

Delegates' Table #7 Teleconference

Monday, February 10th

Objectives

- **Discuss updates from Ecology**
- **Provide an opportunity for Delegates to recommend approaches or combinations of approaches to Ecology on the various issues**
- **Review a draft of the Delegates' Table process report**

9:30-9:40 AM - Welcome and Opening (10 minutes)

9:40-10:10 AM - Updates from Ecology (30 minutes)

- Overall status of policy options under consideration
- Status / schedule for rulemaking process, including update on cost benefit analysis
- Status of Governor's Group discussions

10:10-11:10 AM - Special Chemicals Options – New Approaches Under Consideration (1 hour)

11:10-12:10 PM – Delegate's Input on Policy Choices (1 hour)

12:10-12:20 PM - Opportunity for public comment (10 minutes)

12:20-1:00 PM – Break for lunch – please bring something back (40 minutes)

1:00-2:00 – Continue Discussion of Delegate's Input on Policy Choices (1 hour)

2:00-2:30 – Walk through Draft Delegates' Table Report (30 minutes)

2:30-2:40 PM – Opportunity for public comment (10 minutes)

2:40-3:00 -Wrap up (20 minutes)

- Issues for final Delegates' Table meeting (end of February or beginning of March)
- Finalizing Delegates' Table Report

12:00 – Adjourn

Special Chemical Options

Arsenic-Mercury-PCBs from Nov 6th

- Chemicals that are the largest concern for dischargers
- Current human health criteria are already a challenge
- Looking at specific solutions, including:
 - Statewide variance for legacy pollutants?
 - Different human health criteria inputs (Oregon arsenic approach using higher risk levels)?
 - A new Category 5M on the 303(d) List for mercury?

Arsenic

Specific Challenges

- Naturally occurring metal
- We see it everywhere – but it is also a human influenced pollutant

November 6 alternatives

- Using the Safe Drinking Water Act Maximum Contaminant Level (approach of several states)
- Calculating the criteria at a different risk level (Oregon approach)

Preliminary direction on Arsenic

Fresh waters (drinking water) MCL of 10 ug/L

Marine and Estuarine waters (not protected for drinking water)

- 10 ug/L -or - do not have a numeric criterion.

Note: Tier 2 antidegradation for new and expanded discharges applies if As concentration exceeds background at the edge of the mixing zone.

Arsenic Considerations

1. There is no cancer potency factor (cpf) in EPA's IRIS database at present for inorganic Arsenic.
2. The inorganic Arsenic cpf has been under reassessment for many years, and a date for finalization is not available.
3. Using an older cpf (e.g. the cpf used to calculate the NTR arsenic criteria) injects a high degree of uncertainty to the criteria calculation.
4. Use of the MCL has been approved by EPA widely across the nation.

Mercury

Specific Challenges

Extra challenge for methyl mercury: how to translate tissue values into effluent limits

Atmospheric deposition a significant source

November 6 Alternatives:

- Statewide variance
- Move forward with calculated methyl mercury criteria
- Adopt new criteria when a solid implementation plan is ready, including how to develop permit limits . Set out a timeline to get this work accomplished.

Preliminary direction on Mercury

- Defer adoption of methyl Mercury criteria until a combined criteria and implementation package is developed.
- In the interim, mercury remains in the NTR. Continue efforts to identify sources and control sources (Mercury Chemical Action Plan, atmospheric deposition study proposal, pollution prevention study proposal)
- Continue to use Aquatic Life Mercury criteria and NTR Mercury criteria for permits where there is a measurable amount of mercury in the effluent.

PCBs

Specific Challenges

- Some level of PCBs are present in nearly all fish we test - even in undeveloped areas that we consider to be clean background.

Nov. 6 Alternatives

- Waterbody-wide variances or statewide variance (does not preclude the option of individual discharger variances) at another rule process.
- Use a PCB-specific additional lifetime cancer risk level for PCBs.
- Base criteria on non-cancer effects.

Preliminary direction on PCBs

- WDOH uses non-cancer toxicity to determine if fish advisories are needed. The estimated additional lifetime cancer risk at the non-cancer safe dose for PCBs (the RfD that is used by WDOH) is 4.0×10^{-5} (0.00004)
- This risk level is consistent with EPA guidance on cancer risk levels.

PCB Considerations

This does NOT default to the highest additional lifetime cancer risk level allowed in EPA guidance. It is consistent with EPA's 2000 Human Health Criteria Guidance.

