1
SENATE DISTRICT

2024* Water Quality Report

177,000 Constituents | 47% Rely on Private Wells for Drinking Water

PFAS Sources and Detects

There are 31 presumed PFAS sources, and 22% of state-tested wells had at least one of the chemicals in 2023.

Nitrate Exceedances

From 2022 to 2024, 42% of public and 13% of private wells sampled exceeded the Preventive Action Limit for nitrate in drinking water.

Outstanding/ Exceptional Surface Waters

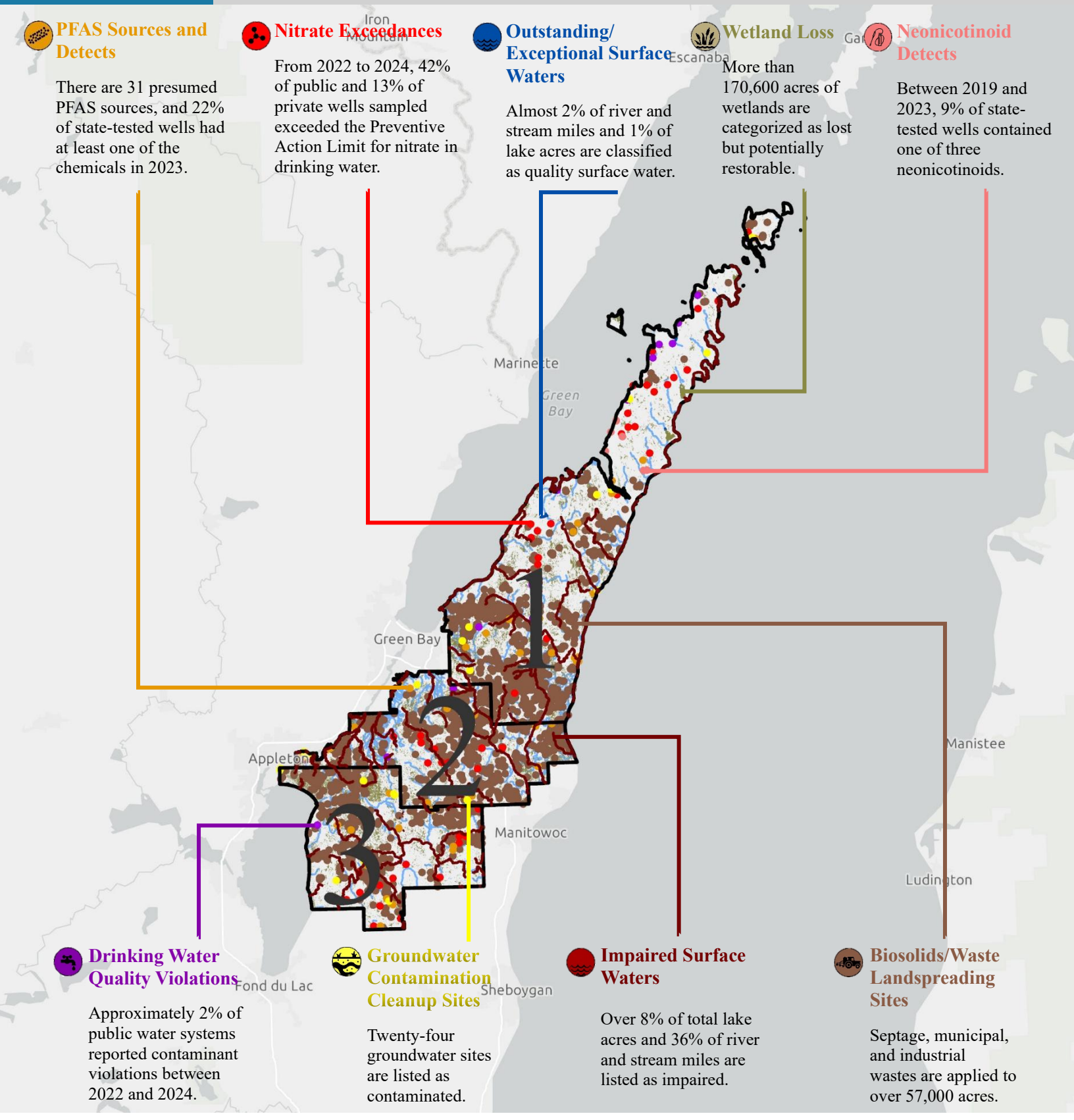
Almost 2% of river and stream miles and 1% of lake acres are classified as quality surface water.

