

THE WATER WE DRINK

As a service to our customers, the Dedham-Westwood Water District (PWS ID#3073000) and American Water Services, Inc. are proud to distribute our Third Annual Water Quality Report. This report is designed to inform you about your drinking water quality and the services we deliver to you everyday. It is a continuous commitment, on our part, to provide the highest quality water and service that meets and exceeds all state and federal drinking water standards and regulations.

American Water Services, Inc., the District's management company, has combined resources that include 10,000 experienced management and highly skilled technical water and wastewater utility personnel, serving over 13 million people with 1,400 treatment plants. It dedicates itself to maintaining and improving the highest integrity of drinking water delivered to our community.

Thank you for allowing us to continue providing your family with high water quality this year. In our continuing efforts to maintain a safe and dependable water supply, it will be necessary to continuously improve your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments are necessary in order to address these improvements.

We ask that all of our customers help us protect our water sources, which are at the heart of our community, our way of life and our children's future. Important educational information on resource protection, conservation, and other current issues is included in the District's newsletter mailed with all bills.

If you have any questions about this report or concerning your water utility, please contact Nan Crossland or Robert Eiben at the Dedham-Westwood Water District, 50 Elm Street, Dedham, Massachusetts 02027-9137 at (781) 329-7090. If you want to learn more, you are encouraged to attend any of our regularly scheduled meetings, usually held the second and last Tuesdays of the month at 7:00 p.m. at our main office located at 50 Elm Street, Dedham, MA. All meetings are posted at your town hall for exact dates and times. We want our valued customers to be informed about their water utility.

We hope that this report provides answers to questions most frequently asked by our 12,702 customers.

What Is the Source of Dedham-Westwood Water?

The source of your drinking water is groundwater from 11 production wells. Other facilities include 2 water treatment plants, 6 water storage tanks, 6 pressure booster systems and approximately 192 miles of water main. We serve a population of about 38,000 through approximately 12,700 meters and customer service lines. The Dedham-Westwood Water District has an emergency 6" water connection with the City of Boston on Bussey Street in Dedham and a 16" connection with the Massachusetts Water Resources Authority on East Street in Dedham.

How Does Dedham-Westwood Monitor the Quality of My Water?

As water travels over the surface of the land, or through the ground, it can pick up substances resulting from the presence of animals or humans. The filtration and purification processes at our treatment plants are designed to remove harmful materials and ensure that your water meets or surpasses all drinking water standards. Skilled treatment plant operators monitor your water at the source, test throughout the treatment process, and continue testing as the water flows through your local distribution system.

Substances that may be present in wells, lakes, reservoirs, and other untreated sources include:

- Inorganic substances, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.
- Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining their occurrence in drinking water and whether future regulation is warranted.
- Turbidity, a naturally occurring sediment in the water, which can interfere with the disinfection process.
- Radioactive contaminants, that can be naturally-occurring, or the result of oil and gas production or mining activities.
- Radon is a radioactive gas that you cannot see, taste, or smell. It is found throughout the United States. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will be (in most cases) a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Fix your home if the level of radon in your air is 4 picocuries per liter of air (pCi/l) or higher. There are simple ways to fix a radon problem that aren't too costly. For additional information, call your State radon program or call EPA's Radon Hotline, 800.SOS.RADON.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Pesticides and herbicides, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

How Is the Purity of My Water Ensured?

Dedham-Westwood Water District routinely monitors for components in your drinking water according to Federal and State Laws. The following table shows the results of our monitoring for the period of January 1 to December 31, 2000. All drinking water including bottled water may be reasonably expected to contain at least small amounts of some contamination. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

What Are the Results of Your Tests?

A complete listing of the latest sample results is available for review at our service center at 50 Elm Street, Dedham, MA.

Regulated Contaminants- Inorganic Chemicals

Detected Parameter	Units	Range Detected	Highest Level Detected	Maximum Contaminant Level (highest level allowed)	Maximum Contaminant Level Goal (ideal goal)	Source
Fluoride	PPM	0.84-1.37	1.4	4	0.9 – 1.3	Erosion of natural deposits. Water additive which promotes strong teeth. Discharge from fertilizer & aluminum factories.
Nitrate	PPM	0.5-1.3	1.3	10	10	Runoff from fertilizer use, leaching from septic tanks, erosion of natural deposits

Unregulated Contaminants-Inorganic Chemicals

Detected Parameter	Units	Range Detected	Highest Level Detected	Maximum Contaminant Level (highest level allowed)	Maximum Contaminant Level Goal (ideal goal)	Source
Aluminum	PPM	ND-0.022	0.022	No MCL	No MCLG	Erosion of natural deposits.
Calcium	PPM	25.6-61.6	61.6	No MCL	No MCLG	Erosion of natural deposits.
Chloride	PPM	70.6-152	152	No MCL	No MCLG	Erosion of natural deposits.
Magnesium	PPM	5.28-13.9	13.9	No MCL	No MCLG	Erosion of natural deposits.
Potassium	PPM	1.55 -4.76	4.76	No MCL	No MCLG	Erosion of natural deposits.

