2015 Consumer Confidence Report

Naval Support Activity South Potomac
Naval Support Facility Indian Head, Indian Head, Maryland

Maryland Public Water System #MD0080058

Your tap water meets all EPA and state drinking water health standards.

A Closer Look at Water Quality

2015 Consumer Confidence Report

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies.

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) regulates Public Water Systems and the contaminants found in water through the implementation of the SDWA. The Maryland Department of the Environment (MDE) is responsible for the enforcement of the SDWA and routinely conducts sanitary surveys, inspections and provides a yearly monitoring schedule for all public water systems that includes collection of monthly bacteria samples, annual nitrate samples, and monitoring of chlorine disinfectant residuals.

There are many different ways for you to get involved in the safety of your drinking water. If there are issues or concerns with your drinking water, contact the Environmental Office at Naval Support Facility Indian Head (NSFIH). Reporting any issues immediately can help prevent any problems from escalating. Feel free to contact the Environmental Office at any time with any questions, comments, or concerns. Your input is important to us! Check the MDE and EPA's websites regularly to stay up to date with the newest SDWA regulations and topics.

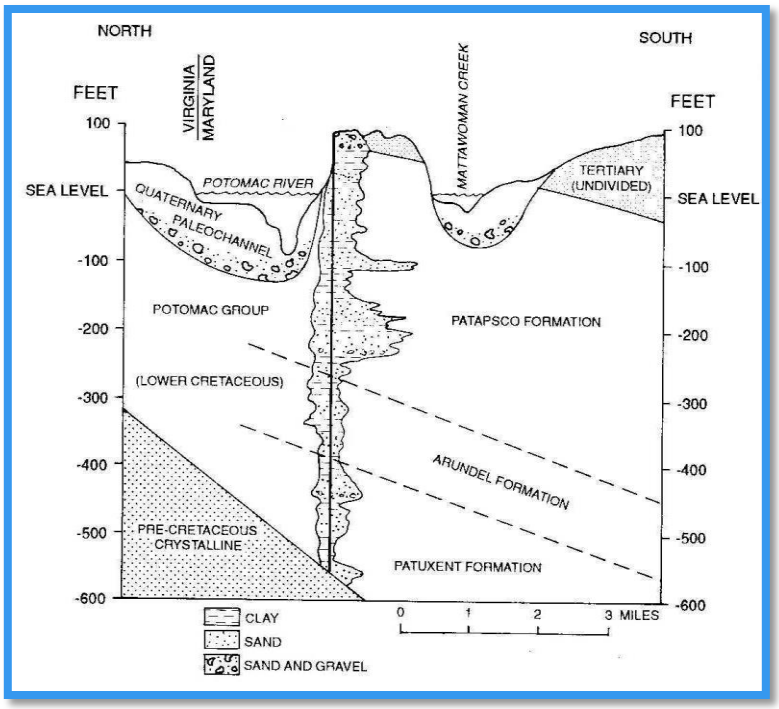
NSFIH is actively pursuing the replacement of the Installation's underground water distribution lines. Replacement will help to reduce water loss due to leakage and reduce costs associated with repairs. Replacement is anticipated to begin in 2017. In the meantime, ongoing maintenance ensures high quality of our drinking water.

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature. Look for the blue boxes for water conservation tips!

Water Source Information

Groundwater from four Indian Head wells and two Stump Neck wells drilled to the Patapsco and Patuxent Aquifers supply the water for both NSFIH and Stump Neck Annex.

An aquifer is an underground geologic formation of sand, gravel, or rock through which water can pass and is stored. Because the layers of sand, gravel, and rock provide natural filtration, groundwater is usually clear when it is pumped out of the ground; thus, it can be disinfected without prior treatment. NSFIH wells are deep wells and are protected by these layers from most contaminants and bacteria.



Sources of your drinking water include the **Patapsco** and **Patuxent Aquifers**

Your water is treated by disinfection with Sodium Hypochlorite. Disinfection involves the addition of chlorine or other disinfectant to kill dangerous bacteria and microorganisms that may be in the water. Disinfection is considered to be one of the major public health advances of the 20th century.

Maintaining a chlorine residual is important in protecting the water and the distribution system from bacteria and microorganisms.

Take short showers - a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.

Source Water Assessment

As of March 31, 2006, (MDE) has completed source water assessments for all public water systems in the State. The required components of this report are:

- Delineation of an area that contributes water to each source,
- Identification of potential sources of contamination within the areas, and
- Determination of the susceptibility of each water supply system to contamination.

