

Naval Support Activity South Potomac

Naval Support Facility Indian Head and Stump Neck Annex
Indian Head, Maryland

Maryland Public Water Systems MD0080058 and MD1080039



Annual Drinking Water Quality 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. MDE routinely conducts inspections and provides a yearly monitoring schedule for all public water systems. Monitoring schedules include the collection of monthly bacteria samples, annual nitrate samples, monitoring of chlorine disinfectant residuals, and other parameters sampled in multi-year intervals. In addition to the EPA and MDE, the NSFIIH Public Works Department conducts routine inspections and sampling to ensure the highest water quality is provided to the consumer.

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 (NSFIIH) at (301) 744-2258. Reporting issues immediately can help prevent any problems from escalating. Your input is important to us! Check the MDE, <http://mde.maryland.gov/programs/water/pages/index.aspx>, and EPA, <https://www.epa.gov/environmental-topics/water->

topics, websites regularly to stay up to date with the newest SDWA regulations and topics.

To reduce water loss due to leakage and reduce costs associated with repairs, NSFIIH is actively pursuing the replacement of the Installation's underground water distribution lines. Replacement is anticipated to begin in 2023. In the meantime, ongoing maintenance ensures the high quality of your drinking water.

Throughout the report, italicized text reflects required information by the EPA.

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 NSFIIH and Stump Neck Annex. Throughout this report, the use of "NSFIIH" refers to both NSFIIH main side as well as 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. NSFIIH wells are deep wells and are protected by these layers from most contaminants and bacteria.

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. According to the Centers for Disease Control and Prevention, disinfection is considered one of the major public health achievements of the 20th century.

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

Source Water Assessment

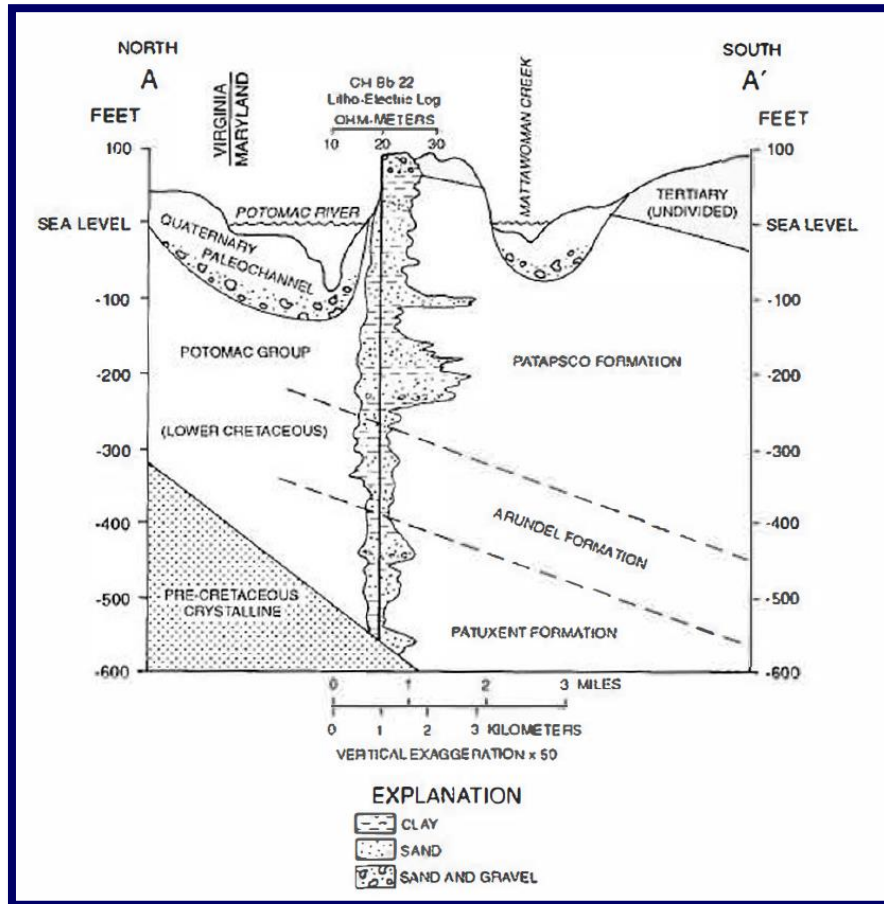
As of March 31, 2006, MDE completed source water assessments for all public water systems in the State. The required components of this report are:

