

2019

Year of Clean
DRINKING
WATER



REPORT FROM THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES



WISCONSIN.GOV

“Everyone should be able to drink water straight from their tap.”

It is time for our state to fund restoration projects, incorporate science into our natural resource policy, address widespread water contamination, and acknowledge the real and imminent threat of climate change. By investing in conservation, protecting our natural resources and taking proactive action to prevent pollution, we can ensure clean drinking water for every community in the state. ”

– Gov. Tony Evers

CLEAN WATER

for all

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DNR Prioritizes Fight for Wisconsin's Drinking Water

Nitrates and other contamination in private wells. Lead service lines that put water supplies at risk. Growing alarm over per- and polyfluoroalkyl chemicals, known as PFAS, in groundwater.

These concerns are front and center when it comes to the statewide need for safe drinking water — and a big reason Gov. Tony Evers declared 2019 the Year of Clean Drinking Water.

"Tens of thousands of people in Wisconsin are afraid to turn on their tap to drink water. That is unacceptable, and we must fix it," Gov. Evers said. "Ensuring safe and reliable drinking water is fundamental to the health of our communities, and is a public health priority."



SUSAN BENGE, WUWM

Gov. Tony Evers, above right, has made clean drinking water a priority for Wisconsin, and the Department of Natural Resources — led by Secretary-designee Preston D. Cole, left — is at the forefront of these efforts.



ISTOCK



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Evers made that statement in June as he chaired a leadership summit in Milwaukee involving U.S. governors and Canadian officials from the Great Lakes region. There, he introduced and shepherded passage of two resolutions designed to protect Wisconsin's drinking water from lead contamination and the emerging hazard of PFAS.

It was but one of many actions the governor took in 2019 — the Year of Clean Drinking Water. The Wisconsin Legislature also has been active, holding numerous listening sessions

statewide as part of the Speaker's Task Force on Water Quality, a bipartisan committee featuring members of both the State Assembly and Senate.

The Department of Natural Resources is entrusted with protecting Wisconsin's water resources and enforcing the federal Safe Drinking Water Act.

Fighting pollution and keeping water safe has long been at the very heart of agency endeavors.

The fact that DNR devotes such effort, energy and focus to ensuring clean drinking water throughout



Gov. Tony Evers, right, and DNR Secretary-designee Preston D. Cole, center, tour the School of Freshwater Sciences at UW-Milwaukee.

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DNR TAKES ACTION TO ENSURE CLEAN DRINKING WATER

Here's a brief summary of actions taken by the Department of Natural Resources in the Year of Clean Drinking Water. Details on key issues, accomplishments and strategies going forward can be found in this report.

- **PFAS RULEMAKING:** As directed by Gov. Evers and using science-based recommendations from the state Department of Health Services, DNR has begun the process of creating enforceable standards for drinking water, surface water and groundwater to protect public health in the face of emerging PFAS contaminants. In October, the Natural Resources Board voted unanimously to move forward with this process, which will include further NRB oversight and public participation as a critical component of agency rulemaking. The DNR and DHS will continue working together on developing the standards needed to address PFAS contamination.
- **NITRATE RULEMAKING:** Following the direction of Gov. Evers, the DNR has initiated steps to pursue rulemaking through NR 151 to reduce nitrate contamination by establishing targeted performance standards for soils most likely to experience such contamination. At its December meeting, the NRB approved the agency's request for rulemaking. Working with the Department of Agriculture, Trade and Consumer Protection, these efforts are aimed at addressing harmful nitrates in groundwater and surface water.
- **SOUTHWEST WISCONSIN GROUNDWATER AND GEOLOGY STUDY:** The DNR has provided a portion of the funding, along with county land conservation departments, for a broad survey to evaluate the safety of drinking water in Grant, Iowa and Lafayette counties. The study is testing water from hundreds of wells in counties where 44% of residents obtain drinking water from private wells. The fractured bedrock landscape found in southwest Wisconsin makes this part of the state exceptionally vulnerable to groundwater contamination.
- **EXECUTIVE ORDER #36:** Signed July 29, this order from Gov. Evers targets lead exposure in drinking water, creating a position in the Department of Health Services to coordinate the state's efforts. It also directs DHS to provide staffing and resources to collaborate with local health departments and community groups to inform and protect state residents against the risks of lead poisoning.
- **EXECUTIVE ORDER #40:** Related to and expanding on PFAS rulemaking, this Executive Order signed Aug. 22 creates a PFAS Coordinating Council staffed by DNR with assistance from other agencies. Specified tasks include developing a PFAS action plan for the state, evaluating the public health risks and natural resources impacts of PFAS, identifying PFAS sources and management strategies, and developing protocols to inform and educate the public about PFAS issues.
- **FRESHWATER COLLABORATIVE:** The DNR is partnering with UW-Milwaukee, the institution leading the Freshwater Collaborative, an education and research framework involving all 13 UW System campuses. The Collaborative will fill the demand for a water-focused workforce.
- **SPEAKER'S TASK FORCE ON WATER QUALITY:** The DNR participated in multiple listening sessions held by the Task Force around the state. In November, DNR joined with DHS and DATCP in forming recommendations to the Task Force to address water quality issues.
- **STATE FAIR:** Returning with a much bigger presence than in previous years, the DNR chose "Clean Water" for its theme at the 2019 Wisconsin State Fair. Numerous interactive exhibits and educational pieces from DNR at State Fair Park in West Allis celebrated water and put the focus squarely on water quality issues and importance during the 11-day Wisconsin tradition.

the state speaks to its crucial importance.

