Wisconsin DNR Update

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Chicago
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Topics

- Beneficial Use of Industrial Byproducts
- Ozone and Sulfur Dioxide National Ambient Air Quality Standards Update
- Air Permitting Issues
- Key Findings of the Brownfields Study Group Economic Impact Study
- High Capacity Well Permitting
- Phosphorus Multi-Discharger Variance
- WDNR Strategic Alignment

Beneficial Use of Industrial Byproducts

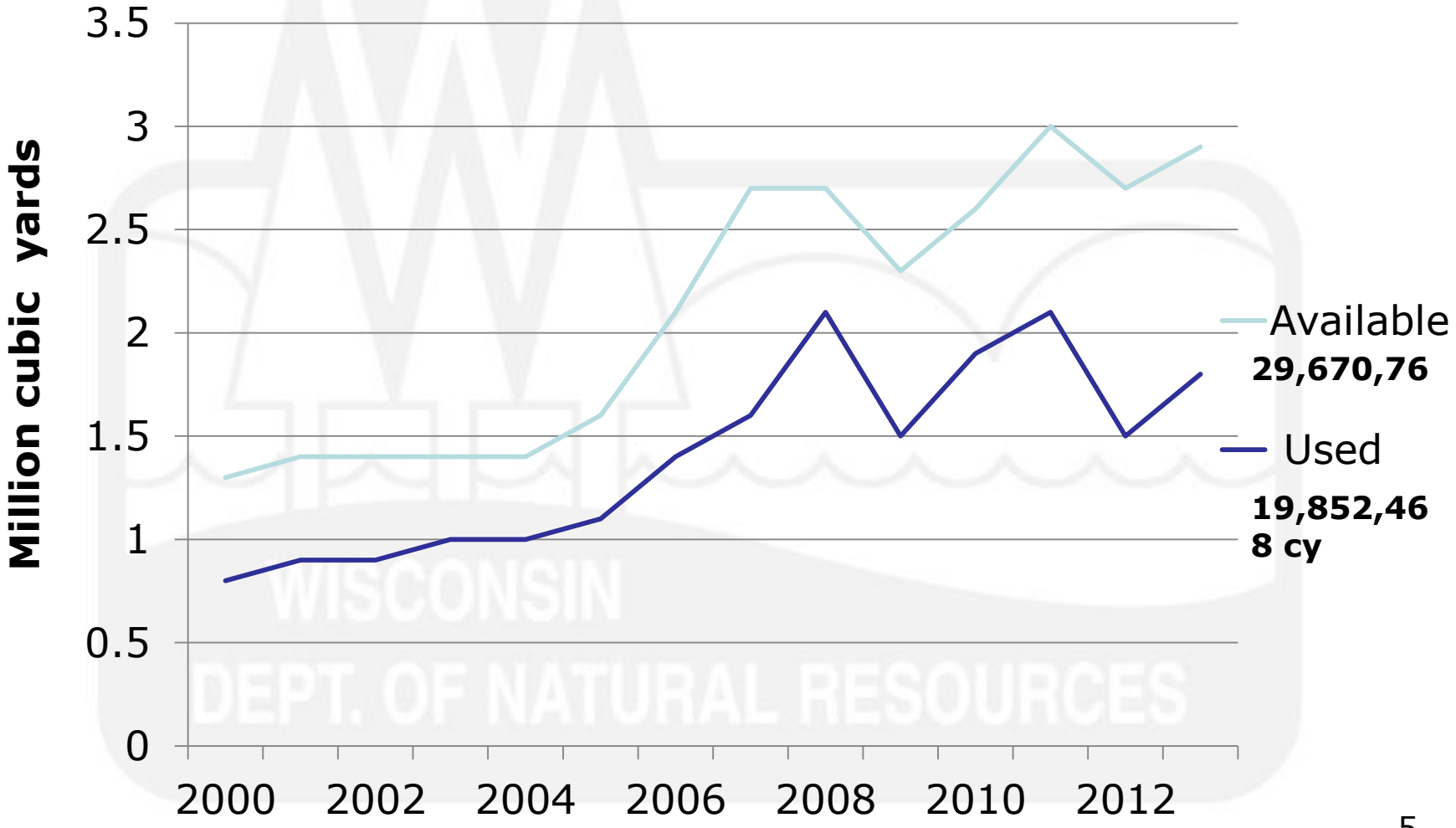
NR 538 Update

- The NRB approved making revisions to **NR 538 – Beneficial Use of Industrial Byproducts** in October 2015.

- The department's Waste and Materials Management program has established a Technical Advisory Committee (TAC) to assist in writing the new rule.

WI Industrial Byproducts

2000 – 2013



Ozone and Sulfur Dioxide (SO_2)
National Ambient Air Quality Standards Update

2008 Ozone NAAQS (75 ppb) - Update

- Eastern Kenosha County (part of 3-state Chicago metro area) showed attainment of the NAAQS based on 2013-2015 data. Wisconsin submitted a request for redesignation to attainment to EPA in August 2016.
  - Based on preliminary 2014-2016 data, the area is again violating the standard. It is not EPA policy to approve redesignation requests for areas that are demonstrating violations of the applicable standard.
  - April 2016: EPA "bumped up" this area to "moderate" classification, which requires state to submit an attainment plan

- Sheboygan was eligible for a one-year extension to July 2016, but did not attain.
  - Sep 2016: EPA proposed to "bump-up" county to "moderate" classification. Final action expected in Nov/Dec 2016.

