

Implementation of the Phosphorus Multi-Discharger Variance



Protecting Wisconsin's Waters

- Standards promulgated in 2010
- 60% of point source discharges believed to need limits equal to P criteria
- Most facilities are currently in the planning phase
- Several compliance options exist including trading, adaptive management

P Criteria <small>NR 102.06</small>			
Rivers: 100 ug/L	Streams: 75 ug/L	Reservoirs: 30-40 ug/L	Lakes: 15-40 ug/L

What is a Multi-Discharger Variance?

- Not a statewide variance
- Covers multiple permit holders
- Same pollutant, same challenge, same/similar economics
- Historically used for mercury and chloride
- Does not replace individual variances

Potentially Eligible Categories

- Municipal WWTFs and Lagoons
- Aquaculture
- Cheese
- Food processors
- Paper
- NCCW, NCCW/COW
- Other Industrial Dischargers

Ineligible

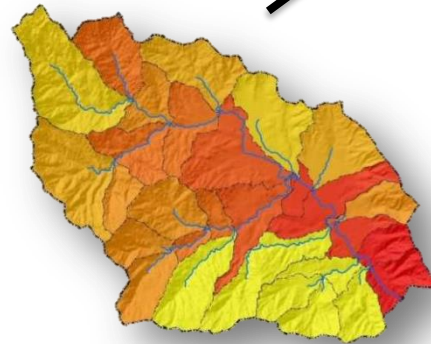
- Power

Basics of the Phosphorus MDV

- Approved February 6, 2017
- Not Everyone is Eligible – Not Statewide
 - Site-specific applications must be completed
- Watershed Projects Required
- Optimization and Interim Limits Required
- Effective until February 5, 2027
 - MDV permit terms and conditions cannot extend beyond the MDV expiration date
 - Several options to extend timeline

Benefits of the MDV

- Streamlined variance administrative process
- Clear implementation requirements
 - Aggregated financial resources for NPS projects
- Provides time to mature working relationships



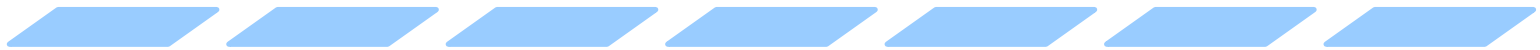
Potential Downsides of Variances

- Financial investments through variances are investments in time, not infrastructure
- Temporary

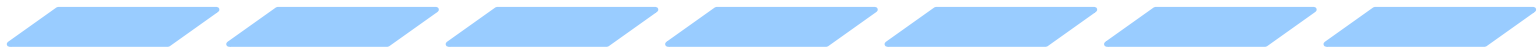


Presentation Logistics

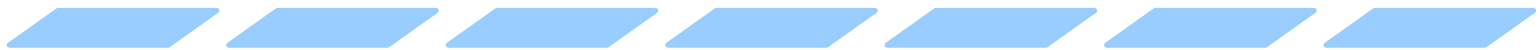
Who is eligible?



How does the county payment option work?



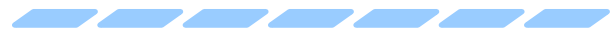
What to expect moving forward



Determining Point Source Eligibility



Who is eligible?



How does the county payment option work?



What to expect moving forward



Permit with Phosphorus Limits

Required Action	Due Date
<p>Preliminary Compliance Alternatives Plan: The permittee shall submit a preliminary compliance alternatives plan to the Department.</p> <p>If the plan concludes upgrading of the permittee’s wastewater treatment facility is necessary to achieve final phosphorus WQBELs, the submittal shall include a preliminary engineering design report.</p> <p>If the plan concludes Adaptive Management will be used, the submittal shall include a completed Watershed Adaptive Management Request Form 3200-139 without the Adaptive Management Plan.</p> <p>If water quality trading will be undertaken, the plan must state that trading will be pursued.</p>	<p>Permit Effective Date + 3 Years</p>
<p>Final Compliance Alternatives Plan: The permittee shall submit a final compliance alternatives plan to the Department.</p> <p>If the plan concludes upgrading of the permittee’s wastewater treatment is necessary to meet final phosphorus WQBELs, the submittal shall include a final engineering design report addressing the treatment plant upgrades, and a facility plan if required pursuant to ch. NR 110, Wis. Adm. Code.</p> <p>If the plan concludes Adaptive Management will be implemented, the submittal shall include a completed Watershed Adaptive Management Request Form 3200-139 and an engineering report addressing any treatment system upgrades necessary to meet interim limits pursuant to s. NR 217.18, Wis. Adm. Code.</p> <p>If the plan concludes water quality trading will be used, the submittal shall identify potential trading partners.</p> <p>Note: See ‘Alternative Approaches to Phosphorus WQBEL Compliance’ in the Surface Water section of this permit.</p>	<p>Permit Effective Date + 4 Years</p>

Step 1. Determine Compliance Costs

- Is a major facility upgrade needed?
- Site-specific costs included in “Final Alternatives Plan” Reports
 - Updates to Year 3 Completeness Checklist now available
- What compliance options should be considered:
 - Sand filtration
 - Ultrafiltration
 - Membrane bioreactors
 - Cloth disc filters
 - Chemical feed
 - Ferric/ferrous chloride
 - Cerium/lanthanum chloride
 - Trading/adaptive management

Step 2. Determine Economic Impacts of Incurring Costs



Are you in an MDV eligible
area?