"We cannot live without clean drinking water," said DNR Secretary-designee Preston D. Cole. "Water is life-giving."

Much of that work historically relates to Wisconsin's Groundwater Protection Standards, passed 35 years ago "for the protection of public health and welfare." Still more of what DNR does involves implementing and enforcing the federal Safe Drinking Water Act, signed into law in 1974.

This report highlights the work being done by DNR in critical areas, including lead service lines, nitrates in well water and PFAS. It acknowledges that, although much has been done, much work remains. While noting accomplishments, the report focuses on strategies moving forward to address continuing issues. The official Year of Clean Drinking Water may be over, but the battle marches on to make clean water in Wisconsin accessible to everyone. 

DNR'S WORK RUNS GAMUT FROM LARGE PUBLIC WATER SYSTEMS TO PRIVATE WELLS

The Wisconsin Department of Natural Resources is responsible for implementing and enforcing the federal Safe Drinking Water Act (SDWA) to safeguard the quality of the state's drinking water. The SDWA sets limits (called maximum contaminant levels, or MCLs) on allowable levels for bacteriological and chemical contaminants in drinking water as well as monitoring and reporting requirements.

PUBLIC WATER SYSTEMS

Wisconsin has 11,451 public water systems, the most of any state. About three-quarters of Wisconsin residents get their water from public water systems.

A public water system is defined by the DNR and the U.S. Environmental Protection Agency as a system that provides the public with piped water for human consumption.

All public water systems are required to meet safe drinking water regulations, maintain adequate records and receive regular sanitary inspections by DNR or contracted county health department staff.

Community water systems — public systems that serve water where people live versus to restaurants, schools or places of work — are annually required to provide a Consumer Confidence Report to all customers.

PUBLIC TRUST: WISCONSIN'S WATERS BELONG TO EVERYONE



Wisconsin lakes and rivers are public resources, owned in common by all Wisconsin citizens under the state constitution's Public Trust Doctrine. It declares that all navigable waters are "common highways and forever free," and held in trust for future generations.

DNR FILES

PRIVATE WELLS

Approximately 1.7 million people rely on private wells (800,000 in Wisconsin) for their water source. Unlike public water systems, protection and maintenance of a private well is largely the responsibility of the well owner.

The DNR sets and enforces standards for well construction, pump installation and well filling and sealing; however, unlike public water systems, private wells in Wisconsin are not required to be regularly tested or treated.

Determining the safety of the drinking water from private wells is up to the homeowner. Wisconsin groundwater surveys find that only 10% to 16% of private well owners have tested their well water for any contaminant.

Private wells should be tested annually for bacteria and nitrates, plus other contaminants as indicated by the DNR or health department professionals. Wells should be tested more frequently if there is a change in taste, odor or appearance of the water. Wells should be tested at least once for arsenic.

