Implementation Tools

Presentation by: Ken Johnson, Weyerhaeuser

Delegates' Table - August 1, 2013

WHY ARE IMPLEMENTATION TOOLS NEEDED?

- Perspective of NPDES Permittees
  - Must have an absolute, incontestable pathway to operate in compliance with Clean Water Act programs
    - Enforcement under the CWA is formidable: civil and criminal, corporate and personal
    - Company Environmental Management Policies
    - Public/Shareholder expectations

- NPDES permittees must demonstrate that their discharges will not have "reasonable potential to cause or contribute to a violation of a state water quality standard." Yet, practical considerations generally prevent achievement of WQS at point-of-discharge.

- Implementation Tools bridge the "performance capability" with the literal demands of CWA law/regulation

- Necessary qualities of Implementation Tools:
  - Confident: codified in regulation, not guidance. Proven compliance with CWA
  - Predictable and durable across multiple permit cycles
  - Available: can be timely delivered by jurisdictional agency
  - Practical/Rational: off-ramps to avoid absurd outcomes

WHY ARE IMPLEMENTATION TOOLS NEEDED?

Problem Statement -- CWA Program Gridlock on the Horizon

- Ecology has not defined health protection goals for this HHWQC revision activity. Therefore, assume Oregon-like outcomes (HHWQC and implementation tools)
- Over time, ambient monitoring reveals that many, many water bodies do not achieve HHWQC.
- "Impaired waters" leads to 303(d) Category 5 listings, then a requirement for a TMDL
- Pinto Creek/9th Circuit decision says no new/modified NPDES permits until "compliance schedules" are in place with existing dischargers to accomplish compliance with the water quality criteria.
- State has inadequate resources to timely work through 303(d)/TMDL development, and then revisions to NPDES permits
- NPDES permittees are stressed with "reasonable potential" analyses or in achieving TMDL Waste Load Allocations. Permittees need customized compliance schedules or variances. Required to pursue advanced treatment technologies at tremendous cost.

WHY ARE IMPLEMENTATION TOOLS NEEDED?

- Ecology is overwhelmed with permit-specific compliance order/variance processing, and customized amendments of WAC 173-201A for each permittee.
- Any CWA "deficiencies" present ripe opportunities for citizen legal challenge. Inability to meet end-of-pipe effluent limits, or to satisfy compliance schedule/variance criteria, or to assess ambient water quality, or delays in producing TMDLs, or ?
- Adverse impact on state business climate – access to permits is delayed, unpredictable regulatory processes, uncertainty
- After 303(d) listing, Washington waters and commercial products can be stigmatized as "toxic/unhealthy"
- Tough issues repeat with the addition of new HHWQC, improving analytical methods, 5 year renewals on compliance schedules/variances, etc.

IMPLEMENTATION TOOLS AVAILABLE NOW

These allow adjustment to the numeric WQC or water body designated uses:

- Natural conditions (WAC 173-201A-260)
  - Partial successful legal challenge of regulatory concept in Oregon. Implication for Washington??
- "Human structural changes that cannot be effectively remedied" (WAC 173-201A-260)
  - Concept ever applied?? Possibly with dams, diversions, hydraulic modifications
- Site-Specific criteria (WAC 173-201A-430)
  - Concept ever applied?? Formidable regulatory process with science and regulatory criteria, requires amendment of WAC 173-201A, EPA approval, ESA consultation, Public involvement process
- Use Attainability Analysis (WAC 173-201A-440)
  - None completed, formidable regulatory process with science and regulatory criteria, requires amendment of WAC 173-201A, EPA approval, ESA consultation, Public involvement process
- Short-term Modifications (WAC 173-201A-410)
  - Routinely used for in-water projects
- "Human actions" deviations (WAC 173-201A-200 through -230, antidegradation in -300, elsewhere)
  - DO, pH, temperature, turbidity

IMPLEMENTATION TOOLS AVAILABLE NOW

These can affect terms/conditions of an NPDES Permit

- Mixing zones (WAC 173-201A-400)
  - Routinely used, but achievement of performance criteria must be demonstrated
- Variances (WAC 173-201A-420)
  - Available to individual facilities or "stretches of water," none granted, 5 year limit, demonstrate reasonable progress, requires amendment of WAC 173-201A, EPA approval, ESA consultation, public involvement process
- Water Quality Offsets (WAC 173-201A-450)
  - ?? , don't believe there is a proven regulatory process developed
- Compliance Schedules (WAC 173-201A-510)
  - Available to existing discharges only, multiple science and technology criteria, public involvement process, 5 year time limit to be extended to 20 years
- Pollutants in intake water (40 CFR 122.45)
  - Available for technology-based effluent limitations, but tough conditions must be demonstrated