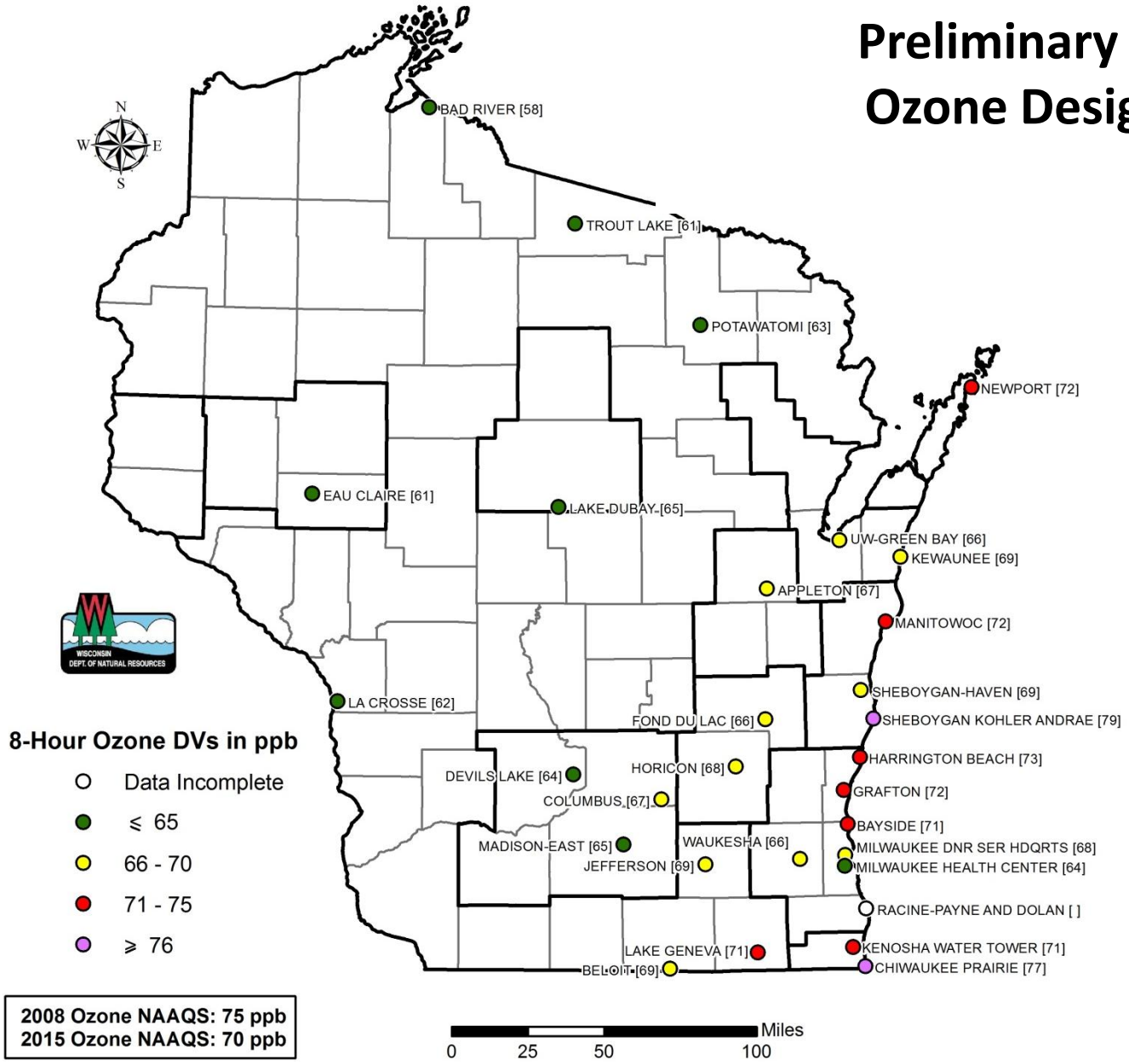
- WDNR is currently working with IN, IL, EPA Region 5, and the Lake Michigan Air Directors Consortium (LADCO) on attainment planning for both areas.

2015 Ozone NAAQS (70 ppb) Area Designations - Timeline

- EPA's nonattainment area designations for the 2015 ozone NAAQS (70 ppb) will likely be made based on final 2014-2016 monitoring data, but might consider 2017 data.
- Sept. 21, 2016: Governor submitted recommendation to EPA that all Wisconsin counties be designated as attainment.
- These recommendations can be updated before EPA proposes final designations.

Milestone	Date
States submit area recommendations to EPA	No later than October 1, 2016
EPA notifies states concerning any intended modifications to their recommendations ("120-day letters")	No later than June 2, 2017
EPA publishes notice of designation recommendations and initiates 30-day public comment period	On/about June 9, 2017
States submit additional information, if any, to respond to EPA's modification of a recommended designation	No later than August 7, 2017
EPA promulgates final nonattainment area designations	No later than October 1, 2017

Preliminary 2014-2016 Ozone Design Values*



Data is preliminary/not QA'd and subject to change

Heavy lines delineate statistical areas

* Through Oct. 11, 2016

1-Hour SO_2 NAAQS

- January 2016 - State submitted a SIP to EPA for the state's one existing nonattainment area in Rhinelander; EPA found submittal complete in Feb 2016; currently awaiting EPA to propose approval.

- June 2016 - EPA designated Columbia County as "unclassifiable/attainment" based on modeling submitted by state.

- State is currently working with 6 sources identified under the 1-hour SO_2 NAAQS Data Requirements Rule to meet EPA's requirement to characterize the air quality around these sources using modeling, monitoring, or by the source taking a limit.

Air Permitting Issues

Treatment of $PM_{2.5}$ in Air Permitting

- $PM_{2.5}$ is only regulated by Federal and State ambient air standard.
  - DNR must determine ambient air quality standards are protected before it can issue a permit. Traditionally determined through dispersion models.
- Historically, $PM_{2.5}$ was treated like a smaller version of PM_{10} – *this is not supported by science*
  - $PM_{2.5}$ is formed by chemical reactions in the atmosphere and is directly emitted only from combustion.
  - PM2.5 is not generated by material handling, crushing, grinding and movement of equipment on roads.

