CHIMNEY HILL OWNERS ASSOCIATION, INC.

CONSUMER CONFIDENCE REPORT 2020

(For the period January 1 through December 31, 2019)

A CLOSER LOOK AT THE CHIMNEY HILL WATER SYSTEM

Prepared by Chimney Hill Owners Association, Inc.
in cooperation with the
Vermont Department of Environmental Conservation
Drinking Water and Groundwater Protection Division

CHIMNEY HILL OWNERS ASSOCIATION, INC.
PO BOX 415, # 9 HAYSTACK ROAD
WILMINGTON, VERMONT 05363
(802) 464-2181 FAX (802) 464-2184
www.chimneyhill.com
e-mail - admin@chimneyhill.com

CHIMNEY HILL OWNERS ASSOCIATION, INC.
CONSUMER CONFIDENCE REPORT 2020
WATER SYSTEM IDENTIFICATION (WSID) # 5312
For the period January 1 through December 31, 2019

Since 1967 Chimney Hill has been supplying safe drinking water for its full and part time residents. Its commitment to safe and adequate supplies of drinking water is and will continue to be a priority for its users. This report is an overview of your water system and the quality of water that we provided for January 1 through December 31, 2019. This is the 22nd of a yearly report, to comply with the Safe Drinking Water Act, which Chimney Hill Owners Association, Inc. issues annually. This report will update our membership on monitoring/testing and other issues concerning our drinking water supply. The purpose of this and subsequent reports is to advance consumers' understanding of drinking water and heighten awareness of the need to protect our precious water resources. Included in this report are details about where your water comes from, what it contains, and how it compares to U.S. Environmental Protection Agency (EPA) and state standards and other useful information concerning our water system.

This report was sent to email addresses on file of those owners who supplied Chimney Hill with their email addresses. Those owners without email addresses were mailed copies of the report by US Mail. All copies were mailed or emailed on April 20, 2020. Furthermore, a copy of the report was posted on the Chimney Hill website: www.chimneyhill.com. Copies are also available at the Chimney Hill Administrative office located at # 9 Haystack Road, Wilmington, Vermont or copies can be requested via mail, send your request to: Chimney Hill Consumer Confidence Report, P.O. Box 415, Wilmington, Vermont 05363.

HEALTH INFORMATION REGARDING DRINKING WATER

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 microbiological contaminants are available from EPA's Safe Drinking Water Hotline (1-800-426-4791).

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Safe Drinking Water Hotline.

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. CHIMNEY HILL 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 drinking 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.

Public Notice - Uncorrected Significant Deficiencies: The system is required to inform the public of any significant deficiencies identified during a sanitary survey conducted by the Drinking Water and Groundwater Protection Division that have not yet been corrected. For more information please refer to the schedule for compliance in the system's Operating Permit.

Date Identified	Deficiency	Facility
None		

WATER SOURCE INFORMATION - WHERE IT COMES FROM

Chimney Hill water comes from two main sources, springs and bedrock wells. Water is fed to 6 major storage and distribution areas throughout the Hill. Chimney Hill's water comes from groundwater sources. Following is a brief description of our sources:

Vermont Source Type: **Spring**
EPA Source Type: **Groundwater**
Source Name: **Brown Spring**

Vermont Source Type: **Spring**
EPA Source Type: **Groundwater**
Source Name: **Big Bend Spring**

Vermont Source Type: **Rock well**
EPA Source Type: **Groundwater**
Source Name: **Bedrock Well #5**

Vermont Source Type: **Rock well**
EPA Source Type: **Groundwater**
Source Name: **Bedrock Well #7**

Vermont Source Type: **Rock well**
EPA Source Type: **Groundwater**
Source Name: **Bedrock Well #9**

Vermont Source Type: **Rock well**
EPA Source Type: **Groundwater**
Source Name: **Bedrock Well #10**

Vermont Source Type: **Rock well**
EPA Source Type: **Groundwater**
Source Name: **Bedrock Well #11**

Vermont Source Type: **Rock well**
EPA Source Type: **Groundwater**
Source Name: **Bedrock Well #12**

Vermont Source Type: **Rock well**
EPA Source Type: **Groundwater**
Source Name: **Bedrock Well #14**

Drinking Water Contaminants

The sources of drinking water (both tap water and bottled water) include surface water (streams, lakes) and ground water (wells, springs). As water travels over the land's surface or through the ground, it dissolves naturally-occurring minerals. It also picks up substances resulting from the presence of animals and human activity. Some "contaminants" may be harmful. Others, such as iron and sulfur, are not harmful. Public water systems treat water to remove contaminants, if any are present.