EXPANDED IMPLEMENTATION TOOL IDEAS

Proposed Implementation Tool	How to Apply
Variances (WAC 173-201A-420)	▪ Practical hurdles with issuing a permit-specific variance discourages their use. Nevertheless, acknowledge (as EPA does) that permittee-specific variances can be based on any of the six factors listed at 40 CFR 131.10(g). ▪ Variance language says it can apply to "stretches of waters." If monitoring indicates that all/most Washington waters are impaired for a pollutant, consider them as "stretches of waters" and design a broad geographic variance. NPDES permittees discharging into those "stretches of waters" receive benefit of a generic variance if unable to demonstrate attainment of WQS. State reviews monitoring data in five years and considers renewal of the variance. ▪ Robust utilization of EPA's "Variances that Apply to Multiple Dischargers" policy ▪ Montana variance for nutrients was sanctioned by a legislative finding. EPA approved. Consider the opportunity for Washington's legislature to make similar pollutant-specific findings to support the implementation of -420. The legislation would address the threshold criteria in -420, including a reference to companion toxics reduction regulatory programs implemented by Washington (PBT, etc.).
Compliance schedules (WAC 173-201A-510(4)	▪ Limitation with widespread use of permit specific compliance schedule is recognized ▪ Ecology to extend opportunity for compliance schedule to 20 years per 2009 legislation ▪ The rule language suggests that a compliance schedule could apply to "discharges" (collectively); i.e., not limited to an individual "discharger." Create a generic compliance schedule which any individual discharger could have incorporated into their permit upon request. Interim effluent limits (narrative) are included and they demand appropriate BMPs, studies, etc.
Mixing Zone (WAC 173-201A-400(15))	▪ "The department may establish permit limits and measures of compliance for human health based criteria (based on lifetime exposure levels), independent of this section." ▪ The regulation language recognizes/invites the creation of an authorized mixing zone which differs from -400(6), (7), (8), (9), (10). Consider the customization of a mixing zone that avoids creating an adverse "reasonable potential" outcome.

EXPANDED IMPLEMENTATION TOOL IDEAS

Proposed Implementation Tool	How to Apply
Intake credit	▪ Add a section in WAC 173-201A and/or develop guidance for inclusion in the Permit Writers Manual, consistent with 40 CFR 122.45 and 40 CFR 131.13, which explicitly allows for a netting-out of intake pollutants in any "reasonable potential analysis". Accomplish the objective of ensuring that NPDES permittees are not responsible for intake pollutant load. Create flexibility to evaluate on a mass or concentration basis.
Natural conditions (WAC 173-201A-260)	▪ Liberalize the language/intended meaning of Natural Conditions to encompass natural earth metals and legacy pollutants.
Irreversible Human Conditions (WAC 173-201A-260)	▪ Add a section in WAC 173-201A and/or develop policy/guidance for inclusion in the Permit Writers Manual, consistent with 40 CFR 131.13, which simply recognizes legacy pollutants, natural earth metals, pollutants substantially contributed by off-shore air deposition, pollutant releases from dams, (and maybe other situations), are in the ambient environment due to "irreversible human conditions." ▪ Consider creating definitions of "legacy pollutant' and "off-shore air deposition pollutant" to buttress utilization of the concept in this section. ▪ Seek a legislative finding to support all of this, if necessary.
Water quality offset (WAC 173-201A-450)	▪ Create a regulatory process to enable use of concept. Scenario – A PCB-laden fish is discovered below the outfall of a POTW. The POTW discharges PCB above the WQC and is planning a growth demand expansion. Why wouldn't it be a good move to allow that discharger to pursue a voluntary alternative PCB-reduction activity in lieu of a multi-year entanglement with 303(d)/TMDL/Pinto Creek?