A Source Water Assessment was completed for both NSFIH and Stump Neck Annex. Both water systems were determined not susceptible to contaminants originating at the land surface due to the protected nature of confined aquifers. The NSFIH water system was determined to be susceptible to naturally occurring radiological contaminants. Your water is routinely sampled for radiological and other possible contaminants to ensure they are below levels of health concern. A copy of the Source Water Assessment can be found in the Environmental Office.

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides - they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team, https://cfpub.epa.gov/surf/locate/index.cfm.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No Waste – Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

Shut off water while brushing your teeth, washing your hair, and shaving. These small actions can save up to 500 gallons a month.

Important Health Information

NSFIH routinely monitors its drinking water for contaminants. Some people may be more vulnerable to contaminants in drinking water. 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 (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

Why are there substances in my drinking 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 EPA Safe Drinking Water Hotline (800-426-4791).

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:

- Microbial contaminants, such as viruses and bacteria, that 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, or farming.

Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.

- 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.

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

Water Quality Monitoring for 2015

All sample results were under the maximum contaminant levels allowed by EPA and MDE regulations.

The 2015 NSFIH drinking water monitoring schedule involved collecting routine monthly samples for bacteria at several sites approved by MDE and samples collected annually for nitrates, total trihalomethanes (TTHM) & haloacetic acids (HAA5) (disinfection byproducts). MDE assisted NSFIH in 2015 by taking samples for volatile organic chemicals.

The MDE allows public water systems to monitor for some contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or our system is not considered vulnerable to this type of contamination. Some of our data, though representative, are more than one year old. To help you better understand these terms, we have provided the definitions below the table.

Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.

WATER QUALITY DATA CHART

(Of contaminants sampled, the lowest and highest result is listed – if a contaminant is not detected, it is not listed.)

Contaminant	Unit	MCL/MRDL (Highest Level Allowed)	MCLG/ MRDLG (EPA Goal)	Level Detected or Range	Violation Y/N	Year Tested	Major Source Typical Source of Contaminant
DISINFECTANTS & DISINFECTANT BY-PRODUCTS (There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)							
Chlorine	ppm	4	4	0 – 1.2	N	2015	Water additive used to control microbes
Total Trihalomethanes	ppb	80	N/A	1.9	N	2015	Byproduct of drinking water disinfection
INORGANIC CONTAMINANTS							
Barium	ppm	2	2	0.0063 – 0.014	N	2013	Discharge of drilling wastes and metal refineries; erosion of natural deposits
Chromium	ppb	100	100	2.8 – 4.7	N	2013	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride	ppm	4	4	0.74 – 1.4	N	2013	Erosion from natural deposits; Runoff from fertilizer and aluminum factories
Nitrate	ppm	10	10	ND	N	2015	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
MICROBIOLOGICAL CONTAMINANTS							
Total Coliform	Positive samples /month	1	0	1 positive in year 2015	N	2015	Naturally present in the environment
ORGANIC CONTAMINANTS							
Dichloromethane (Methylene Chloride)	ppb	5	0	3.3	N	2014	Discharge from pharmaceutical and chemical factories
Dalapon	ppb	200	200	0.29	N	2010	Runoff from herbicide used on rights of way.
RADIONUCLIDES							
Gross Beta	pCi/L	50	0	5.2	N	2014	Decay of natural and man-made deposits
Gross Alpha	pCi/L	15	0	3.5	N	2014	Erosion of natural deposits
Radium – 226	pCi/L	5	0	0.3 – 0.4	N	2014	Erosion of natural deposits
Combined Radium 226 & 228	pCi/L	5	0	0.4	N	2014	Erosion of natural deposits
Lead and Copper in Distribution System MCL determined in the 90th Percentile							
Lead	ppb	AL = 15	N/A	ND	N	2013	Lead present in pipes and soldered connections dissolves into water
Copper	ppm	AL = 1.3	N/A	0.258	N	2013	Copper from pipes dissolves into water
Secondary Contaminants SMCLs are non-enforceable guidelines regulating contaminants that may cause aesthetic effects							
Chloride	ppm	SMCL 250	N/A	22.1	N	2013	Dissolving salt deposits, salting of highways, chemical industry effluent, oil well operations, sewage, irrigation drainage, refuse leachate
Iron	ppb	SMCL 300	N/A	370	N	2013	Erosion of natural deposits; household piping
Manganese	ppm	SMCL 50	N/A	39	N	2013	Naturally present in the environment

