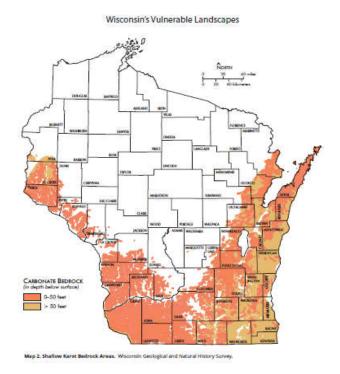


Wisconsin's Vulnerable Landscapes



Source: DNR Wisconsin's Ecological Landscapes



Source: WI Geological & Natural History Survey

Contaminants in Tap Water



Groundwater quality in the news...

DNR rule revisions for manure spreading take effect July 1









Published by Central Office June 26, 2018

Contact(s): Mary Anne Lowndes, 608-261-6420

MADISON - New rule revisions designed to reduce manure groundwater contamination, specifically in the northeast section of the state, take effect July 1.

The changes, under the Wisconsin Department of Natural Resources' ch. NR 151, Wis. Adm. Code, relate to Silurian bedrock, which are areas where the soil depth to bedrock is shallow and the bedrock may be fractured.

Nitrate in Groundwater/Drinking Water

- Over 2/3 of Wisconsinites get their drinking water from groundwater sources
- 42,000 private wells contaminated by nitrate



Agricultural Trends

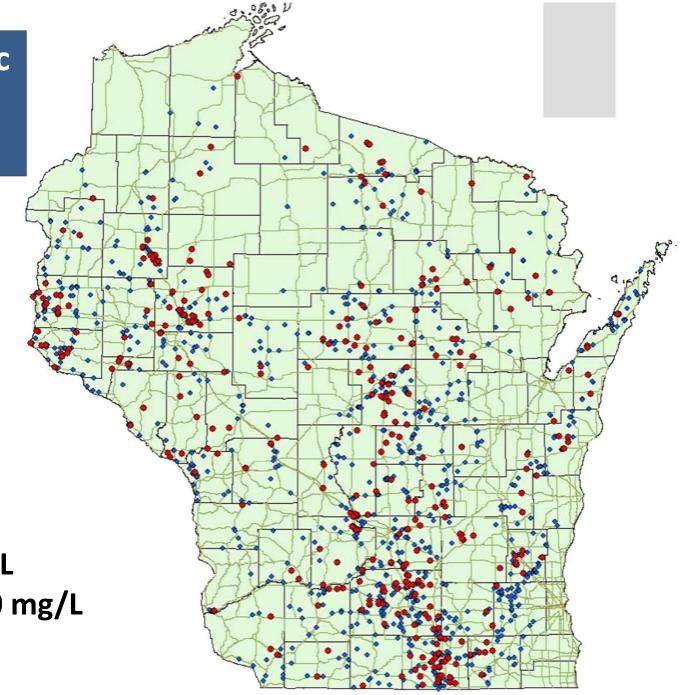
- Increasing row crops
- Fewer dairies
- Increasing N application



Chart 2. Wisconsin Nitrogen Fertilizer Tonnage (1979-2016). Less than 5% non-agricultural tonnage. Source: Wi (DATCP) annual fertilizer tonnage reports.

Source: Food, Land, and Water: Moving Forward

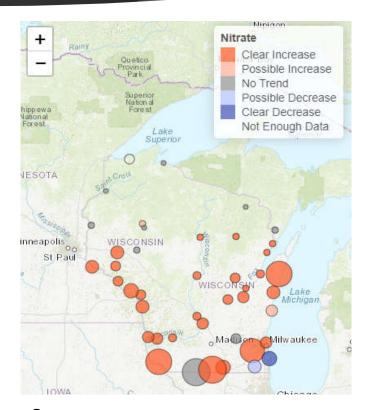
Nitrate at Public Drinking Water Wells



- •Wells > 10.0 mg/L
- Wells > 5.0 < 10.0 mg/L

Nitrate in Surface Waters

Has <u>increased</u> in most rivers in agricultural basins over past several decades



Source: https://wisconsindnr.shinyapps.io/riverwq/

More groundwater quality in the news...



