

2024* Water Quality Report

729,000 Constituents | 46% Rely on Private Wells for Drinking Water

Nitrate Exceedances

From 2022 to 2024, 77% of public and 74% of private wells sampled exceeded the Preventive Action Limit for nitrate in drinking water.

Groundwater Contamination Cleanup Sites

Rice Lake
Forty-nine groundwater sites are listed as contaminated.

Drinking Water Quality Violations

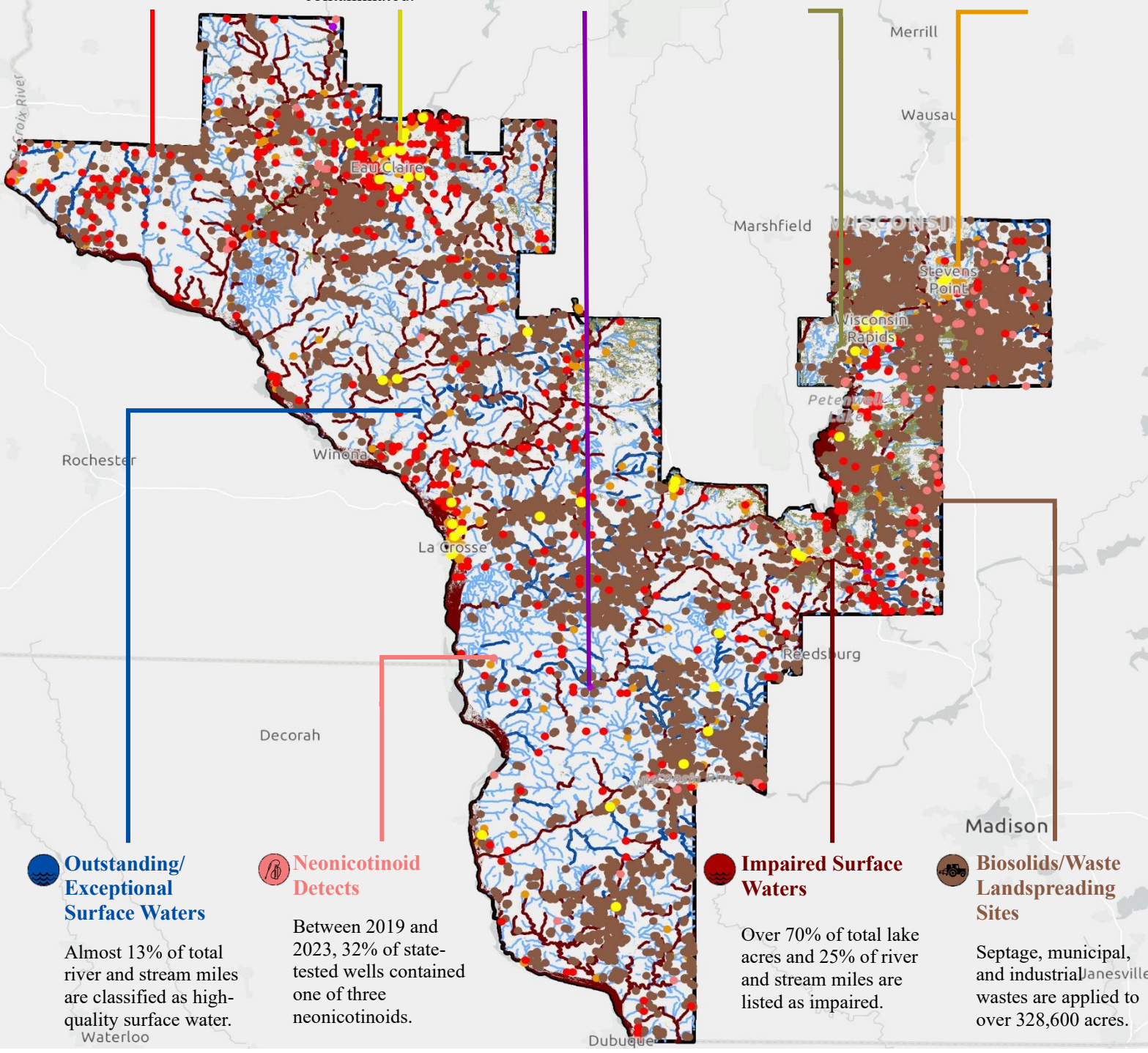
Approximately 2% of public water systems reported contaminant violations between 2022 and 2024.

