

Clean Water Act tools and geographic jurisdiction are limited.

How does that affect the criteria discussion?

Probabilistic vs. Deterministic approach to criteria development

Most Constituents

Constituent-Specific Approaches

Body Weight • 60 kg • 70 kg • 80 kg	Life Span	Risk Level				Reference Dose Constituent specific constant – use EPA defaults?	Hazard Index Defined as (1)	Relative Source Contribution • Use (1) • Use 80/20 • Use EPA calculations for 17 constituents and (1) for everything else	
			50th	90th	95th				99th
		1 in 10K							
		1 in 100K							
1 in 1M									

Fish Consumption Rate • Types of fish • Target population • Other issues	Cancer Slope Factor Constituent specific constant–use EPA defaults?	Duration of Exposure	Bioconcentration Factor Use EPA default assumptions?
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KEY

Cancer	Non-Cancer Effects
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Arsenic • Use EPA default assumptions for equation • Develop state-specific standard accounting for natural occurrence and/or other state specific exposure information • Use SDWA MCL	Mercury • Use EPA default assumptions for equation • State specific standard (e.g., use body weight for pg women)	PCB • Use EPA default assumptions for equation • State specific standard (e.g., modified risk level)
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Human Health, Fishing, and Drinking Water Use

Tissue - Based

Currently **543 listings** for various chemicals

- Relies on Fish Tissue equivalent Concentration (FTEC)
- Provides a better picture of water concentrations over time.

Water Column - Based

Currently **26 listings** for DDD & DDE

- Very few listings based on NTR HHC criteria because:
- Very limited sampling and available data to assess
 - Rarely find detectable concentrations

Aquatic Life Use

Water Column - Based

Currently **76 listings**

NOT AFFECTED BY THIS RULE MAKING

Basis for Toxic Chemical Listings

Type of Toxic Chemical Listings

Subcategory 5(m) Listings

- Mercury example

Individual Permits

Discharger variances

- WAC 173-201A-420
- Extend timeframe up to 40 years?
- Requires future rule making

Compliance Schedules

- WAC 173-201A-510(4)
- Extend timeframe up to 20 years?

Intake Credits

- Allow “netting-out” of intake pollutants in a reasonable potential determination for intake and discharges to the same waterbody

Other Approaches

Waterbody-Wide Variances

- Apply to ‘stretches of waters’
- Montana nutrients example
- Requires future rule making

Multiple Discharger Variances

- Applies to multiple permittees
- Idaho South Fork C d’A example
- Requires future rule making

Direct to Implementation Approaches

- Delays TMDL pending toxics reduction efforts
- Monitoring
- Spokane Regional Toxics Task Force example

Change the Designated Use

- Requires a future rule making

- Discussed at December policy forum
 - Washington's WQ standards (and source-control (discharge) regulations) do not apply:
 - outside WA's geographic boundaries (e.g., beyond 3 nautical miles from ocean shore)
 - on tribal reservations, they have their own standards
 - on federal lands, in general.
 - Some in-state sources of contamination are not regulated by WA's Clean Water Act authority
 - E.g., atmospheric deposition

- Options are:
 - Only use CWA geographic and source control regulatory authority in criteria decisions
 - Try to account for sources outside CWA
 - Other?
- Implications for:
 - Relative source contribution
 - Fish consumption rates (types/sources of fish)
- Discussion

- Covered at May Policy Forum
 - Only for *non-carcinogens*.
 - Fraction of total exposure to a contaminant that comes from fish/shellfish or water (as opposed to other exposure routes).
 - Varies between 0 and 1 (or 0% and 100%)
 - 20% of a daily dose from fish/shellfish/ water, RSC = 0.2
 - RSC = 1 means 100% exposure from fish/shellfish or water.
 - EPA has published 17 recommended HHC with RSCs; range between 0.2 and 1.
 - A higher RSC results in a higher (*less-stringent*) HHC

- Options:
 - Use (1)
 - Use .2 (the 80/20 rule)
 - Use EPA calculations for 17 constituents and (1) for everything else
- Some initial considerations:
 - A lower RSC drives the standards lower because it requires you to ratchet down to leave room for other sources
 - If you assume only CWA regulated-scope, argues for an RSC of (1)
 - If you assume reaching to non-CWA sources, argues for an RSC lower than (1)
- Discussion