Do you meet the primary
screening threshold?

What is the overall economic
health in your county?

Economics Made Simple...

www.dnr.state.wi.us/topic/SurfaceWater/phosphorus/variance/

Statewide phosphorus multi-discharger variance

The multi-discharger variance (MDV) for phosphorus extends the timeline for complying with low-level phosphorus limits. In exchange, point sources commit to step-wise reductions of phosphorus within their effluent as well as helping to address nonpoint sources of phosphorus from farm fields, cities or natural areas to implement projects designed to improve water quality. The MDV is similar to an individual variance. However, multiple point sources can be covered under the MDV, whereas an individual variance only applies to a single facility. This provides for administrative streamlining and maximizes the potential benefits watershed projects may have through the variance program. The [MDV factsheet \[PDF\]](#) provides general information regarding this program. [MDV Implementation Guidance \[PDF\]](#) provides details about eligibility and implementation requirements for this program.

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Contact information

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→ [Eligibility](#)

→ [County resources](#)

→ [Implementation](#)

Webinar

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The webinar will be held **Monday, February 27, 2017, 11:00 a.m. - 12:00 p.m.**

→ [Phosphorus MDV Webinar Registration \[exit DNR\]](#)

Surface water

Atlas data, webinars, reports

About Wisconsin's waters.

Standards

Goals for water resources.

Monitoring

Monitoring water quality.

Assessments & reporting

Evaluating condition.

Planning

Planning for water quality.

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Managing water resources.



Firefly Lake, Vilas County

Related links

→ [Phosphorus rule](#)

Economics Made Simple...

www.dnr.state.wi.us/topic/SurfaceWater/phosphorus/variance/

What you need:

- Costs
- MHI (Muni only)

[Statewide phosphorus multi-discharger variance](#)

Eligibility

Not all point sources are eligible for the MDV. The following questionnaire may help applicants assess their potential eligibility for this program. The questionnaire does not provide final eligibility determinations.

Determine potential eligibility

Question 1 :

Are you an existing discharge?

Yes No

[Print text version](#)

Applicants are responsible to complete the [municipal MDV application \[PDF\]](#) or [Industrial MDV application \[PDF\]](#) and submit the completed form to:

State of Wisconsin
Permits Section-WQ/3
CC: Amanda Minks
Department of Natural Resources
101 South Webster Street
Madison, WI 53703

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Related links

- [Phosphorus rule](#)
- [Adaptive management](#)
- [Water quality trading](#)
- [Department of](#)

Analysis Behind the Quiz

Category of Discharge	Primary Screener	Secondary Score
Municipal	MHI>2%	Secondary score must be 2 or higher
Municipal	1%>MHI>2%	Secondary score must be 3 or higher
Industrial	Must be in the top 75% of dischargers incurring costs within that category	<ul style="list-style-type: none"> If both are met, a secondary score of at least 2 is needed to qualify If only one met, a secondary score of at least 3 is needed to qualify
	Must be located in a county that is within the top 75% of counties incurring costs for that category	

Step 3. Selecting a Watershed Project

County Payment Option

- \$50/lb/year + inflation

Self-Directed Option

- Implement a watershed project to offset load

Third-Party Option

- Work with another third party to implement a watershed project to offset load

Step 4. Submit Application

Preferred Method:

- With compliance alternatives (year 4) report
- Part of permit application #2 with phosphorus

Process:

- DNR to make a decision within 30 days
- Public comment received during permit reissuance process
- Permit conditions included to reflect MDV

Overview of Permit Conditions

Point Source

- Comply with interim limits
 - P99 or 0.8 mg/L
 - Cannot exceed 1.0 mg/L
- Optimize
- Reporting
 - Effluent data
 - Cost verification form

Watershed Project

- County payment option
 - Annual payments of \$50/lb + inflation
 - \$640,000 /year cap
- Direct offset
- Third-party offset

Annual Offset= Previous Annual Phosphorus Loading – Target Annual Load

Calculating Annual Offset

1. Determine annual TP loading
 - Facility A discharges 800 lbs in 2019
2. Subtract the target value
 - (0.2 mg/L or TMDL target)
 - $800 \text{ lbs/yr} - 200 \text{ lbs/yr} = 600 \text{ lbs/yr}$
3. Multiply by \$50 lb (+inflation)
 - $600 \text{ lbs/yr} \times \$51.10 = \$30,700$ in 2020

Implementing the County Payment Option



Who is eligible?