Wetland Loss

More than 581,000 acres of wetlands are categorized as lost but potentially restorable.

PFAS Sources and Detects

There are 141 presumed PFAS sources, and 35% of state-tested wells had at least one of the chemicals in 2023.



Outstanding/Exceptional Surface Waters

Almost 13% of total river and stream miles are classified as high-quality surface water.

Neonicotinoid Detects

Between 2019 and 2023, 32% of state-tested wells contained one of three neonicotinoids.

Impaired Surface Waters

Over 70% of total lake acres and 25% of river and stream miles are listed as impaired.

Biosolids/Waste Landspreading Sites

Septage, municipal, and industrial wastes are applied to over 328,600 acres.

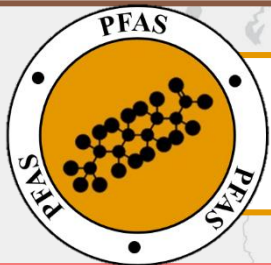




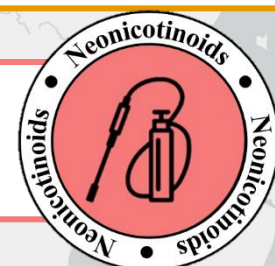
- **Seventy-four private and 490 public wells sampled exceeded the Preventative Action Limit from 2022-2024.¹**
- Elevated levels of nitrate are generally due to agricultural runoff and industrial discharges.
- Nitrate has been linked to blue baby syndrome, colon cancer, thyroid disease, and neural tube defects.



- **Current permit holders have applied over 1.7 billion gallons of waste to over 10,900 separate fields.²**
- The liquid and solid waste is generated from paper mills, septage operations, and food processing plants.
- Landspreading waste can transport contaminants by contaminating groundwater and food and feed crops in the area.



- **One hundred forty-nine private and municipal wells tested by the state had detectable levels of PFAS in 2023.³**
- The 141 presumed sources include facilities that manufacture, manage, and/or discharge PFAS materials.⁴
- PFAS consumption can cause developmental effects in children, decreased fertility, and some cancers.



- **From 2019-2023, eighty-five private and monitoring well samples contained one or more neonicotinoids⁵**
- Neonicotinoid insecticides are applied to agricultural crops, lawns and gardens, golf courses, and more.
- Negative impacts to non-target insect species cause food chain issues in fish, birds, and potentially other taxa.



- **Radium, bacteria, and/or nitrate violations occurred in twelve public water systems from 2022-2024.⁶**
- These contaminants often enter drinking water from natural sources, septic systems, and agricultural operations.
- Sustained ingestion at high levels can cause cancer, gastrointestinal issues, and/or numerous other health impacts.



- **Forty-nine groundwater sites are contaminated with solvents, gasoline, and/or volatile organic compounds.⁷**
- These chemical mixtures enter water through industrial discharges, underground storage tank leaks, and landfill leachate.
- If ingested through drinking water, the pollutants pose serious cancer and organ damage health risks.



- **Of the thousands of wetland acres lost, 8% of the total land acreage has the potential for restoration.³**
- Degradation and loss of Wisconsin wetlands is primarily due to invasives, development, and conversion to cropland.
- Wetlands absorb pollutants before they enter water, including drinking water; without them, we lose natural filters.



- **More than 199,000 acres and 2,300 miles of surface waters are listed as impaired under the Clean Water Act.³**
- The mercury, phosphorus, metal, bacteria, and/or PCBs throughout are often from agricultural and industrial discharges.
- Ingestion of these pollutants can lead to organ damage, cardiovascular and reproductive issues, cancer, and more.



- **Over 1,200 miles and 950 acres of surface waters are classified as Outstanding or Exceptional by the state.³**
- These waterbodies support fisheries and wildlife and have high water quality from effective management and protection.
- As some drinking water is sourced from surface water, these are essential public health resources, too.

Waukegan



clean wisconsin

¹Wisconsin Department of Natural Resources (WDNR) Groundwater Retrieval Network (GRN); ²WDNR data request; ³WDNR GIS Open Data Portal;

⁴Adapted from Salvatore et al. (2022); ⁵Department of Agriculture, Trade, and Consumer Protection (DATCP) data request; ⁶Environmental Protection Agency (EPA) Enforcement and Compliance History Online (ECHO); ⁷WDNR Bureau for Remediation and Redevelopment Tracking System (BRRTS)