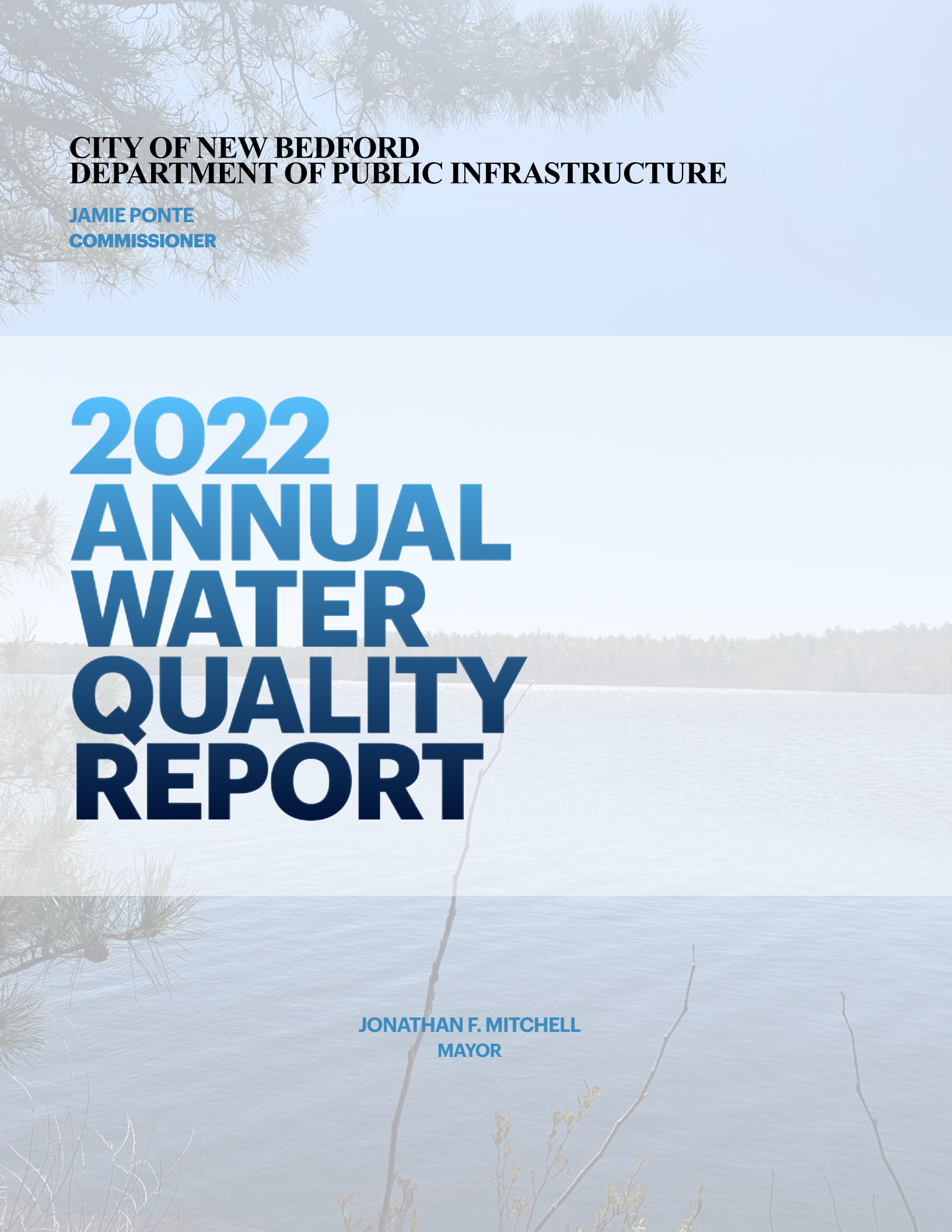


CITY OF NEW BEDFORD
DEPARTMENT OF PUBLIC INFRASTRUCTURE

JAMIE PONTE
COMMISSIONER

2022 ANNUAL WATER QUALITY REPORT

JONATHAN F. MITCHELL
MAYOR

WE WORK FOR YOU

The New Bedford Department of Public Infrastructure (DPI), (Public Water Supply I.D. #4201000), is committed to providing you with safe, clean drinking water. We are pleased to present a summary of the water quality provided to you during the past year. Regular monitoring and testing ensures that the water supplied by the New Bedford DPI meets, or exceeds all state and federal requirements. This report summarizes the laboratory results for all samples collected and tested. Responsibility for maintaining water quality resides with our staff of certified water treatment plant operators, licensed by the Massachusetts Division of Professional Licensure.

