

2024* Water Quality Report

177,000 Constituents | 35% Rely on Private Wells for Drinking Water

PFAS Sources and Detects

There are 36 presumed sources of PFAS, and 18% of state-tested wells had detectable levels of at least one of the chemicals in 2023.

Drinking Water Quality Violations

Approximately 2% of public water systems reported contaminant violations from 2022-2024.

Neonicotinoid Detects

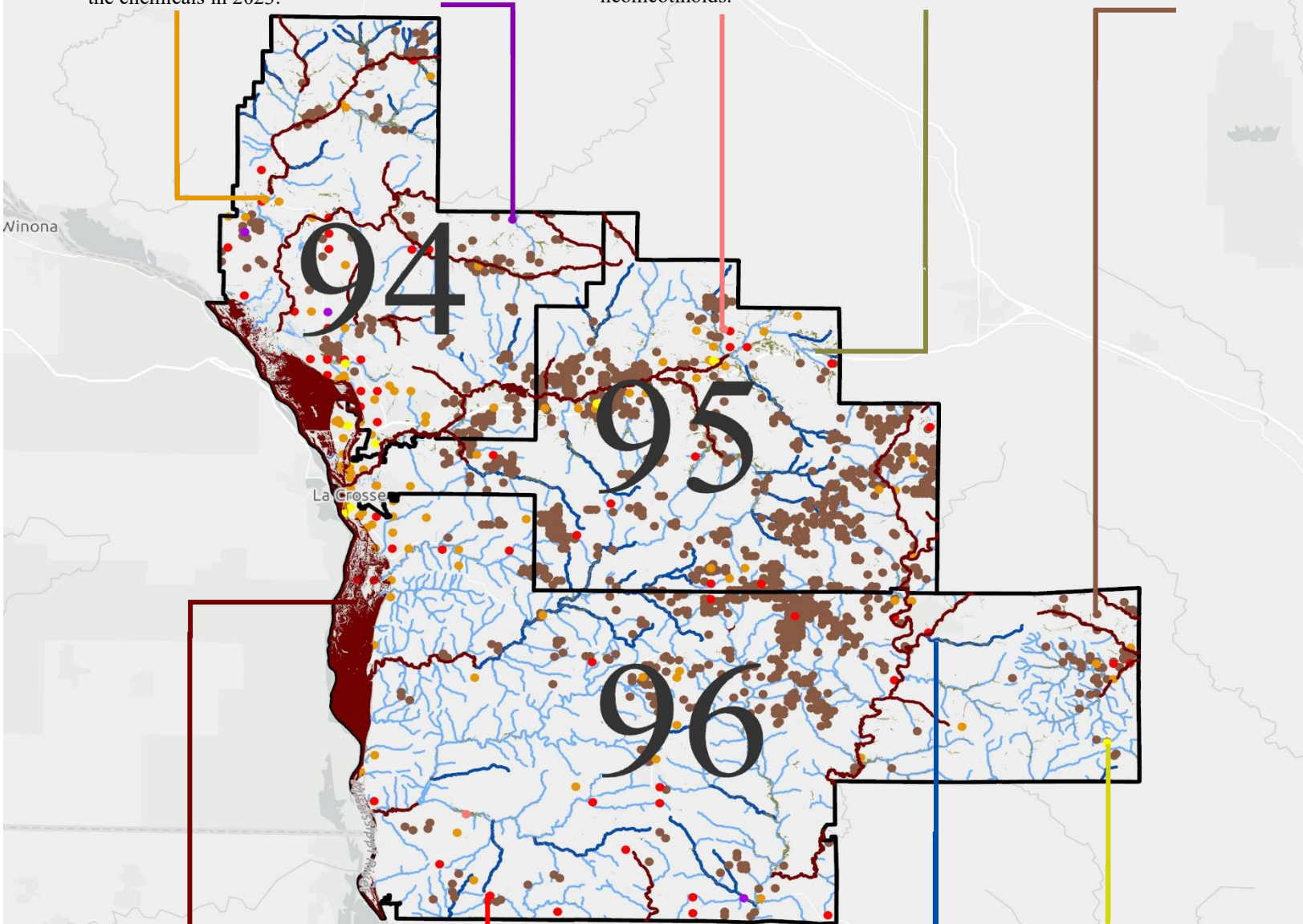
Between 2019 and 2023, 1% of state-tested wells contained detectable levels of one of three neonicotinoids.

Wetland Loss

More than 42,000 acres of wetland are categorized by the state as lost but potentially restorable.

Biosolids/Waste Landspreading Sites

Septage, municipal, and industrial wastes are applied to over 25,900 acres.



Impaired Surface Waters

Over 62% of total lake acres and 16% of river and stream miles are listed as impaired.

Nitrate Exceedances

In the past three years, 46% of public and 80% of private wells sampled exceeded the Preventive Action Limit for nitrate in drinking water.

Outstanding/Exceptional Surface Waters

Almost 14% of total river and stream miles are classified as high-quality surface waters.

Groundwater Contamination Cleanup Sites

There are 10 state-identified open groundwater contamination sites.

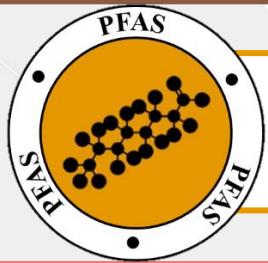




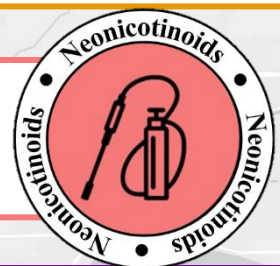
- **Over 70 public and eight private wells sampled exceeded the Preventative Action Limit from 2022-2024.¹**
- Elevated levels of nitrate are generally due to agricultural runoff and industrial discharges.
- Nitrate has been linked to blue baby syndrome, colon cancer, thyroid disease, and neural tube defects.



- **Current permit holders have applied over 339 million gallons of waste to 2,030 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.



- **Four private and 10 municipal wells tested by the state had detectable levels of PFAS in 2023.³**
- The 36 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, two private and monitoring wells contained one or more neonicotinoids.⁵**
- 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.



- **Bacteria and nitrate violations occurred in four public water systems from 2022-2024.⁶**
- These contaminants often enter drinking water from natural sources, agricultural operations, and septic systems.
- Sustained ingestion at high levels can cause stomach ailments and numerous other health impacts, respectively.



- **Eleven groundwater sites are contaminated with solvents, gasoline, and volatile organic compounds.⁷**
- These chemical mixtures enter the water through industrial discharges, 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, 3.6% of the total land 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 32,000 acres and 250 miles of surface waters are impaired under the Clean Water Act.³**
- The phosphorus, heavy metal, and PCBs are often from agricultural and industrial discharges.
- Ingestion of these pollutants can lead to organ damage, cardiovascular and reproductive issues, cancer, and more.



- **Over 230 miles 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 management and protection.
- As some drinking water is sourced from surface water, these are essential public health resources, too.

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)

