

2024* Water Quality Report

177,000 Constituents | 45% Rely on Private Wells for Drinking Water

**Impaired Surface Waters**

Over 83% of total lake acres and 28% of river and stream miles are listed as impaired.

**Groundwater Contamination Cleanup Sites**

There are nine state-identified open groundwater contamination sites.

**Nitrate Exceedances**

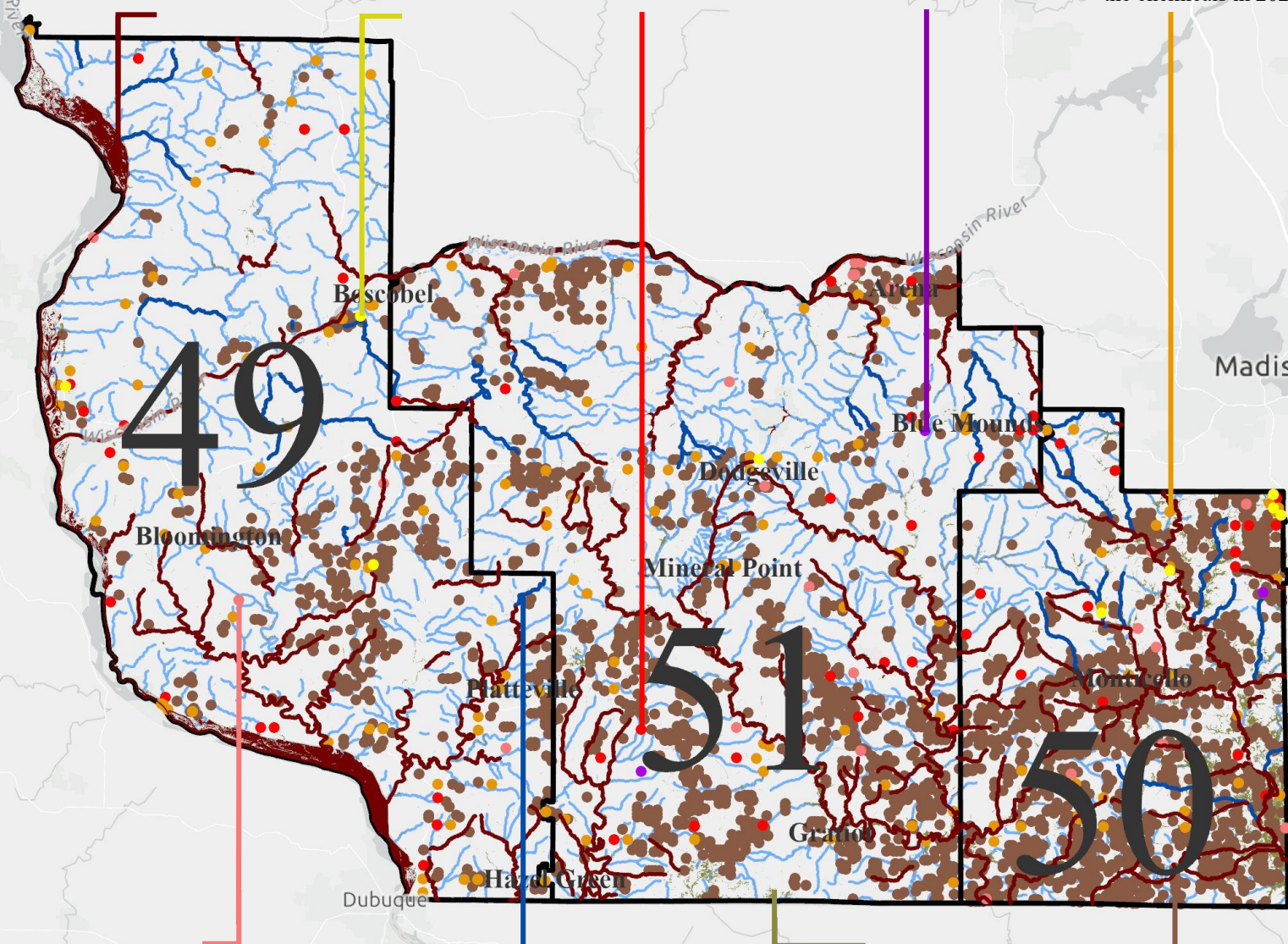
In the past three years, 45% of public and 63% of private wells sampled exceeded the Preventive Action Limit for nitrate in drinking water.