- ◆ 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 NSFII and Stump Neck Annex. It was determined that both water systems are not susceptible to contaminants originating at the land surface due to the protected nature of confined aquifers. The NSFII 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. Contact the Environmental Office at (301) 744-2258 for a copy of the Source Water Assessment.

Protecting your source 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.



U.S. Geological Survey – Water Resources Investigations Report 91-4059

- ◆ 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. Charles County Department of Public Works hosts a Household Hazardous Waste Collection Day the first Saturday of each month. Visit <https://www.charlescountymd.gov/pw/environmental/household-hazardous-waste-collection> for more details on acceptable materials and location.
- ◆ 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.

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.

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.

Why are there substances 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 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, 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 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 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 human health.

2018 Water Quality Monitoring

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

The 2018 NSFIH drinking water monitoring schedule required collecting routine monthly samples for bacteria at several sites approved by MDE, samples collected annually for nitrates, and disinfection byproducts including total trihalomethanes (TTHM) & haloacetic acids (HAA5). MDE assisted NSFIH in 2018 by taking samples for volatile organic chemicals.

MDE allows public water systems to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. Some of the data, though representative, are more than one year old. To help you better understand terms used throughout this report, we have provided the following definitions. Sample results are provided on pages 8 and 9.

Water Quality Definitions

- ◆ **Action Level (AL):** *The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.*
- ◆ **Average:** *Regulatory compliance with some MCLs are based on running annual average of monthly samples.*
- ◆ **Chlorine Disinfectant Residual:** *Concentration of chlorine available for*
- ◆ **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 1 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 have been found in our water system on multiple occasions.*
- ◆ **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.*
- ◆ **mrem:** *Millirems per year (a measure of radiation absorbed by the body).*
- ◆ **N/A:** *Not applicable.*

- ◆ **ND: Non-Detection.** *Laboratory analysis indicates the contaminate is not present.*
- ◆ **ppb:** *Micrograms per liter or parts per million - or one ounce in 7,350 gallons of water.*
- ◆ **ppm:** *Milligrams 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.*
- ◆ **Treatment Technique (TT):** *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 Quality Data

Naval Support Facility Indian Head

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	2018	1.1	1 - 1.1	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Total Trihalomethanes (TTHM)	2018	7	6.6 - 6.6	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2018	0.011	0.011 - 0.011	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2018	1	0.87 - 1	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	2018	6.5	0 - 6.5	0	50	pCi/L	N	Decay of natural and man-made deposits.
Gross alpha excluding radon and uranium	2018	3	0 - 8.3	0	15	pCi/L	N	Erosion of natural deposits.
Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Lead and Copper	Likely Source of Contamination
Copper	07/13/2016	1.3	1.3	0.26	0	ppm	Copper	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	07/13/2016	0	15	3.4	0	ppb	Lead	Corrosion of household plumbing systems; Erosion of natural deposits.

Water Quality Data

Naval Support Facility Indian Head – Stump Neck Annex

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	2018	1.2	0.9 - 1.2	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5)	08/11/2017	6.6	6.6 - 6.6	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	08/11/2017	43.7	43.7 - 43.7	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Fluoride	04/17/2013	1.2	0.92 - 1.2	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	10/27/2016	4.7	4.7 - 4.7	0	50	pCi/L	N	Decay of natural and man-made deposits.
Gross alpha excluding radon and uranium	10/27/2016	2.1	2.1 - 2.1	0	15	pCi/L	N	Erosion of natural deposits.
Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Lead and Copper	Likely Source of Contamination
Copper	07/13/2016	1.3	1.3	0.25	0	ppm	Copper	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	07/13/2016	0	15	4	0	ppb	Lead	Corrosion of household plumbing systems; Erosion of natural deposits.