Regulating $PM_{2.5}$

- New approach in air permits
  - Estimate direct emissions of $PM_{2.5}$ - focus on combustion and high temperature operations.
  - In place of modeling, use a "Weight of Evidence" approach to demonstrate that $PM_{2.5}$ standards are protected except as required in major source construction permitting (PSD)
  - No new modeling-based limits will be established in air permits except as required in major source construction permitting (PSD)
- Continue regulating $PM_{2.5}$:
  - Tailpipe standards
  - Regulations on large utilities and boilers

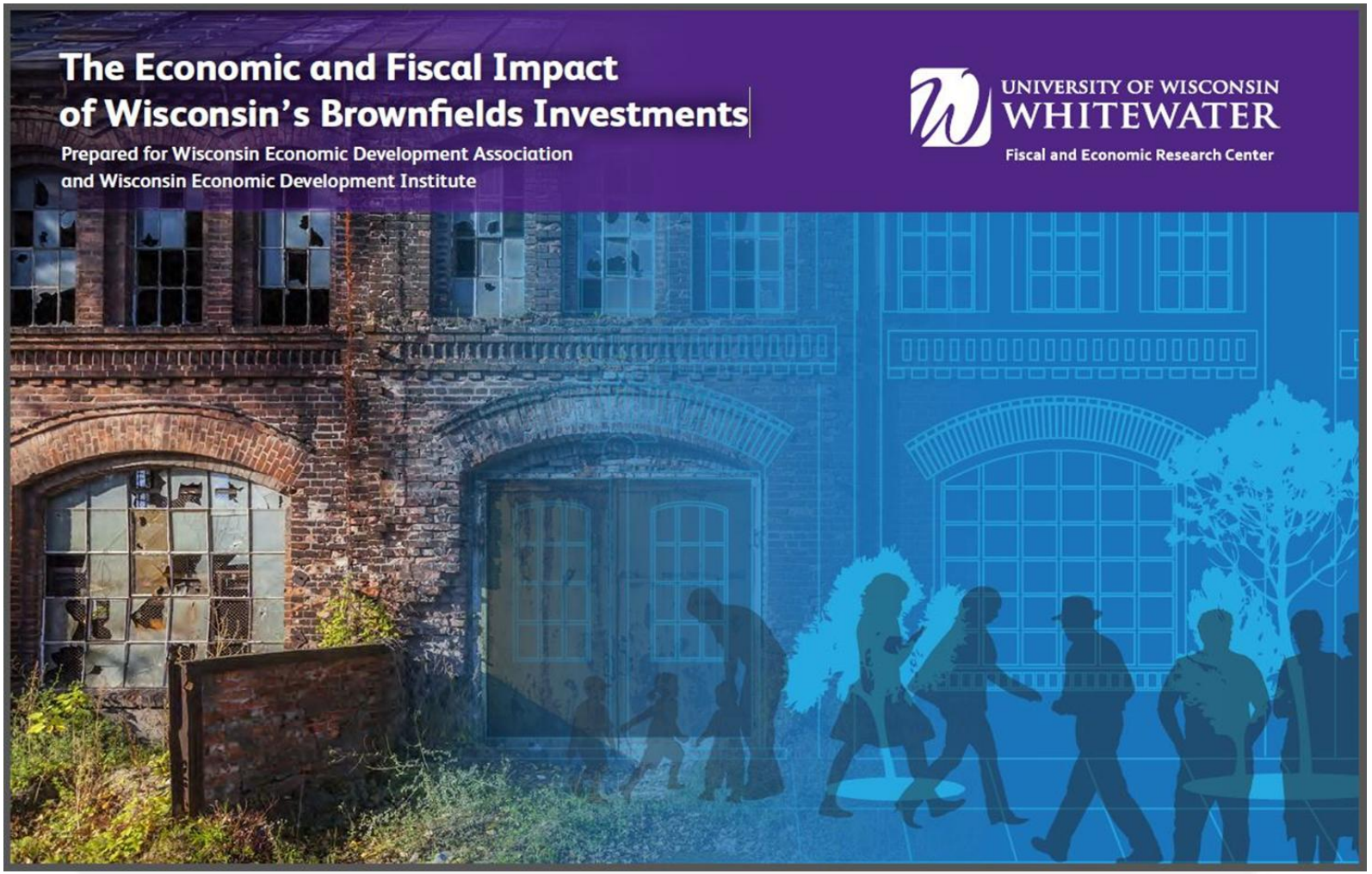
Permit Streamlining Efforts

- New Rules - Phase I of Permit Streamlining Rule finalized December 1, 2015
  - Fulfilled a statutory requirement to create a “Natural Minor” operation permit exemption
    - 6 facilities have taken advantage of the exemption so far
    - Additional outreach of the exemption and its advantages and disadvantages occurring this Fall
  - Restricted use engine exemption from construction and operation permits
  - Streamlined procedures and corrected and cleaned up confusing rule language
- New Permits – Type B (50% ROP) Registration Permit issued February 2016
  - Fulfilled a statutory requirement
  - 26 facilities covered so far
  - Outreach is ongoing

Future Permit Streamlining Efforts

- Phase II of Air Permit Streamlining Rule has begun
  - Still need to fulfill statutory requirement to define “cause or exacerbate”
  - Considering administrative revision process for construction permits
  - Considering “like-kind replacement” exemption from minor source construction permits
  - Additional clean up and streamlining of procedures
- Future of General Permits
  - Reviewing existing GOPs and GCPs for needed clean-up, incorporation of new rules, revamping of applications and webpages
  - Working with stakeholders to determine if additional GOP/GCPs are needed and wanted
- IT Projects
  - E-applications
  - On-line submittals