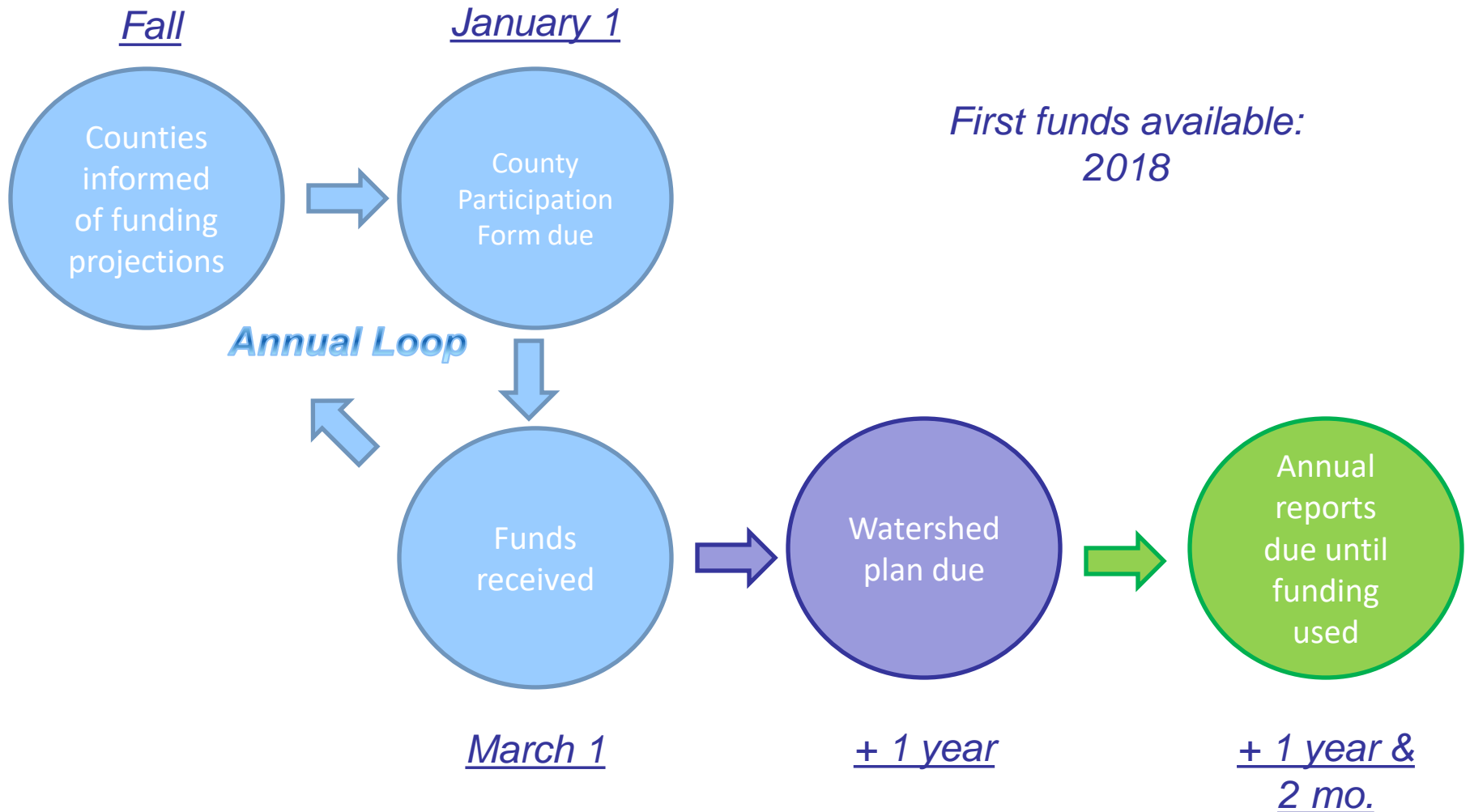
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