We aim to continually improve and strengthen our system each year so we can provide our customers with a sustainably reliable high-quality drinking water source and system. Some of the activities DPI completed in 2022 include:

28
Water main breaks repaired

13
Hydrants replaced/ installed

Completed Electrical and Operational Upgrades to reservoir

54
Lead services replaced by DPI

Completed Large Water Meter Replacement and Meter Upgrade project

Completed High Hill 75 MG Reservoir Rehabilitation project.

2195
Hydrants Flushed

Over 1600
Meters Service and Repaired

Continued Design Phase of Quittacas Water Treatment Plant process upgrades

PROTECTING YOUR WATER

Your water comes from the Assawompsett Pond comprised of Long Pond, Assawompsett, Pocksha, Great Quittacas, and Little Quittacas Ponds located in the towns of Freetown, Lakeville, Rochester and Middleboro. The Quittacas Water Treatment Plant draws from the Little Quittacas Pond to treat water for the City of New Bedford. Treatment consists of conventional filtration, disinfection, corrosion control, and fluoridation (as of January 2007). In addition to the 95,072 (2010 Census) residents, the City of New Bedford also supplies water to parts of Freetown and Acushnet along with Dartmouth on a seasonal basis and Fairhaven on an emergency basis.

The Massachusetts Department of Environmental Protection (MassDEP), through its Source Water Assessment and Protection (SWAP) Program, assesses the susceptibility of public water supplies. The SWAP report notes some issues situated in New Bedford's public water supply protection area. They are active cranberry bogs and small farms, roadways, a utility right of way, and residential land uses. As a result, the report designates a high susceptibility ranking to the water supply protection area. New Bedford DPI has been proactive in protecting the water supply protection area. The City owns over 3,000 acres of land in this area; including all shoreline property around the Little and Great Quittacas Ponds. This land is kept in pristine condition, providing a protective barrier from potential pollutants. Forest management, overseen by a State certified forester, is ongoing. The land is routinely patrolled by watershed staff and reports are submitted to a watershed advisory committee. Regular testing of the water supply is performed and treatment is provided by the State certified operations staff at the Quittacas Water Treatment Plant, producing safe, clean drinking water for the residents of the City of New Bedford. The complete SWAP report is available at the New Bedford DPI office at 1105 Shawmut Avenue New Bedford, MA. 02746, or online at: https://www.mass.gov/doc/southeast-region-source-water-assessment-protection-swap-program-reports/download



"Thousands have lived without love, not one without water"

- W.H. AUDEN

For more information, contact the New Bedford DPI at (508) 979-1550.

This table shows the results of our water quality analysis. Every regulated contaminant that we detected in the New Bedford Water Supply, even in the most insignificant traces is listed here. The table contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health (MCLG), the amount detected, the usual sources of such contaminant, footnotes explaining our findings, and a key to units of measurements. Definitions of MCL and MCLG are important. The data present in the report is from testing performed in 2022 or otherwise indicated. All testing was done in accordance with drinking water regulations.