Key Findings of the Brownfields Economic Impact Study


The Economic and Fiscal Impact
of Wisconsin's Brownfields Investments
Prepared for Wisconsin Economic Development Association
and Wisconsin Economic Development Institute
UNIVERSITY OF WISCONSIN
WHITEWATER
Fiscal and Economic Research Center

14-fold ROI for State

- State of Wisconsin provided $121.4 million to local governments and private sector for environmental cleanups at 703 sites between 1998 - 2014
- **$1.00 of state funding leveraged $27.25 in total funds** (compared to EPA numbers of $1 : $19)
- This is one of the highest leverage ratios in the country; over one-half of the state's investment was recouped by tax revenue from construction activities alone
- The **$121.4 million investment has recouped $1.77 billion in direct state revenues** – a 14-fold return on investment

New and Retained Jobs

- **29,500 direct new and retained** permanent jobs related to state brownfields funding
- **53,800 direct and indirect jobs** generated at complete or underway brownfield projects
- An additional **9,100 jobs are anticipated** at projects started in 2015 and planned for 2016
- $3,000 in state brownfields funding leverages one new job (compared to EPA numbers of $13,700 per job)

Table 2. Jobs In Completed and Underway Assisted Brownfield Projects

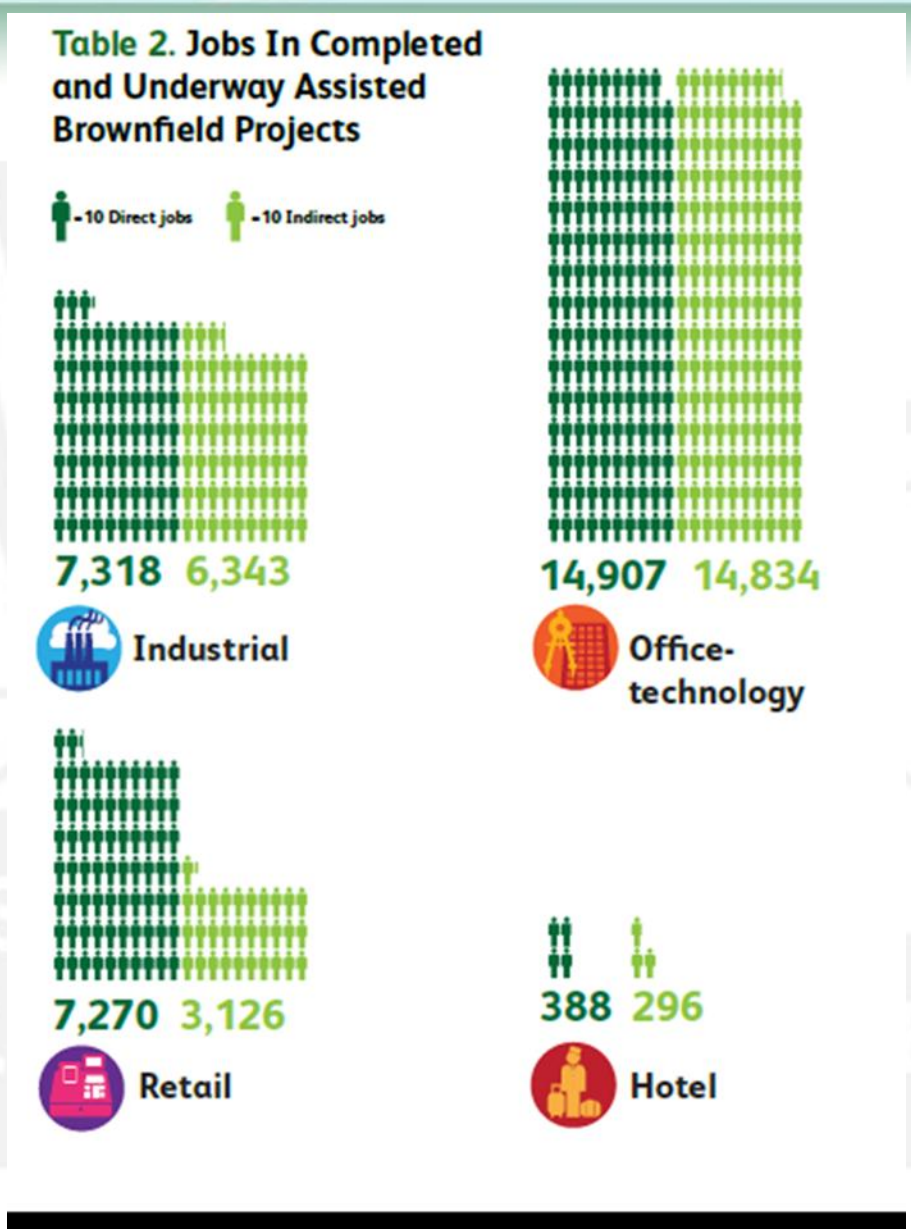
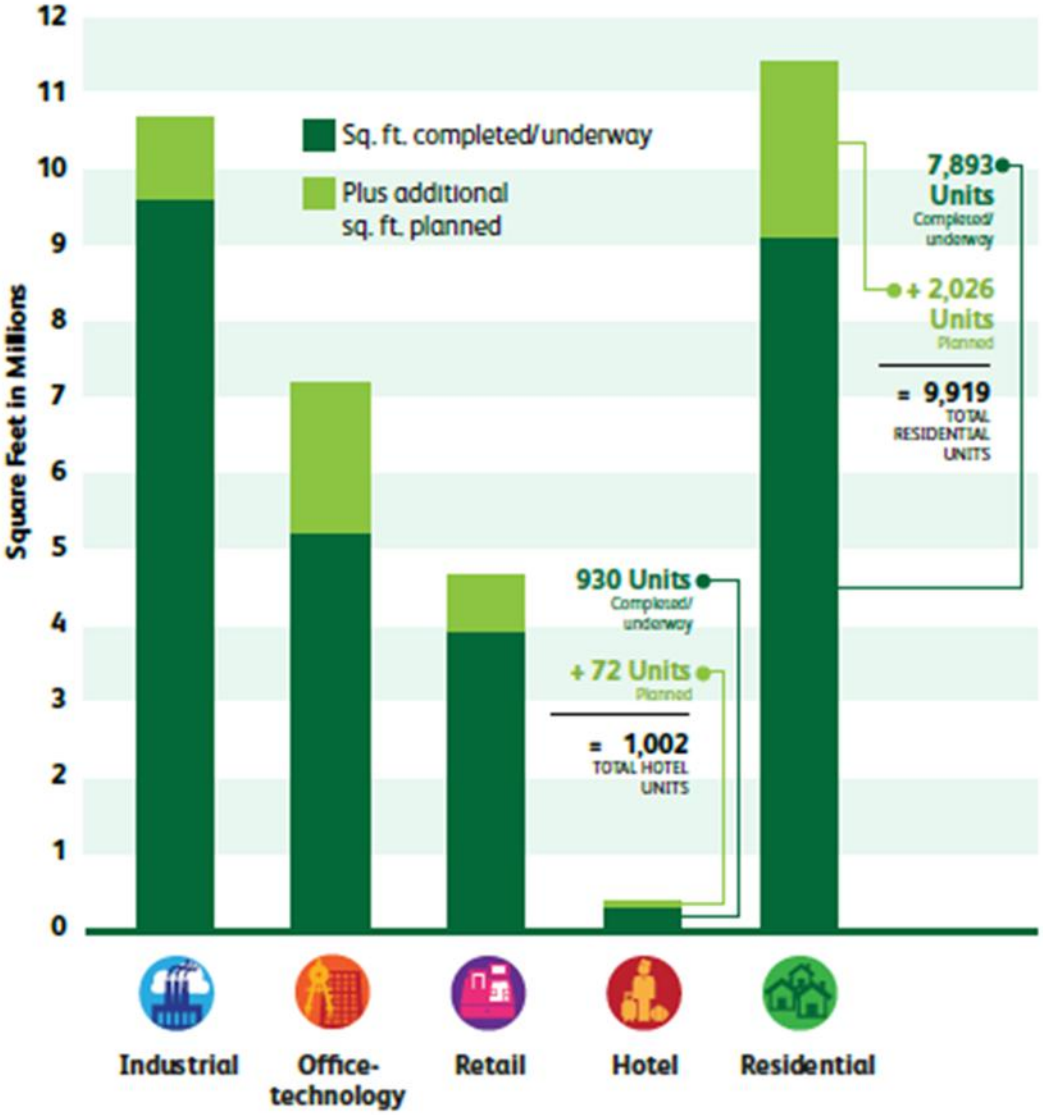


