PERMITTING AND STANDARDS
STAFF
COORDINATION IN THE
DEVELOPMENT OF
IMPLEMENTATION TOOLS

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Phosphorus
Implementation Coordinator
Wisconsin is a state rich with surface water, including lakes, streams, wetlands, aquifers and springs. Wisconsin has thousands of streams stretching over 84,000 miles, more than one million acres of inland lakes, 1,000 miles of Great Lakes shoreline and more than five million wetland acres.
NPDES / WPDES

• DNR = Wisconsin Delegated Entity
• 641 Municipal Facilities
  – (529 w/surface water outfalls)
• 322 Industrial Facilities
  – (209 w/surface water outfalls)
• Various General Permits
• Wastewater Program = ~80 Staff
  – 5 Regions
  – Central Permits and Industrial Sections
Statewide Phosphorus Criteria

- **Rivers**: 100 µg/L
- **Streams**: 75 µg/L
- **Reservoirs**:
  - Not Stratified = 40 µg/L
  - Stratified = 30 µg/L
- **Inland Lakes**: Ranges from 15-30 µg/L
- **Great Lakes**:
  - Lake Michigan = 7 µg/L
  - Lake Superior = 5 µg/L

- **Growing Season Median Value** (6 samples min)
Standards = Limits

- 529 Municipal Facilities
- 320 Municipal Facilities @ 0.075 or 0.1 mg/L
- 209 Industrial Facilities
- 125 Industrial Facilities @ 0.075 or 0.1 mg/L

Roughly 60% of dischargers receive a WQBEL set equal to the criterion
Limits = Expense

- Median cost to meet stringent P limit = \$4 million net present value
- Statewide = \$6 Billion
Expense = Options Required

- Compliance Schedule
- Adaptive Management
- Water Quality Trading
- Variance (multiple discharger)
  - County Payment Option
  - Self Directed Project Option
- Variance (individual)
  - Type II HAC
  - Type III HAC
• All permittees have questions
• All staff have a role in implementation
History - WQT

- In 1997, three water quality pilot areas were created by statute.
- Spurred the development of quantification methods and set groundwork for current trading program.
- Statutes again updated in 2010 and 2014
- Stakeholder groups convened for 2013 WQT Guidance
Wastewater Staff Roles

• WQBEL Calculator
  – Derives limits from criteria
  – Determines reasonable potential
  – Downstream protection

• Permit Drafter
  – Coordinates all aspects of the permit
  – Understands compliance schedules
  – Integrate option-specific language
  – Works with permittee to address concerns
Wastewater Staff Roles

• Compliance Staff / Basin Engineer
  – Reviews schedule reporting
    • Phosphorus compliance schedule reporting:
      – Operation/needs evaluation
      – Optimization plan
      – Preliminary compliance alternatives plan
      – Final compliance alternatives plan
    • Variance reporting during permit term
  – Facility-specific expertise
    • Most likely to foster positive relationship
  – Role in planning process
Wastewater Staff Roles

- **Statewide Variance Coordinator**
  - Leads variance functional group
  - Drafts difficult/complex permits

- **Statewide Phosphorus Coordinator**
  - Leads AM/WQT functional group
  - Alternative phosphorus compliance

- **Both**:
  - Interface with EPA, draft guidance and permit language, review for statewide consistency
All Wastewater Staff:

• Provide facility-specific information in variance package submittal
• Meet or call with permittee during the planning process
• Ask Questions! – involve other staff as needed
Functional Groups

- AM/WQT Coordinators
- Compliance Staff
- General Permits
- Groundwater
- Permit Drafters
- Pretreatment
- WQBEL Calculators
- Variance Team
AM/WQT Functional Group

• Regional AM/WQT Coordinators (6)
  – Reviews and approves AM/WQT Plans
  – Meets with permittees during planning process
  – Various backgrounds and positions within the department
  – ~20% of time devoted to AM/WQT duties (biweekly group calls)

• Other experts as needed (4) (Permit Drafter, TMDL, MS4, Management)
Water Quality Trading

18 Implemented (In Permit)
25 Approved
12 Under Development

GDP:
- 10,235 lbs/yr Credit
- 18,502 lbs/yr Reduction

Average trade ratio 1.8:1
Statewide Coordinators:

Runoff Management Standards

NPDES

Standards
Statewide Coordinators

• Runoff Management – NPS Coordinator
  – Agricultural / Soil Health Expert
  – CAFO Background
  – 9 Key Element Plans

• Water Evaluation (Standards)
  – Water Quality Modeler
  – TMDL Developer
  – MS4 and Consulting Background
Using SnapPlus:

- Define TMDL baseline as an edge-of-field number based on surveys/data
- Apply reach-specific % reduction
- Agricultural load allocation as an edge of field number
- Recent analyses indicate a systems-based approach can go lower.
  - Cover crops, tillage, buffer, nutrient mgt
- Do we have field TBELs and WQBELs?
Inter-Program

• Water Quality Bureau
  – Water Evaluation (Standards)
  – Monitoring
  – Lakes and Rivers
  – Water Resources Field Office Staff

• Key Interactions:
  – TMDL Development
  – Standards Development
  – Local Issues and Efforts
Coordination with External Entities

- University of Wisconsin
  - Pollutant Modeling to facilitate WQT
- County Conservation Departments
  - May act as broker for nonpoint source projects
- NGOs
  - May broker WQT, may provide input on policy, further science, or even object
- Other Agencies Federal & State (USGS, NRCS, DATCP, EPA)
Anecdotes from Wisconsin

• Variances: Sensitive to economics but keeps phosphorus on the table
  – HAC provisions necessitate P removal for nearly all facilities

• Mass Hysteria: If it doesn’t kill you it makes you stronger
  – “State is only asking for CPR and county payment…”

• Stringent P limits help bring awareness to NPS issue
• For more information:
  • https://dnr.wi.gov/topic/surfaceWater/waterQualityTrading.html
  • https://dnr.wi.gov/topic/SurfaceWater/adaptiveManagement.html
  • https://dnr.wi.gov/topic/surfaceWater/phosphorus/

• Wisconsin Nutrient Reduction Strategy

• DNRphosphorus@wisconsin.gov

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