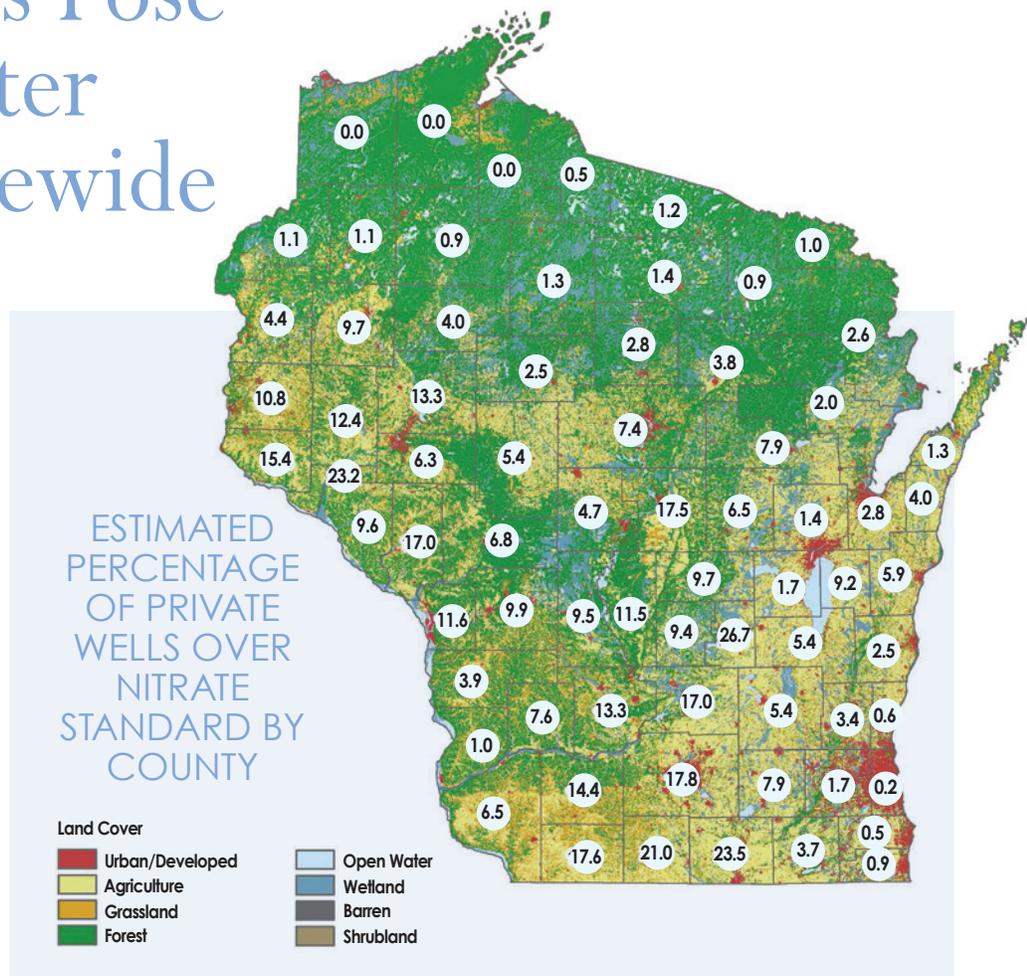
NITRATES

Unsafe Levels Pose Drinking Water Dangers Statewide

Nitrate (NO₃) is Wisconsin's most widespread groundwater contaminant. It poses an acute risk to infants and women who are pregnant, a possible risk to the developing fetus during very early stages of pregnancy, and a chronic risk of serious disease in adults. Since the early 1990s, it has been well-accepted that around 90% of nitrogen inputs to groundwater in Wisconsin can be traced to agricultural sources including manure spreading and fertilizer application.

Studies show that nitrate contamination is increasing in extent and severity in the state, leading to estimates that at least 10% of private wells in Wisconsin have high levels of nitrate. Increasing nitrate levels have also been observed in an additional 74 municipal systems.

In some concentrated agricultural areas, such as the highly cultivated regions in south central Wisconsin, an estimated 20% to 30% of private well samples exceed the maximum contaminant levels. The DNR estimates more than 40,000 (maybe as many as 80,000) private wells



and approximately 300 public water systems exceed the health standard for nitrate of 10 mg/L. The total cost estimate of abandoning these contaminated wells and replacing with

a new safe water supply exceeds \$440 million. It is estimated that private well owners have spent more than \$9 million to replace wells with elevated nitrate to date.

HOW MUCH IS TOO MUCH AND WHAT ARE THE RISKS?

Wisconsin's health-based groundwater enforcement standard (ES) and maximum contaminant level (MCL) for nitrate are set at 10 mg/liter (ppm). Everyone should avoid long-term consumption of water containing nitrate above this level.

Infants below the age of 6 months who drink water containing nitrate in excess of the MCL are especially at risk and could become seriously ill with a condition called methemoglobinemia or "blue-baby syndrome." This condition deprives the infant of oxygen and in extreme cases can cause death.

Birth defects have also been linked to nitrate exposure. Several epidemiological studies over the

past decade have examined statistical links between nitrate exposure and neural tube birth defects.

Studies collectively indicate an ongoing need for caution in consumption of nitrates by pregnant women and support the continuation of private well testing programs for these women.

In the human body, nitrate can convert to nitrite (NO₂) and then to N-nitroso compounds (NOCs), which are some of the strongest known carcinogens. As a result, additional human health concerns related to nitrate-contaminated drinking water include increased risk of non-Hodgkin's lymphoma, gastric cancer, and bladder and ovarian cancer in older women.

NITRATES

ACCOMPLISHMENTS

SOME OF THE DNR'S ACTIONS TO REDUCE NITRATES IN DRINKING WATER INCLUDE:

- The DNR's Drinking Water and Groundwater (DG) Program is working with the University of Wisconsin to build a Nitrate Fertilizer Decision Support Tool that will help farmers identify practices to reduce nitrate leaching into groundwater while maintaining an economically viable crop. Work has begun on the project and the projected completion date is 2024.
- Began implementing new Silurian bedrock performance standards under Wis. Admin. Codes NR 151.075 on July 1, 2018. Full implementation of the standard will likely take five years. Ground-water monitoring will help the DNR track progress of the targeted performance standards over time.

GOING FORWARD

THE DNR IS MOVING AHEAD ON SEVERAL INITIATIVES:

- Develop NR 151 targeted performance standards in areas of the state susceptible to nitrate contamination (the Wisconsin Natural Resources Board approved a rule scope statement in December).
- This begins the public process where health officials, researchers, safe drinking water advocates and the agriculture community assist in the development of rule-making focused on solutions that improve drinking water for Wisconsinites living within our most sensitive landscapes.
- Revise NR 812 to expand well construction requirements to better protect groundwater in sensitive geologic formations.

