



# Estates at Highland Ridge

## 2022

PWS ID: #2139010

## REPORT ON WATER QUALITY

This report is a snapshot of the quality of the drinking water that we provided last year. The statistics in this report are based on testing done throughout 2022 and prior years. We hope you will find it helpful to know the sources of your water and the process by which safe drinking water is delivered to your home.

### Where Does My Water Come From?

Highland Ridge Estates is a 39-lot subdivision, located on 150 acres in Hopkinton. Water is supplied by four bedrock (groundwater) wells located on the property: 02G, 03G, 05G, and 06G.

These wells are each approximately one thousand feet deep and are manifolded together in the wellhouse where the water is treated before being pumped into the system. There are no connections to any other water supplies.

### Maintaining Water Quality

Estates at Highland Ridge continuously strives to produce the highest quality water possible to meet or surpass every water quality standard. We monitor both our sources and distribution system very closely. The standards we operate under were enacted by the U.S. Congress as the Safe Drinking Water Act in 1974 and were amended in 1986 and 1996.

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



**It's Their Legacy**

### Water Treatment

We make every effort to provide you with safe and pure drinking water. Estates at Highland Ridge's raw water contains levels of sediment, gross alpha and uranium radionuclides, radon, and volatile organic compounds. Radon is undesirable because it will volatilize out of the water into the air where people might become exposed.

To improve the quality of the water delivered to you, the water is first passed through a spin filter to remove the heaviest sediment, then through a bag filter, sediment filters, an anion exchange radionuclide removal filter, followed by a "deep bubble" radon removal aeration filter, a carbon filter, and finally through an ultra-violet (UV) unit for disinfection. Dual transfer pumps transfer the treated water from the radon tank through carbon filters and the UV disinfection system into two 20,000-gallon water storage tanks in parallel (for a total of 40,000 gallons of total storage.) Dual booster pumps draw water from the storage tanks and supply the distribution system within the subdivision roadways. The treatment system was also designed with an emergency fitting which would allow for chlorine disinfection, if needed.

## Estates at Highland Ridge

*The water system at Estates at Highland Ridge is operated and maintained by WhiteWater, Inc. If you have any questions about this report, please contact WhiteWater at 1-888-377-7678.*

*Additional copies of this report are available upon request and at [www.whitewateronline.com](http://www.whitewateronline.com)*



## DISTRIBUTION SYSTEM WATER QUALITY

This report summarizes only those items detected during sampling - not all contaminants that are monitored.

<b>Microbial Results</b>	<b>Highest # Positive in a Month</b>	<b>MCL</b>	<b>MCLG</b>	<b>Violation</b>	<b>Possible Source of Contamination</b>
<b>Total Coliform Bacteria</b>	0	1	0	No	Naturally present in the environment

Coliform are bacteria that are naturally present in the environment and are used to indicate that other, potentially harmful bacteria may be present.

<b>Lead &amp; Copper</b>	<b>Date(s) Collected</b>	<b>90<sup>th</sup> Percentile of Sample</b>	<b>Action Level</b>	<b>MCLG</b>	<b># of Sites sampled</b>	<b># of Sites Above Action Level</b>	<b>Exceeds Action Level?</b>	<b>Possible Source of Contamination</b>
Lead (ppb)	2022	0	15	0	10	0	No	Corrosion of household plumbing systems
Copper (ppm)		0.20	1.3	1.3		0	No	Corrosion of household plumbing systems

### TESTING FOR 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. **Estates at Highland Ridge** 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 <http://www.epa.gov/safewater/lead>.

### SOURCE WATER CHARACTERISTICS

<b>Key to Tables</b>
• ppm – Parts per million, corresponds to one penny in \$10,000
• ppb – Parts per billion, corresponds to one penny in \$10,000,000
• pCi/L – Picocuries per liter (a measure of radioactivity)
• ND – Not detected
• n/a - not applicable
• RAA –Running annual average
• TT—Treatment technique

The sources of drinking water in the United States (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 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 storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production. These contaminants can also come from gasoline storage, 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.