Table 1. Reuse of Assisted Brownfield Sites



WDNR High Capacity Well Permitting

How does Wisconsin define a high capacity well?

High capacity means a well, except for a residential well or fire protection well, that, together with all other wells on the same property, except for residential wells and fire protection wells, has a capacity of more than 100,000 gallons per day.

High capacity well at land surface

Evolution of High Capacity Wells Review in Wisconsin:

A Primer of Wisconsin's High Capacity Well Legal Authority

Prior to 2004

Municipal well impacts only

2004 - 2011

Within 1,200-feet of designated waters
1 cfs springs
>95% water loss

2011 - 2014

Any significant impacts to waters of the State from wells from a high capacity property

2014 – May 9, 2016

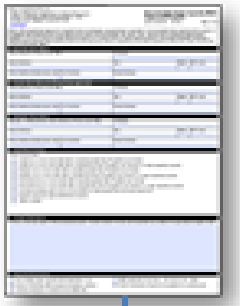
Cumulative Impacts

May 10, 2016 - Present

Within 1,200-feet of designated waters
1 cfs springs
>95% water loss

Wisconsin DNR's High Capacity Well Review Process: Post May 2016

High Capacity Well Application Received by Wisconsin DNR



Screen Process
Does the Proposed High Capacity Well:

- ✓ fall within a Groundwater Protection Area ?
  (Within 1,200 feet to trout stream, outstanding or exceptional resource water body)
- ✓ impact to spring (> 1 cfs)?
- ✓ result in 95% Water Loss?
- ✓ impact a municipal well?
- ✓ impact groundwater quality?

Wis. Stat. 281.34; Admin. Code NR 812.09

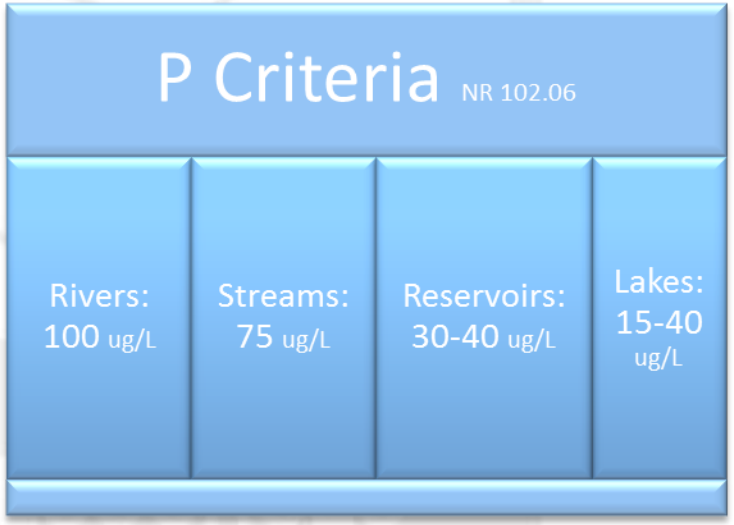
Yes → Reviewed for Potential EIS → Application is either conditioned to avoid significant adverse impacts or application is denied

