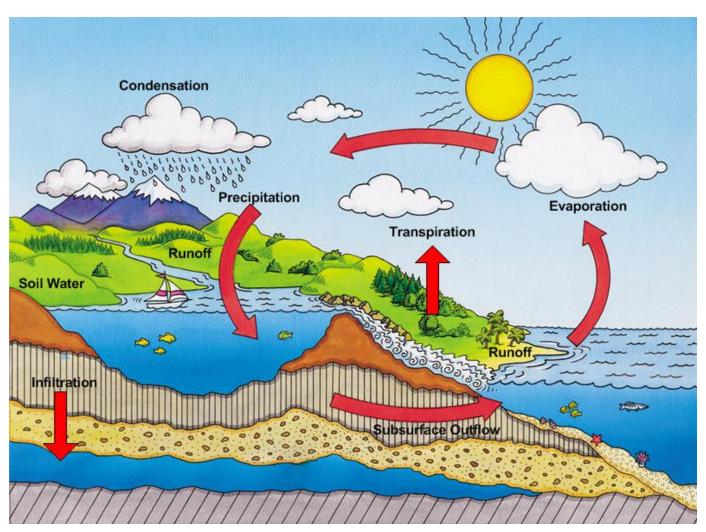


The State of the State Kevin Vesperman State of Wisconsin DOA-State Energy office



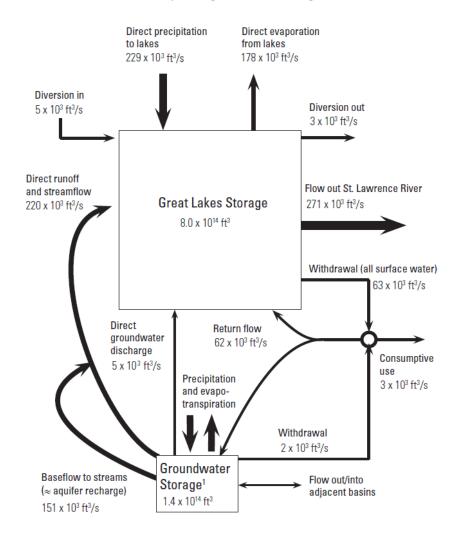
The Cycle



The Water Cycle

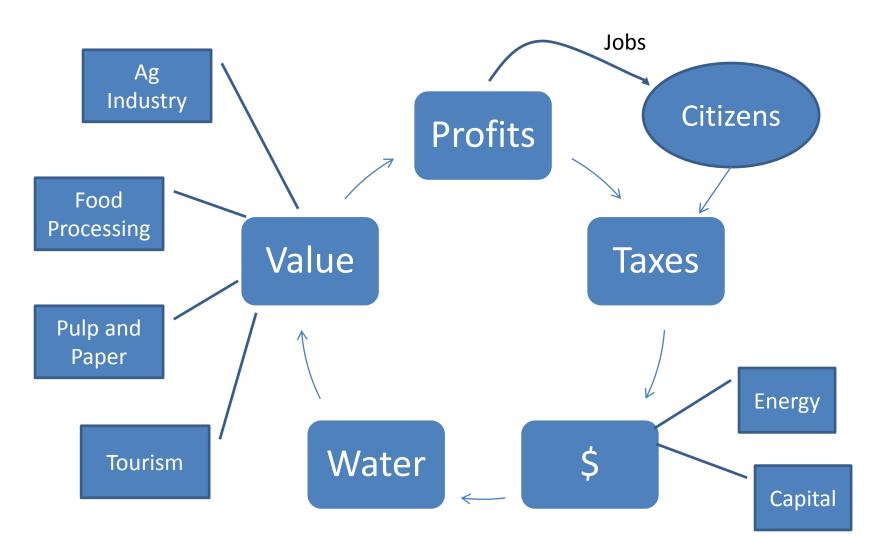
Developed Regional Water Budget

- Understand
 - Interconnected
 - Natural cycles
 - Man made
- Manage
 - Quantity
 - Quality