ADDITIONAL RECOMMENDATIONS:

The DNR made recommendations to the Governor following the 2019 Water Quality Task Force hearings, including:

- Require groundwater monitoring at all agricultural operations and land application sites.
- Increase permit fees for Concentrated Animal Feeding Operations, or CAFOs, to fund the department's Agricultural Runoff Program to support permitting and oversight of CAFOs.
- Modify well compensation program to allow for funding private well replacement for low-income well owners where nitrates exceed 10 mg/L.
- Provide funding to county health departments to expand testing of privately owned wells.
- Increase funding to complete statewide mapping and investigation of geology and groundwater resources in each county.
- Establish and fund routine statewide nitrate groundwater monitoring (and reporting to DNR's database) using the network of private wells periodically sampled by DATCP to generate maps, trends and five-year report on nitrate in groundwater.
- Fund and staff an upgrade/overhaul of existing DNR geospatial groundwater data system to incorporate well construction, groundwater age data, aquifer characteristics, area soils/geology, and area land use information.
- Provide funding for additional essential research through the Wisconsin Groundwater Coordinating Council (GCC) joint solicitation.



Manure spreading, especially on vulnerable soils, contributes to nitrogen inputs in groundwater.

LEAD SERVICE LINES

“ There is no safe level of lead in the body. Even low levels of lead can slow brain development in children, impacting their learning and behavior. We have to get lead service lines out of the ground if we are going to ensure drinking water is safe for all. Today more than 130 cities, towns and villages across Wisconsin still have lead service lines. ”

– DNR Secretary-designee Preston D. Cole

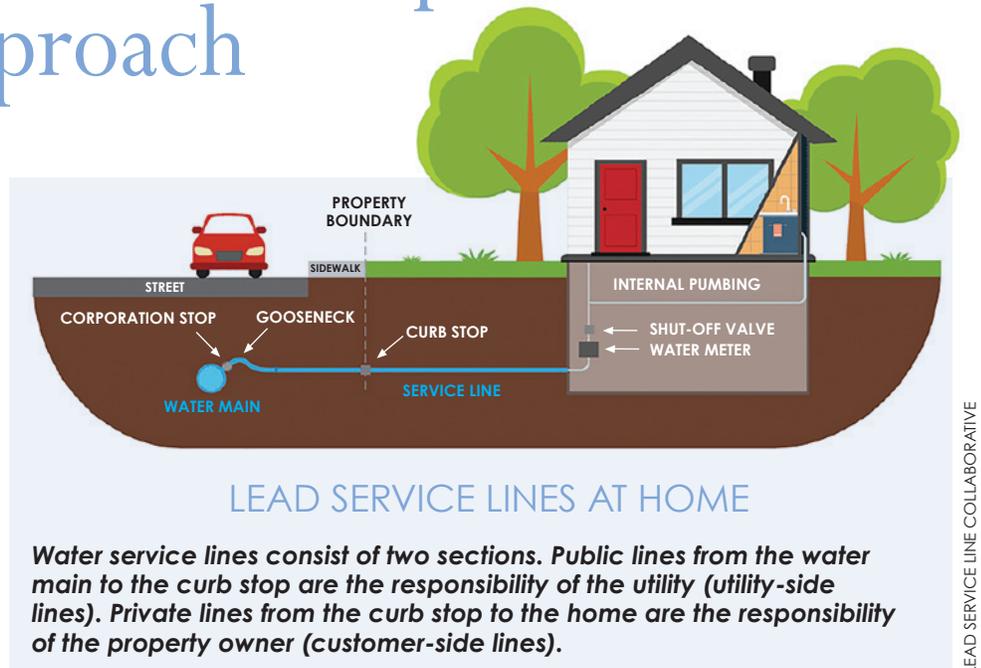
Public Health Crisis Requires Proactive Approach

Lead contamination in public water supplies is a health concern. As the crisis in Flint, Michigan, demonstrated, exposure to lead from aging water pipes is an urgent issue that requires an immediate and proactive approach.

According to the Environmental Protection Agency, lead — a highly poisonous metal — can enter drinking water when plumbing materials (pipes, faucets and fixtures) that contain lead corrode. EPA and the Centers for Disease Control and Prevention note that there is no known safe level of lead in a child's blood. Lead poisoning can slow brain development in children and leads to lifelong health effects.

Lead plumbing is more likely to be found in apartments and homes constructed before 1986. There is a higher risk of lead corrosion where the water has high acidity or low mineral content. According to the Wisconsin Department of Health Services (DHS), because of the number of older homes in Wisconsin — and aging faucets, fixtures and pipes — children living in Wisconsin are at higher risk for lead poisoning than children in many other states.

Exposure to lead has been linked to adverse health effects, including developmental delays, behavior and learning problems, lower IQ and



hyperactivity, hearing problems, and anemia in infants and young children.

Lead exposure is also linked to cardiovascular effects, increased blood pressure and incidence of hypertension, impaired kidney function, and reproductive problems in adults and can result in serious health impacts to pregnant mothers. DNR estimates that drinking water can make up 20% or more of a person's total exposure to lead.

In older homes, lead service lines (LSLs), the pipes that connect homes to the drinking water main in the street, may contribute as much as

75% of the lead found in drinking water and cause serious health problems. In most communities, LSLs are owned partially by the water utility (from the water main in the street to the curb) and partially by the property owner (from the curb to the meter inside the property).