Wetland Loss

More than 170,600 acres of wetlands are categorized as lost but potentially restorable.

Neonicotinoid Detects

Between 2019 and 2023, 9% of state-tested wells contained one of three neonicotinoids.



Drinking Water Quality Violations

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

Groundwater Contamination Cleanup Sites

Twenty-four groundwater sites are listed as contaminated.

Impaired Surface Waters

Over 8% of total lake acres and 36% of river and stream miles are listed as impaired.

Biosolids/Waste Landspreading Sites

Septage, municipal, and industrial wastes are applied to over 57,000 acres.

For policy questions, contact Water and Agriculture Program Director Sara Walling at swalling@cleanwisconsin.org.
For data questions, contact Clean Water Manager Hannah Richerson at hricherson@cleanwisconsin.org.

**Data available as of December 31, 2024.*

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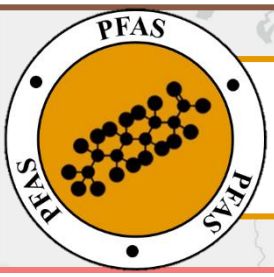
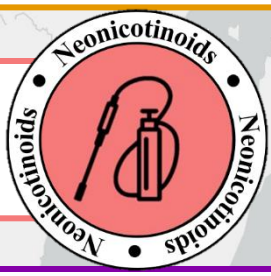
- **Three private and 66 public wells sampled exceeded the Preventative Action Limit from 2022-2024.[1]**
- Elevated levels of nitrate are generally due to agricultural runoff and industrial discharges.
- Nitrate has been linked to blue baby syndrome, colon cancer, thyroid disease, and neural tube defects.

- **Current permit holders have applied over 515 million gallons of waste to over 2,200 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.



- **Seven private and 15 municipal wells tested by the state had detectable levels of PFAS in 2023.[3]**
- The 31 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, seven 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 insect species cause food chain issues in fish, birds, and potentially other taxa.

- **Bacteria, nitrate, and arsenic violations occurred in fourteen public water systems from 2022-2024.[6]**
- These contaminants often enter drinking water from agricultural operations and natural sources.
- Sustained ingestion at high levels can cause gastrointestinal issues, cancer, and cardiovascular disease, respectively.

- **Twenty-four groundwater sites are contaminated with PFAS, solvents, gasoline, heavy metals, VOCs, and/or more.[7]**
- These chemical mixtures enter water through industrial/military discharges, storage tank leaks, and landfill leachate.
- If ingested through drinking water, the pollutants pose cancer, organ damage, and/or other serious health risks.

- **Of the thousands of wetland acres lost, 14% 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 690 acres and 560 miles of surface waters are listed as impaired under the Clean Water Act.[3]**
- The mercury, phosphorus, lead, 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 29 miles and 101 acres of surface waters are classified as Outstanding or Exceptional Waters 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.

[1]Wisconsin Department of Natural Resources (WDNR) Groundwater Retrieval Network (GRN); [2]WDNR data request; [3]WDNR GIS Open Data Portal; [4]Adapted from Salvatore et al. (2022); [5]Department of Agriculture, Trade, and Consumer Protection (DATCP) data request; [6]Environmental Protection Agency (EPA) Enforcement and Compliance History Online (ECHO); [7]WDNR Bureau for Remediation and Redevelopment Tracking System (BRRTS)

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