

2009 Water Quality Report



To the Ratepayers and Customers of the Dracut Water Supply District:

I am pleased to present the 2009 Consumer Confidence Report (CCR) which is required by the Department of Environmental Protection of all water systems to assure its customers of the quality and content of its drinking water. During this past year our efforts have continued and another new pump station allows us to further increase our own capacity making us more and more independent of other sources. These efforts of staff in design and long term planning will see great savings.

The “Meter to Main Program” again has assisted in saving hundreds and in some cases thousands of dollars. This innovative plan is the only plan formulated and endorsed by your Water District as it is controlled by your District Staff and not a private concern.

Again, my special thanks to the dedicated Staff at the District that continues to provide a sound water system and operation to support your drinking water needs.

Feel free to contact me with concerns, suggestions or questions and we will do our best to address each one as possible.

Gary W. McCarthy, Executive Director-Superintendent



Water Conservation Tips

Weather continues to be a factor all over the nation. Water, once thought of as an unlimited resource, now proves itself to be more precious and vital than ever. Given that it is upon all of us to use it wisely. To that end the Dracut Water Supply District encourages all its consumers to use water conservation measures, some of which are listed below.

Water conservation outside

- ◆ Minimize the size of your lawn as lawn watering may consume more than 30% of summer residential water use
- ◆ Use mulch around plants and shrubs and choose plants that don't need much water.
- ◆ Use water from a bucket to wash your car, and save the hose for rinsing.
- ◆ Sweep clippings and leaves from walks and driveways rather than using the hose.
- ◆ Dracut's Outside Watering Guidelines allow odd numbered houses on Wed, Fri, and Sun and even numbered houses on Tue, Thu, and Sat. No watering on Mondays. In the event time restrictions are required customers will be notified in the local news media along with community signs
- ◆ Underground sprinkler systems require moisture sensors.



Water conservation in your home

- ◆ Fix leaking faucets, pipes, toilets, etc.
- ◆ Install water-saving devices in faucets, toilets and appliances.
- ◆ Wash only full loads of laundry.
- ◆ Don't use the toilet for trash disposal.
- ◆ Take shorter showers.
- ◆ When washing hands, brushing teeth or shaving, use only as much water as you need.