No → Application is approved as requested

WDNR Multi-Discharger Phosphorus 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
- Individual variances available if economically infeasible (283.15)

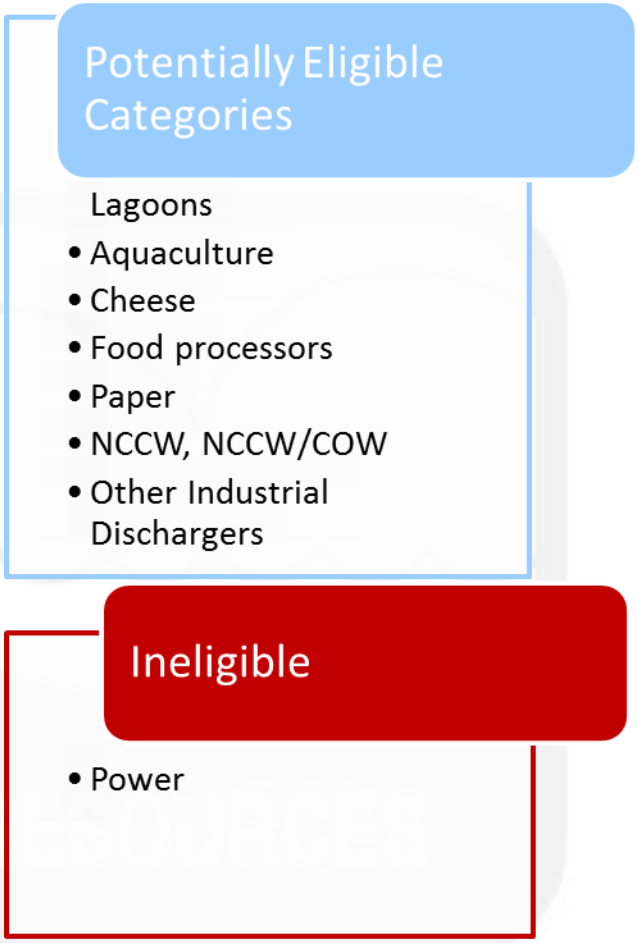


Variance

What is it?	• Provides a temporary modification to a specified designated use and associated water quality–based effluent limit
Eligibility Requirements	• Will not jeopardize endangered species or their habitat • Will not result in an unreasonable risk to human health • Will not impair an existing use or allow additional pollution from currently achievable level
Justification	• Characterization of the discharge • Treatment / control options are economically infeasible
Requirements	• Implement cost-effective and reasonable best management practices • Continue to reevaluate technology/control options • Submit proper documentation • Seek EPA approval

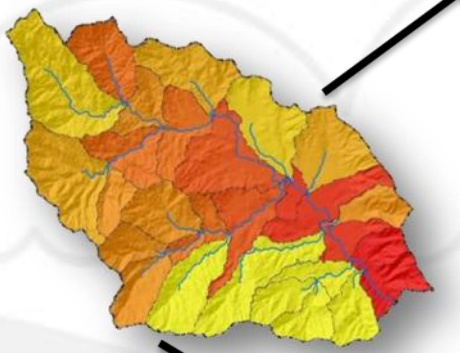
Multi-Discharger Variance

- 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



Benefits of the MDV

- Streamlined 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 investing in time, not infrastructure