Cost estimates to replace all LSLs in Wisconsin are around \$2 billion. Until all plumbing materials containing lead are replaced, there will be a risk of lead exposure from drinking water. According to EPA, average costs range from \$1,200-\$12,300 per line replaced. It is reasonable to assume that as communities scale up for

replacement, greater efficiencies will assist in bringing costs down.

The Safe Drinking Water Act (SDWA) establishes and enforces standards that public water systems are required to follow.

In 1991, Congress passed the federal Lead and Copper Rule, which establishes maximum contaminant levels (MCLs) and requires water systems to identify the materials used in their water distribution systems. Under the rule, some communities are required to treat water to reduce its corrosivity and lessen the risk of lead dissolving into water. Corrosion control

treatment is achieved by the addition of an inhibitor chemical to form an insoluble protective scale and/or by adjusting the pH of the water to reduce the corrosivity. The DNR also follows up on lead action level exceedances as part of the state's drinking water program.

Treatments serve as an interim step to protecting consumers while water systems continue to remove all leaded material in the drinking water system.

It is estimated that there are over 200,000 LSLs in Wisconsin community water systems. But a growing number of local governments in

Wisconsin are showing that removing all leaded material in the drinking water system can be done.

Madison was the first city in the nation to replace all of its LSLs (both utility and property owner portions). Starting in 2000, the city developed a systematic program using municipal funds to replace LSLs on private property.

Now at least 10 other Wisconsin communities — Kenosha, Manitowoc, Menasha, Kaukauna, Green Bay, Oshkosh, Two Rivers, Milwaukee, Kewaunee and Waterloo — are moving ahead, each in their own way, by adopting ordinances,

LEAD SERVICE LINES

ACCOMPLISHMENTS

SOME OF THE DNR'S ACTIONS TO REDUCE LEAD IN DRINKING WATER INCLUDE:

- Expanded project eligibility in the Safe Drinking Water Loan Program to include private LSL replacements in municipalities that have gone through the PSC approval process.
- Prohibited the use of SDWLP funding for water main replacements that result in partial replacement of a lead service line. Partial replacements can actually increase lead concentrations in drinking water.
- Evaluated and implemented corrosion control treatment optimization at large water systems (those serving over 50,000 people).
- Required all small and medium municipal water systems (those serving less than 50,000 people) with LSLs to develop and implement optimized corrosion control treatment until all lead is removed from their system.
- Assisted the PSC in requiring municipal water systems to report their public and private water service quantity and materials annually.
- Assisting DHS on a new program to reduce lead in drinking water at schools and day cares. The Lead Testing in School and Child Care Grant Program, funded by EPA utilizes the "3T's in Drinking Water Toolkit" — train, test and take action.

GOING FORWARD

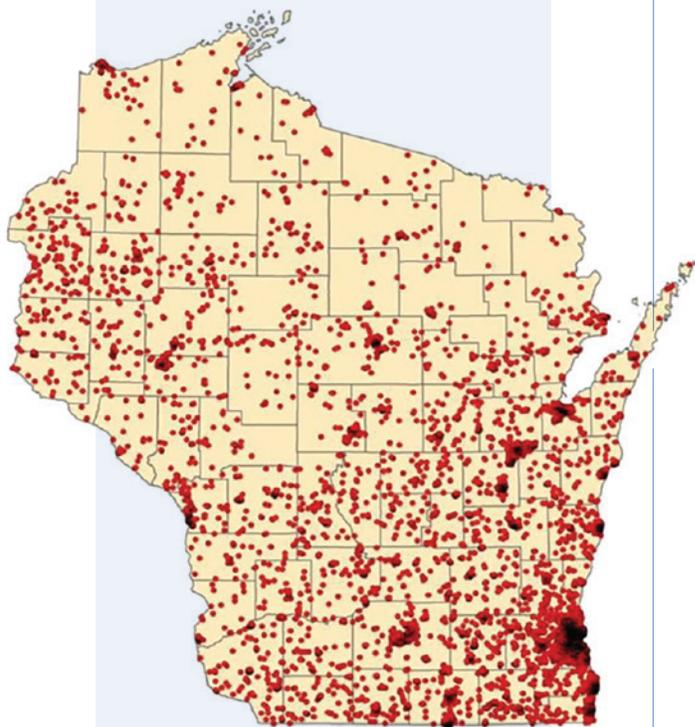
THE DNR IS MOVING AHEAD ON SEVERAL INITIATIVES:

- Launch a statewide "Get the Lead Out" education and outreach plan, sharing information with municipalities for what they can do to remove lead service lines and identify funding to do so.
- Utilizing the authority granted by the recent Water Infrastructure Financing Transfer Act (WIFTA), DNR is developing a new, statewide private LSL replacement principal forgiveness program utilizing a one-time transfer of Clean Water Fund Program monies to the Safe Drinking Water Loan Program. The funding will complement PSC-approved program utilizing ratepayer funds.
- Partner with the Wisconsin Department of Workforce Development (DWD) and the Technical College System on a program to incentivize plumbing apprenticeships, increasing the number of available plumbers and increase the speed of LSL replacements.
- Develop a statewide inventory, in partnership with public water systems, to identify the number and location of LSLs and ensure adequate treatment measures are in place to protect consumers until they can be replaced.
- Prioritize LSL replacement in scoring applications for the SDWLP through a rule revision to Ch. NR 166.
- Strengthen protections for children by ensuring that whenever elevated blood lead levels are detected in a Wisconsin child, the drinking water system contribution is evaluated and addressed.
- Request additional funding for training, sampling, point-of-use filters, educational materials, etc.

accessing funds and developing timelines for replacing LSLs.