In order to ensure that your water is safe to drink, we test it regularly according to regulations established by the U.S. Environmental Protection Agency and the State of Vermont. These regulations limit the amount of various contaminants:

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, may come from a variety of sources such as storm water run-off, agriculture, and residential users.
Radioactive contaminants, which can be naturally occurring or the result of mining activity
Organic contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and also come from gas stations, urban storm water run-off, and septic systems.

Water Quality Data

The table below lists all the drinking water contaminants that we detected during the past year. It also includes the date and results of any contaminants that we detected within the past five years if tested less than once a year. The presence of these contaminants in the water does not necessarily show that the water poses a health risk.

Terms and abbreviations - In this table you may find terms you might not be familiar with. To help you better understand these terms we have provided the following definitions:

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Level 1 Assessment: A level 1 Assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
Level 2 Assessment: A Level 2 Assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
Locational Running Annual Average (LRAA): The average of sample analytical results for samples taken at a particular monitoring location during four consecutive calendar quarters.
Maximum Contamination Level (MCL): The "Maximum Allowed" MCL is 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.
Maximum Contamination Level Goal (MCLG): The "Goal" is the level of a contaminant in drinking water below which there is no known or expected risk to human health. MCLG's allow for a margin of safety.
Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. Addition a disinfectant may help control microbial contaminants.
Maximum Residual Disinfectant Level Goal (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 disinfectants in controlling microbial contaminants.
Nephelometric Turbidity Unit (NTU): NTU is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
Parts per million (ppm) or Milligrams per liter (mg/l): (one penny in ten thousand dollars)
Parts per billion (ppb) or Micrograms per liter (ug/l): (one penny in ten million dollars)
Parts per trillion (ppt) or Nanograms per liter (ng/l): (one penny in ten billion dollars)
Picocuries per liter (pCi/L): a measure of radioactivity in water
Running Annual Average (RAA): The average of 4 consecutive quarters (when on quarterly monitoring); values in table represent the highest RAA for the year.
Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.
90th Percentile: Ninety percent of the samples are below the action level. (Nine of ten sites sampled were at or below this level).
Per- and polyfluoroalkyl substances (PFAS): a group of over 4,000 human-made chemicals (they do not occur naturally) that have been used in industry and consumer products worldwide and includes:

- **(PFNA): Perfluorononanoic Acid**
- **(PFOA): Perfluorooctanoic Acid**
- **(PFOS): Perfluorooctane Sulfonic Acid**
- **(PFHpA): Perfluoroheptanoic Acid**
- **(PFHxS): Perfluorohexane Sulfonic Acid**
- **(11Cl-PF3OUdS): 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic Acid**
- **(9Cl-PF3ONS): 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic Acid**
- **(DONA): 4,8-Dioxa-3H-perfluorononanoic Acid**
- **(HFPO-DA): Hexafluoropropylene Oxide Dimer Acid**
- **(NEtFOSAA): N-ethyl perfluorooctanesulfonamidoacetic Acid**
- **(NMeFOSAA): N-methyl perfluorooctanesulfonamidoacetic Acid**
- **(PFBS): Perfluorobutane Sulfonic Acid**
- **(PFDA): Perfluorodecanoic Acid**
- **(PFDoA): Perfluorododecanoic Acid**
- **(PFHxA): Perfluorohexanoic Acid**
- **(PFTA): Perfluorotetradecanoic Acid**
- **(PFTrDA): Perfluorotridecanoic Acid**
- **(PFUnA): Perfluoroundecanoic Acid**

Per- and Polyfluoroalkyl Substances (PFAS) are contaminants you may see reported in your Consumer Confidence Report (CCR) for the first time.