What's New in the World of Water?

PFC/PFAS

SECNAV – Energy, Installations, & Environment

<https://www.secnav.navy.mil/eie/pages/pfc-pfas.aspx>

Perfluorinated compounds (PFC) or perfluoroalkyl substances (PFAS) are a class of man-made chemicals. PFC/PFAS have been used for many years to make products that resist heat, stains, grease and water. For example, PFC/PFAS may be used to keep food from sticking to cookware, to make sofas and carpets resistant to stains, to make clothes and mattresses more waterproof, and in some food packaging, as well as in some firefighting materials. Commercial and consumer products containing PFC/PFAS were first introduced in the 1940s. Within DON's operations, PFC/PFAS are most commonly associated with aqueous film-forming foam (AFFF) used primarily for firefighting, but can also be contained in some other materials (e.g., degreaser vapor suppression) and wastes/mixed wastes.

Since their introduction in the late 1940s, PFC/PFAS have entered and spread throughout the environment. Many PFC/PFAS, including PFOS and PFOA, breakdown very slowly in the environment and can travel long distances over time. PFOS, PFOA, and other PFC/PFAS have been found in animals in the Arctic and Antarctic, far removed from known sources of the chemicals. Because of their frequent use and presence in the environment, most people in the United States and in the industrialized world have measurable amounts of PFC/PFAS in their blood (at levels measured in micrograms per liter (ug/l)). In addition, PFOS,

PFOA and other PFC/PFAS can build up and remain in the human body. Once in the body, it can take a long time for them to leave. As a result of this bio-persistence and widespread detection, many people are concerned about the potential impacts of PFC/PFAS on human health. Research is currently ongoing to evaluate the potential health impacts of PFOS, PFOA, and other PFC/PFAS. In many animal studies, exposure to PFC/PFAS has been shown to cause changes in the function of the liver, thyroid, pancreas, and hormone levels. The impacts of PFC/PFAS in humans are less well understood and considered uncertain, though studies of exposed populations have shown possible links between PFC/PFAS and some harmful health effects.

3M® ceased manufacturing AFFF with PFOS (this formulation also included about 1-2% PFOA) in 2002. However, legacy 3M® AFFF remains in some DON systems and inventory. DON is in the process of identifying these locations and preparing to remove this AFFF for proper disposal/destruction. AFFF produced after 2002 may also contain PFOA and/or precursor PFC/PFAS, which can degrade to PFOA. DON is in the process of testing the newest formulations of AFFF, which were developed to comply with the EPA 2010/2015 PFOA Stewardship Program, to verify whether there are trace amounts of PFOA and, if so, at



Hawthorn Healing Arts Center

What's New in the World of Water?

PFC/PFAS

SECNAV – Energy, Installations, & Environment

<https://www.secnav.navy.mil/eie/pages/pfc-pfas.aspx>

what level. Once PFOA-level compliant formulations can be identified and certified to meet MILSPEC performance criteria, old stocks will be replaced with these newer formulations.

Currently, PFC/PFAS are classified as unregulated or "emerging" contaminants, which have no Safe Drinking Water Act (SWDA) regulatory standards or routine water quality testing requirements. PFC/PFAS are being studied by the EPA to determine if regulation is needed. On 19 May 2016, the EPA's Office of Water issued health advisory levels (HAs) for two PFC/PFAS, perfluorooctane sulfonate (PFOS) - Publication EPA 822-R-16-004 and perfluorooctanoic acid (PFOA) - EPA 822-R-16-005. Health advisory levels are not regulatory standards. They are health based concentrations above which the EPA recommends action should be taken to reduce exposure. The EPA HA levels are 0.07 parts per billion (ppb) for both PFOS and PFOA, individually or as the sum of the two.