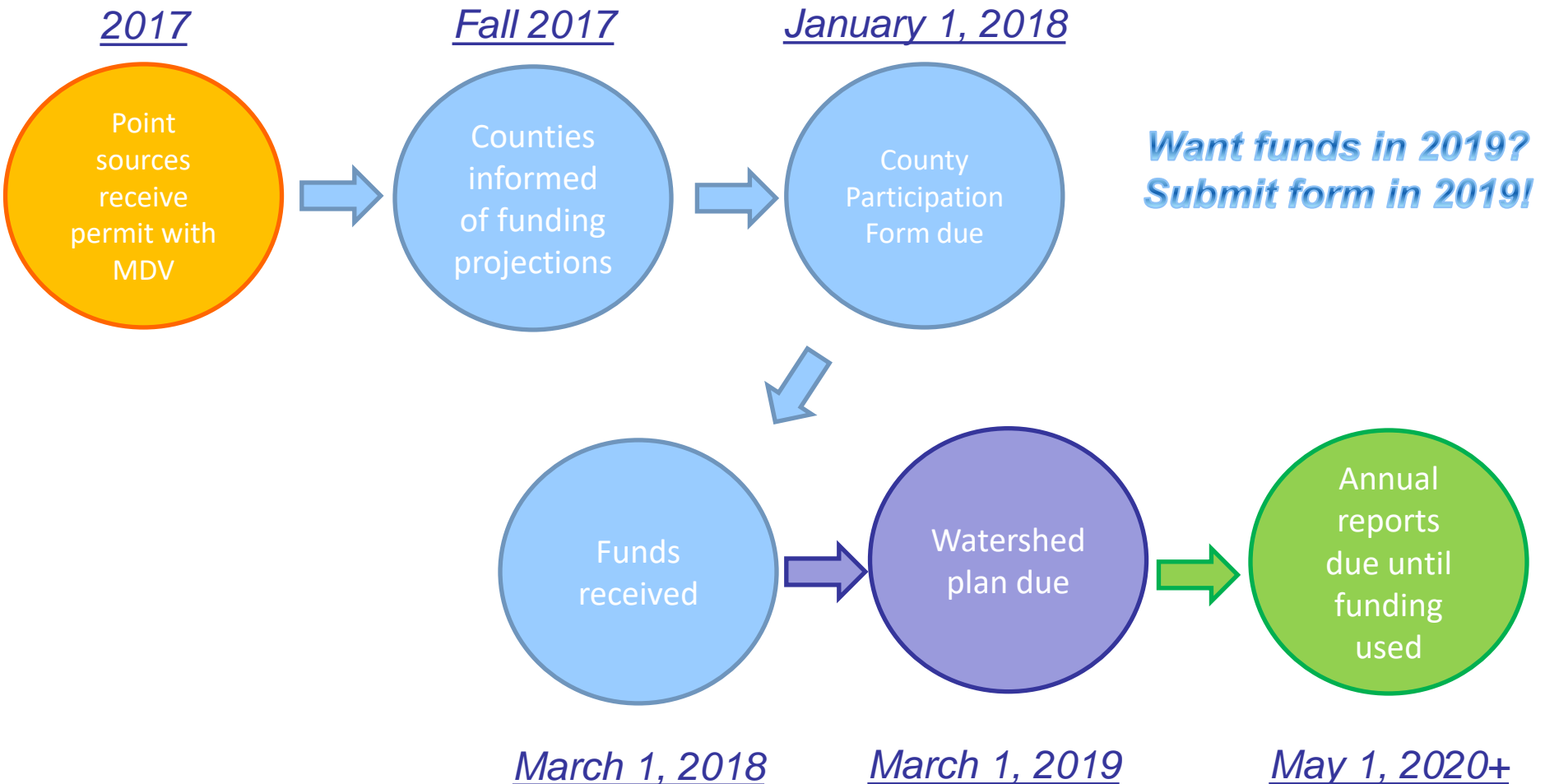
What to expect moving forward



