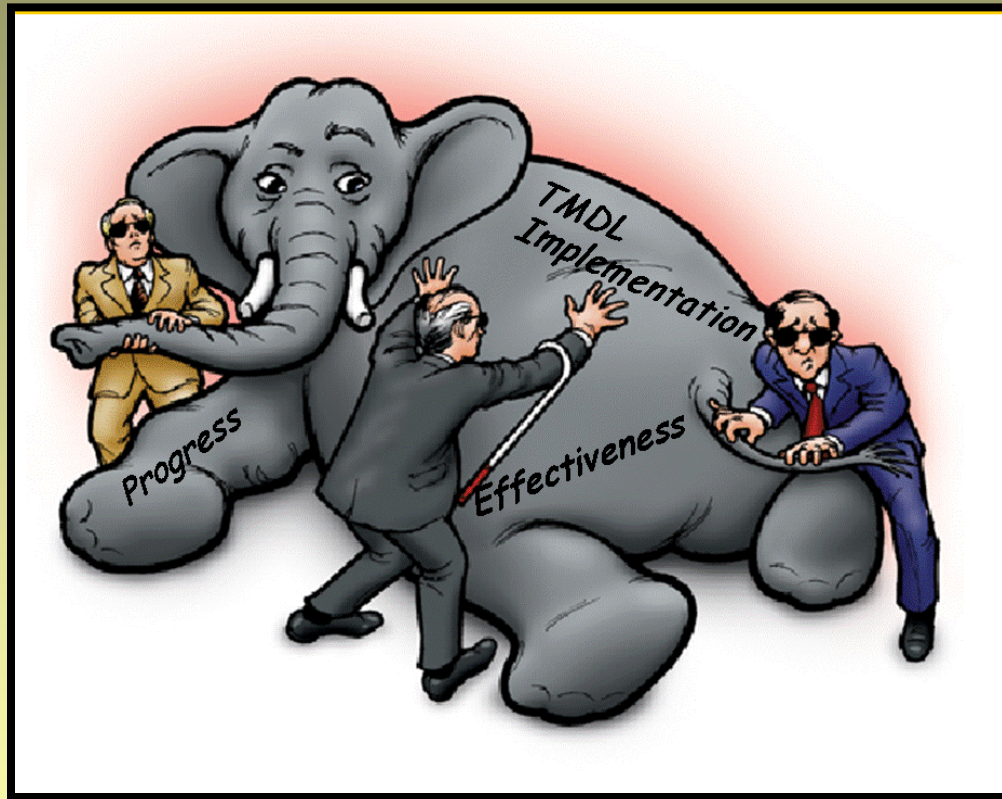


TMDL Results Analysis at EPA: Fixing the Blind Spots



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What are TMDL program 'Blind Spots' and how can they be fixed?

- Incremental progress toward meeting WQS
- TMDL implementation rates and patterns
- Driving factors for TMDL program effectiveness

Blind Spot 1:

Incremental progress toward meeting WQS

Why a blind spot?

- “All-or-none” dominates EPA tracking measures and partial recoveries go undocumented

What's the risk?

- Genuine progress under CWA under-represented
- Possibly the most improvements are unreported
- Seemingly 'less effective' programs are more difficult to defend for funding

Blind Spot 1:

Incremental progress toward meeting WQS

What are we doing about it?

- Regional forums with states opening the dialogue on incremental progress
- Watershed measure SP-12 enables reporting partial improvements backed by data (“...in one or more water quality parameters or related indicators associated with the impairments”)
- Framework document on sound methods for defensible reporting of incremental improvements
- The topic is on the table for next strategic plan

Blind Spot 2:

TMDL implementation rates and patterns

Why a blind spot?

- Little study of implementation has been done
- Census of all implementation costly, infeasible

What's the risk?

- Unknown if TMDLs are 'on the shelf' or working
- OIG criticism: not knowing TMDL results
- Missing causal link between TMDL and recovery
- Again, difficult to defend CWA program funding when results are undocumented

Blind Spot 2:

TMDL implementation rates and patterns

What are we doing about it?

- **Supporting states on TMDL implementation tracking needs, designs**
- **Analyzing statistical samples of implementation to report on Region 5 implementation patterns**
- **Funding a study of implementation in WV and OH**
- **Planning a synthesis paper on Implementation findings**

Blind Spot 3:

Driving factors of TMDL program effectiveness

Why a blind spot?

- Cause-effect is difficult to establish
- Effectiveness monitoring has been limited

What's the risk?

- Difficult to improve/optimize effectiveness if drivers are not understood
- The wrong effectiveness yardstick can favor the wrong drivers

Blind Spot 3:

Driving factors of TMDL program effectiveness

What are we doing about it?

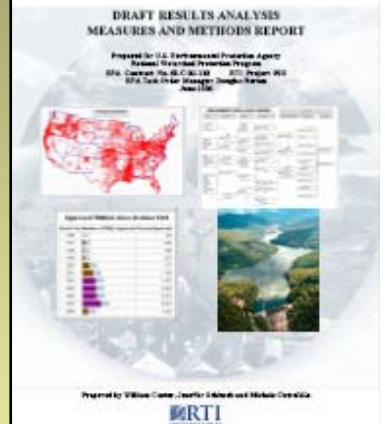
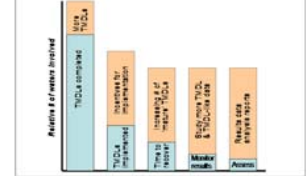
- Multiple studies of driving factors (VATech, OW/OPEI, Kent State)
- Applying what's known now -- recovery potential indicators and statewide prioritizing techniques
- Held national dialogue 3/07 on effectiveness monitoring
- Funding an analysis of statewide effectiveness monitoring strategies

Comments/questions on TMDL program results analysis:

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White Paper TMDL Program Results Analysis: Programmatic Context and Analytical Approach

Figure 2: Why TMDL results information is limited, and what can be done (paper focused) to improve the amount and quality of results data.



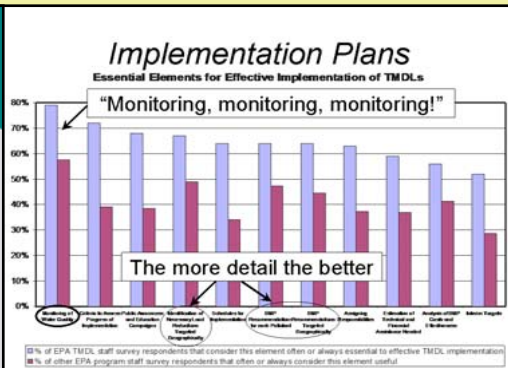
TMDL Success Stories

Restoration and Recovery Literature Database
Draft Beta-Test version of March 2005
Optimized for screen resolution: 1280x1024

This searchable database is an annotated bibliography of scientific literature compiled by the EPA Office of Water to help water quality managers improve the technical basis for watershed restoration efforts. Its main themes include Recovery Potential, Restoration Effectiveness, Critical Areas/Processes, Cumulative Impacts, and Invasive Species.

Database Last Updated: 12/23/2005

Instructions
 Open Citations Database
 Edit/Add Citations
 Exit Database



Implementation: a Major Information Gap

- A Proposed Statistical Approach
 - An efficient alternative to full census of TMDL implementation rates and patterns
 - Develop a statistically sound sample of completed TMDLs for assessing implementation
 - Estimate the rates at which different types of TMDLs (e.g. PS/NPS/mixed; diff. time periods; regions) are being implemented, to reveal how we might improve TMDL program effectiveness

Virginia Tech Study



www.tmdl.bse.vt.edu/research/