Source Water Assessment Summary:

DES prepared drinking water source assessment reports for all public water systems between 2000 and 2003 in an effort to assess the vulnerability of each of the state's public water supply sources. Included in the report is a map of each source water protection area, a list of potential and known contamination sources, and a summary of available protection options. The assessment conducted for Lake Massabesic, Derry's water supply source, prepared in September 2002, received four high and four medium vulnerability ratings, while it ranked at low vulnerability for five additional categories.

Note: This information is over 12 years old and includes information that was current at the time the report was completed. Therefore, some of the ratings might be different if updated to reflect current information. At the present time, DES has no plans to update this data.

The complete assessment report for the Derry Core Water system is available at the Derry Department of Public Works, For more information you may contact the DPW at 603-432-6144 or visit the DES Drinking Water Source Assessment website at:

http://des.nh.gov/organization/divisions/water/dwgb/dwspp/dwsap.htm

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The US Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Why are contaminants in my water? 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 Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

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 storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or 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 storm water runoff, and septic systems.

Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Do I need to take special precautions? 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 at 1-800-426-4791.

How can I get involved? The Town of Derry invites its customers to become more involved with the Town's water quality efforts. The Derry Town Council, who act as the Water Commission, meet periodically to discuss issues that concern our customers. Council meetings are usually held on the first and third Tuesdays of each month at the Derry Municipal Center at 14 Manning Street. For more information you can call the Municipal Center or visit our website www.derrynh.org.

IMPORTANT REMINDER ABOUT CHLORAMINES: Chloramines are used to treat our water supply for disinfection. Chloramines make water safer and better tasting. Chloraminated tap water, which has been used in the U.S. for decades, is safe for drinking, cooking, bathing and other daily uses. However, some customers will need to take special precautions.

FISH OWNERS Like chlorine, chloraminated water may cause both fresh and saltwater fish and other aquatic life to die, because water is taken directly into their bloodstream. Recommended precautions include: Treat chloraminated water BEFORE it is added to your tank, aquarium, pond or bowl. Carbon filters do not remove chloramines. Customers who use tap water for aquaculture (growing plants in a water tank or pond) are encouraged to get expert advice regarding whether and how to neutralize or remove chloramines. Restaurants and grocery stores with lobster tanks should take special precautions to treat the water. Chloraminating products and equipment for chlorine and ammonia removal can be found at most pet and aquarium retailers.

KIDNEY DIALYSIS PATIENTS Chloramines are harmful when they go directly into the bloodstream, just as chlorine in water would be toxic. They must be removed from water used in either hospital or home dialysis machines. Medical centers that perform dialysis are responsible for the removal of chloramines from water that enters the machines. Any dialysis equipment connected to the Derry water supply will require modifications to eliminate chloramines. Dialysis patients and people with questions or concerns should contact their physician or public health professional.

HOUSEHOLD CONCERNS Chloramines may cause some rubber or synthetic rubber materials in plumbing fixtures to degrade faster than normal. When replacing, ask for chloramines resistant parts at plumbing suppliers and hardware stores.

Chloramines may also impact BREWERIES AND BAKERIES as yeast and enzymes may not survive.

Town of Derry, New Hampshire

Derry Core Water System

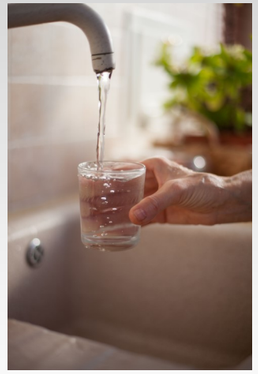
ANNUAL WATER QUALITY REPORT

Drinking water testing report

For testing done in 2021

PWS ID 0611010

Department of Public Works
14 Manning Street
Derry, NH 03038
Tel: 603-432-6147



To Our Customers,

The Town of Derry continues its ongoing mission of providing safe and reliable drinking water to Derry's residents, institutions and businesses, complying with Federal and State Regulations. Each year the Town replaces water lines, service meters, fire hydrants, shut-off valves and pumping equipment and flushes mains and conducts extensive water quality testing. The Town utilizes a comprehensive asset management system to track these efforts to ensure that Derry's water system infrastructure meets high standards of quality and service and that these investments result in a sustainable rate structure that is adequate to provide this service and is affordable to our customers. Maintaining safe and reliable drinking water is necessary to maintain the quality of life we've come to expect.