Additional lifetime cancer risk level = 4.0×10^{-5} (= 0.00004)

EPA 2000 guidance specifies that the maximum risk level for highly exposed populations should not exceed 1×10^{-4} (= 0.0001).

The chemical-specific risk level for PCBs was chosen to be consistent with the level of risk/hazard in the toxicity factor used by the WDOH in developing fish advisories. This is an estimated cancer risk at the corresponding safe dose (RfD) for a chemical.

Possible PCB Human Health Criteria Concentrations

Additional lifetime cancer risk level	Average Fish Consumption Rate (g/day)	Calculated HHC (ug/L = parts per billion) BW = 80 kg.
4×10^{-5} Four –in-one hundred thousand = 0.00004	225	0.00023
	175	0.00029
	125	0.00041
Current NTR criterion		
1×10^{-6} One in one million = 0.000001	6.5	0.00017

Body weight

- **Preferred approach:** 80 kg. average adult BW (change from 70 kg.)
- The risk management BW decision included in (1) the 1992 NTR, (2) EPA 2000 HHC guidance, and (3) EPA's published recommended national criteria values is to use an **average adult BW** in the HHC calculation.
- EPA 2011 Exposure Factors Handbook develops an updated adult average BW of **80 kg**.
- The tribal adult average BWs for the Tulalip and Suquamish tribes are **81.8 and 79 kg** respectively.

**Presentation by Ken Johnson
(Weyerhaeuser) on the
Necessary Regulatory Concepts
in Alternative WAC 173-201A**

Location

- WAC 173-201A-240(5) and (6) *Toxic Substances*

Regulatory Concept

- Delete reference to National Toxics Rule.
- Delete (6) relating to carcinogenic substances set at $10e-6$ or less

Why?/Policy Support

- EPA can withdraw the federal rule without a notice and comment rulemaking when the state adopts standards no less stringent than the federal rule (NTR).

COMMENTS FROM WEYERHAEUSER ON ECOLOGY RULE-MAKING

Location

- WAC 173-201A-240(5) (new)

Regulatory Concept

- HHWQC are derived using a probabilistic methodology that meets these risk management thresholds:
 - Carcinogens: achieve a $10e-5$ risk at the 50% percentile (i.e., median) of the general population distribution, and no greater than $10e-4$ risk at the 99th percentile of the risk distribution.
 - Non-carcinogens: achieve a hazard quotient of 1.0 at the 90th percentile of the risk distribution.

Why?/Policy Support

- Need transparent identification of Washington health protection policy for HHWQC.
- Consistent with EPA (2000) policy – “EPA believes that both 10^{-6} and 10^{-5} may be acceptable for the general population and that highly exposed populations should not exceed a 10^{-4} risk level”
- Need white paper narrative explaining merits of Probabilistic HHWQC derivation process. Need specific discussion to explain how health of high-fish consuming populations is protected per EPA guidelines.

Location

- WAC 173-201A-240, new Table -240(4)

Regulatory Concept

- Create a regulation location for HHWQC table.

Why?/Policy Support

- NCASI development of a fish consumption rate distribution for state residents (includes all FCR data, a salmon life history factor, salmon species relative consumption fractions, fraction of salmon in total fish and shellfish)
- Arcadis derivation of numeric criteria to achieve health protection targets. Best professional judgments for selection of appropriate input distributions for all parameters.

COMMENTS FROM WEYERHAEUSER ON ECOLOGY RULE-MAKING

Location

- WAC 173-201A-240, new Table -240(4)

Regulatory Concept

- Narrative criterion for PCBs. Qualitative regulatory elements will be presented in a footnote to the HHWQC table, to include:
 - Assertion that designated uses are protected through existing acute/chronic aquatic life criteria,
 - Assertion that designated uses are protected through Dept of Health fish advisories,
 - Identification of PBT Chemical Action Plan source reduction and implementation method,
 - Identification of state-wide or water basin pollutant identification, source reduction, monitoring, etc., ala Delaware Estuary/San Francisco Bay model,
 - Requirement that NPDES permittees monitor wastewater and conduct source minimization if effluent concentration > Quantitation Level for PCB
 - Commitment to review derivation of numeric criteria when Chemical Action Plan is complete, when source contributions are better understood, when toxicity of individual congeners is understood, etc.
 - Other, including Creative Solution outcomes

