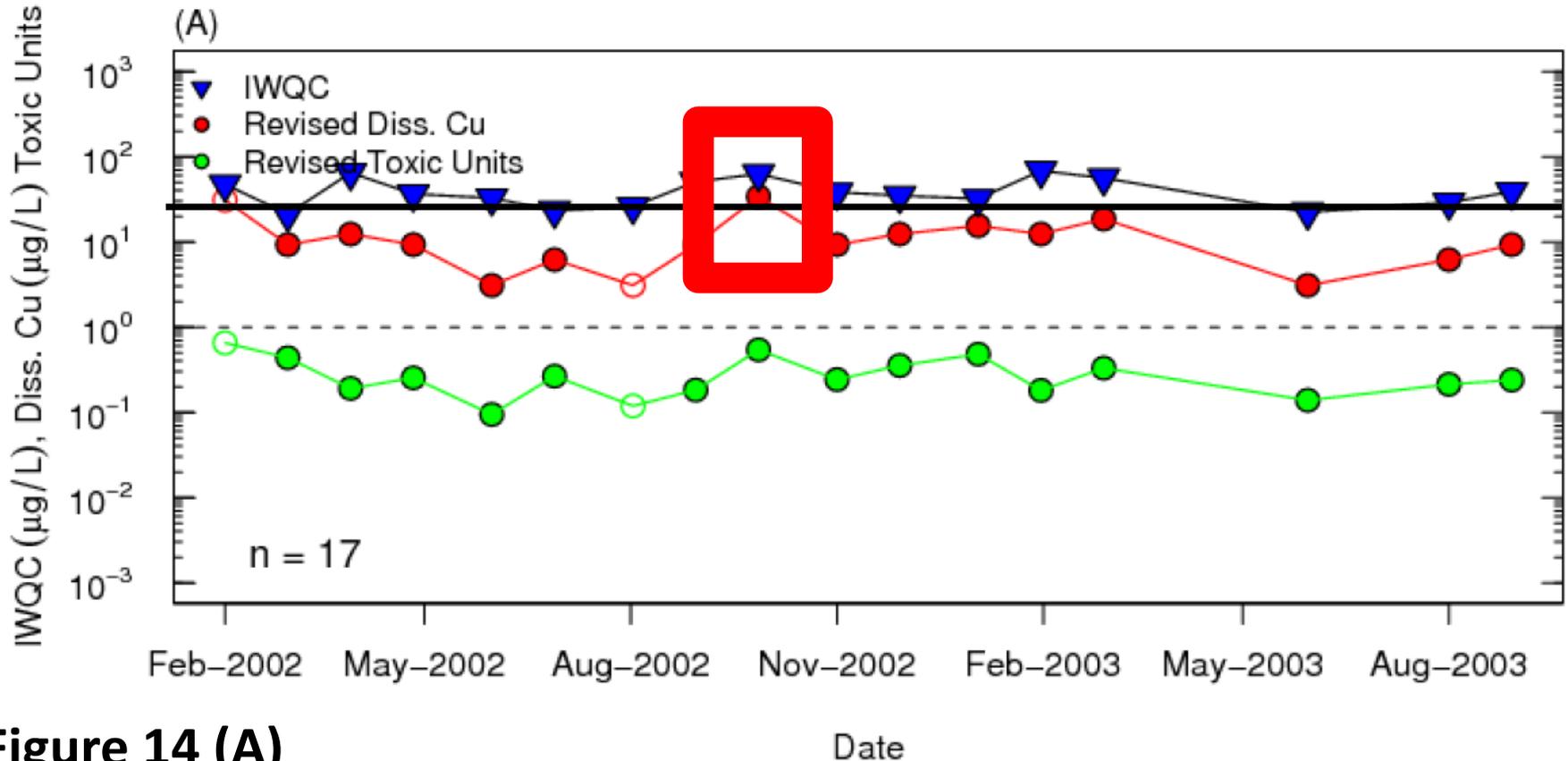


Figure 14 (A)

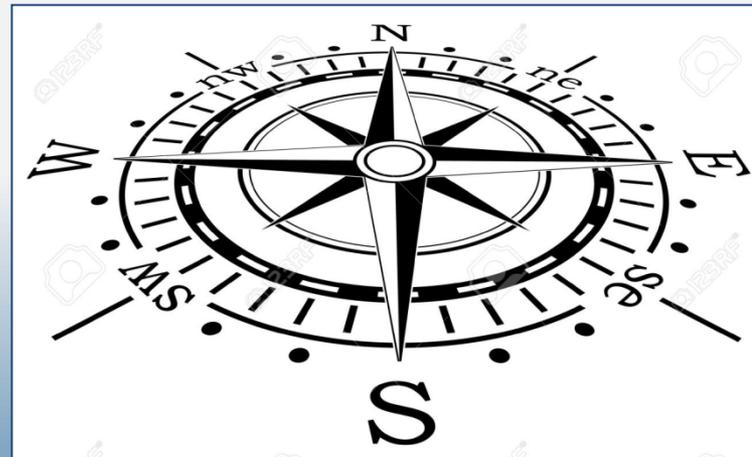
Date

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Proposed Direction

- Criteria- Reference BLM, define what parameters are necessary for running the model
- Develop implementation procedures as guidance, reference in rule



Proposed Rule

58.01.02.210.01.