WATER QUALITY TEST RESULTS

Substance	Highest Level Detected	Highest Level Allowed (EPA's MCL)*	Ideal Goals (EPA's MClg)*	Range	Violation	Date	Major Sources
Barium	0.010 ppm	2 ppm	2	n.d. to .010	NO	9/21/2009	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Sodium	28.3 ppm	no MCL	none set	n.d. to 28.3	NO	9/21/2009	Erosion of natural deposits; Runoff from orchards; Waste from electric and glass production.
Radium 228	0.8 pCi/L *	5 pCi/L	0 pCi/L	n.d. * to 0.8	NO	1/28/2008 C	Erosion of natural deposits
Radium 226	0.2 pCi/L *	5 pCi/L	0 pCi/L	n.d. * to 0.2	NO	1/28/2008 C	Erosion of natural deposits
Gross Alpha	0.7 pCi/L	15 pCi/L	0 pCi/L	n.d. * to 0.7	NO	1/28/2008 C	Erosion of natural deposits
Fluoride	1.6 ppm 0 of 34 B	4 ppm	4 ppm	n.d. to 1.6	NO	6/13/2009	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Copper	408 ppb 1 of 34 B	1,300 ppb (Action Level)*	1,300 ppb	n.d. to 408	NO	9/1/2007 C	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
Lead	50.0 ppb D	15 ppb (Action Level)*	0	n.d. to 50.0	NO	9/1/2007 C	Corrosion of household plumbing systems; Erosion of natural deposits
Sulfate	14.0 ppm	no MCL	none set	n.d. to 14.0	NO	9/16/2009	Erosion of natural sources
Nitrate	1.1 ppm	10 ppm	10 ppm	n.d. to 1.1	NO	9/16/2009	Runoff from fertilizer use; Leaching from septic tanks sewage; Erosion of natural deposits
Total Trihalomethanes (TTHM)	50.0 ppb D	80 ppb	0	n.d. to 50.0 D	NO	9/11/2008 C	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	15 ppb	60 ppb	0	n.d. to 15.0 D	NO	5/15/2008 C	By-product of drinking water chlorination
1,2-Dichloroethane	5.2 ppb	5 ppb	0	n.d. to 5.2	YES	4/23/2009	Discharge from industrial chemical factories— SEE BELOW FOR HEALTH LANGUAGE
Total Trihalomethanes (TTHM)	48.0 ppb D	80 ppb	0	0.65 to 48.0 D	NO	2009	By-product of drinking water chlorination
Turbidity C	99.9% 0.6	TT = percentage of samples less than 0.5 NTU TT = 0.5 NTU	TT	0.03 to 0.60	NO	2009	Soil runoff
Haloacetic Acids (HAA5)	18.6 ppb D	60 ppb	0	n.d. to 18.6 D	NO	2009	By-product of drinking water chlorination
Chlorine Residual	1.41 ppm	4 ppm	4 ppm	0.31 to 1.41	NO	2009	By-product of drinking water disinfection
Chlorite	0.57 ppm	1.0 ppm	0.8 ppm	0.05 to 0.57	NO	2009	By-product of drinking water disinfection
Nitrate	0.28 ppm	10 ppm	10 ppm	N/A	NO	2009	Runoff from fertilizer use; Leaching from septic tanks sewage; Erosion of natural deposits
Fluoride	1.2 ppm	4 ppm	4 ppm	0.81 to 1.20	NO	2009	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Gross Alpha	0.5 (+-1.1)	15 pCi/L	0 pCi/L	N/A	NO	2009	Erosion of natural deposits
Radium 228	0.1(+0.6)	5 pCi/L	0 pCi/L	N/A	NO	2009	Erosion of natural deposits
Sodium	38.7 ppm	no MCL	none set	N/A	NO	2009	Erosion of natural deposits; Runoff from orchards; Waste from electric and glass production.
Sulfate	7.4 ppm	no MCL	none set	N/A	NO	2009	Erosion of natural sources
Chloroform	17.6 ppb	no MCL	none set	2.1 to 17.6	NO	2009	By-product of drinking water chlorination
Bromodichloromethane	6.4 ppb	no MCL	none set	1.3 to 6.4	NO	2009	By-product of drinking water chlorination
Chlorodibromomethane	1.6 ppb 0 of 50 B	no MCL	none set	n.d. to 1.6	NO	2009	By-product of drinking water chlorination
Copper	50 1 of 50 B	1,300 ppb (Action Level)*	1,300 ppb	n.d. to 50	NO	2009	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
Lead	42.0 ppb D	15 ppb (Action Level)*	0	n.d. to 42.0	NO	2009	Corrosion of household plumbing systems; Erosion of natural deposits

(Listed above are 19 regulated & unregulated contaminants for which monitoring was required and detected in Dracut and Lowell drinking water. Not listed are over 100 other contaminants monitored but not detected.)

On April 23, 2009 a compound known as 1,2-Dichloroethane was detected in one of the 7 wells that produces water for the District. Upon receiving this result from our lab, the District immediately re-sampled this well. The result from re-sampling showed this compound was NOT detected. All subsequent samples taken from this well in 2009 through the present did not detect this compound either. The District cannot explain why this compound was detected in only one sample but continues to monitor the situation carefully.

*** DEFINITIONS:**

Maximum Contaminant Level (MCL) – The highest level of a contaminant that is allowed in drinking water.

Maximum Contaminant Level Goal (MCLG) – The level of a contaminant in drinking water below which there is no known or expected risk to health.

ppm – One part per million.

ppb – One part per billion.

n.d. – none detected

Action Level – The concentration of a contaminant which triggers a treatment or other requirement that a water system must follow.

Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water. The City is required under the Surface Water Treatment Rule to filter the source of the City's drinking water, the Merrimack River, to reduce contaminant levels such as turbidity.

NTU – Nephelometric Turbidity Unit measures the characteristic or property of water that causes it to scatter or absorb light. This is usually caused by very small particulate matter suspended in the water.

THE DRACUT WATER SUPPLY DISTRICT WORKING FOR YOU!

The Dracut Water Supply District provides water to most of the residents and businesses in almost two thirds of Dracut as well as areas in Tyngsboro. The District has 3 sources of water—one well field in Dracut, one well field in Tyngsboro and we purchase supplemental water from the City of Lowell. To deliver the water we have 3 water storage tanks, 7 booster pump stations, 8 pressure zones with over 100 miles of mains. Our water system has been in the process of and continues to upgrade, add and install new water distribution improvements to better serve you—our customers. We are excited to present our 2009 Water Quality Report. The report presents important information about our operations, the quality of the water provided and useful tips on water use. This report will be sent every year to keep you updated with system upgrades and your most recent water quality information. A special thanks to our staff and our customers who help to continue the success story of the ‘New and Improved Dracut Water Supply District’.