In recent years, the DNR created a private-side LSL replacement program, using \$26 million in Safe Drinking Water Loan Program funds as “principal forgiveness.” Forty-two communities participated. Communities have three years to pay for the customer-side LSL replacement. The Evers Administration and the DNR continue to seek additional state and federal moneys to fund this program.

In 2018, the Legislature enacted 2017 Wisconsin Act 137, which allows a utility to provide financial assistance to property owners for LSL replacement of the property-owner side, through water utility rates if certain conditions are met, including approval by the Wisconsin Public Service Commission.



Each dot represents the address of a child diagnosed with lead poisoning, 1996-2016.

DHS

WISCONSIN COMMUNITIES WITH 15% OR MORE LEAD SERVICE LINES

UTILITY	POPULATION SERVED	TOTAL LINES	LSL COUNT (ESTIMATED)	HOMES WITH LSL*
Glendale Waterworks	12,883	4,504	4,447	99%
Fox Point Waterworks	6,808	7,865	7,429	94%
Shorewood Waterworks	13,189	3,518	3,191	91%
Linden Waterworks	547	238	211	89%
Lake Mills Waterworks	5,300	1,761	1,117	63%
Whitefish Bay Waterworks	14,272	4,868	2,836	58%
Wauwatosa Waterworks	49,064	16,743	8,706	52%
Superior Water Light & Power Co.	29,571	9,432	4,850	51%
Kohler Waterworks	2,114	853	434	51%
Schofield Waterworks	2,117	932	473	51%
Milwaukee Waterworks	647,290	168,848	77,387	46%
Mellen Water Utility	731	395	175	44%
Kewaunee Waterworks	2,951	1,262	554	44%
Two Rivers Waterworks	12,600	5,249	2,261	43%
Walworth Waterworks	2,304	1,084	443	41%
Neenah Waterworks	25,892	9,738	3,901	40%
West Allis Waterworks	63,240	19,677	7,429	38%
Wausau Waterworks	39,106	15,716	5,875	37%
Little Chute Waterworks	11,040	3,318	1,238	37%
Manitowoc Waterworks	34,500	15,077	5,179	34%
Chilton Waterworks	3,933	1,578	533	34%
Galesville Waterworks	1,496	669	220	33%
Oshkosh Waterworks	63,000	20,582	6,678	32%
South Milwaukee Waterworks	21,340	5,934	1,902	32%
Athens Waterworks	1,102	401	126	31%
Frederic Waterworks	1,241	557	175	31%
Rio Waterworks	1,058	539	164	30%
Racine Waterworks	105,100	37,201	11,135	30%
Edgerton Waterworks	5,512	2,271	668	29%
Kenosha Water Utility	99,218	30,412	8,809	29%
Cudahy Waterworks	18,659	5,484	1,588	29%
Thorp Waterworks	1,565	779	214	27%
Sheboygan Falls Utilities	7,837	2,711	708	26%
Sheboygan Water Utilities	48,725	19,572	5,094	26%
Cedarburg L & W Commission	11,900	4,023	952	24%
Plymouth Utilities	8,477	3,221	758	24%
Fond du Lac Waterworks	42,000	13,515	3,162	23%
Port Washington Waterworks	11,439	4,014	881	22%
Ashland Water Utility	9,115	3,363	720	21%
Delavan Waterworks	8,128	2,646	566	21%
Oconomowoc Waterworks	15,805	5,819	1,181	20%
Clintonville Utilities	4,635	2,355	444	19%
Niagara Waterworks	1,615	851	157	18%
Watertown Waterworks	23,127	7,663	1,398	18%
City of Beloit	37,110	17,329	3,144	18%
Omro Waterworks	3,558	1,264	223	18%
Kiel Waterworks	3,630	1,551	270	17%
Reeseville Waterworks	707	268	46	17%
Beaver Dam Water Utility	16,200	5,857	1,004	17%
Columbus Water & Light Department	5,036	2,199	373	17%
Baraboo Waterworks	11,505	4,287	720	17%
Kimberly Waterworks	6,451	2,435	405	17%
Markesan Waterworks	1,496	654	98	15%
Stoughton Waterworks	12,698	4,377	652	15%
Kaukauna Utilities	13,430	6,274	922	15%

* This table shows Wisconsin public utilities where lead service lines are estimated to affect at least 15% of the homes. The LSL percentage is figured by dividing a utility's total estimated LSLs by the estimated number of homes served.

Emerging Issue Creates Growing Health Concerns

Perfluoroalkyl and polyfluoroalkyl substances (PFAS) are a large group of human-made chemicals (there are thousands) that have been used in many consumer and commercial products: non-stick cookware; water repellent clothing; stain resistant fabrics such as Teflon, Scotchgard and GORE-TEX; and some firefighting foams.