What are PFAS?

PFAS are a group of over 4,000 human-made chemicals (they do not occur naturally) that have been used in industry and consumer products worldwide since at least the 1950s. These chemicals are used to make household and commercial products that resist heat and chemical reactions and repel oil, stains, grease, and water. Some common products that may contain PFAS include non-stick cookware, water-resistant clothing and materials, cleaning products, cosmetics, food packaging materials, and some personal care products. Due to their resilient chemical nature, they don't readily degrade once they are released into the environment. In addition, the common use of these chemicals in industry and consumer products has led to their widespread impact on the environment. The impact of these chemicals on your drinking water continues to be studied.

Why are PFAS being tested in my drinking water?

In May 2019, Act 21 (S.49), an act relating to the regulation of per- and polyfluoroalkyl substances (PFAS) in drinking and surface waters, was signed by Governor Scott. This Act provides a comprehensive framework to identify PFAS contamination and to issue new rules to regulate PFAS levels in drinking water.

What if PFAS have been detected in my drinking water?

Act 21 set an interim standard for the detected concentration of five PFAS in drinking water, or the combined concentration of any of the 5 PFAS, which should not exceed **20 parts per trillion (ppt).** The interim standard is based on the Health Advisory established by the Vermont Department of Health. The five PFAS are:

(PFNA): Perfluorononanoic Acid
(PFOA): Perfluorooctanoic Acid
(PFOS): Perfluorooctane Sulfonic Acid
(PFHpA): Perfluoroheptanoic Acid
(PFHxS): Perfluorohexane Sulfonic Acid

If your water has been tested and the **sum any of the five PFAS listed above is confirmed to exceed 20 ppt**, a Do Not Drink notice will be issued informing you not to use your water for drinking or cooking, brushing teeth, making ice cubes, making baby formula, washing fruits and vegetables or any other consumptive use. You will be advised to use another source of water for consumption which may include bottled water.

An additional 13 PFAS were required to be tested for, per Act 21. These additional 13 PFAS, listed below, currently do not have an established health-based standard and are not counted toward the combined standard of 20 ppt:

(11Cl-PF3OUdS): 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic Acid
(9Cl-PF3ONS): 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic Acid
(DONA): 4,8-Dioxa-3H-perfluorononanoic Acid
(HFPO-DA): Hexafluoropropylene Oxide Dimer Acid
(NEtFOSAA): N-ethyl perfluorooctanesulfonamidoacetic Acid
(NMeFOSAA): N-methyl perfluorooctanesulfonamidoacetic Acid
(PFBS): Perfluorobutane Sulfonic Acid
(PFDA): Perfluorodecanoic Acid
(PFDoA): Perfluorododecanoic Acid
(PFHxA): Perfluorohexanoic Acid
(PFTA): Perfluorotetradecanoic Acid
(PFTrDA): Perfluorotridecanoic Acid
(PFUnA): Perfluoroundecanoic Acid

Chimney Hill completed its required testing for PFAS's in November 2019. All results were negative for PFAS chemicals.

Where can I learn more about PFAS in drinking water?

For information about the health effects of PFAS, please visit www.healthvermont.gov/water/pfas or call the Vermont Department of Health at 1-800-439-8550. If you have specific health concerns, contact your health care provider.

Detected Contaminants CHIMNEY HILL

Disinfection Residual	RAA	RANGE	Unit	MRDL	MRDLG	Typical Source
Chlorine	0.446	0.000 - 1.100	mg/l	4	4	Water additive to control microbes

Chemical Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
Manganese	09/17/2019	11	11 - 11	ppb	NA	NA	Erosion of natural deposits. Vermont Department of Health has established a Health Advisory of 300 ppb. Manganese equal to or greater than 50 ppb can lead to unacceptable taste or staining of fixtures.
Nitrate	02/04/2019	0.6	0 - 0.6	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Radionuclides	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
Combined Radium (-226 & -228)	02/04/2019	0.174	0.174 - 0.174	pCi/L	5	0	Erosion of natural deposits
Radium-226	02/04/2019	0.174	0.174 - 0.174	pCi/L	5	0	Erosion of natural deposits