Why?/Policy Support

- Implementation of CWA programs based on ultra-low PCB numeric criteria will have devastating regulatory/economic implications for Washington. Once adopted, likely not reversible.
- Justification for Narrative HHWQC:
 - There is insufficient information to derive a numeric HHWQC based on a “sound scientific rationale.”
 - Designated uses are protected through alternative regulatory initiatives
 - Narrative WQC are allowed by 40 CFR 131.11
- A Narrative PCB criterion avoids Pinto Creek implications.
- A Narrative criterion creates space for the responsible and inevitable source identification, pollutant reduction and monitoring programs to work

Location

- WAC 173-201A-240, Table -240(4)

Regulatory Concept

Alternative for PCBs

- Numeric criterion based on probabilistic derivation

Why?/Policy Support

- A discrepancy may exist between literal read of 40 CFR 131.11 and CWA section 303(c)(2)(B) re. demand for numeric criteria for toxic pollutants.
- If numeric criterion, then WDOE is challenged to provide confident, long-term, narrative implementation measures.
- Consider state-wide Variance per -420 (below)

Location

- WAC 173-201A-240, Table -240(4)

Regulatory Concept

- Ecology proposes acceptable solutions for:
 - Inorganic arsenic (HHWQC for water + organism proposed as 10 ug/l, which is the Safe Drinking Water Act MCL for arsenic)
 - Methyl mercury (several options available)

Why?/Policy Support

- Implementation of CWA programs based on ultra-low arsenic and mercury numeric criteria would have enormous regulatory/economic implications for Washington. Once adopted, only reversible through a complex regulation amendment procedure.

Location

- WAC 173-201A-240 *Toxic Substances*

Regulatory Concept

- Where the approved analytical methodology is not sufficiently sensitive to confidently measure the presence of a toxic pollutant in the water column at the HHWQC, the effective criterion will be the Quantitation Level (QL) of the methodology listed in 40 CFR 136 and/or as defined by Ecology at the time of regulation promulgation.
- Updates to 40 CFR 136 and/or as Ecology defines the QL will require adoption into WAC 173-201A

Why?/Policy Support

- CWA regulatory determinations should be limited by the ability to confidently detect the pollutant in the water column.
- Modifications of 40 CFR 136 methods can have profound regulatory implications. Adoption of amended methods into WAC 173-201A will provide notice to the public and an opportunity to examine/comment.

Location

- WAC 173-201A-400 (12) and (15) *Mixing Zones*

Regulatory Concept

- No regulatory amendments required. Note that:
 - (12)(d) authorizes exceedances from mixing zone criteria where “necessary to accommodate important economic and social development...”
 - (15) authorizes customized “permit limits and measures of compliance for human health based criteria (based on lifetime exposure levels)”

Why?/Policy Support

- State has discretion to design mixing zones policies and implementation practices per 40 CFR 131.13
- WAC 173-201A-400 expresses Washington policy and regulatory intentions. Supplement Permit Writers Manual to articulate processes for use of mixing zone regulation subsections. Ecology should clearly articulate a policy intention to grant mixing zone for HHWQC.

COMMENTS FROM WEYERHAEUSER ON ECOLOGY RULE-MAKING

Location: WAC 173-201A-420 *Variances*

Regulatory Concept

- Ecology should exercise discretion afforded through 40 CFR 131.13 to accomplish these policy/regulatory outcomes:
 - Establish framework in -420 to issue discharger-specific, multiple discharger, or watershed (including state-wide) variances.
 - OK for customized discharger-specific variances to receive public and intergovernmental involvement, EPA review/approval, inclusion in WAC 173-201A.
 - Programmatic variance procedure to extend variance provisions to 1) multiple NPDES dischargers, or 2) to NPDES dischargers into a watershed (including “stretches of waters” or state-wide). “Programmatic” = EPA review/approval, incorporation in WAC 173-201A; but no requirement for EPA review/approval and amendment of WAC 173-201A for NPDES dischargers who opt-in for coverage under the programmatic variance.
 - Variance criteria/conditions in 40 CFR 131.10(g) will be the basis for the design/issuance of a variance.
 - Opportunity for long-duration, renewable, with practical interim milestones and re-evaluation criteria.
- A programmatic, state-wide variance for PCBs is included in 2014 WAC 173-201A rule revision.

