

# 2024\* Water Quality Report

177,000 Constituents | 29% Rely on Private Wells for Drinking Water

### PFAS Sources and Detects

There are 52 presumed PFAS sources, and 27% of state-tested wells had at least one of the chemicals in 2023.

### Wetland Loss

More than 66,200 acres of wetlands are categorized as lost but potentially restorable.

### Nitrate Exceedances

From 2022 to 2024, 12% of public and 12% of private wells sampled exceeded the Preventive Action Limit for nitrate in drinking water.

### Drinking Water Quality Violations

No public water systems reported contaminant violations between 2022 and 2024.

### Groundwater Contamination Cleanup Sites

Sixteen groundwater sites are listed as contaminated.

### Impaired Surface Waters

Over 8% of total lake acres and 47% of river and stream miles are impaired.

### Outstanding/Exceptional Surface Waters

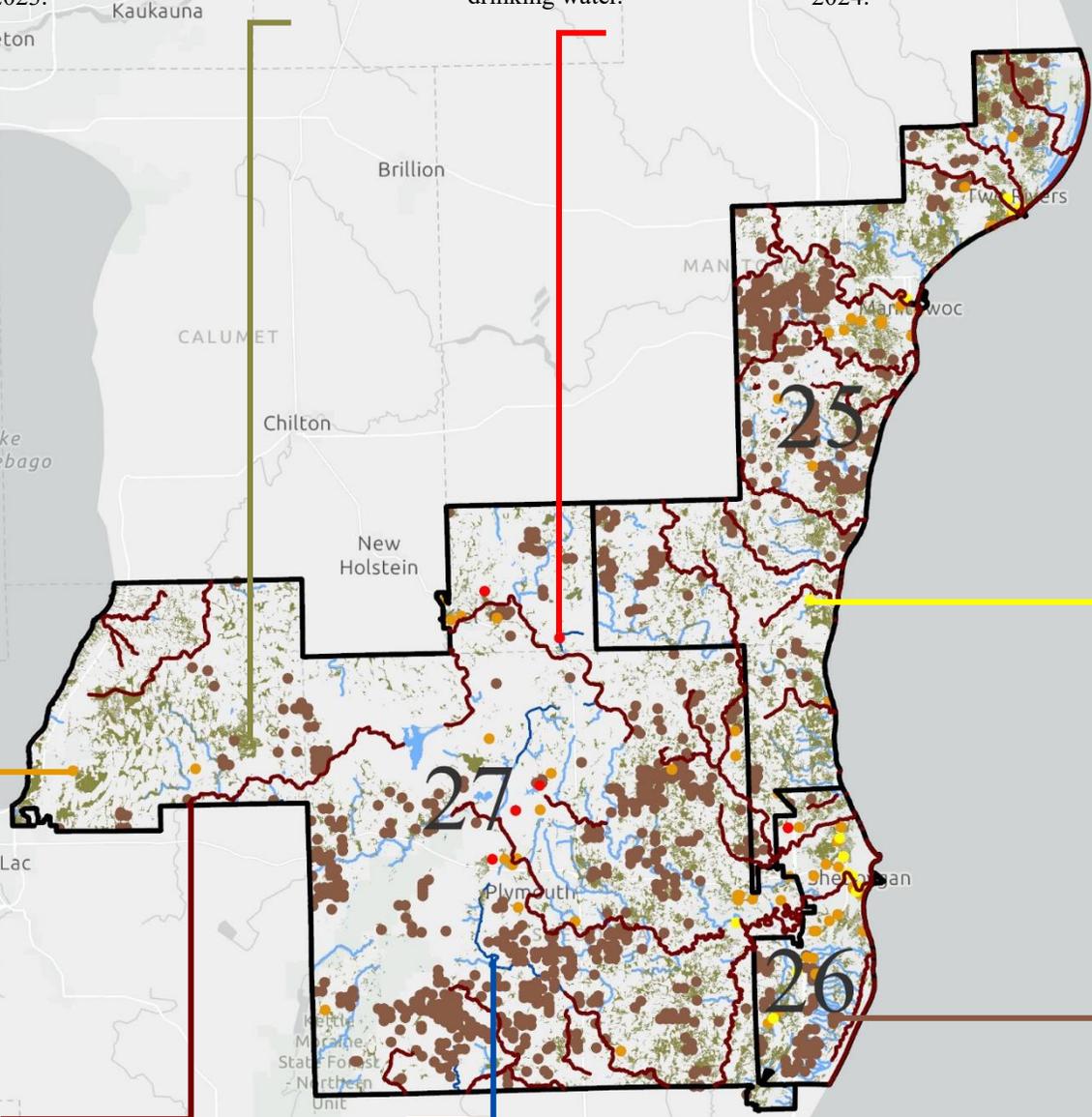
Almost 4% of river and stream miles are classified as quality surface water.

### Neonicotinoid Detects

Between 2019 and 2023, no state-tested wells contained neonicotinoids.

### Biosolids/Waste Landspreading Sites

Septage, municipal, and industrial wastes are applied to over 22,300 acres.





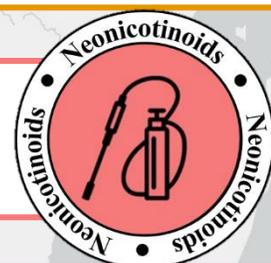
- **Two private and nine public\* wells sampled exceeded the Preventative Action Limit from 2022-2024.**<sup>1</sup>
- Elevated levels of nitrate are generally due to agricultural runoff and industrial discharges.
- Nitrate has been linked to blue baby syndrome, colon cancer, thyroid disease, and neural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



- **Current permit holders have applied approximately 310 million gallons of waste to over 1,300 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.



- **Four private and 14 municipal wells tested by the state had detectable levels of PFAS in 2023.**<sup>3</sup>
- The 52 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, no private nor monitoring wells sampled contained 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.



- **No federal drinking water violations occurred in public\* water systems from 2022-2024.**<sup>6</sup>
- Common contaminants such as bacteria and metals often enter drinking water from agricultural and natural sources.
- Sustained ingestion at high levels can cause gastrointestinal ailments and developmental issues, respectively.



- **Sixteen groundwater sites are contaminated with PFAS, PAHs, solvents, gasoline, heavy metals, and/or VOCs.**<sup>7</sup>
- These chemical mixtures enter water through industrial/military 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, 14% 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.



- **More than 410 acres and 290 miles of surface waters are listed as impaired under the Clean Water Act.**<sup>3</sup>
- 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 25 miles of surface waters are classified as Outstanding or Exceptional Resource Waters 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.



\*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