REGULATED CONTAMINANTS

CONTAMINANT	VIOLATION	RANGE DETECTED	AVERAGE	MCLG	MCL	SAMPLE YEAR	TYPICAL SOURCE
PFAS6[1] (ppt) - Sum of: perfluorooctane sulfonic acid (PFOS); perfluorooctanoic acid (PFOA); perfluorohexane sulfonic acid (PFHxS); perfluorononanoic acid (PFNA); perfluoroheptanoic acid (PFHpA); and perfluorodecanoic acid (PFDA).	No	2.75 - 3.38	3.07	N/A	20	2022	Discharges and emissions from industrial and manufacturing sources associated with the production or use of these PFAS, including production of moisture and oil resistant coatings on fabrics and other materials. Additional sources include the use and disposal of products containing these PFAS, such as fire fighting foams.
Total Trihalomethanes[2, 3] (ppb)	No	35.6 - 59.1	45.8	N/A	80	2022	By-product of drinking water disinfection.
Haloacetic Acids[2, 3] (ppb)	No	26.7 - 59.6	47.3	N/A	60	2022	By-product of drinking water disinfection.
Total Chlorine Residual[3, 4] (ppm)	No	1.15 - 2.24	1.73	*MRDLG* 4	*MRDLG* 4	2022	Product of chloramination. Water additive used to control microbes.
Total Organic Carbon (ppm)	No	2.59 - 3.37	2.85	N/A	TT	2022	Naturally present in the environment.
Turbidity (NTU)	No	0.03 - 0.29	0.06	N/A	TT[5]	2022	Soil runoff
Total Coliform[6] (% of monthly positive samples)	No	0	0	0	5	2022	Naturally present in the environment.
Barium (ppm)	No	0.0081	N/A	2	2	2022	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	No	0.5 - 0.9	0.7	4	4	2022	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha (pCi/L) (minus uranium)	No	-0.5	N/A	0	15	2021	Erosion of natural deposits.
Radium 226 & 228 (pCi/L) (combined values)	No	0.5	N/A	0	5	2021	Erosion of natural deposits.
Nitrate (ppm)	No	0.0943 mg/L	N/A	0	10	2022	Erosion of natural deposits.

Addition of Fluoride: As directed by the New Bedford Health Department, Fluoride has been added to the New Bedford Drinking Water supply since 2007 with an optimum dosage of 0.7 parts per million (ppm). Fluoride also has a secondary maximum contaminant level (SMCL) of 2 ppm.

CONTAMINANT	Meets the Action Level	90TH PERCENTILE	ACTION LEVEL	# SITES ABOVE AL	SAMPLE YEAR	TYPICAL SOURCE
Lead[7] (ppb)	Yes	2.3	15	0	2020	Corrosion of Household Plumbing Systems; erosion of natural deposits.
Copper[7] (ppm)	Yes	0.0169	1.30	0	2020	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.

SECONDARY CONTAMINANTS

CONTAMINANT	VIOLATION	RANGE DETECTED	SMCL (PPB)	HEALTH ADVISORY	SAMPLE YEAR	TYPICAL SOURCE
Aluminum (ppb)	No	0.17	200	N/A	2022	Residue from water treatment process; erosion of natural deposits.
Calcium (ppm)	No	4.94	N/A	N/A	2022	Residue from water treatment process; erosion of natural deposits.
Chloride (ppm)	No	22.9	250	N/A	2022	Erosion of natural mineral deposits.
Magnesium (ppm)	No	1.27	N/A	N/A	2022	Erosion of natural mineral deposits.
Manganese[8] (ppb)	No	0.0052	50	300	2022	Erosion of natural mineral deposits.
Potassium (ppm)	No	0.776	N/A	N/A	2022	Erosion of natural mineral deposits.
Sulfate (ppm)	No	14.7	250	N/A	2022	Erosion of natural mineral deposits.

UNREGULATED CONTAMINANTS[9]

CONTAMINANT	AVERAGE	RANGE DETECTED			SAMPLE YEAR	TYPICAL SOURCE
Chloroform (ppb)	38.1	18.2	-	50.3	2022	By-product of drinking water chlorination.
Bromodichloromethane (ppb)	6.14	4.51	-	7.92	2022	By-product of drinking water chlorination.
Sodium[10] (ppm)	N/A		25.50		2022	Discharge from the use and improper storage of sodium-containing de-icing compounds or in water-softening agents.

"IN ONE DROP OF WATER ARE FOUND ALL THE SECRETS OF ALL THE OCEANS; IN ONE ASPECT OF YOU ARE FOUND ALL THE ASPECTS OF EXISTENCE."