Disinfection ByProducts	Collection Year	Highest LRAA	Range	Unit	MCL	MCLG	Typical Source
Total Trihalomethanes	2019	3	3 - 3	ppb	80	0	By-product of drinking water chlorination

Lead and Copper	Collection Year	90th Percentile	Range	Unit	AL*	Sites Over AL	Typical Source
Lead	2018	7.6	0 - 9.6	ppb	15	0	Corrosion of household plumbing systems; Erosion of natural deposits
Copper	2018	0.51	0.027 - 1.1	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

*The lead and copper AL (Action Level) exceedance is based on the 90th percentile concentration, not the highest detected result.

Violation(s) that occurred during the year

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During Second Quarter 2019 we did not monitor or test for All Inorganic Chemicals and therefore cannot be sure of the quality of our drinking water during that time.

Type	Category	Analyte	Compliance Period
MONITORING, ROUTINE MAJOR	Failure to Monitor	Inorganic Chemicals	04/01/2019 - 06/30/2019

Chimney Hill was notified, on September 13, 2019, by the Vermont Department of Environmental Conservation, Drinking Water and Groundwater Protection Division, that the required All Inorganic Chemicals testing was not completed during the period between April 1, 2019 – June 30, 2019 for the Chimney Hill Tank # 2 distribution area . Upon notification of this failure to test testing was immediately completed as required. The results of the testing indicated that no action levels for any of the All Inorganic Chemicals were exceeded and no further action was necessary. Chimney Hill has put in place a redundant water system monitoring system to assure that all testing is done in accordance with our yearly required monitoring plan. If you have any questions or concerns related to this violation please contact Ken Spicer, Chimney Hill Executive Director, at (802) 464-2181 or by mail, P.O. Box 415, Wilmington, Vermont 05363

Operating Permit and System Enhancements

Approximately every three years the State of Vermont Water Supply Division conducts a complete Chimney Hill Water System Sanitary Survey. The survey reviews all aspects of our system including tank inspections, distribution line inspections, well and spring inspections, chemical applications, pumps, record keeping, operation manuals and water quality. On May 2, 2018 a Sanitary Survey was conducted and we are pleased to report that no major deficiencies were noted in the survey and no changes were made to our permit to operate.

Chimney Hill works diligently to assure clean and ample water for all of our users. This has required both great financial and manpower resources to assure this goal. Our current major capital expense will be to increase our storage capacity at all of our distribution areas and to proactively install concrete storage tanks that will take the place of our aging metal storage tanks when they are taken out of service. To date we have completed our Tank # 2 project which consisted of the construction of a 100,000 gallon concrete storage tank and removal of three 30,000 gallon steel storage tanks and the addition of a 50,000 gallon concrete storage tank and distribution house upgrades to our Tank # 1 facility. This year we completed our Tank # 3 system upgrades which included: the removal of an aging 30,000 gallon steel storage tank and replaced with a 30,000 gallon concrete storage tank, distribution house upgrades and installation of Supervisory Control and Data Acquisition (SCADA) equipment. This allows us to remote monitor all of our inflows/outflows, and tank levels and supply and an early warning system in the event of reduced flows, main line issues and other potential problems within our system.

Chimney Hill Water Commission

In November of 2004 the Chimney Hill Board of Directors established a Chimney Hill Water Commission to learn, understand, oversee and report back to the Chimney Hill Board of Directors all facets of the Chimney Hill Water System. In addition, they (the Commission) will assure that all State of Vermont Water Supply Division rules and regulations are adhered to and all records and reports are prepared and filed properly. The Commission, in an emergency, will also be able to assist in the operation of the water system.

The commission, appointed by the Chimney Hill Board of Directors' President, is currently comprised of seven Chimney Hill owners who have the time and expertise to devote to the Water Commission. Commission members meet periodically to assess, assist and review all aspects of the Chimney Hill water system. Commission members, from time to time, accompany the Chimney Hill licensed water system operators during scheduled testing periods, announced and unannounced, to make sure all testing locations and procedures are strictly adhered to. Meeting dates and times are listed on our website: chimneyhill.com or by calling the Administrative office at: (802) 464-2181.