County Participation



Example Timeline



Funding Distribution

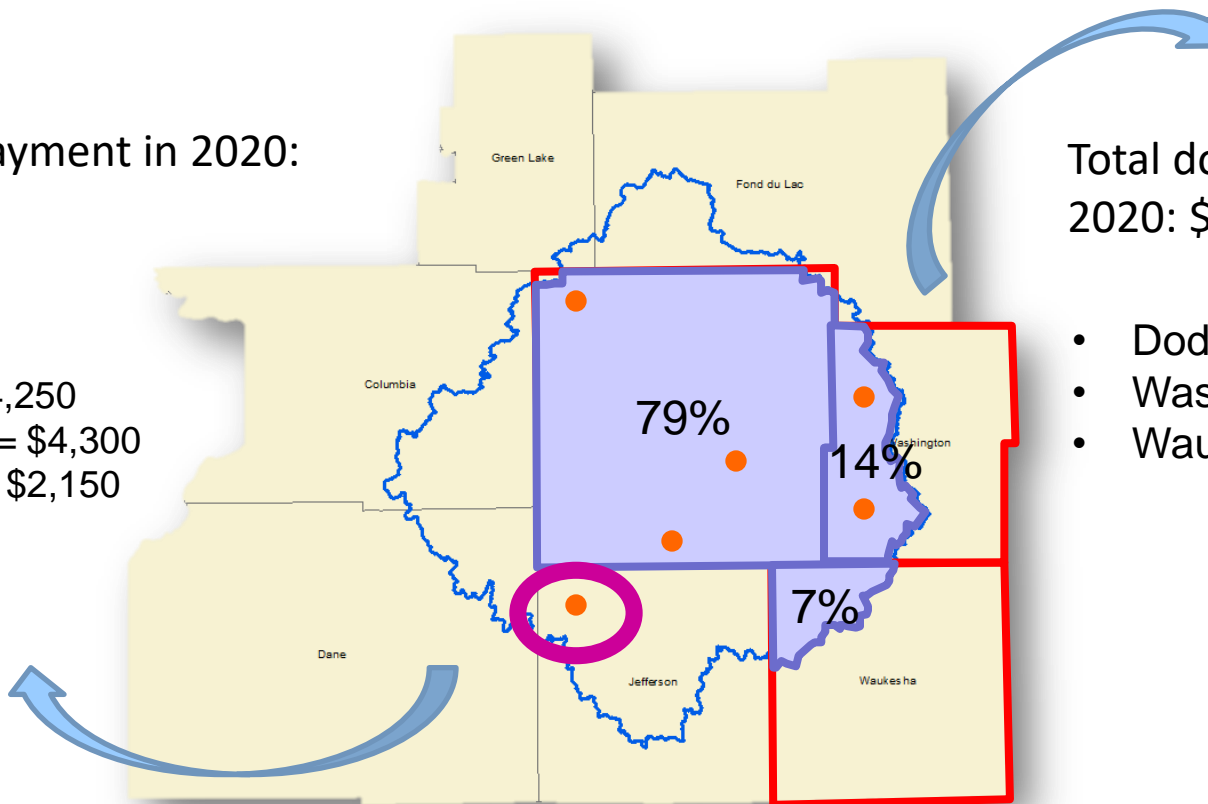
Hypothetical Example

Facility A payment in 2020:
\$30,700

Total dollars available in
2020: \$1.2 M

- Dodge= \$948,000
- Washington= \$168,000
- Waukesha= \$84,000

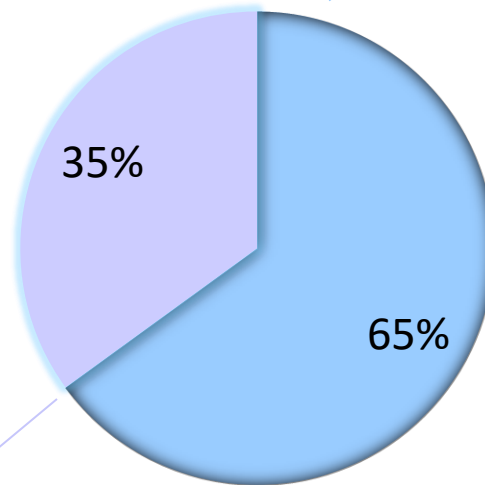
- Dodge= \$24,250
- Washington= \$4,300
- Waukesha= \$2,150



Appropriate Funding Uses

Other

- Staffing
- Innovative projects
- Monitoring
 - Edge of field
 - In-stream
- Modeling
- Demonstrations



Nonpoint Practices

- Agricultural practices only
- Must comply with NR 151
- May go beyond NR 151 in TMDL areas
- Can include staff costs for design, construction, and post-construction inspection

County Plan Requirements

- Need to target highest TP loadings within the county
 - HUC-12 scale recommended for analysis
- Include the management practices to be targeted/addressed
 - Needs to be consistent with Land and Water Resource Management (LWRM) plans
- Submit a projected financial budget



Other goals

- Verify 20% of practices annually
 - Should be representative of practices installed over the project life
- Spend 10% of money received on planning
 - Work towards 9-key element plans
- Estimate TP reductions
 - BPJ if project above \$100,000
 - Modeling if project above \$200,000
- Consider including in-stream monitoring for projects above \$200,000

Watershed Plan Submittals

www.dnr.state.wi.us/topic/SurfaceWater/phosphorus/variance/

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- [Implementation](#)

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Related links

- [Phosphorus rule](#)

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[Statewide phosphorus multi-discharger variance](#)

County resources

County participation in the MDV is completely voluntary. If counties participate, they agree to comply with the requirements of the program to the best of their ability. By participating in the MDV, counties will have access to additional financial resources for nonpoint source pollution control activities, including funds to supplement staff costs. Chapter 3 of the [MDV Implementation Guidance \(PDF\)](#) provides details about programmatic requirements and expectations for counties that choose to participate.

How to participate

To participate in the MDV, counties must submit a [county participation form \(PDF\)](#) to DNR no later than January 2:

State of Wisconsin
Permits Section-WQ/3
CC: Amanda Minks
Department of Natural Resources
101 South Webster Street
Madison, WI 53703

This form must be submitted to the department annually to continue to participate in this program.

Available financial resources

DNR will determine annual MDV payment based on the number of point source participants in the area and the number of participating counties within a watershed. Because this will vary by year, it is not possible to guarantee funding at this time. However, DNR staff will work with the Wisconsin Land and Water Conservation Association to inform counties of potential funding opportunities at the end of each calendar year so counties can make informed participation decisions. Once a point source chooses the MDV option, they commit to making MDV payments for 5 years. Counties will receive payments from point sources by March 1st for every year they choose to participate in the MDV.