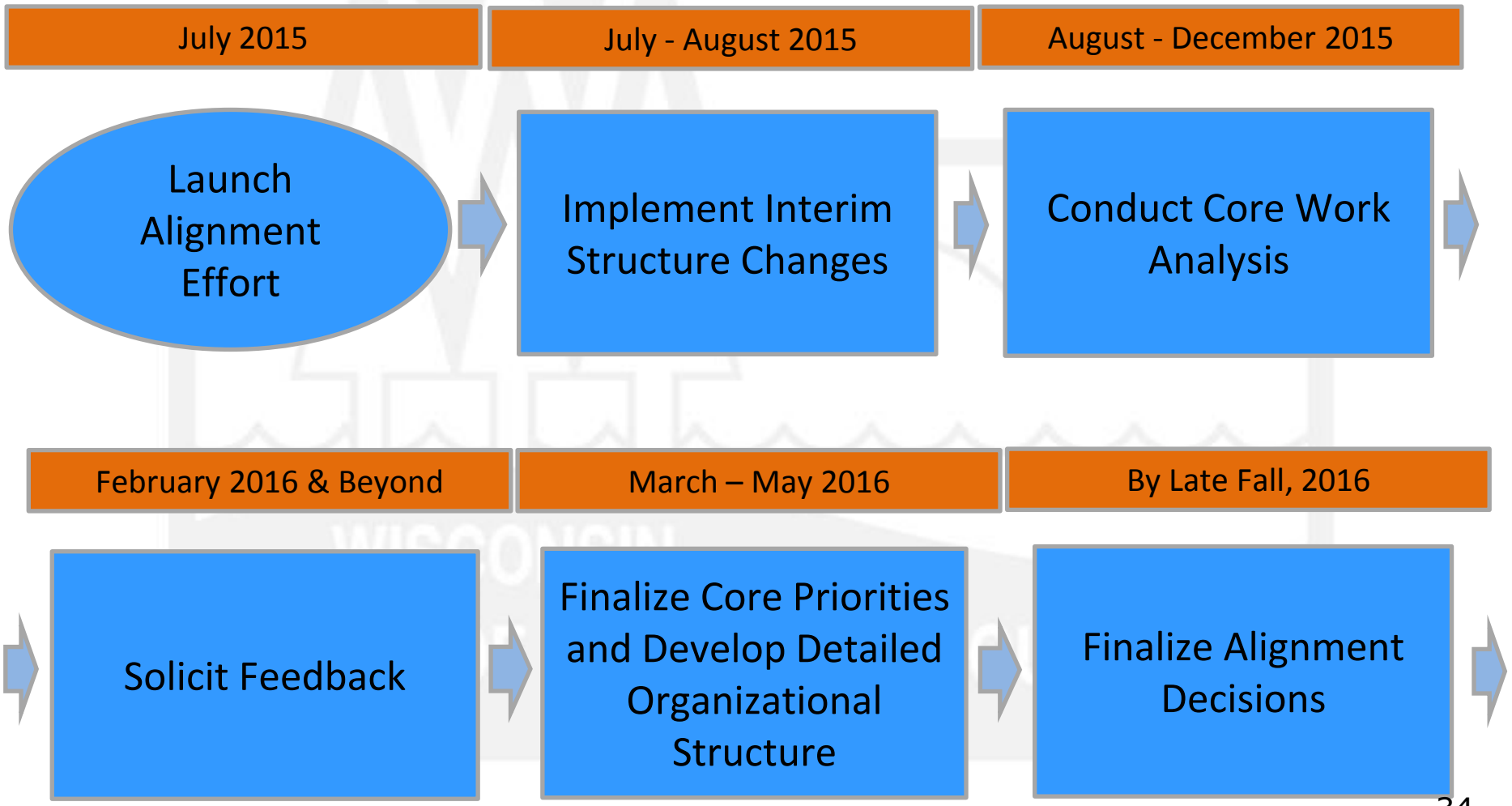
- Temporary

Key Principles

- EPA must approve
- Not everyone is eligible
- Site-specific applications must be completed
- Watershed projects required
- Provide relief for up to 3 permit terms

WDNR Strategic Alignment

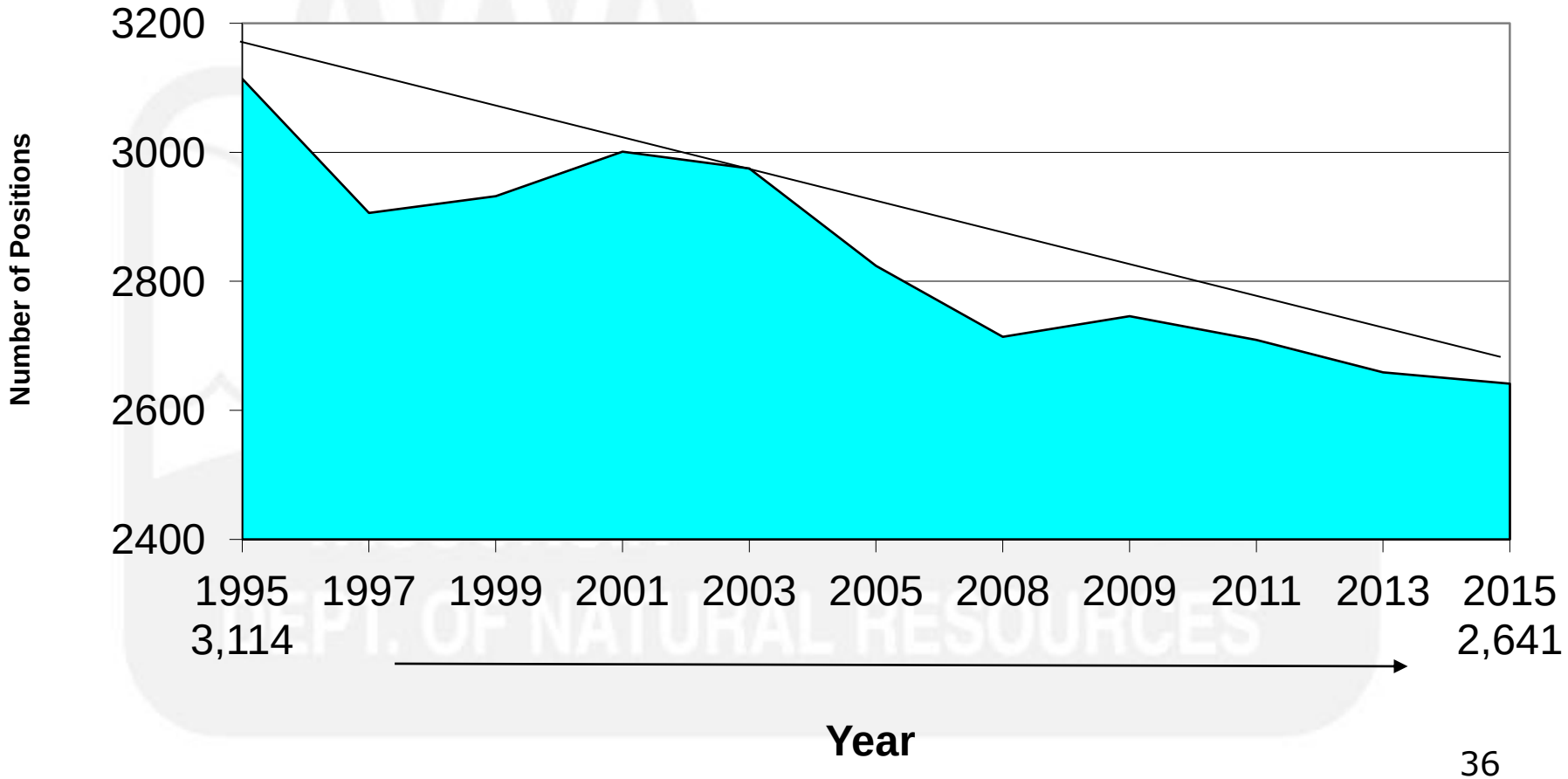
Alignment Process



Alignment Goals

1. Mission, Vision, Values, and OneDNR approach.
2. Increase alignment.
3. Improved workload management.
4. Increase efficiency.
5. Improve consistency.
6. Increase integration and collaboration.
7. Increase accountability.
8. Increase financial flexibility and sharing of resources.
9. Maximize outcomes we can produce.

