Impaired Waters
the 303(d) Listing Process and TMDLs

Bioassessments as narrative water quality standards
Clean Water Act Framework

Water Quality Standards

Monitor/Assess WQS Attainment

List Impaired Waters

TMDL Minimum Elements
- Identify Watershed
- Identify/locate pollutant sources
- Estimate existing pollutant loading
- Determine assimilative capacity

Integrated Watershed Plan

Point Source NPDES Permits

Control Nonpoint Sources

Continuing Planning Process
Water Quality Standards

- Criteria designed to protect Uses
  - Numeric
    - magnitude
    - duration
    - frequency
  - Narrative
- Uses
  - Aquatic life
  - Primary contact recreation
- Antidegradation
Clean Water Act Framework

- Water Quality Standards
- Monitor/Assess WQS Attainment
- List 303(d) Impaired Waters
  - TMDL Minimum Elements
    - Identify Watershed
    - Identify/locate pollutant sources
    - Estimate existing pollutant loading
    - Determine assimilative capacity

- Point Source
  - NPDES Permits
- Control
  - Nonpoint Sources

Integrated Watershed Plan

Continuing Planning Process
Integrated Report

- Consists of components of sections 303(d), 305(b) and 314 reporting
- Multi-category listing of all assessed waters
- Category 5 is impaired waters needing a TMDL (the 303(d) list)
- Category 4 is impaired waters not needing a TMDL
- Categories 1 – 3 unimpaired waters
Monitoring Data - Bioassessment

- state CWA agency for 303(d) Listing
  - Iowa Department of Natural Resources
  - Kansas Department of Health and Environment
  - Missouri Department of Natural Resources
  - Nebraska Department of Environmental Quality
- Data collected under Quality Assurance Project Plan
- Data meets state methodology
Clean Water Act Framework

- Water Quality Standards
  - Monitor/Assess WQS Attainment
    - List Impaired Waters
      - TMDL Minimum Elements
        - Identify Watershed
        - Identify/locate pollutant sources
        - Estimate existing pollutant loading
        - Determine assimilative capacity

- Point Source NPDES Permits
- Control Nonpoint Sources

Integrated Watershed Plan
Elements of a TMDL

- The impairment
- Loading capacity
- Sources identification
- Allocation
- Margin of safety (MOS)
- Seasonal variations
- Reasonable assurance
- Public involvement
After EPA Approves TMDLs...

- State watershed plans implement TMDLs
  - Demonstrates TMDL likely to be implemented
  - Eligible for sec. 319 funding
- Permits may be issued based on default allocations; within some specified time of TMDL approval
- Changes to allocations of individual sources within default LA or WLA must be documented in watershed plan
Clean Water Act Framework

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Point Source
NPDES Permits

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Continuing Planning Process
Questions?

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