Expectations

Participating counties must complete a watershed plan and submit this plan to DNR no later than one year after receiving the MDV payments. The [county watershed plan submittal \(PDF\)](#) form has been developed to streamline plan submittals. [Instructions \(PDF\)](#) are available to provide guidance on completing this form.

Annual reports are also required from counties receiving MDV funding. These reports must be submitted to DNR no later than May 1st in the year after the plan was due. Annual reporting requirements will include a description of the nonpoint source pollution control projects completed in the previous year, the pounds of phosphorus reduced by those projects using accepted modeling technology, and the amount of MDV money used to fund staff and/or monitoring activities. DNR staff is developing a tracking database tool to streamline annual report submittals. General information about annual reporting requirements is provided in Section 3.05 of the [Guidance \(PDF\)](#) and will be updated as this tracking tool becomes available.

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- Related links**
- [Phosphorus rule](#)
 - [Adaptive management](#)
 - [Water quality trading](#)
 - [Department of Administration - Phosphorus \[exit DNR\]](#)
 - [Summary of Act 378's requirements \(Senate Bill 547\) \[exit DNR\]](#)

Annual Report Requirements

- Practice information
 - Location
 - Description including performance standards addressed
 - Photo and maps
 - Pollutant(s) reduced
- Existing BMPs inspected
- Statement of overall progress towards plan goals
- Monitoring completed
- Financial breakdown (*county payment option only*)

Tracking tool in development! More to come...

Self Directed/Third Party Options

Annual Offset= Previous Annual Phosphorus Loading – Target Annual Load

- ▶ Any practice/project that produces a quantifiable reduction of phosphorus works
- ▶ Plan should specify how reductions will be met over permit term
- ▶ Watershed plan checklist helps ensure plans are suitable
- ▶ WPDES permit includes annual reporting requirement



Self Directed/Third Party Submittals

www.dnr.state.wi.us/topic/SurfaceWater/phosphorus/variance/

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Related links

➤ [Phosphorus info](#)

Watershed Plan Submittals

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[Statewide phosphorus multi-discharger variance](#)

Implementation

If a point source meets the eligibility requirements and requests the MDV, their Wisconsin Pollution Elimination Discharge System (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 of MDV coverage.
2. Implement a watershed project: Point sources must implement one of the following watershed project options to help reduce nonpoint source of phosphorus pollution:
 - Implement a watershed project directly. Applicant should complete the [Watershed plan checklist \(PDF\)](#) and submit this form with the MDV application.
 - Work with a third party to implement a watershed project. Applicant should complete the [Watershed plan checklist \(PDF\)](#) and submit this form with the MDV application.

The approval determination must be re-evaluated each permit reissuance of the MDV project timeline. An applicant may be covered under the MDV for up to 3 permit terms after which the permittee will need to comply with the phosphorus limit through an alternative compliance option.

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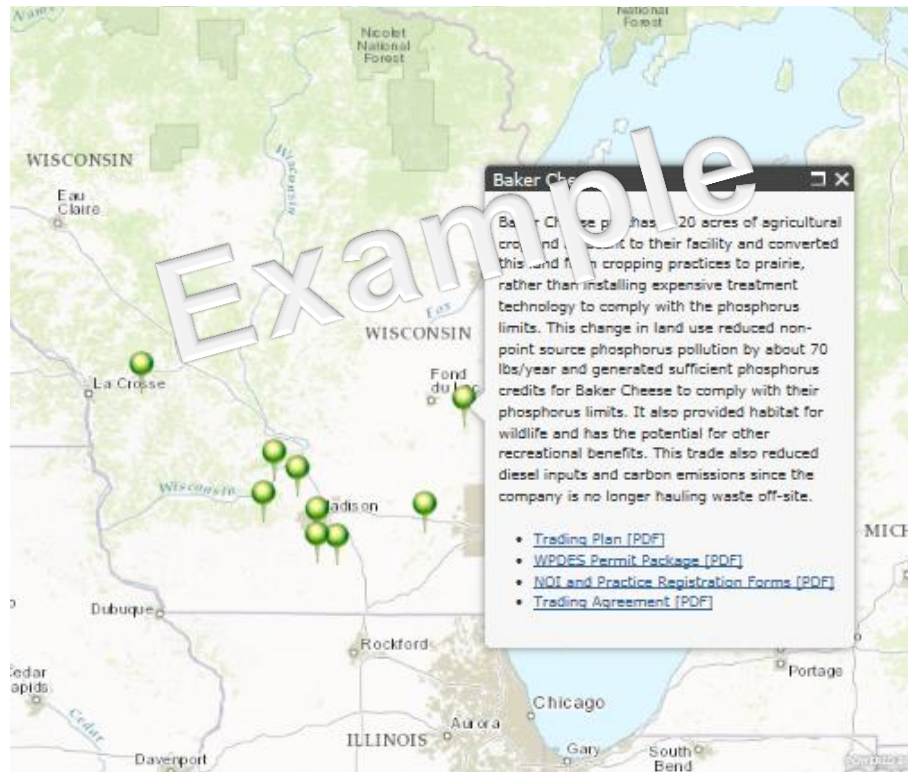


