

# 2024\* Water Quality Report

177,000 Constituents | 27% Rely on Private Wells for Drinking Water



## PFAS Sources and Detects

There are 46 presumed PFAS sources, and 24% of state-tested wells had at least one of the chemicals in 2023.



## Drinking Water Quality Violations

Approximately 1% of public water systems reported contaminant violations between 2022 and 2024.



## Biosolids/Waste Landspreading Sites

Septage, municipal, and industrial wastes are applied to over 2,800 acres.



## Wetland Loss

More than 19,200 acres of wetlands are categorized as lost but potentially restorable.



## Nitrate Exceedances

From 2022 to 2024, 10% of public and 0% of private wells sampled exceeded the Preventive Action Limit for nitrate in drinking water.

WASHINGTON

West Bend

OZAUCKEE

Knellsville

Port Washington

22

24

23

Fox Point

Glendale

Whitefish Bay



## Groundwater Contamination Cleanup Sites

Twenty-one groundwater sites are listed as contaminated.



## Neonicotinoid Detects

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

Wauwatosa



## Outstanding/Exceptional Surface Waters

No rivers, streams, nor lakes are classified as quality surface water.

Milwaukee



## Impaired Surface Waters

Over 5% of total lake acres and 46% of river and stream miles are listed as impaired.

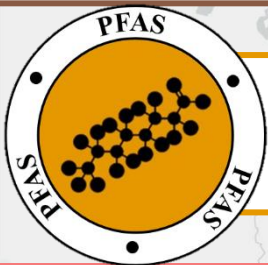




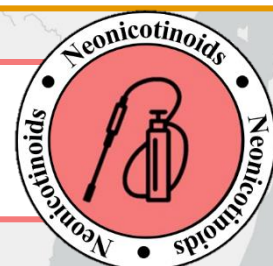
- **Five public\* wells (no private wells) sampled exceeded the Preventative Action Limit from 2022-2024.<sup>1</sup>**
- Elevated levels of nitrate are generally due to agricultural runoff and industrial discharges.
- Nitrate has been linked to blue baby syndrome, colon cancer, thyroid disease, and neural tube defects.



- **Current permit holders have applied approximately 440 million gallons of waste to over 170 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.



- **Three private and 22 municipal wells tested by the state had detectable levels of PFAS in 2023.<sup>3</sup>**
- The 46 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.



- **Bacteria and di(2-ethylhexyl) phthalate violations occurred in three public\* water systems from 2022-2024.<sup>6</sup>**
- These contaminants often enter drinking water from natural sources and industrial operations.
- Sustained ingestion at high levels can cause gastrointestinal illnesses and reproductive issues, respectively.



- **Twenty-one groundwater sites are contaminated with PFAS, solvents, heavy metals, gasoline, 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 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.<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 35 acres and 120 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.



- **No surface waters are classified as Outstanding or Exceptional 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