- r. Aquatic life criteria for copper are derived from the Biotic Ligand Model, Version 2.2.3 (June 2007) available at www.deq.idaho.gov, For comparative purposes only, the example values displayed in this table correspond to the model output based on the following inputs:
temperature = 15.2°C, pH = 7.9, dissolved organic carbon = 1.9 mg/L, humic acid fraction = 10%, Calcium = 68.9 mg/L, Magnesium = 44.2 mg/L, Sodium = 65.5 mg/L, Potassium = 1.9 mg/L, Sulfate = 72.6 mg/L, Chlorine = 54.5 mg/L, and alkalinity = 280 mg/L CaCO₃.

Additional Language to add
58.01.02.210.03.c.
Application of aquatic life metals
criteria

- Add reference to Implementation Guidance for the Idaho Copper Criteria

Example:

58.01.02.210.03.c. Mercury

03. Applicability. The criteria established in Section 210 are subject to the general rules of applicability in the same way and to the same extent as are the other numeric chemical criteria when applied to the same use classifications. Mixing zones may be applied to toxic substance criteria subject to the limitations set forth in Section 060 and set out below. (3-25-16)

c. Application of aquatic life metals criteria. (3-25-16)

iv. Implementation Guidance for the Idaho Mercury Water Quality Criteria. (4-6-05)

(1) The “Implementation Guidance for the Idaho Mercury Water Quality Criteria” describes in detail suggested methods for discharge related monitoring requirements, calculation of reasonable potential to exceed (RPTE) water quality criteria in determining need for mercury effluent limits, and use of fish tissue mercury data in calculating mercury load reductions. This guidance, or its updates, will provide assistance to the Department and the public when implementing the methylmercury criterion. The “Implementation Guidance for the Idaho Mercury Water Quality Criteria” also provides basic background information on mercury in the environment, the novelty of a fish tissue criterion for water quality, the connection between human health and aquatic life protection, and the relation of environmental programs outside of Clean Water Act programs to reducing mercury contamination of the environment. The “Implementation Guidance for the Idaho Mercury Water Quality Criteria” is available at the Department of Environmental Quality, 1410 N. Hilton, Boise, Idaho 83706, and on the DEQ website at http://www.deq.idaho.gov/media/639808-idaho_mercury_wq_guidance.pdf. (4-6-05)

Implementation Guidance

- Identify monitoring requirements, address issues of spatial and temporal variability
 - Define scale of a ‘site’
 - Minimum number of samples required
 - How to derive a criterion based on multiple IWQCs- what goes into permit? What do you use for listing?
 - What to use when input data are unavailable

Timeline

- NOAA / US FWS BiOp RPA: New criteria by May 2017, no less stringent than EPA's 2007 304(a) copper criteria (BLM)
 - Requires proposed rule to go to Board this fall, pending rule reviewed and approved by legislature 2017



Timeline

- Meet May 2017
 - Rule as is, with minor edits
 - Guidance developed, submitted with rule package, not referenced in rule

Timeline

- ~~Meet May 2017~~
 - Rule as is, with minor edits
 - Guidance developed, submitted with rule package, not referenced in rule

- Miss May 2017
 - Rule as is, with minor edits, plus
 - Reference to implementation guidance
 - Guidance completed before proposed rule is presented to the Board
 - Rely on interim measures to protect listed species

Interim Measures

NOAA	US F&WS
25% mixing zone for new or reauthorized discharges OR, show passage is unlikely to be impeded AND conduct biological monitoring.	Snails- no mixing zone for copper in occupied snail habitat Fish-zone of passage

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Guidance Development

- I. Introduction
- II. Idaho Aquatic Life Criteria for Copper
- III. Monitoring Requirements for Application of BLM
 - a. Spatial representation
 - b. Temporal representation
 - c. Missing data / estimating criteria
- IV. General Implementation Requirements for Aquatic Life Criteria (58.01.02.210.03)
- V. Calculating NPDES permit limits
- VI. Identifying impairments for assessments

Calculating NPDES Permit Limits

- If you have 12 monthly samples:
 - Permit limit based on 10th %ile of IWQCs
 - Allow for flow tiered limits provided sufficient data are available
- < 12 monthly samples:
 - Minimum of IWQCs, require monitoring and revisit when sufficient
- No data:
 - Critical input values based on 2016 monitoring

For Listing

- For any single Cu sample, 1st compare to associated IWQC
- If Cu concentrations are not associated with appropriate BLM data:
 - If reach (Assessment Unit) has sufficient BLM data to derive 12 monthly IWQCs, use statistical method (FMB) to determine if there is a likelihood of exceeding IWQC
 - Collect samples to determine if Cu concentration exceeds any IWQC

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Next Steps

- Begin guidance development with stakeholders
- Regular meetings- inform and advise on guidance development
- Meeting scheduled July 26, 2016
 - Present preliminary guidance language and concepts
- Rule and Implementation Guidance:
 - Presented to Board 2017
 - Pending rule for legislative approval 2018



Summary

- Continue with preliminary draft rule, reference model
- Do not include implementation (defaults, monitoring requirements, etc.) in rule
- Reference Implementation Guidance in rule
- Develop Guidance with stakeholder input
- Present rule (with referenced guidance) to Board in 2017, pending rule to Legislature in 2018
- Implement interim measures to protect listed species

Questions



Comments

- Submit all written comments by mail, fax or e-mail to:

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