There is a growing public health concern over PFAS — which do not occur naturally and are widespread in the environment. They are found in people, wildlife and fish all over the world. Because PFAS do not break down easily in the environment, and some PFAS can stay in the body for a long time, they are referred to as “forever chemicals.”

PFAS chemicals can move through soil, seep into groundwater, or be carried through the air and bioaccumulate in the food chain.

Scientists are still learning about the health effects from PFAS exposure, but studies indicate that some PFAS can cause adverse reproductive and developmental, liver and kidney, and immunological effects. More limited findings show links to cancer and thyroid hormone disruption.

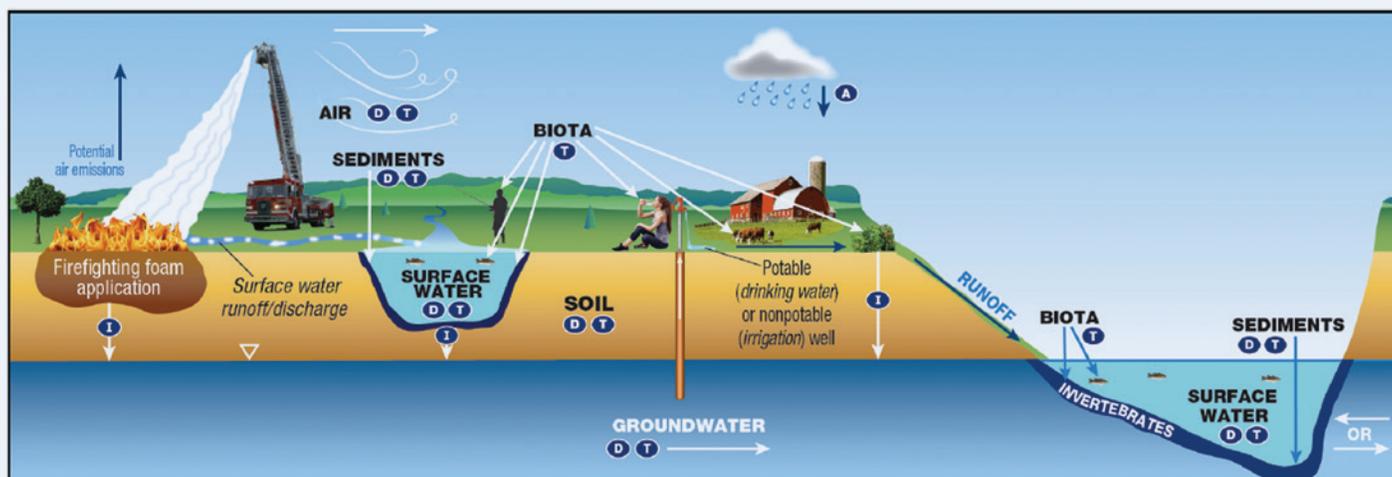
The Centers for Disease Control and Prevention and the Agency for Toxic Substances and Disease Registry are conducting human exposure assessments in more than 30 communities across the U.S. to help communities better understand the relationship between the levels



ISTOCK

Firefighting foam is one source of PFAS.

HOW PFAS ENTERS GROUNDWATER THROUGH FIREFIGHTING FOAM



KEY A Atmospheric Deposition D Diffusion/Dispersion/Advection I Infiltration T Transformation of precursors (abiotic/biotic)

PFAS can enter groundwater in other ways as well, including through industrial sites, landfills and wastewater treatment plants.

INTERSTATE TECHNOLOGY REGULATORY COUNCIL

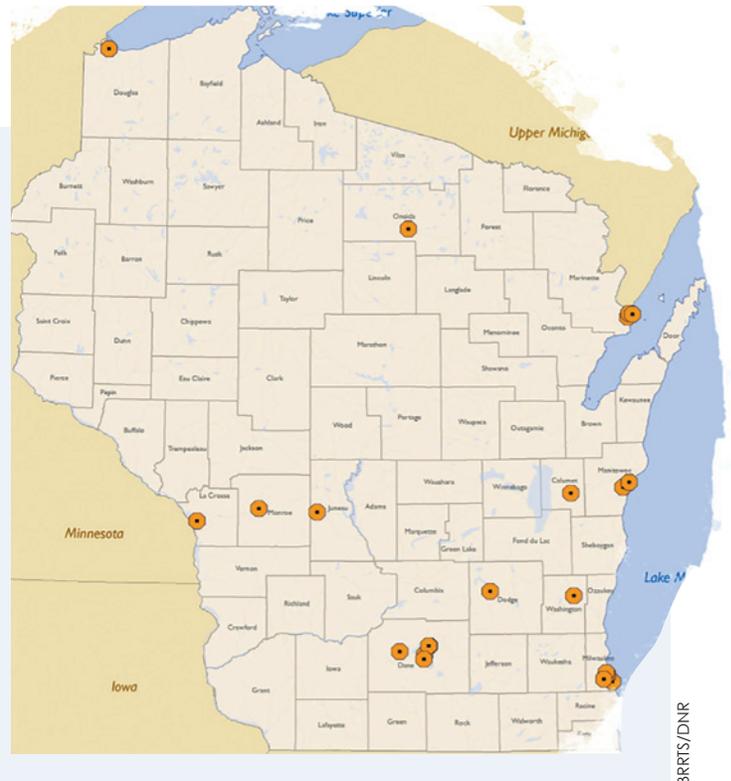
of PFAS in individuals' bodies and their drinking water. The selected sites are related to drinking water contamination associated with PFAS production facilities or fire training areas where firefighting foam was used.