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[Related links](#)

Other Resources in Development

➤ Project Map



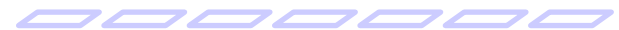
Expectations Moving Forward



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How does the county payment option work?

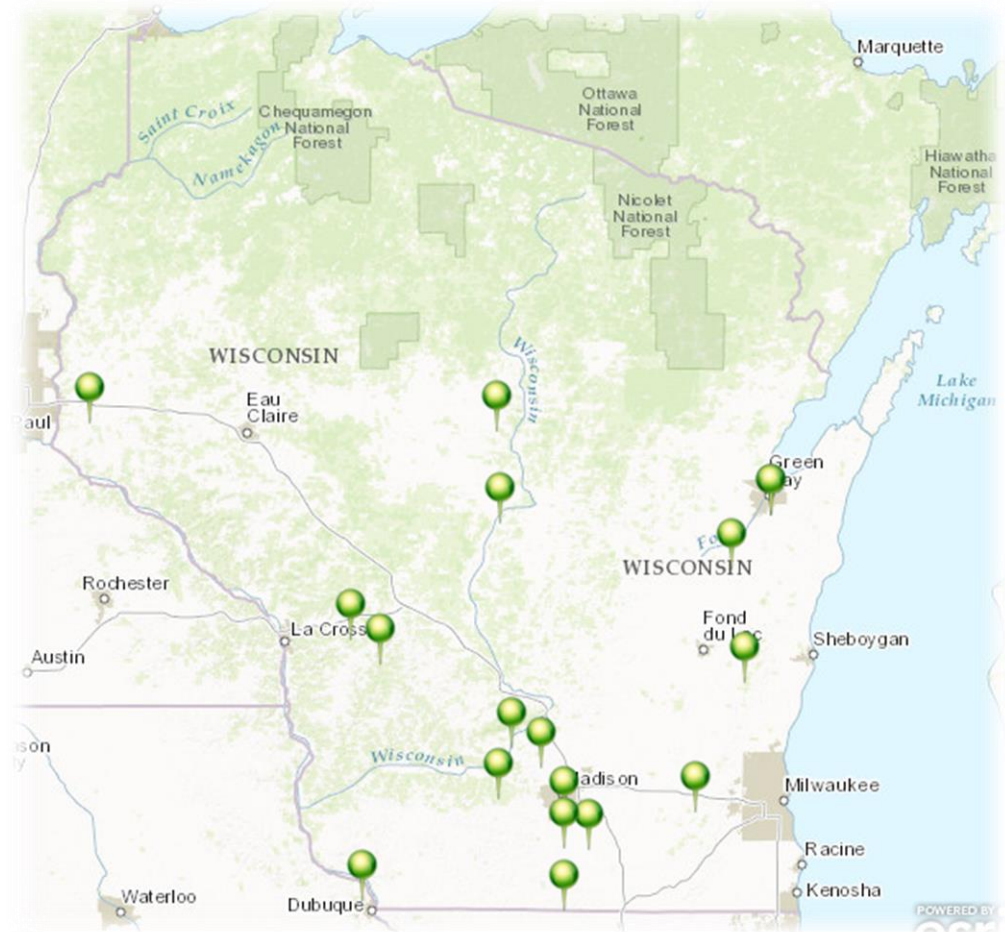


What to expect moving forward



Evaluate All Options

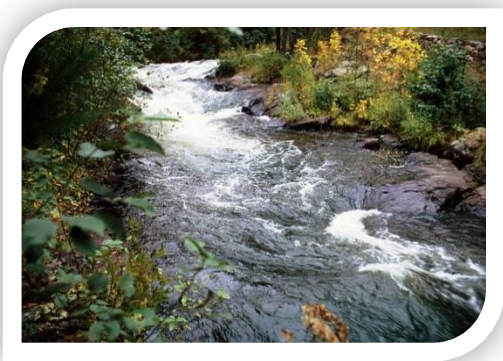
- Treatment
- Adaptive Management
- Water Quality Trading
- Individual TP Variances
- MDV



Comparison of the MDV to AM/WQT

Similarities

- Target phosphorus reductions at a lower cost
- Point and nonpoint sources work together to achieve phosphorus reductions
- Requires work within the watershed