**Drinking Water Quality Violations**

Approximately 1% of public water systems reported contaminant violations from 2022 to 2024.

**PFAS Sources and Detects**

There are 19 presumed sources of PFAS, and 19% of state-tested wells had detectable levels of at least one of the chemicals in 2023.

**Neonicotinoid Detects**

Between 2019 and 2023, 38% of state-tested wells contained detectable levels of one of three neonicotinoids.

**Outstanding/Exceptional Surface Waters**

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

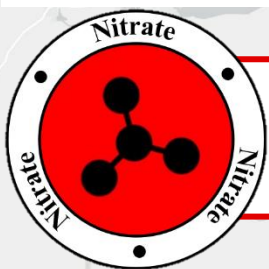
**Wetland Loss**

More than 75,000 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 109,000 acres.

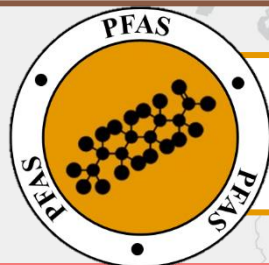




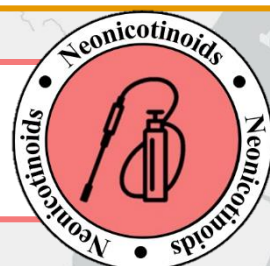
- **Sixty-six public and 17 private* wells sampled exceeded the Preventative Action Limit from 2022-2024.**¹
- Elevated levels of nitrate are generally due to agricultural runoff and industrial discharges.
- Nitrate has been linked to blue baby syndrome, colon cancer, thyroid disease, and neural tube defects.



- **Current permit holders have applied approximately 1.2 billion gallons of waste to more than 3,600 separate fields.**²
- The liquid and solid waste is generated from paper mills, septage operations, and food processing plants.
- Landspreading can transport contaminants by contaminating groundwater and crops grown in the area.



- **Eleven private and 13 municipal wells tested by the state had detectable levels of PFAS in 2023.**³
- The 19 presumed sources include facilities that manufacture, manage, or discharge PFAS materials.⁴
- PFAS consumption can cause developmental effects in children, decreased fertility, and some cancers.



- **From 2019-2023, 24 private and monitoring wells sampled 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 species, such as fish and birds, raise potential human health concerns.



- **Elevated levels of radium, arsenic, and nitrate were found in three public* water systems.**⁶
- These often enter drinking water from natural sources, agricultural operations, and septic systems.
- Sustained ingestion at high levels can cause tissue damage, stomach ailments, and cancer, respectively.



- **Nine groundwater sites are contaminated with solvents, gasoline, and volatile organic compounds.**⁷
- They enter the water through industrial discharges, underground storage tank leaks, and landfill leachate.
- If ingested through drinking water, these pollutants pose serious cancer and organ damage health risks.



- **Of the thousands of wetland acres lost, 2.8% of the total land has the potential for restoration.**³
- Degradation and loss of Wisconsin wetlands is primarily due to development, drainage, and agriculture.
- Wetlands absorb pollutants before they enter drinking water; without them, we lose natural water filters.



- **Over 34,700 acres and 1,074 miles of surface waters are impaired under the Clean Water Act.**³
- The phosphorus, heavy metal, and PCB contamination is often from agricultural and industrial discharges.
- Ingestion of the pollutants can lead to organ damage, cardiovascular and reproductive issues, and cancer.



- **Four hundred and eighty 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 effective management.
- As some drinking water is sourced from surface water, these are essential public health resources.

Waukegan

*Public wells include [municipal, other than municipal, non-transient non-community, and transient non-community systems](#). ¹Wisconsin Department of Natural Resources (WDNR) Groundwater Retrieval Network; ²WDNR data request; ³WDNR GIS Open Data Portal; ⁴Adapted from Salvatore et al. (2022); ⁵Department of Agriculture, Trade, and Consumer Protection data request; ⁶Environmental Protection Agency Enforcement and Compliance History Online; ⁷WDNR Bureau for Remediation and Redevelopment Tracking System