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Contaminant	Unit	Minimum Reporting Level	Level Detected or Range	Violation Y/N	Year Tested	Major Source Typical Source of Contaminant
UNREGULATED CONTAMINANTS Sampling not required by state or federal law						
Total Hardness ($CaCO_3$)	ppm	N/A	4.9	N	2014	Naturally present in the environmental
Nickel	ppb	N/A	2.3	N	2010	Erosion of natural deposits
p-Isopropyl Toluene	ppb	N/A	3.9	N	2014	Heat transferring agent
Radon – 222*	pCi/L	N/A	61 – 167.1	N	2010	Erosion of natural deposits
Sodium	ppm	N/A	76 – 169	N	2013	Erosion of natural deposits
Sulfate	ppm	N/A	4 – 9.6	N	2013	Erosion of natural deposits
Bromo-chloromethane (Halon 1011)	ppb	0.06	15.4	N	2014	Use in fire extinguishers, may be released to the environment as a fugitive emission during the use of fire extinguishers that contain the compound
Bromo-dichloromethane	ppb	N/A	11.9	N	2014	Byproduct of drinking water disinfection
Bromoform	ppb	N/A	12.2	N	2014	Byproduct of drinking water disinfection
Bromomethane	ppb	0.2	4.6 – 21.1	N	2014	Used to kill pests; to make other chemicals or as a solvent to get oil out of nuts, seeds, and wool
Chloroform	ppb	N/A	25.1	N	2014	Byproduct of drinking water disinfection
Chloromethane	ppb	0.2	18.7	N	2014	Extractant for greases, oils, and resins; as a food additive, a fumigant, and a fire extinguisher
Dibromo-chloromethane	ppb	N/A	15.4	N	2014	Byproduct of drinking water disinfection
Dibromomethane	ppb	N/A	4.55	N	2014	Discharge from petroleum factories; Soil fumigant
Perfluorinated Compounds	ppb	N/A	ND	N	2015	Used for its emulsifier and surfactant properties in or as fluoropolymers (such as Teflon), fire - fighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives and photographic films; Manmade chemical; used in products to make them stain, grease, heat, and water resistant

**Radon – 222 is a colorless, odorless gas that occurs naturally in soil, air, and water. Radon is formed from the radioactive decay products of natural uranium that is found in many soils. Most radon in indoor air comes from the soils below the foundation of the home and in some locations can accumulate to dangerous levels in the absence of proper ventilation. In most homes, the health risk from radon in drinking water is very small compared to the health risk from radon in indoor air. For more information, call the EPA's Radon Hotline at 1-800-SOS-RADON.*

We have detected radon in the finished water supply as noted in the unregulated contaminants table above. There is currently no federal regulation for radon levels in drinking water; however, in 1999 the EPA proposed an MCL of 300 pCi/L and an alternative MCL (AMCL) of 4,000 pCi/L. At present, these are still in the proposal stage. Exposure to air-transmitted radon over a long period of time may cause adverse health effects.

Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.

DEFINITIONS FOR WATER QUALITY MONITORING RESULTS

- **Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **Chlorine Disinfectant Residual:** Concentration of chlorine available for disinfection.
- **Maximum Contaminant Level (MCL):**The highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- **Maximum Contaminant Level Goal (MCLG):** The level of contaminant in drinking water below which there is no known or expected risk to health.
- **Maximum Residual Disinfectant Level (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 (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.
- **mg/L**: Milligrams per liter or parts per million; number of milligrams of substance in one liter of water.
- **ND:** Non-Detection. Laboratory analysis indicates the contaminate is not present.
- **Ppm:** Milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.
- **Ppb:** Micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.
- **pCi/L**: picocuries per liter (a measure of radioactivity in water).
- **Secondary Maximum Contaminant Level (SMCL)** – These levels represent reasonable goals for drinking water aesthetic quality and are not federally enforceable.
- **Unregulated Contaminants** – Substances that do not pose a threat to public health or are under consideration for further study to determine if a health risk exists.

Water plants only when necessary.

Visit www.epa.gov/watersense for more information.

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Additional Information

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. NSFIH 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.

Radon

Radon is a radioactive gas that you can't 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 through 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 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. You should pursue radon removal for your home if the level of radon in your air is 4 picocuries per liter (pCi/L) of air 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).

Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!

For more information on…

The Consumer Confidence Report, water quality, or related, please contact:

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