-KAHLIL GIBRAN

FOOTNOTES

[1]Some people who drink water containing these PFAS in excess of the MCL may experience certain adverse effects. These could include effects on the liver, blood, immune system, thyroid, and fetal development. These PFAS may also elevate the risk of certain cancers10/24/2022. [2]Some people who drink water-containing trihalomethanes or haloacetic acids in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems and may have an increased risk of getting cancer; [3]The MCL and average results are based on the highest Running Annual Average, the range detected represents individual sample results; [4]The DPI commenced treatment of its filtered water with combined chlorine (chlorine and ammonia) as of November 4, 2002. This is measured in terms of total chlorine. [5]Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system. Compliance is based on a TT, with no individual samples exceeding 1.0 NTU and 95% of samples/ month less than 0.3 NTU.The lowest monthly percentage of samples meeting the limit was 100%. [6]Of the 109 samples collected per month; all samples indicated the absence of total coliform. [7]In 2022 lead and copper samples were not required based on several consecutive years of low results. In 2020, 30 samples were collected for lead analysis. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. [8]US EPA have established public health advisory levels for manganese to protect against concerns of potential neurological effects and a one-day and 10-day HA of 1,000 ppb for acute exposure. [9]Unregulated contaminants are those for which the EPA has not established Drinking Water Standards.The purpose of unregulated contaminant monitoring is to assist the EPA in determining their occurrence in drinking water and whether future regulation is warranted. [10]The MassDEP maintains a guideline level of 20 ppm for Sodium.

TERMS AND ABBREVIATIONS USED IN DATA TABLES

MCLG(Maximum Contamination Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLGs as feasible using the best available treatment **MRDLG (Maximum Residual Disinfectant Level Goal):** The level of a drinking water disinfectant, below which, there is no known expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

MRDL (Maximum Residual Disinfectant Level): The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for the control of microbial contaminants.

PFAS: Per- and polyfluoroalkyl substances

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

90th Percentile; Ninety percent of the samples is below this level. (nine of ten sites samples were at or below this level). This number is compared to the Action Level to determine lead and copper compliance.

ND: Not detected

N/A: Not applicable

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

ppm (parts per million): One part substance per million parts water or milligrams per liter (mg/l).

ppb (parts per billion): One part substance per billion parts water or micrograms per liter (ug/I).

ppt (parts per trillion): One part substance per trillion parts water or nanograms per liter (ng/L)

pCi/L (picocuries per liter): A measure of radioactivity.

RAA (Running Annual Average): The average of the last four consecutive quarters of data.

SMCL (Secondary Maximum Contaminant Level): SMCLs are established to regulate the aesthetics of drinking water like appearance, taste and odor.

TT (Treatment Technique): A process aimed to reduce the level of a contaminant in drinking water.

WHAT IS IN THE WATER BEFORE TREATMENT?

To ensure that tap water is safe to drink, MassDEP and EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. Food and Drug Administration and the Massachusetts Department of Public Health regulations establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

"A MAN OF WISDOM DELIGHTS IN WATER "

- CONFUCIUS

The sources of drinking water (both tap & bottled) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive material, and can pick up substance resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

ORGANIC CHEMICALS

Which can be naturally occurring or be the result of oil and gas production and mining activities.

MICROBIAL CONTMAINANTS

Such as viruses & bacteria, this may come from sewage treatment plants, septic system, agricultural livestock operations and wildlife.

