Balancing State Resources for TMDL Development: Pace, Rigor & Expectations

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Three Stages of 303(d)

- Listing Identify Problems every 2 years
- Development Analyze Problem w/i 8-13 years
- Implementation Correct Problem w/i years or decades



Resource Balance Reflects Strategy & Priorities

- There are two strategies for TMDL development
 - Pace Development Stage Emphasis
 - Rigor Implementation Stage Emphasis
- From roughly 1995-2005, Court Decrees dictated that <u>Pace</u> be the strategy for EPA and, by extension, the States



Pace & Rigor are Polar Opposites

Kansas TMDL Program	2000-2006 (Court Decree)	2007-2008 (Post- Decree)
Pace (# of waters w/ TMDL annually)	350 / yr	120 / yr
Rigor (Average Length of TMDL)	11 pages	31 pages

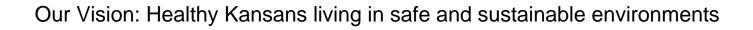
The Key to Effective Implementation is Strong Linkage

- TMDLs unveil cause & effect linkages
 - Sources Loadings Ambient Quality -Designated Uses
 - Pace-Driven: Simple analysis (Load Duration Curves, STEPL, Model defaults)
 - Rigor-Driven: Deeper analysis (SWAT, calibration & verification data, UAA)



Considerations in Assigning Priority for Implementation

- Severity of Pollutant by Regulation
- Uses to be Made of Water by Regulation
 - Type of Use (Rec vs ALU vs WS)
 - Extent of Use (Beach; T&E; Backup Supply)
- Resource Availability \$, Time, Personnel
- Program Applicability NPDES, MS4, Farm Bill
- Local Mechanism Active Watershed Groups
- Hydrologic Conditions during Impairment





EPA's Expectations (via 2006 – 2011 Strategic Plan)

- SP 10: By 2012, <u>Attain</u> WQS for all pollutants and impairments in 2250 water bodies
- SP 12: By 2012, <u>Improve</u> water quality in 250 impaired (HUC 12) watersheds
- Thus, the Expectation is <u>Implementation</u>



How do TMDLs fit in?

- EPA's 6 Paths to Attainment
 - Restoration via Implementation*
 - New Data indicate Attainment*
 - Original Basis for Listing Incorrect
 - New Assessment Methodology*
 - Water No Longer Considered Threatened
 - New Water Quality Standards*

* TMDL Analysis Will Support This Path



TMDL Implementation Dictates Development Needs

- Providing for Point Sources WLA
- Defining Nutrients/Sediment Endpoints
- WQ Trading Opportunities
- Local / Regional Importance of Water Body
- Cause and Effect Linkages
 - Scale
 - Complexity
 - Uncertainty