Per EPA Unregulated Contaminant Monitoring Rule (UCMR3) requirements, Navy was required to sample at 17 installations and Marine Corps was required to sample at 7 installations within the United States. None of the systems exceeded the EPA Health Advisory (HA) for PFOS and PFOA. DON policy further required sampling at installations where there was a known or suspected release of PFC/PFAS with a potential to impact drinking water sources. This required Navy to sample 10 additional installations and Marine Corps to sample 1 additional installation within the United States. Only NALF

Fentress had PFOA or PFOS detected above the EPA lifetime HA in drinking water and alternative water was immediately provided upon receipt of sample results. Earle Colts Neck (MSC Fire School) had PFC/PFAS detected in ground water monitoring wells associated with an environmental restoration site, but not in the Navy drinking water supply.

** The Naval Support Facility Indian Head drinking water system sampled for PFC/PFAS in 2015 and 2016. In all samples, PFC/PFAS were not detected. **



Simple Steps to Save WATER



By giving your bathroom a water efficiency makeover with WaterSense labeled toilets and faucets, you could save more than 11,000 gallons annually—and that's no drop in the bucket.

Get Flush With Savings

- Consider installing a WaterSense labeled toilet, which uses 20 percent less water while offering equal or superior performance. Compared to older, inefficient models, WaterSense labeled toilets could save a family of four more than \$90 annually on its water utility bill, and \$2,000 over the lifetime of the toilets.
- Check for toilet leaks by adding food coloring to the tank. If the toilet is leaking, color will appear in the bowl within 15 minutes. (Make sure to flush as soon as the test is done, since food coloring can stain the tank.)



Accessorize Your Faucet

- Installing a WaterSense labeled aerator is one of the most cost-effective ways to save water. Also consider replacing the

entire faucet with a WaterSense labeled model. Either way, you can increase the faucet's efficiency by 30 percent without sacrificing performance.

- Repair dripping faucets and showerheads. A drip rate of one drip per second can waste more than 3,000 gallons per year.

Clean Up With Savings

- A full bathtub can require up to 70 gallons of water, while taking a 5-minute shower uses only 10 to 25 gallons.
- Turning off the tap while you brush your teeth can save 8 gallons per day.

Lighten Your Loads

- Wash only full loads of dishes and clothes or lower the water settings for smaller loads.
- Replace your old washing machine with a high-efficiency, ENERGY STAR® labeled model, which uses up to 50 percent less water and electricity.

The average single-family suburban home uses at least 30 percent of its water for outdoor purposes such as irrigation and as much as 70 percent in dry climates. Some experts estimate that more than 50 percent of landscape water is wasted due to evaporation, wind, or overwatering.

Water When Needed

- Water your lawn or garden during the cool morning hours, as opposed to midday, to reduce evaporation.
- Look for sprinklers that produce droplets, not mist, or use soaker hoses or trickle irrigation for trees and shrubs.
- Set sprinklers to water lawns and gardens only. Check that you're not watering the street or sidewalk.
- Try not to overwater your landscaping. Learn plants' water needs and water different types appropriately.

Grow Green Grass

- Don't overfertilize. You will increase the lawn's need for water.
- Raise your lawn mower blade to at least 3 inches. Taller grass promotes deeper

roots, shades the root system, and holds soil moisture better than a closely cropped lawn.

Garden With Care

- Plant climate-appropriate species. Try plants that are native to where you live, which don't require as much water, and group plants together by water requirements.
- Use mulch around trees and plants to help reduce evaporation and control water-stealing weeds.

Outside the Home



<https://www.epa.gov/sites/production/files/2017-03/documents/ws-simple-steps-to-save-water.pdf>

For more information on...

Utilities, water leaks, or related, please contact:

Water and Waste Water Branch Supervisor

Robert Kraft, Utilities

4120 Lloyd Road, Building 3162

Indian Head, MD 20640-5157

Phone: (301)744-4785

Email: Robert.Kraft2@navy.mil

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

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