Number of DNR FTE Positions 1995 to 2015



Interim Reporting Structure, July 2015

Core Work Analysis

Agency Priorities:

1. Leverage Staff Expertise to Accomplish Core Work
2. Focus on DNR's Niche
3. Strategic Investments in Information Technology
4. Improve Service Delivery
5. Enhance Integration
6. Streamline Permitting
7. Streamline Policy Development

Contact Information

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Additional Slides

Cross-State Air Pollution Rule (CSAPR) Update

- Finalized by EPA on September 7, 2016.
- Implements Clean Air Act requirement to address transport of NOx precursors across state lines for the 2008 ozone standard (75 ppb).
- Sets NOx budgets for EGUs in 22 states starting with the 2017 ozone season.
- WDNR had many comments on proposal; currently evaluating impact of final rule.

One-Hour Ambient Air Standards

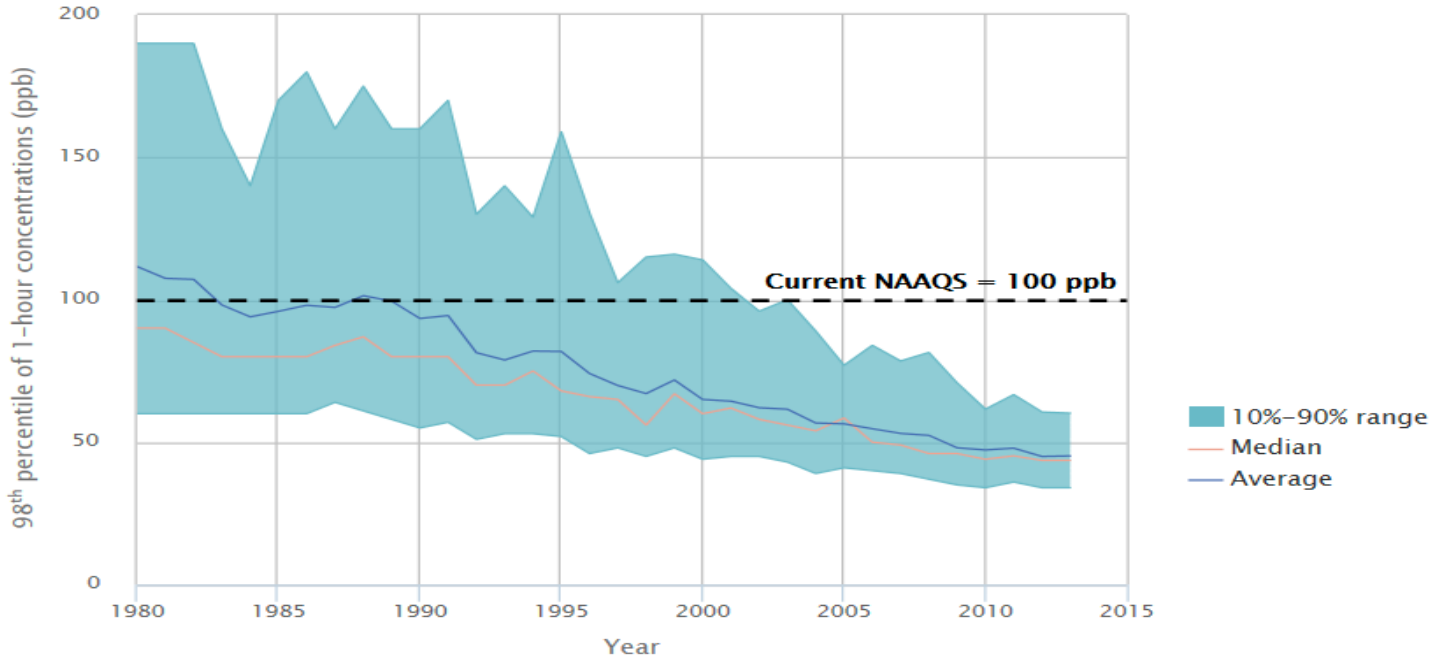
- Published in Wisconsin Administrative Code August 1, 2016

- Level of State standards matches federal NAAQS
  - NO_2 – 188 ug/m^3
  - SO_2 – 196 ug/m^3

- Criteria for permit approvability in Wisconsin Statute:
  - Source cannot cause or exacerbate a violation of NAAQS
  - No permit may be approved unless a finding is made that the source will not cause or exacerbate a violation of the NAAQS

- Statute does not specify how to make the finding
  - Traditional approach - air quality modeling
  - Technical finding was made in the case of $PM_{2.5}$
  - Other methods?

Nationwide Trends in 1-hr NO_2 Concentrations



The current 1-hour NO_2 NAAQS was established in 2010 and is shown to provide context for the magnitude of pollutant concentrations. No 1-hour NO_2 NAAQS existed prior to 2010 (U.S. EPA, 2014b).

Coverage: 29 monitoring sites in 24 counties nationwide (out of a total of 308 sites measuring NO_2 in 2013) that have sufficient data to assess NO_2 trends since 1980.

Information on the statistical significance of the trends in this exhibit is not currently available. For more information about uncertainty, variability, and statistical analysis, view the technical documentation for this indicator.

Data source: U.S. EPA, 2014a

One-Hour Implementation Schedule

- **September 2016** – Gather feedback from stakeholders
- **Late October 2016** – DNR prepares implementation strategy and provides for public comment
- **Nov/Dec/Jan 2017** – Address public comment, finalize strategy and associated guidance documents
- **Today** – continue reviewing air permit applications using existing approved methods
  - Modeling
  - Working with sources to make sure emission estimates are accurate