WATER QUALITY TESTING RESULTS

Several times each year, your water is collected and tested for over 120 possible impurities. The table (page 2) provides information about substances that have been detected in the most recent water quality testing. Some of the tests were completed in years other than 2009. Because the water delivered to you could have come from either Lowell or Dracut or be a mix of the two, the data presented in the table represents the results of testing done by the Lowell Regional Water Utility and the Dracut Water Supply District. If you are interested in more information about the source of your water, contact the Dracut Water Supply District (978-957-0441).

WATER QUALITY INFORMATION

In order to ensure that tap water is safe to drink, the MADEP and EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and the Massachusetts Department of Public Health (DPH) regulations establish limits for contaminants in bottled water that must provide the same protection for public health. We treat our water according to EPA's regulations.

SPECIAL EXPLANATIONS:

- Results represent water pumped from Dracut Water Supply District (DWSD) wells.
- Results represent water purchased from City of Lowell.
- A Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the Water Treatment Plant filtration system.
- B This is the number of sites above the action level.
- C This is the most recent test result required by EPA Regulations.
- D Highest Level Detected & Range are not always the same because results are averages or 90th percentile.

The sources of drinking water (both tap water and bottled water) 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, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

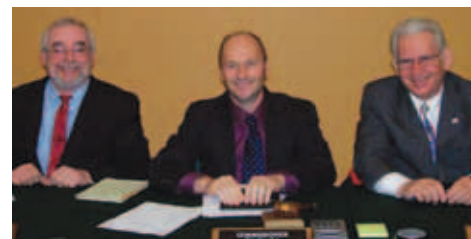
Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants**, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, and farming.
- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- **Radioactive contaminants**, which can be naturally-occurring or be the result of oil and gas production and mining activities.

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/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 (1-800-426-4791).

HOW DO WE TREAT YOUR WATER?

In order to ensure that tap water is safe to drink and in compliance with federal and state regulations, your water receives a variety of treatments including potassium hydroxide and phosphate for corrosion control as well as fluoride to prevent tooth decay/cavities. Lowell water is filtered and treated by the City of Lowell.



Board of Water Commissioners
The Dracut Water Commissioners, from left to right, Mr. William Morin, Mr. William “Zee” Zielinski, Mr. Robert Corey



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DWSD New Office & Maintenance Facility opened April 2010

Water Quality Information Enclosed!

Want More Information?

Do you want to learn more about your drinking water? Do you have questions regarding this report? The Dracut Water Supply District responds to all concerns, questions and comments. Please contact Gary W. McCarthy, Executive Director– Superintendent at 978-957- 0441 or via e-mail to gary.mccarthy@dracutwater.com.

The main office & field office buildings are located at 59 Hopkins St., Dracut. Water Commissioner Board meetings are usually held the 2nd & 4th Wednesdays of each month at 7:00 p.m. in the field office conference room. The office receives calls 24 hours a day including weekends and holidays with after business hours going to the emergency call service! Whatever your water needs might be – it's just a phone call away.

**Le rapport contient des informations concernant la qualité de l'eau de votre communauté.
 Faites-le traduire, ou parlez-en à un ami qui le comprend bien.**

Water Supply Sources	
Well Name	Source ID#
Tyngsboro Well Field #5	3079000 08G
Tyngsboro Well Field #4	3079000 07G
Tyngsboro Well Field #3	3079000 06G
Tyngsboro Well Field #2	3079000 05G
Tyngsboro Well Field #1	3079000 04G
New Boston Well Field #2R	3079000 09G
New Boston Well Field #1	3079000 03G
Lowell Regional Water Utility (Additional Supplemental Source)	3079000 01P

Source Water Assessment Protection (SWAP)

The SWAP program was established under the Federal Safe Drinking Water Act. Call the office for a copy of the District's SWAP Report or check out the report on our website at www.dracutwater.com. For additional information on water quality visit the Mass.gov website.

Visit Us on the Web – www.dracutwater.com

The District's website is full of information about the District. It is updated routinely with news alerts about what's happening in the system. It contains contractor information, conservation tips, past publications, water quality data and links to other water related websites. *Most importantly, you can now pay your water bill on-line.* It's a fast, convenient and secure way to pay your bill. Why not give it a try!



Message from the EPA — 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. Dracut Water Supply District 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 water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.