Differences

- Financial investments through variances are investments in time, not infrastructure
- Temporary vs. permanent
- Geographic scopes where practices applied are different
- Permit conditions and expectations

When to Consider an Individual TP Variance

1. Point source is not in an MDV eligible area

2. Point source cannot comply with a limit of 1.0 mg/L

3. Effluent quality consistently below 0.2 mg/L

4. \$50/lb is economically infeasible & cannot do a self-directed/third party project

Permit-Specific Review

- Occurs upon permit reissuance
- Are permit conditions still appropriate?
 - Optimization updates
 - Revised interim limits
 - Watershed project
- Public comment during permit reissuance



Project-Specific Review

- Annual plans and reports will be posted online
- DNR staff will review for consistency with program



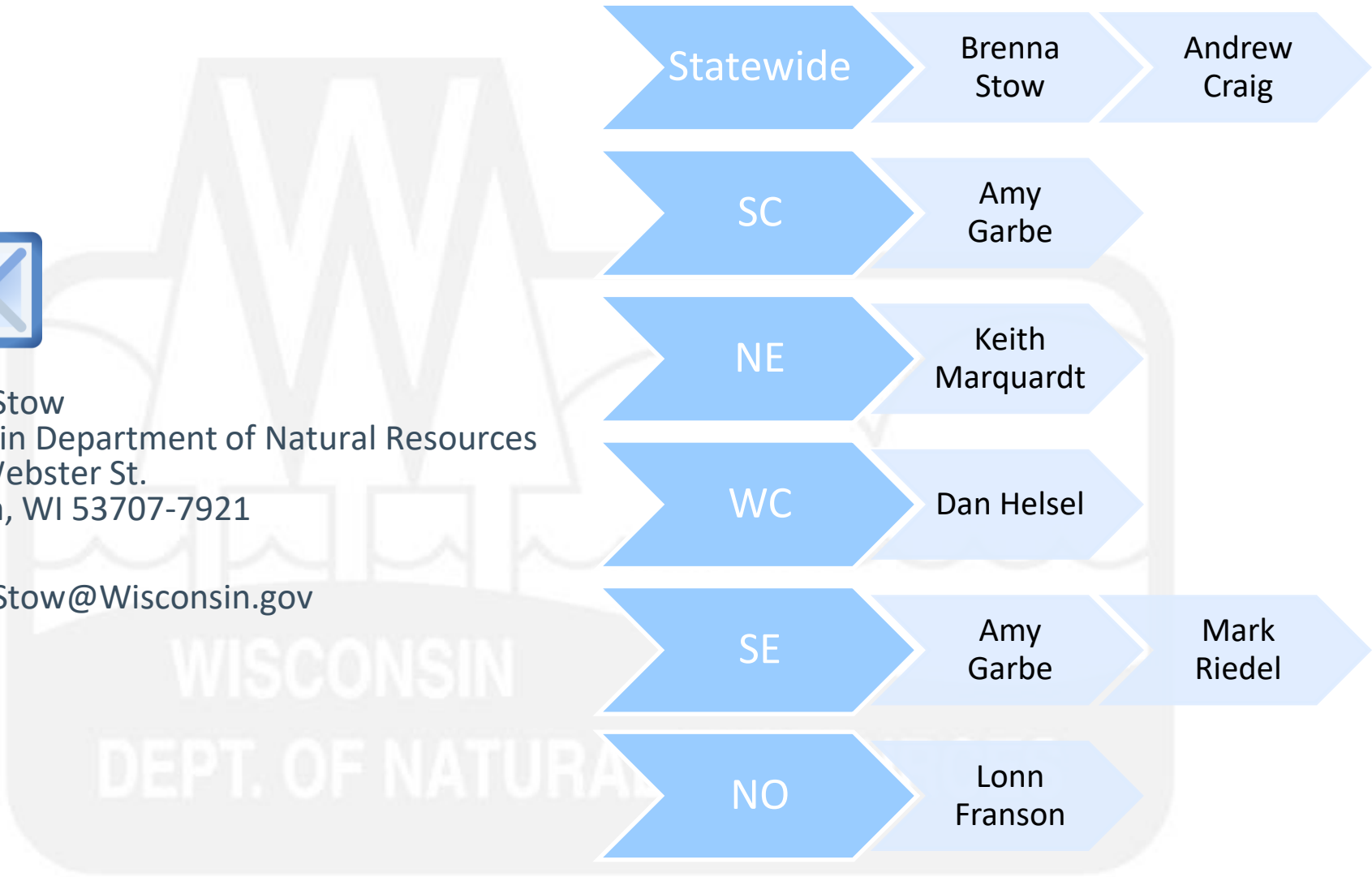
Mandatory Program Review

- Occurs with Triennial Standard Review
 - Has technology changed?
 - Has economics changed?
- Next up: 2018
- Includes opportunity for public comment and hearing



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