When considering the high value we place on water, it is truly a bargain to have water service that protects public health, fights fires, supports businesses and the economy, and provides us with the quality of life we enjoy.

Fluoridation Information from Manchester Water Works

Derry's water supply is fluoridated. According to the Centers for Disease Control and Prevention, if your child under the age of 6 months is exclusively consuming infant formula reconstituted with fluoridated water, there may be an increased chance of dental fluorosis. Consult your child's health care provider for more information.

What is a Consumer Confidence Report? The Consumer Confidence Report (CCR) details the quality of your drinking water, where it comes from, and where you can get more information. This annual report documents all detected primary drinking water parameters, and compares them to their respective standards known as Maximum Contaminant Levels (MCLs).

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.

What is the source of my drinking water? The Derry Municipal Core Water System is serviced by Manchester Water Works which supplies treated water from Lake Massabesic, located in Manchester and Auburn. Since 1985, Manchester Water Works has served as Derry's water supplier. In order to satisfy stringent state and federal drinking water regulations, the lake water is purified at Manchester Water Works' Treatment Plant. This facility has been routinely updated with state-of-the-art equipment to improve quality control and operational efficiency and was significantly upgraded in 2003-06. Additional improvements are planned for 2018-2019. Located adjacent to Lake Massabesic, the plant treats the water before it is pumped into a 500-mile piping network for distribution to homes and industries and other adjacent communities including Derry.

Derry's water supply is stored in a 4 million gallon atmospheric storage tank. Most of Derry's water system is gravity fed, however there are four water booster stations which service areas of Derry at higher elevations. Derry services approximately 17,000 customers in Derry including 800 Pennichuck Water Works customers. Derry services parts of Londonderry and Windham as well. You can find a copy of Manchester Water Work's Water Quality report at www.manchesternh.gov/Portals/2/Departments/water_works/watersupply/CCR_Web_Version_2018.pdf

Town of Derry, NH Core Water System Sampling Results for 2021

The Table below lists the contaminants detected in **Derry's Municipal Core Water System** in **2021**. In Addition to those detected, the Town and Manchester Water Works tests your drinking water for over 100 additional contaminants such as pesticides, herbicides, radionuclides, MTBE etc. using both Town resources and local laboratories. **How to read this table:** This table shows the results of our water quality analyses. Every regulated contaminant that we detected in your water, even in the minutest traces, is listed here. The table contains the names of each contaminant, the highest level allowed by State and EPA regulations (MCL), the ideal goals for public health (MCLG), the amount detected, and the most common sources of the contaminant. Footnotes explaining our findings and a key to the units of measure are also included in this table. Definitions of MCL and MCLG are important.

DETECTED WATER QUALITY RESULTS

CONTAMINANT (Units)	YEAR SAMPLED[1]	HIGHEST LEVEL DETECTED	MCL	MCLG	VIOLATION YES/NO	LIKELY SOURCE OF CONTAMINANT
REGULATED CONTAMINANTS						
Barium (ppm)	2018	0.0117	2	N/A	NO	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chlorine, Total (ppm)	2021	MONTHLY AVERAGE: 1.11 RANGE of DETECTED VALUES = 0.01 to 2.20	MRDL = 4	MRDLG = 4	NO	Water additive used to control microbes.
Chloramines (ppm)	2021	AVERAGE: 1.1 Range Detected: 0 – 2.6	4	4	NO	
Fluoride (ppm)	2018	0.56 RANGE of DETECTED VALUES = 0.56	4	4	NO	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Copper (ppm)	2020	90th percentile = 0.284 ---------- # of samples exceeding AL = 0	AL = 1.3	AL = 1.3	NO	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2020	90th percentile = 0 ---------- # of samples exceeding AL = 1	AL=15	0	NO	Corrosion of household plumbing systems, erosion of natural deposits
Nitrite (ppm)	2021	0.347 Range Detected: 0.0 – 0.347	1	1		
DISINFECTION BY-PRODUCTS						
Haloacetic Acids (HAA) (ppb)	2021	RAA = 2.9 RANGE of DETECTED VALUES = 1.0 to 6.2	RAA = 60	NA	NO	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	2021	RAA = 3.0 RANGE of DETECTED VALUES = 1.4 to 5.0	RAA = 80	N/A	NO	By-product of drinking water chlorination