Water quality has become a bipartisan issue

Tony Evers declared 2019 'the year of clean drinking water.' Here's the task he faces in Wisconsin

Lee Bergquist and Mary Spicuzza, Milwaukee Journal Sentinel Published 7:00 a.m. CT Jan. 25, 2019 | Updated 8:15 a.m. CT Jan. 25, 2019

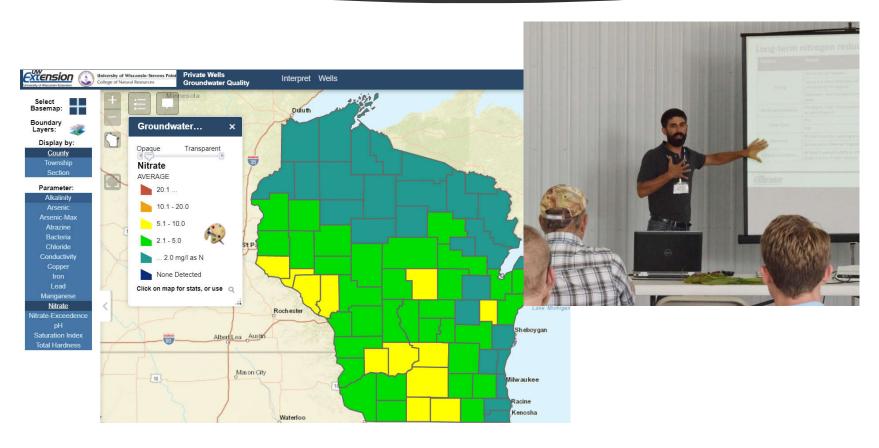


Source Water Protection Program

- Provide a connection between state and local resources
- Build local capacity for integrated groundwater programming
- Build cross agency relationships for innovative and holistic approaches to land management

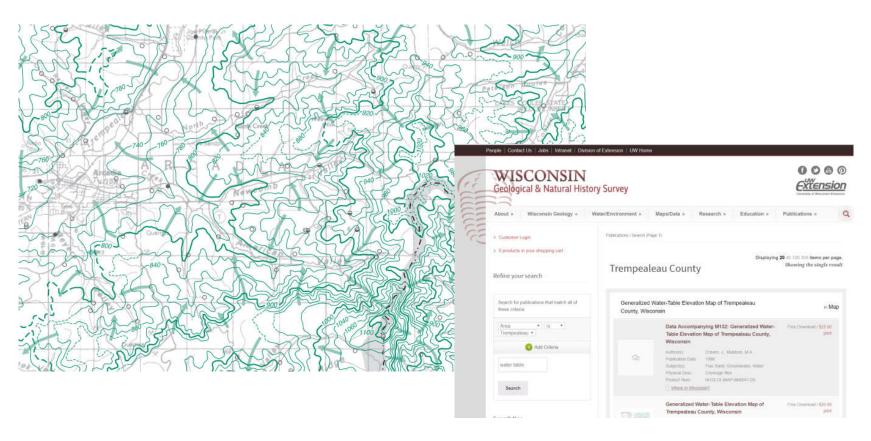


Provide a connection between state and local resources



https://www.uwsp.edu/cnr-ap/watershed/Pages/GWHome.aspx

Provide a connection between state and local resources



https://wgnhs.uwex.edu/

Build local capacity for integrated groundwater programming

- Develop and share resources
- Coordinate trainings and Webinars, such as:
 - How to design a private well monitoring program
 - Human health effects of nitrate
 - Wisconsin's groundwater basics
 - Accessing public well information



Collaboration























Health & Conservation Workgroup





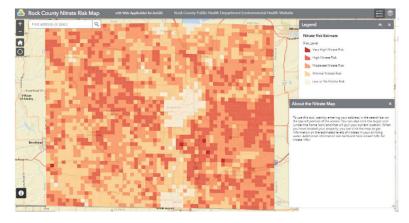
Forge relationship between WI Land+Water and WALHDAB and strengthen local conservation and public health partnership to protect and enhance drinking water.

Innovative Approaches

Testing BMPs and understanding nitrate leaching



Developing tools to understand risks



Resources

- Source Water Protection Program
 - https://wisconsinlandwater.org/programs/groundwater -protection
- Groundwater Webinar Series
 - https://wisconsinlandwater.org/programs/groundwater -webinar-series
- Food, Land, and Water Report
 - https://wisconsinlandwater.org/programs/food-landwater-project