## SUMMARY OF FINISHED WATER CHARACTERISTICS

<b>Regulated Contaminants</b>	<b>Date(s) Collected</b>	<b>Highest Result</b>	<b>Range Detected</b>	<b>MCL</b>	<b>MCLG</b>	<b>Violation</b>	<b>Possible Source of Contamination</b>
<b>Inorganic Contaminants</b>							
Barium (ppm)	4/26/21	0.005	n/a	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	4/26/21	0.3	n/a	4	4	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (ppm)	6/21/22	2.12	n/a	10	10	No	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Perchlorate (ppb)	7/13/22	0.103	n/a	2	N/A	No	Rocket propellants, fireworks, munitions, flares, blasting agents
<b>Radioactive Contaminants</b>							
Gross Alpha Emitters (pCi/L) (minus uranium)	4/26/21, 12/28/21	3.13	1.92-3.13	15	0	No	Erosion of natural deposits
Radium 226 & 228 (combined) (pCi/L)	4/26/21	1.26	n/a	5	0	No	Erosion of natural deposits
Uranium (ppb)	4/26/21, 12/28/21	1.8	0.12-1.8	30	0	No	Erosion of natural deposits
<b>Unregulated Contaminants</b>	<b>Date(s) Collected</b>	<b>Result or Range Detected</b>	<b>Average</b>	<b>SMCL</b>	<b>ORSG or Health Advisory</b>	<b>Possible Source of Contamination</b>	
<b>Inorganic Contaminants</b>							
Sodium (ppm)	4/26/21	17	n/a	-	20	Natural sources; runoff from use as salt on roadways	
<b>Radiological Contaminants</b>							
Radon (pCi/L)	6/21/22	260	n/a	-	10,000	Natural sources	

**Sodium** is a naturally-occurring common element found in soil and water. It is necessary for the normal functioning of regulating fluids in human systems. Some people, however, have difficulty regulating fluid volume as a result of several diseases, including congestive heart failure and hypertension. The guideline of 20 mg/L for sodium represents a level in water that physicians and sodium sensitive individuals should be aware of in cases where sodium exposures are being carefully controlled. For additional information, contact your health care provider, your local board of health or the Massachusetts Department of Public Health, Bureau of Environmental Health Assessment at 617-624-5757.

**Radon** is a radioactive gas that you cannot see, taste, or smell. It is found throughout the U.S. 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 from tap water will in most cases be 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 can lead to lung cancer. Drinking water containing radon may also cause increase 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 the Massachusetts Department of Public Health, Radon Program at 413-586-7525 or call EPA's Radon Hotline (800-SOS-RADON).

### SOME TERMS DEFINED

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

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

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

**Secondary Maximum Contaminant Level (SMCL):** *These standards are developed to protect the aesthetic qualities of drinking water and are not health based.*

**Massachusetts Office of Research and Standards Guideline (ORSG):** *This is the concentration of a chemical in drinking water, at or below which, adverse, non-cancer health effects are likely to occur after chronic (lifetime) exposure. If exceeded, it serves as an indicator of the potential need for further action.*

**Total Coliform:** *A bacteria that indicates other potentially harmful bacteria may be present.*

**Unregulated Contaminants:** *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.*

**90<sup>th</sup> Percentile:** *Out of every 10 homes, 9 were at or below this level.*

## Source Water Protection

The Massachusetts Department of Environmental Protection (MassDEP) has not yet completed a Source Water Assessment Program (SWAP) Report for the water supply source serving Estates at Highland Ridge. This report assesses the susceptibility of public water systems to contamination and makes recommendations for improvement. Once a SWAP report has been completed, we will notify you.

For further information, please visit <http://www.mass.gov/eea/agencies/massdep/water/drinking/overview-of-the-source-water-assessment-and-protection-pr.html>

Be assured that Estates at Highland Ridge in concert with its certified operator, WhiteWater, Inc., will address any concerns as stated in the SWAP Report and welcomes your input to our planning. If you have any questions, please contact WhiteWater, Inc., at 1-888 377-7678.

## SHOULD SOME PEOPLE 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 (800)426-4791.

## FOR YOUR INFORMATION

In order to ensure that tap water is safe to drink, the Department of Environmental Protection (MassDEP) and U.S. Environmental Protection Agency (EPA) prescribe regulations that limit the amount of certain contaminants in water provided to public water systems. The Food and Drug Administration (FDA) and Massachusetts Department of Public Health (DPH) regulations establish limits for contaminants in bottled water that must provide the same protection for public health. All 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).

Where to go for more information ....

Massachusetts Department of Environmental Protection (MassDEP)  
<http://www.mass.gov/eea/agencies/massdep/water/drinking/>



## Opportunities to Participate

Any matters that concern your drinking water supply or issues you would like to see addressed can be presented at the regularly scheduled meeting of the trustees, association or board. If your concerns need immediate attention feel free to contact our current Certified Operator, WhiteWater, Inc., at 1-888-377-7678.

## Cross Connection Control and Backflow Protection in your water system



Typical Hose Bibb Vacuum Breaker

A Cross Connection means any actual or potential physical connection or arrangement between a pipe conveying potable water from a public water system and any non-potable water supply, piping arrangement or equipment including, but not limited to, waste pipe, soil pipe, sewer, drain, other unapproved sources. Estates at Highland Ridge recommends the installation of Hose Bibb type vacuum breakers on all outside faucets. This will protect all residents from the potential of backflow into their homes and the potable water system from a hose connection. Studies have shown that hoses are the most commonly unprotected cross connection. The MassDEP requires the physical separation between the public water supply to your home and a private well used for irrigation or other purposes, these instances will be monitored for compliance. For more information please contact Marcus Thompson, Cross Connection Coordinator, WWI at 888-377-7678.