ADDITIONAL TESTING		RANGE OF DETECTED VALUES	TREATMENT TECHNIQUE (IF ANY)	AL (ACTION LEVEL), SMCL or AGQS (Ambient groundwater quality standard)	SPECIFIC CONTAMINANT CRITERIA AND REASON FOR MONITORING
Sodium (ppm)	2018	43.6 to 43.8	N/A	100 - 250	Road salt, septic systems (salt from water softeners)
pH	2020	6.7 to 7.6	N/A	6.5 – 8.5	Precipitation and geology
Iron (ppm)	2018	<0.01 to 0.15	N/A	0.3	Geological
Manganese (ppm)	2020	0.00845 to 0.0113	N/A	50	Geological
Zinc (ppm)	2018	0.0102 to 0.0987	N/A	5	Galvanized pipes
Chloride (ppm)	2018	56 to 57	N/A	250	Wastewater, road salt, water softeners, corrosion
Sulfate (ppm)	2018	17	N/A	250	Naturally occurring
Hardness (mg CaCO3/L)	2016	18.8 to 18.9	N/A	N/A	Geological
Ammonia (Total as Nitrogen) (ppm)	2021	AVERAGE: 0.35 Range Detected: 0 – 0.84	N/A	N/A	By-product of drinking water disinfection
Ammonia (Free) (ppm)	2021	Average: 0.13 Range Detected: 0 – 0.43	N/A	N/A	By-product of drinking water disinfection

ADDITIONAL TESTING		RANGE OF DETECTED VALUES	AVERAGE VALUE	WHY DO WE TEST FOR THESE CONTAMINANTS?
Strontium (ppb)	2015	48.2 to 59.9	52.4	The 1996 amendments to the Safe Drinking Water Act (SDWA) require that once every five years, the U.S. Environmental Protection Agency (EPA) issue a new list of no more than 30 unregulated contaminants to be monitored by public water systems (PWSs). The Unregulated Contaminant Monitoring Rule (UCMR) provides EPA and other interested parties with scientifically valid data on the occurrence of contaminants in drinking water. These data serve as a primary source of occurrence and exposure information that the agency uses to develop regulatory decisions. Derry was required by EPA to sample for these in 2015.
Vanadium (ppb)	2015	<0.2 to 0.43	0.26	
Chromium-6 (ppb)	2015	<0.03 to 0.10	0.045	
Chlorate (ppb)	2015	79 to 180	131	
1,4-Dioxane (ppb)	2015	<0.070 to 0.099	0.025	

DEFINITIONS

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

Maximum Contaminant Level or **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.

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

Maximum Residual Disinfectant Level Goal or **MRDLG:** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Treatment Technique or **TT:** A required process intended to reduce the level of a contaminant in drinking water.

Abbreviations

BDL: Below Detection Limit
NA: Not Applicable
pCi/L: picoCurie per Liter
ppb: parts per billion
ppt: parts per trillion
RAA: Running Annual Average
mg/L: milligrams per Liter
ND: Not Detectable at testing limits
ug/L: micrograms per Liter
ppm: parts per million

CONTAMINANTS

Lead: 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. This water system is responsible for high quality drinking water but cannot control the variety of materials used in your plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing cold water from your tap for at least 30 seconds before using water for drinking or cooking. Do not use hot water for drinking and 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 http://water.epa.gov/drink/info/lead/index.cfm

Fluoride: Your water system is fluoridated. According to the Centers for Disease Control and Prevention, if your child under the age of 6 months is exclusively consuming infant formula reconstituted with fluoridated water, there may be an increased chance of dental fluorosis. Consult your child's health care provider for more information

1. The State of NH and EPA allow for water systems to monitor for contaminants noted less than once per year because the concentrations for these contaminants do not change frequently. Some of this data, though representative, is more than one year old.