Source: A Multiscale Assessment in the Great Lakes Basin

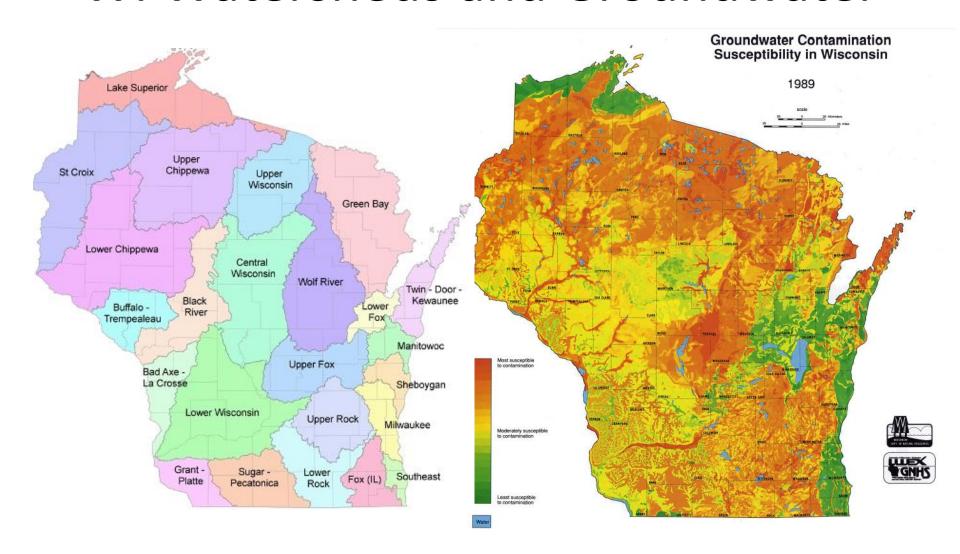
The Other Cycle



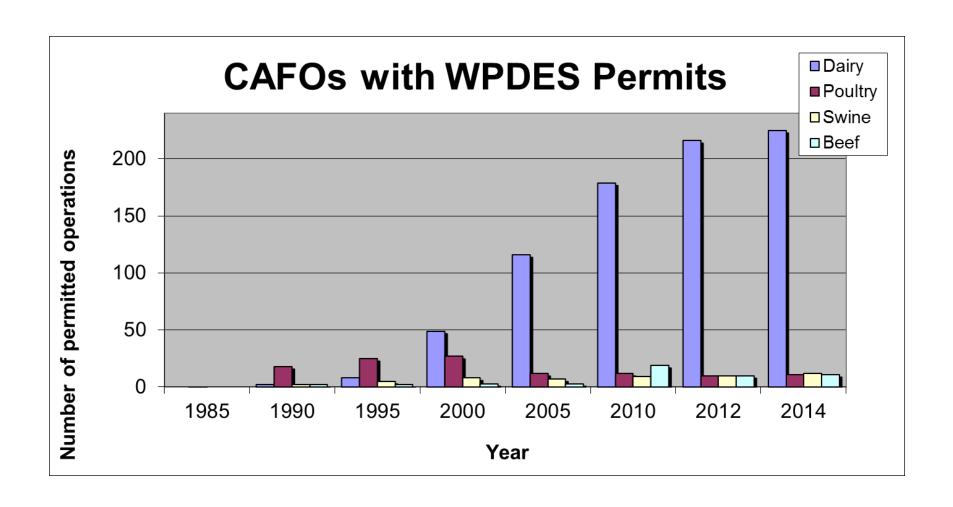
State of the State

- History
 - Great strides in improving water quality
 - Deeper understanding of systems
 - Systems are in place to manage
- Future
 - Phosphorous rules
 - Adaptive Planning
 - Industry trends