Following are the current members of the Chimney Hill Water Commission:

Eugene Clark, Chairperson	James Bogard, Vice Chairperson
Lawrence Christian	Roy J. Schluter
Dennis Heberlein	Paul DiPietro

A full report of the activities of the Chimney Hill water system for the 2019/2020 fiscal year (and what is planned for the 2020/2021 fiscal year) can be found in the 2020 Notice of Annual Meeting which will be mailed to all owners prior the 2020 Annual Meeting of Owners.

SOURCE PROTECTION PLAN

In March of 2018 Chimney Hill, in cooperation with Vermont Rural Water Association, completed a Source Protection Plan update as required by the Vermont Department of Environmental Conservation, Drinking Water and Groundwater Protection Division. A copy of this is available at the Chimney Hill Owners Association Administrative office, # 9 Haystack Road, Wilmington, VT. The updated plan was approved on April 26, 2018 and our next required updated plan is due on March 16, 2021.

This plan provides information on potential sources of contamination (PSOC) to our wells and springs. Although some of our water sources are in areas that contain no PSOC the nature of our development does have an impact on our other sources. These PSOC pose a moderate or low risk to our sources: Roads- road salt can have an impact on our water sources from runoff and over application. Septic Systems - for obvious reasons this poses the greatest risk to our water supplies. Please be aware of this fact and maintain your septic systems to the highest possible standards. Above ground storage tanks - some homes have above ground storage tanks, please note any leakage from these tanks and report it to your supplier or the Chimney Hill office. The high toxicity and solubility of these contaminants can have a devastating impact to our water supplies. Although the PSOC in Chimney Hill do not pose a high risk it is important to remember that the items you dispose of may have a direct impact on the quality and cost of water you are used to receiving.

WHERE WE STAND AND WHAT YOU CAN DO

Chimney Hill is committed to making sure that clean, safe drinking water is delivered to your home. This does not come cheap. Federal and State mandates have required Chimney Hill to meet stringent requirements for our current sources and development of new sources. These are fairly recent mandates and were not anticipated when the development was born in 1967. Our homes, properties and health are not worth much without clean ample water supplies. Your water conservation measures and environmentally sound practices around your home and within Chimney Hill will assure that clean drinking water will remain an integral part of your visits to Chimney Hill.

OPERATOR AND PUBLIC PARTICIPATION OPPORTUNITIES

If you have any questions about this report or concerning the Chimney Hill water system, please contact:

Ken Spicer, Executive Director, Chimney Hill Owners Association, Inc., # 9 Haystack Rd, Box 415, Wilmington VT 05363, Phone Number: (802) 464-2181 extension 112 or E-mail: kspicer@chimneyhill.com.

We are pleased to report that all operators of our water system (direct or indirect) have their Class 3 Operator licenses. All licensees must maintain their Class 3 license by obtaining at least 20 credit hours of continuing education related to water system operations every three years.

Operator/Official

Kenneth B. Spicer, Class 3 Operator
C/o Chimney Hill Owners Association, Inc.
P.O. Box 415
Wilmington, Vt. 05363
Business Phone – (802) 464-2181
Business Fax – (802) 464-2184
Email: kspicer@chimneyhill.com

Operators

Gary LaPosta, Class 3 Operator
C/o Chimney Hill Owners Association, Inc.
P.O. Box 415
Wilmington, Vt. 05363
Business Phone – (802) 464-1600

Jay Howes, Class 3 Operator
C/o Chimney Hill Owners Association, Inc.
P.O. Box 415
Wilmington, Vt. 05363
Business Phone – (802) 464-1600

Jared Karsch, Class 3 Operator
C/o Chimney Hill Owners Association, Inc.
P.O. Box 415
Wilmington, Vt. 05363
Business Phone – (802) 464-1600

We want our owners to be informed about their water quality. Your participation is welcome at all Board of Directors meetings, Annual meetings, Maintenance Committee meetings and Water Commission meetings. These meetings are held on a regular basis with times, dates and places available by calling the administration office at: (802) 464-2181 or on the owners section of our website: chimneyhill.com.