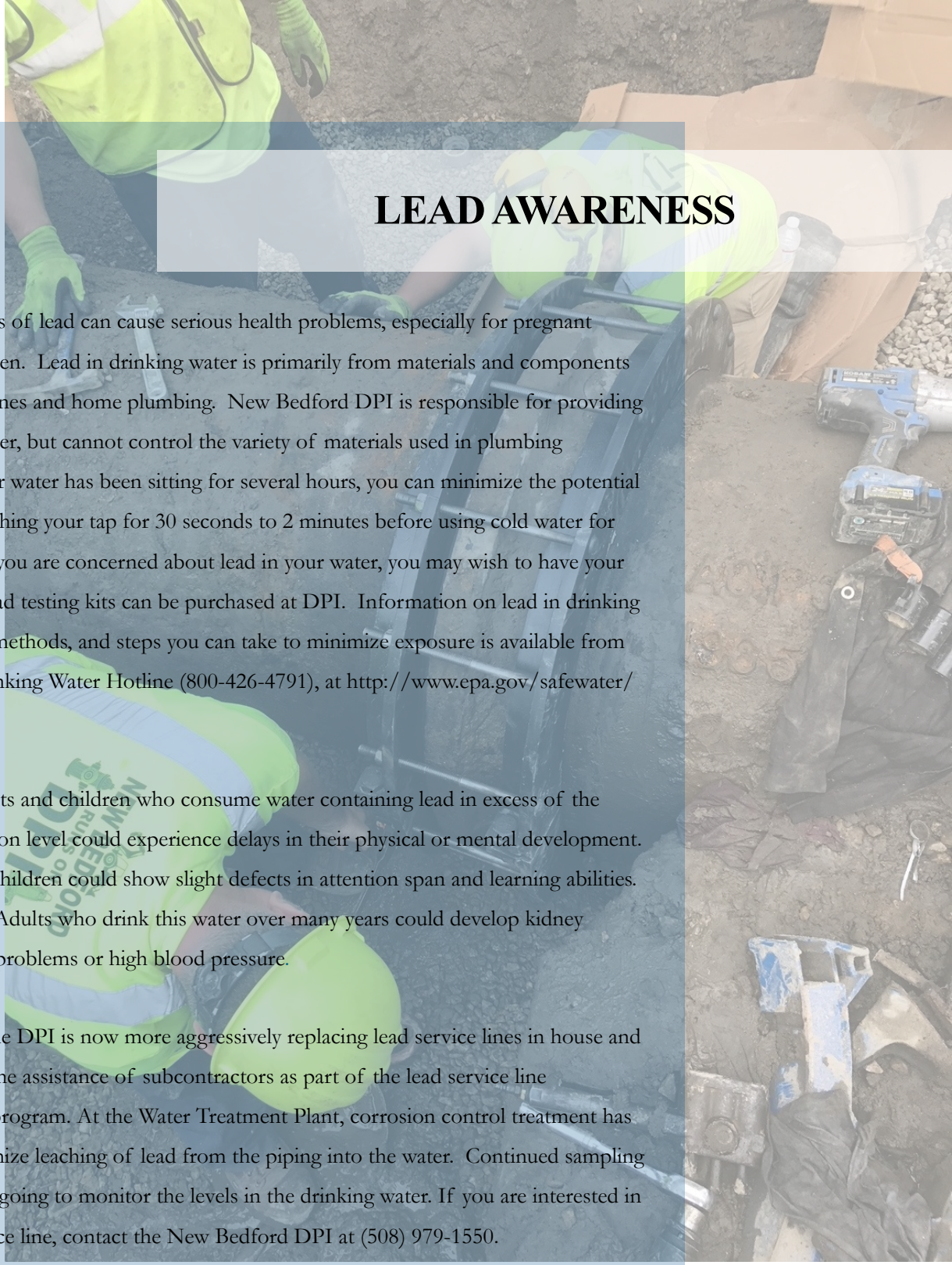
PESTICIDES AND HERBICIDES

Which may come from a variety of sources such as agriculture, stormwater runoff and residential uses.

INORGANIC CONTAMINANTS

Such as salts & metals, this can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or framing.

Some people may be more vulnerable to contaminants in drinking water than is the general population. Immune-compromised person such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of Cryptosporidium are available from the Safe Drinking Water Hotline (800-426-4791).



LEAD AWARENESS

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. New Bedford DPI is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using cold water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Lead testing kits can be purchased at DPI. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (800-426-4791), at http://www.epa.gov/safewater/lead.

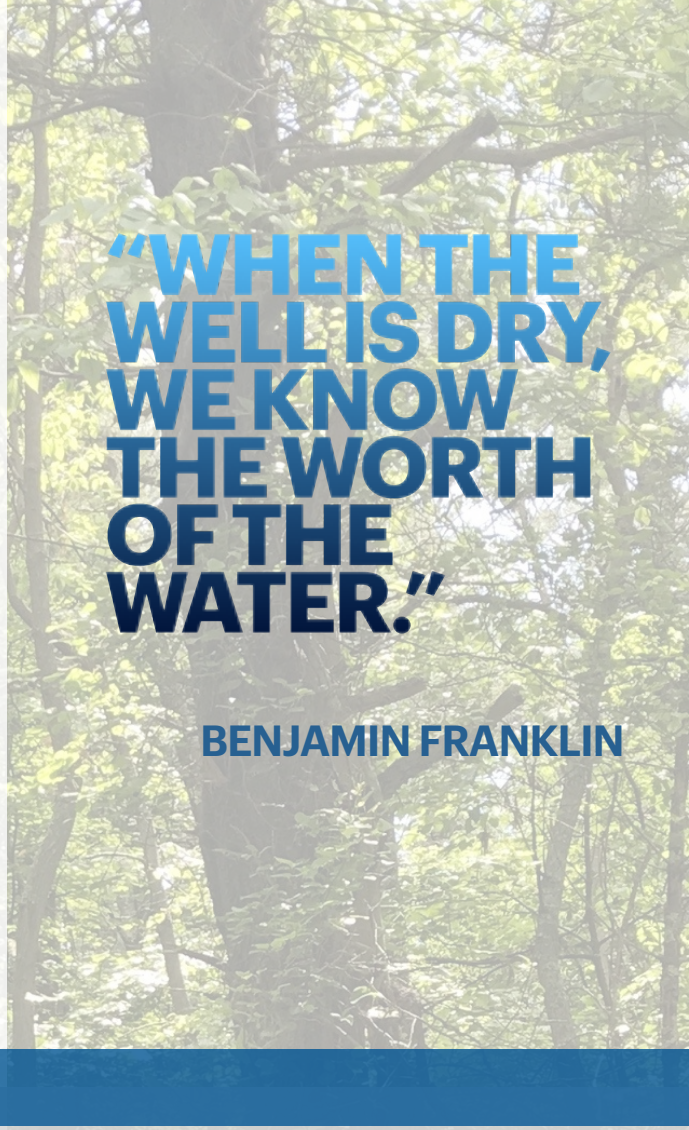
Flush Your Tap for 30 seconds to 2 minutes before using cold water for drinking or cooking

