

## 2024\* Water Quality Report

177,000 Constituents | 58% Rely on Private Wells for Drinking Water

**Wetland Loss**

More than 243,000 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 103,000 acres.

**Nitrate Exceedances**

In the past three years, 51% of public and 23% 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 2022-2024.

**Groundwater Contamination Cleanup Sites**

There are 11 state-identified open groundwater contamination sites.

**Neonicotinoid Detects**

Between 2019 and 2023, 49% of state-tested wells contained detectable levels of one of three neonicotinoids.

**Outstanding/Exceptional Surface Waters**

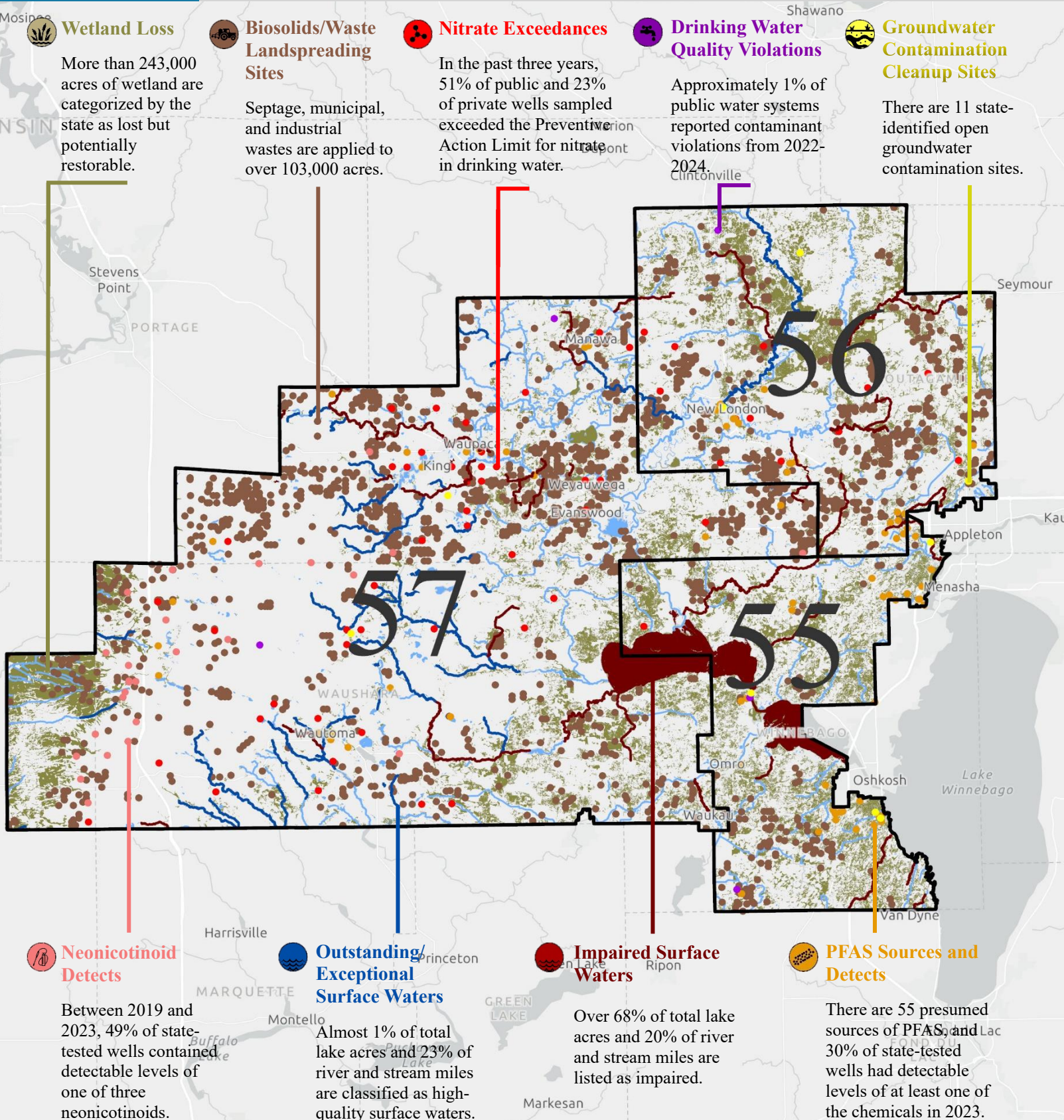
Almost 1% of total lake acres and 23% of river and stream miles are classified as high-quality surface waters.

**Impaired Surface Waters**

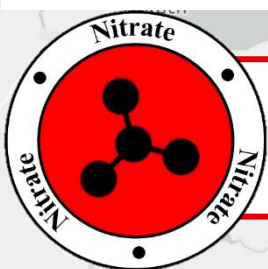
Over 68% of total lake acres and 20% of river and stream miles are listed as impaired.

**PFAS Sources and Detects**

There are 55 presumed sources of PFAS, and 30% of state-tested wells had detectable levels of at least one of the chemicals in 2023.



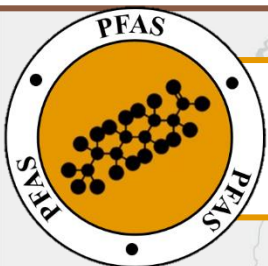




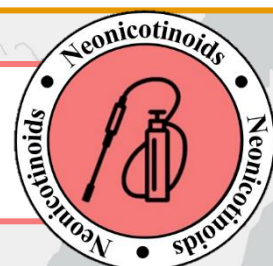
- **Sixty-four public\* and 16 private wells sampled exceeded the Preventative Action Limit from 2022-2024.<sup>1</sup>**
- Elevated levels of nitrate are generally due to agricultural runoff and industrial discharges.
- Nitrate has been linked to blue baby syndrome, colon cancer, thyroid disease, and neural tube defects.



- **Current permit holders have applied approximately 2.5 billion gallons of waste to 2,779 separate fields.<sup>2</sup>**
- 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.



- **Eleven private and 16 municipal wells tested by the state had detectable levels of PFAS in 2023.<sup>3</sup>**
- The 55 presumed sources include facilities that manufacture, manage, and/or discharge PFAS materials.<sup>4</sup>
- PFAS consumption can cause developmental effects in children, decreased fertility, and some cancers.



- **From 2019-2023, 33 private and monitoring well samples contained one or more neonicotinoids.<sup>5</sup>**
- 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.



- **Arsenic, bacteria, and/or nitrate violations occurred in five public\* water systems from 2022-2024.<sup>6</sup>**
- 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.



- **Eleven groundwater sites are contaminated with solvents, gasoline, and/or volatile organic compounds.<sup>7</sup>**
- These chemical mixtures enter water through industrial discharges, underground 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 acreage has the potential for restoration.<sup>3</sup>**
- 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.



- **Approximately 49,000 acres and 230 miles of surface waters are listed as impaired under the Clean Water Act.<sup>3</sup>**
- The phosphorus, heavy metal, and PCB contamination 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 250 miles and 370 acres of surface waters are classified as Outstanding or Exceptional by the state.<sup>3</sup>**
- 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

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