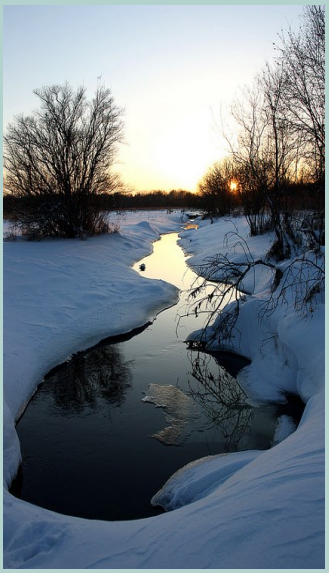
Multi-discharger Phosphorus Variance

Act 378 was enacted in April 2014 which required DOA in consultation with DNR to determine if complying with phosphorus causes Wisconsin substantial and widespread hardship. If so, DNR will work with EPA to implement a phosphorus MDV to help point sources comply with phosphorus in a more economically viable way. The legal requirements of the MDV determination as well as general implementation procedures can be found in s. 283.16, Wis. Stat.

What is a multi-discharger variance?



A MULTIDISCHARGE VARIANCE (MDV) IS...

- A time extension for point sources facing restrictive phosphorus limits to comply with limits
- An opportunity for point sources to make meaningful strides towards water quality improvements in a more economically effective manner
- Implemented in a WPDES permit with a maximum 20-year project life

A MDV IS NOT...

- An individual variance pursuant to s. 283.15
- A final compliance option for point sources
- Water quality trading or adaptive management
- Permanent

What the MDV requires:

A point source is responsible for evaluating its compliance options such as facility upgrades, water quality trading, adaptive management, and, potentially, a phosphorus MDV. If a facility meets the eligibility requirements and requests the MDV, the WPDES permit will, upon approval, be modified or reissued with the following requirements:

1. Reductions of effluent phosphorus: Point sources are required to reduce their phosphorus load each permit term. Act 378 specifies default limitations, but these limits may be adjusted if they are not achievable:
   - Permit term 1: 0.8 mg/L
   - Permit term 2: 0.6 mg/L
   - Permit term 3: 0.5 mg/L
   - Permit term 4: Phosphorus WQBEL

2. Implement a watershed project: Point sources must implement one of the following watershed project options to help reduce nonpoint source of phosphorus pollution:

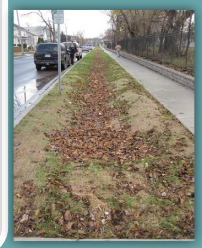
- Enter into an agreement with DNR to implement a project to offset the amount of phosphorus their discharge exceeds the target value.
- Enter into a DNR-approved agreement with a third party to implement a project to offset the amount of phosphorus their discharge exceeds the target value.
- Make payments to county LCDs of $50 per pound times the number of pounds of phosphorus their discharge exceeds the target value.

The approval determination must be re-evaluated each permit reissuance of the MDV project timeline.

ELIGIBLE POINT SOURCES:

A point source must meet all of the following to request a MDV:

- Must be an **existing facility**
- Requires **a major facility upgrade** to comply with their phosphorus WQBELs
- Meets the primary and secondary **substantial** indicators
- Agrees to **reduce its phosphorus load** during the variance timeline
- Implements a **watershed project** to help curb nonpoint source phosphorus pollution



Urban BMPs can be used as part of a watershed project for a MDV.

ACRONYMS

DNR: Wisconsin Department of Natural Resources

DOA: Wisconsin Department of Administration

EIA: Economic Impact Analysis

LCD: Land and Water Conservation Department

MDV: Multi-Discharger Variance

REMI: Regional Economic Models, Inc.

WPDES: Wisconsin Pollutant Discharge Elimination System

WQBEL: Water quality-based effluent limit

SEEKING EXPERTISE

Three consulting firms were retained to help provide information and analysis in support of the preliminary determination: ARCADIS, Sycamore Advisors, and University of Massachusetts Donahue Institute. The methods, analyses and results provided by these consultants are available in the "EIA Report" and "EIA Addendum". See "more information" section for details.

A grass waterways is an example of an agricultural BMP that can be used as part of a watershed project.

METHODS

Compliance costs:

Cost curves were developed by ARCADIS to estimate compliance costs based on the restrictiveness of the phosphorus WQBEL, and the permitted flow of the facility. Utilizing cost curves is a standard and straightforward way of estimating the compliance costs for various facilities when site-specific analyses are unavailable or infeasible.

THE ESTIMATED TOTAL CAPITAL INVESTMENT FOR POINT SOURCES:
$7 BILLION (including interest)

Widespread Impacts:

The Regional Economic Models, Inc. (REMI) model was used to demonstrate the widespread economic impacts of phosphorus compliance costs. The REMI model is a dynamic economic forecasting software application that is used by many consulting firms, educational institutes, and government agencies for a number of applications including determining the economic impacts of highway projects and projecting the economic impacts of environmental policies.

ESTIMATED WIDESPREAD IMPACTS INCLUDE:

Jobs lost:	3,361
Gross State Product lost:	$478.9 MILLION
Reduction of wages:	$184.1 MILLION
Fewer Wisconsin Residences:	7,545

Determining Substantial Impacts

A two-step process was used to determine if phosphorus standards compliance has a substantial impact to point source discharges. The purpose of the first step, commonly referred to as the "primary screener", is to determine the phosphorus standards' economic impact on dischargers in each category. The second step, referred to as the "secondary screener", gauges the wider community's socioeconomic well-being and ability to adapt to changes that accompany implementation of phosphorus standards. In order to meet the "substantial determination" test, a facility must meet the primary screener and one or more secondary screeners.

Primary Screeners:

- Median household income (municipal WWTFs)
- Estimated compliance costs within the discharge category (industries)
- Estimated compliance costs within the county (industries)

Secondary Screeners:

- Median household income (industries only)
- Transfer receipts as a share of total personal income
- Jobs per square mile
- Population change
- Net earnings by place of residence
- Job growth
- Capital costs as a share of total wages

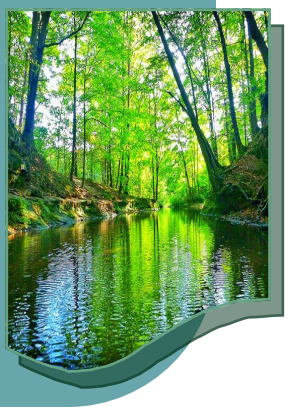
NEXT STEPS

Several actions must be taken before the phosphorus MDV can be implemented for an individual point source:

1. DOA, in consultation with DNR, must make a final determination that phosphorus causes a "substantial and widespread adverse social and economic impact."
2. If so, DNR will utilize the final determination to create a variance package for EPA review and approval.
3. EPA must review and approve the MDV package.
4. Point sources can evaluate the MDV as part of their compliance options and request the MDV, if appropriate.
5. DNR must approve the request and modify, reissue, or revoke and reissue the WPDES permit with MDV requirements built in. Like other permitting decisions, public input will be solicited during this permitting process.

FOR MORE INFORMATION

- Visit the DNR website: http://dnr.wi.gov/, search "phosphorus"
- Visit the DOA website: http://doa.wi.gov/, search "phosphorus"
- Send comments on the preliminary determination by June 11th to phosphorus@wisconsin.gov



WISCONSIN DEPT. OF NATURAL RESOURCES

Fact sheet for information only
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