Infants and children who consume water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight defects in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

The DPI is now more aggressively replacing lead service lines in house and with the assistance of subcontractors as part of the lead service line replacement program. At the Water Treatment Plant, corrosion control treatment has been optimized to minimize leaching of lead from the piping into the water. Continued sampling and testing for lead is ongoing to monitor the levels in the drinking water. If you are interested in replacing your lead service line, contact the New Bedford DPI at (508) 979-1550.

WATER IS PRECIOUS! CONSERVE!

- Fix leaks! Leaks can add up to hundreds of gallons of water lost per week.
- Water your lawns in early mornings or evenings, to reduce evaporation.
- Choose native plants that need less water.
- Sweep outdoor areas with a broom rather than hosing them off.
- Use water-saving shower heads.
- Wash only full loads of laundry and dishes.
- Choose high-efficiency plumbing products.
- Reuse clean household water for plants.
- Make sure your sprinklers are watering the plants and not the pavement!



WHAT ARE CROSS CONNECTIONS?

Cross-connections occur whenever a potable drinking water line is directly or indirectly connected to equipment (boilers), chemical systems (AC, fire sprinklers, irrigation), or any non-potable water. Contamination can occur when the pressure in the equipment or system is greater than the drinking water line pressure (backpressure) or if there is a drop in pressure in the water system (main break), causing suction out of the equipment or system into the drinking water line (backsiphonage). Severe illnesses and injuries, even death, have been caused by cross connection contamination events that could have been prevented.Garden hoses left lying on the ground (near fertilizers, cesspools, or garden chemicals), connected to chemical sprayers or submerged in pools are a common source of cross-connection contamination. Improperly installed toilet valves can also be a cause of contamination.

We have surveyed industrial, commercial and institutional facilities in the service area to make sure that potential cross-connections are identified and eliminated or protected by a backflow preventer. We also have a backflow inspection program to provide maximum protection. For more information on backflow prevention, contact the Safe Drinking Water Hotline (800-426-4791).

RESPECT AND PROTECT ALL NATURE

QUESTIONS OR COMMENTS:

Do you have questions about this report? Please contact Dominic Galotti, Superintendent of Water, at dominic.galotti@newbedford-ma.gov. We encourage public interest and participation in our community's decisions affecting drinking water. Find out more about the Department of Public Infrastructure on the City's website at www.newbedford-ma.gov. Water Quality Data for community water systems throughout the United States is available at www.waterdata.com.

CITY OF NEW BEDFORD
DEPARTMENT OF PUBLIC INFRASTRUCTURE

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Spanish – Este informe contiene informacion muy importante sobre su agua beber. Traduzálo o hable con alguien que lo entienda bien.

French – Ce rapport contient des informations concernant la qualité de l'eau de votre communauté. Faites-le traduire, ou parlez-en a un ami qui le comprend bien.

Portuguese – A informação contida neste documento é extremamente importante. Para uma tradução em português faça favor de telefonar 508-979-1550 e uma cópia será mandada pelo correio para sua casa. Obrigado.