COMMENTS FROM WEYERHAEUSER ON ECOLOGY RULE-MAKING

Why?/Policy Support

- EPA promulgation of 40 CFR 131 *Water Quality Standards* revisions in 2014 will define practical opportunities for development/application of Variances.
- Implementation of CWA programs based on ultra-low numeric criteria for PCB, arsenic, mercury, and probable other pollutants will have significant regulatory/economic implications for Washington. Once adopted, only reversible through a complex regulation amendment procedure.
- A determination to adopt a numeric PCB (or stringent arsenic/mercury) HHWQC should be accompanied with a contemporaneous programmatic state-wide variance.
- Mimic the variance/pseudo-TMDL responses developed by jurisdictional agencies in Delaware Bay and San Francisco Bay, collaborative Spokane River “straight-to-implementation” approach, or EPA’s “Category 5m” for mercury.

Location

- WAC 173-201A-430 *Site Specific Criteria*

Regulatory Concept

- Ecology should exercise discretion afforded through 40 CFR 131.13 to address pollutants in Intake Water. The subsection could be titled “Consideration of Intake Pollutants”
- Incorporate regulatory language adopted in Procedure 5, subsections D and E, in 40 CFR 132 *Water Quality Guidance for the Great Lakes System*. Effectively allows netting-out of pollutants in intake waters in the establishment of technology-based and water quality-based effluent limitations.

Why?/Policy Support

- NPDES permittees should not be accountable for pollutants in intake waters (contributed by or originating from any point/non-point upstream source) when faced with “reasonable potential” or WQBEL or possible end-of-pipe effluent limitations.

Location

- WAC 173-201A-450 *Water Quality Offsets*

Regulatory Concept

- Ecology should exercise discretion afforded through 40 CFR 131.13 to create a pragmatic Water Quality Trading program to facilitate cost-efficient point/non-point source pollutant reduction transactions within a watershed.

Why?/Policy Support

- Support Association of Clean Water Administrators initiative (January 2014) to allow market-based approaches for pollutant reductions. Advocate to EPA for practical policy support and regulatory language to facilitate pollutant offsets/trading.

Location

- WAC 173-201A-510(4) Compliance Schedules

Regulatory Concept

- Consistent with 2010 state legislation add language to allow 20 year compliance schedule for facilities where there has been a TMDL to address a specific pollutant(s).
- Add language to provide 20 year compliance schedule for NPDES permittees in waterbodies that do not have a TMDL.

Why?/Policy Support

- Adopt regulation to implement Washington statute (2010)
- Extend long-term compliance schedule opportunities to other pollutant/waterbody/permittee situations where TMDL implementation has not been effective in achieving water quality criteria.

COMMENTS FROM WEYERHAEUSER ON ECOLOGY RULE-MAKING

Modify Water Quality Program Policy 1-11 *Assessment of Water Quality for the Clean Water Act Section 303(d) and 305(b) Integrated Report* to accomplish these outcomes regarding Section 303(d) Category 5 determinations:

- Eliminate Category 5 listings based on resident fish tissue concentrations back-calculated to the HHWQC. Information on elevated resident fish tissue concentration could support a Category 2 or Category 3 listing, and encourage additional investigation to determine whether the reference dose (non-carcinogens) or risk specific dose (carcinogens) is exceeded given fish species and fish consumption patterns in the waterbody segment. Fish tissue pollutant levels do not directly correlate to water column pollutant concentrations in the waterbody segment where collected. The implication is that subsequent 303(d) Category 5 listing determination and TMDL, wasteload and load allocations, and WQBEL's, will not match or have effect on fish tissue concentrations in the specific waterbody segment. Uncertainties with lack of specific BAFs.

COMMENTS FROM WEYERHAEUSER ON ECOLOGY RULE-MAKING

- WAC 173-201A-260(1) *Natural and irreversible human conditions* requires a determination of pollutant inputs into an aquatic system due to “natural climatic or landscape attributes,” in order to assess “natural conditions” and thus to define the applicable water quality criteria (examples might include: the contribution of eroded earth metals in a aquatic system, or air deposition of PCBs or mercury originating from outside Washington). The pollutant source contribution must be determined to properly define natural conditions and thus the applicable water quality criteria. Regulatory determinations on 303(d) consideration should be based on the applicable water quality criteria. Ecology’s practice of listing pollutant/waterbody segments as impaired (Category 5) and then conducting a TMDL to determine pollutant source contributions is backward.
- All 303(d) listing determinations will be based on EPA analytical methods approved in 40 CFR 136, per the *Water Quality Data Act* at RCW 90.48.570 through 90.48.590.

We are currently on a break for participants to get lunch. The phone will remain muted until the meeting reconvenes in about 15 minutes.

Thank you!

We are currently adjourned for a short break. The phone will remain muted until the meeting reconvenes in about 10 minutes.

Thank you!

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