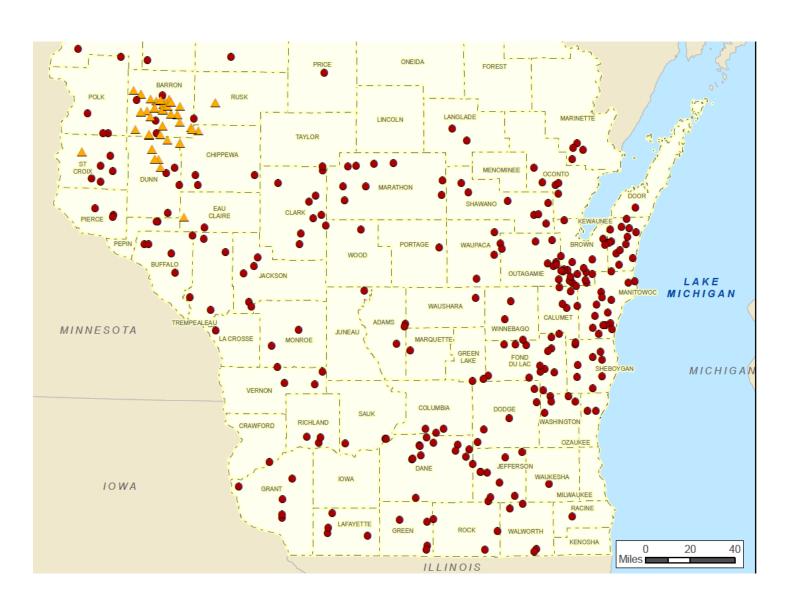
WI Watersheds and Groundwater



Growth of Large Dairy Farms



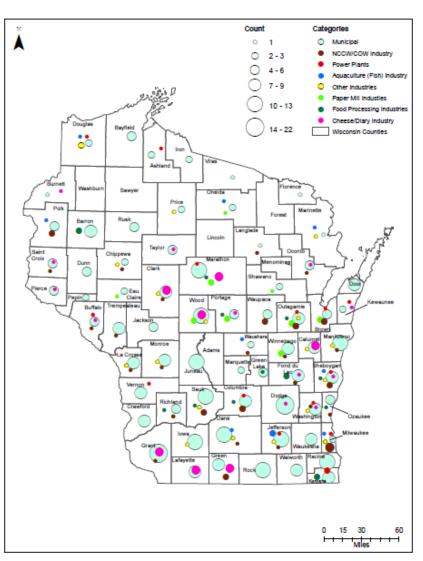
CAFOs in Wisconsin



Multi Discharger Variance

- Act 378 April 2014
- DOA determination in consultation with DNR
 - Substantial and widespread adverse impact
- General analyses
 - Categories:
 - municipalities (2);
 - *industry* (Paper, Power, Cheese, Food, NCCW, Aquaculture, Other)

Facility Breakdown



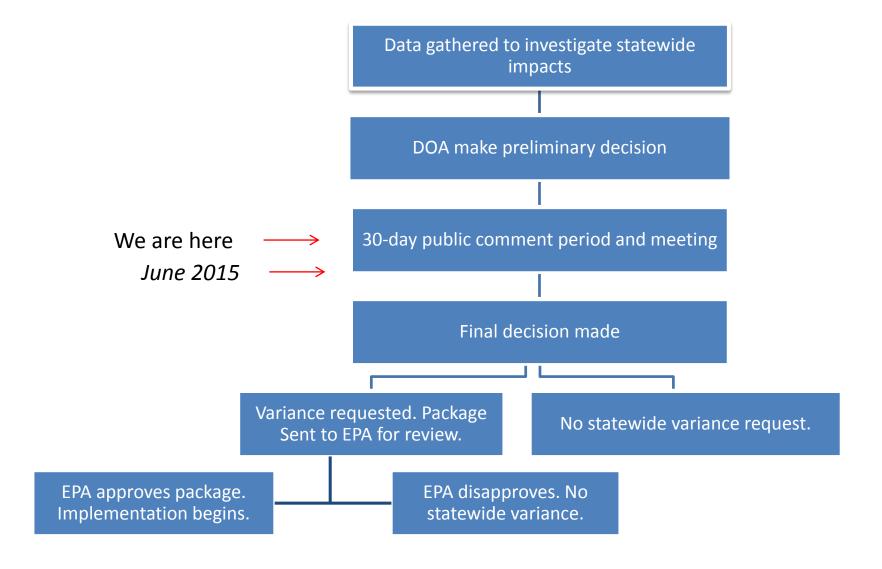
Type of Permittee	Number of Permitted Facilities in each Category
Municipal WWTP: Mechanical	334
Municipal WWTP: Lagoon	91
Municipal Subtotal	425
Cheese	27
Aquaculture	10
Food Processing	14
NCCW/COW	59
Paper Mills	17
Power Plants	15
Other	25
TOTAL	592

A total of 592 permittees were expected to need to add phosphorus treatment technologies to meet more stringent phosphorus discharge limits, and were further evaluated in this study.

Conclusions

- DOA Findings: substantial and widespread adverse social and economic impacts to the state.
- The overall cost will be a minimum
 - of \$3.4 billion in capital expenditures.
 - of \$405 million O&M cost annually
 - combined with debt service will equate to almost \$700 million annually.
- Recommendation: Request Variance

Multi Discharger Variance



Questions

Links of Interest:

DOA Variance study

http://doa.wi.gov/Divisions/Intergovernmental -Relations/Phosphorus

DOA Legislation

http://docs.legis.wisconsin.gov/2013/proposal s/sb547

DNR Phosphorous Rules

http://dnr.wi.gov/topic/SurfaceWater/phosphorus.html