Sodium	PPM	25.2 – 50.6	50.6	No MCL	No MCLG	Erosion of natural deposits and the results of application of road salt.
Sulfate	PPM	13.9 -19.1	19.1	No MCL	No MCLG	Erosion of natural deposits.
Turbidity	NTU	ND-0.38	0.38	5NTU	NONE	Erosion of natural deposits.
Zinc	PPM	ND – 0.006	0.006	No MCL	No MCLG	Erosion of natural deposits.

The Dedham-Westwood Water District is monitoring for turbidity at the request of the Department of Environmental Protection. Turbidity is a measure of the cloudiness of water. It is monitored because it is a good indicator of water quality.

Radioactive Contaminants

Detected Parameter	Units	Range Detected	Highest Level Detected	Guideline	Source
RADON	pCi/l	5-430	430	10,000 pCi/l	Erosion of natural deposits

Regulated Contaminants-Organic Chemicals

Detected Parameter	Units	Range Detected	Highest Annual Average	Maximum Contaminant Level (highest level allowed)	Maximum Contaminant Level Goal (ideal goal)	Source
Total Trihalomethanes	PPB	6.2-97.3	41.1	(Average) 100	0	By-product of drinking water Chlorination.
Detected Parameter	Units	Range Detected	Highest Level Detected	Maximum Contaminant Level (highest level allowed)	Maximum Contaminant Level Goal (ideal goal)	Source
Total Haloacetic Acids	PPB	5-11.6	11.6	60	Not available	By-product of drinking water Chlorination.

Unregulated Contaminants-Organic Chemicals

Detected Parameter	Units	Range Detected	Highest Level Detected	Maximum Contaminant Level (highest level allowed)	Maximum Contaminant Level Goal (ideal goal)	Source
Bromodichloromethane	PPB	ND – 23.3	23.3	No MCL	No MCLG	By-product of drinking water Chlorination.

Bromoform	PPB	ND – 0.8	0.8	No MCL	No MCLG	By-product of drinking water Chlorination.
Chloroform	PPB	1.3 – 68.4	68.4	No MCL	No MCLG	By-product of drinking water Chlorination.
Dibromochloromethane	PPB	ND – 6.	6.	No MCL	No MCLG	By-product of drinking water Chlorination.
Dichloroacetic Acid	PPB	3.7 – 5.3	5.3	No MCL	No MCLG	By-product of drinking water Chlorination.
Trichloroacetic Acid	PPB	1.3 – 6.3	6.3	No MCL	No MCLG	By-product of drinking water Chlorination.

Regulated Contaminants – Measured at the Customer’s Tap in 1999

Detected Parameter	Units	EPA’s action level for sampling of customer homes with the highest risk.	Maximum Contaminant Goal	Results in (1999)	Compliance Achieved? Yes / No	Source
Lead	PPB	90% of all homes tested must be below 15 PPB	0 PPB	90% of all homes tested measured below 4 PPB	Yes	Corrosion of household plumbing systems.
Copper	PPM	90% of all homes tested must be below 1.3 PPM	1.0 PPM	100	Yes	Corrosion of household plumbing systems.

As shown by the above tables, our system had **no** violations. We are proud that your drinking water meets or exceeds these Federal and State requirements.

What Do These Terms Mean?

Maximum Contaminant Level Goal (MCLG): 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.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

PPM (parts per million): 1 drop in 10 gallons, 1 inch in 16 miles, or one penny in \$10,000.

PPB (parts per billion): 1 drop in 10,000 gallons, 1 inch in 16,000 miles, or one penny in \$10,000,000.

Variations and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under a certain conditions.

NTU: Nephelometric Turbidity Units, a measure of how much turbidity (suspended matter) is present in the water.

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

pCi/l: Picocuries per liter (a measure of radioactivity).

Treatment Technique (TT): A required process intended to reduce the level of contaminants in drinking water.

Other Reportable Information

The Water District received a notice of non-compliance for an error in its Annual Statistics Report to the Massachusetts Department of Environmental Protection. The error involved failing to report by user type, the amount of water furnished during 1999 to its customers. The error was corrected immediately and at no time was the drinking water quality affected by this error. Steps were taken to assure that this error could not occur in the future.

Is Water That Meets Federal Drinking Water Standards Absolutely Safe?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons 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/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791)

How is the Water District Planning for the Future?

The system currently has the capacity to pump about seven million gallons of water per day. Since the average daily use is about 4.25 million, the District has a more than adequate supply for most of the year. However, during the Summer, demand may meet or exceed the system's capacity which then must be replenished by rainfall events to maintain well levels. Despite the fact that an engineering consultant's report predicts adequate supplies for anticipated growth through the year 2010, the District has commissioned a study to seek new water sources. Permitting and constructing new sources, however, is a slow and difficult process. Meanwhile, existing wells are being rehabilitated on a regular basis for maximum capacity. Since adequate storage is important for groundwater systems, a new larger storage tank on Sandy Valley Road in Dedham. Also, a study is underway to determine what conservation measures might help decrease future water demands. For use during extreme shortages, emergency connections to the Massachusetts Water Resources Authority are in place.

Having adequate water available for fire fighting and sanitary uses is critical for our public health and safety. The Water District is counting on every District customer to make the best use of this valuable natural resource.