# The Total Maximum Daily Load (TMDL) Program in Illinois

Watershed Management Section

Bureau of Water

Illinois Environmental Protection Agency

# Illinois EPA TMDL Program

- Illinois Integrated Water Quality Report
- What is a TMDL
- The TMDL Process

# Integrated Water Quality Report Section 305(b) & 303 (d) List

- Federal Water Pollution Control Act of 1972, Clean Water Act of 1977 and subsequent amendments.
- Prepare and submit a report which shall include a description of the water quality of all waters in the State.
- Illinois publishes this report every two years

# Designated Uses and WQ Standards

- Designated Uses include – Aquatic Life, Primary Contact, Aesthetic Quality, Public Water Supply, Fish Consumption
- Water Quality Standards
  - Numeric values (0.05 mg/L phosphorus)
  - Narrative statements
    (water shall be free of excessive algae)
  - Standards determined by IPCB
- Not meeting designated use= impaired water/ 303(d) List (except nonpollutants)

# Section 303(d) List Requires States to…..

- Identify waters which are not meeting applicable water quality standards/designated uses
- Establish priority ranking for those waters taking into account the severity of pollution and the uses to be made of such waters
- Target waters for the development of TMDLs

# Watersheds

- Waterbodies are grouped into watersheds
  - Based on drainage patterns and topography
  - A watershed is all of the area of a landscape that drains into a particular waterbody, such as a stream or a lake.
- 10-Digit Hydrologic Unit Code watersheds used for grouping (NRCS)

# 303(d) List Prioritization

- Priority based on:
  - Public Water Supply Use
  - Total number of impairments per watershed
- Watersheds ranked into high, medium, and low priority

# 303(d) List

- Draft "*Illinois Integrated Water Quality Report 305 (b) and 303(d) List*" available for public review
- Hearing held at the Agency
- Responsiveness Summary prepared
- 303(d) List must be approved by USEPA

# ***Illinois Integrated Water Quality Report***

- Fulfills requirement of Sections 305(b) and 303(d) of the Federal Clean Water Act
- Serves as the primary assessment of State W.Q.—rivers, streams, lakes
- 305(b) Report and 303(d) List is the basis for TMDL development

# What does it mean to be on the 303(d) List?

- Development of TMDLs/Load Reduction Strategy (LRS), and Implementation Plans--strategy to meet water quality standards
- High priority watersheds are scheduled for early TMDL development
- All waters scheduled within 8 to 15 year timeframe
- No additional loadings are to be permitted until the waterbody is delisted

# What is a TMDL?

- "TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards and support designated uses."

# TMDL Calculation

**TMDL = WLA + LA + MOS [+ RC]**

- Wasteload allocation--point sources/ NPDES
- Load allocation--nonpoint sources

  - Stormwater runoff/Erosion
- Margin of safety
- Optional reserve capacity for point sources

# TMDL PROCESS- IL

- Consultants are hired (RFP process) to develop most TMDLs
- TMDLs is being developed in three stages
- Currently, Illinois EPA only develops TMDL allocations for parameters with numeric water quality standards, and Load Reduction Strategies (LRS) are included in the study to address additional pollutants in the watershed that do not have water quality standards, namely nutrients and sediments in streams and lakes.
- Public meetings are held in the watersheds throughout the Draft process to inform stakeholders on the TMDL developments.

# Stage 1 TMDL Development

- Watershed Characterization, Data Analysis, Model Selection
  - Description of the watershed
  - Collection/analysis of available data
  - ID methodologies, procedures and models to be used to determine load reductions/allocations
  - Identifies what additional data is needed

# Watershed Characterization

- Watershed/subwatershed delineations
- Land use data
- Soils data
- Water body description
- Precipitation
- Flow
- Water quality data
- Point source inventory
- Activities in watershed-mining, agriculture

# Additional Information Needed (Stage One)

- Water quality data
- Possible pollutant sources
- Studies, reports, documents
- Projects that have improved water quality
- Potential stakeholders

# Stage 2 TMDL Development

- **Stage 2: <u>Data Collection</u>**
  - Optional Stage
    - Evaluate Stage 1 data and attempt to collect additional data as needed.
    - The Agency or a contractor will collect data

# Stage 3 TMDL Development

- **Stage 3: Model Calibration, Calculate Loads, Implementation Plan**
  - Develop TMDLs with data from Stages 1 (& 2)
  - Calculate Loads for each pollutant
  - Load allocations (WLA and LA), determine pollutant reduction needs.
  - Develop an implementation plan
- Once the TMDL report is complete, it is sent to USEPA for approval

# Implementation Plan

- Not required by USEPA
- Recommendations and suggestions for restoring water quality so that designated uses and water quality standards are attained for an impaired water body.
- Watershed planning committees are encouraged to participate

# What's Next?

- Comments and suggestions received during the comment period will be reviewed and considered
  - There will be a 30 day comment period and Responsiveness Summary will be completed

- The Stage One and Stage Three Draft TMDL Reports along with the Responsiveness Summary will be posted online

# For more information on Illinois TMDLs

- Illinois EPA TMDL web site: www.epa.state.il.us/tmdl
- Email: Abel.Haile@Illinois.gov
- 1021 N. Grand Ave East (#15)
  P.O. Box 19276
  Springfield, IL 62794-9276

- Phone: 217/782-3362