Testing by the DNR, communities and federal agencies has detected PFAS in groundwater and surface water at several sites throughout Wisconsin.

In Wisconsin, persons who own properties that are the source of PFAS contamination, or who are responsible for discharges of PFAS to the environment, are responsible for taking appropriate actions. This includes immediately notifying the state, conducting a site investigation, determining the appropriate cleanup standards for the PFAS compounds, and conducting the necessary response actions.

PFAS SITES IN WISCONSIN

Map shows areas — as of 2019 — where DNR is investigating contamination of PFAS.



PFAS

ACCOMPLISHMENTS

SOME OF THE DNR'S ACTIONS TO REDUCE PFAS IN DRINKING WATER INCLUDE:

Wisconsin's 2019-21 biennial budget provided two full-time (FTE) researcher positions to focus on PFAS and other emerging contaminants, and \$200,000 in FY 2020 for emerging contaminants research, including:

- \$150,000 to develop a model to identify and prioritize sites with likely PFAS contamination.
- \$50,000 to conduct a survey of local and state emergency responders regarding the use of PFAS-containing firefighting foam.

In addition, the DNR has:

- Required PFAS sampling at open remediation sites where PFAS is likely to be present.
- Created procedures for when a public water system exceeds the federal PFOS/PFOA health advisory level.
- Created procedures for when a private well exceeds the federal PFOS/PFOA health advisory level.
- Developed initial criteria for determining when to request PFAS or other emerging contaminant sampling at open Environmental Repair Program (ERP) and Leaking Underground Storage Tank (LUST) sites.
- Conducted public meetings seeking input on PFAS investigation, contamination and cleanup issues.
- Gov. Evers' Executive Order #40 directed the DNR to create the PFAS Coordinating Council, now known as the Wisconsin PFAS Action Council (WisPAC), in partnership with other state agencies. WisPac will develop and coordinate statewide initiatives to address the growing public health and environmental concerns regarding PFAS.
- Convened a PFAS Technical Advisory Group to discuss PFAS-related concerns. The group does not have an appointed membership; any interested party may attend.
- Launched a statewide monitoring project to sample fish tissue and water chemistry at select sites around the state near known or probable sources of PFAS. This project will help develop a baseline of PFAS contamination within the state, help to identify action areas, and provide the necessary data for the appropriate response.
- Collected water chemistry and fish tissue samples from six waterbodies near known or suspected PFAS contamination sites. The sites included fire suppression training grounds, wells where PFAS had been detected, and two locations where elevated fish tissue levels had been found.

PFAS GOING FORWARD

THE DNR IS MOVING AHEAD ON SEVERAL INITIATIVES:

- Continue to coordinate with Great Lakes states on PFAS research and regulatory approaches.
- Pursue rule-making to establish a groundwater standard, surface water standards and a drinking water maximum contaminant level (MCL) for select PFAS.
- Establish standard procedures for sampling, lab analysis, site screening, cleanup standards and cleanup options.
- Continue to evaluate impacts of PFAS to Wisconsin's natural resources, including wild-life and fisheries.
- Expand monitoring of PFAS in the development of fish consumption advisories to protect human health.
- Continue to review data to determine where PFAS is likely to be found in groundwater based on historical uses.
- Work with stakeholders to develop source reduction strategies and/or limitations in Wisconsin Pollutant Discharge Elimination System permits for identified facilities.
- Investigate the potential to develop a wastewater biosolids management program.
- Identify PFAS products and manufacturers.
- Develop a joint communication and outreach plan with DATCP and DHS, and continue to inform and educate the public about PFAS.
- Explore funding for state and local government and private party PFAS efforts.
- Engage with academic institutions and other experts to identify and collaborate on joint research projects to gain a better understanding of PFAS impacts on human health and the environment.



“ We know it will take a collaborative effort to ensure that everyone is able to drink clean water from their tap. I am committed to protecting our state's natural resources and ensuring every Wisconsinite has access to clean drinking water. ”

– Gov. Tony Evers



Wisconsin Deserves Clean Drinking Water

Gov. Evers' act of declaring 2019 the "Year of Clean Drinking Water" has generated support among the state's citizens to ensure that all Wisconsinites have access to clean drinking water.

In 2019, citizens throughout the state and across the political spectrum expressed their deep concerns about drinking water quality and voiced their expectations that the state do more to protect drinking water.

The Governor and the DNR will build on the momentum generated in 2019 to ensure safe drinking water for all Wisconsinites. The DNR will pursue actions listed here and will continue to seek opportunities to partner with others — including local governments and the water technology sector — to safeguard Wisconsin's water supplies.



ISTOCK



GOVERNOR TONY EVERS

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