EXPANDED IMPLEMENTATION TOOL IDEAS

Proposed Implementation Tool	How to Apply
Adjust WQP 1-11 to stiffen the criteria which would support 303(d) Category 5 listing.	▪ Is it really a good public policy outcome to have the vast majority of state waters listed as not achieving toxic water standards for water column/tissue? Alternatively, if the listing criteria were revised such that current Category 5 listings were reassigned to *Category 2 – Segment is a Water of Concern*, or *Category 3 -Segment Lacks Sufficient Data,* work priorities become evident and the administrative burdens on Ecology and permittees are reduced (and this without material adverse effect on public health). • Eliminate Cat 5 listings based on fish tissue ▪ Consider seeking a legislative finding to support this action.
Site Specific Criteria (WAC 173-201A-430)	▪ We assume Ecology is considering the merits of site-specific standards. ▪ Also, we assume Ecology is considering the efficacy of Use Attainability Analysis as a tool to address designated use opportunities.
Narrative Effluent Limits	▪ 40 CFR 131.11 explicitly allows for narrative toxic pollutant WQC if "the state provides information identifying the method by which the state intends to regulate point source discharges of toxic pollutants on water quality limited segments based on such narrative criteria. ▪ Rationale is that insufficient information is available to establish WLA and LA in a TMDL. ▪ Assert CWA credit for other regulatory programs which (arguably) are more effective in reducing releases of those pollutants into ambient waters. Best example may be WAC 173-333 PBT regulation and mercury. ▪ Advantage of narrative is no numeric effluent limits. As such, reasonable potential determination, compliance measurement, WLA, etc., issues are not created until sufficient information on source contributions, source reduction opportunities, etc., is developed

SOLUTIONS ARE BEING CREATED

Section 303(d) "Subcategory 5m"

- Recognition that many waterbodies exceed methyl mercury WQC due to airborne deposition
- Defers development of TMDLs
- Encourages early state action to implement mercury reduction programs as most effective approach

Spokane River Regional Toxics Task Force (current)

- Category 5 listing for PCB and dioxins, but TMDL delayed for five years
- Monitoring program to determine baseline and source contributions
- Examination on alternative toxic reduction plans, BMPs

Delaware River Basin TMDL for PCB's (2003)

- Scale for TMDL is entire estuary; three states involved
- Approach is monitoring to understand source contributions (especially air deposition) and modeling
- Phased approach; adaptive management
- NPDES permittees get non-numeric effluent limits which focus on monitoring and development/implementation of PCB minimization plan

SOLUTIONS ARE BEING CREATED

Idaho administrative variance on South Fork Coeur d'Alene River (current)

- Available for three NPDES permittees, three pollutants
- EPA issued in 2004; Idaho in 2009

EPA "Discharger-specific Variances on a Broader Scale: Developing Credible Rationales for Variances that Apply to Multiple Dischargers," EPA-820-F-13-012, March 2013

State of Montana legislative variance for nutrient WQC (2011)

San Francisco Bay Basin Plan for mercury and PCBs (2010)

- Monitor, source control, BMPs, limits based on current performance, risk management/communication
- 20 year time horizon, adaptive management

DISCUSSION QUESTIONS

1. Does Ecology acknowledge the "Potential Gridlock" scenario?

2. Ecology should anticipate the scope of the need and ensure solutions are available - Significant Legislative Rule analysis
   - Consider implications to the WQP with more stringent HHWQC
   - Favor "mass" solutions – programmatic or watershed or statewide; not permit specific
   - Does the agency have resources to apply Implementation Tools when needed?
   - Consider a planning horizon of 20 years
   - Get it right the first time; WAC 173-201A revisions are 2-5 year duration events

3. There seems to be recognition that PCB's, arsenic, methyl mercury WQC will need special solutions.
   - What specific approaches is Ecology considering and when might we see language?

4. Is the state of Washington planning to exercise authority granted through 40 CFR 131
   - "States are responsible for reviewing, establishing, and revising water quality standards." 40 CFR 131.4
   - "States may, at their discretion, include in their State standards, policies generally affecting their application and implementation, such as mixing zones, low flows, and variances. Such policies are subject to EPA review and approval." 40 CFR 131.13
   - EPA is to review and approve/disapprove, based on regulatory criteria
   - Regulation v. guidance

DISCUSSION QUESTIONS

5. Gain commitment on legal sufficiency
    - Ensure that EPA will approve Implementation Tool's the state advances
    - Concurrent adoption of revised HHWQC and expanded/confident Implementation Tool's

6. Ecology seems committed to only variances, compliance schedules and intake credit. But existing WAC 173-201A recognizes other viable Implementation Tools.
    - Why wouldn't those concepts be adequately developed for future use?
    - "If there is a will, there is a way"

7. What is Ecology's plan to gain Clean Water Act credit for non-CWA toxics reduction programs?