2015
Annual Consumer Confidence Report on the Quality of Naval Base Kitsap Bangor Drinking Water

This is an annual report on the quality of water delivered by the drinking water system at Naval Base Kitsap Bangor. Presented in this report is information on the source of our water, its constituents, and the health risks associated with any contaminants. Please read on for a full explanation of the quality of our water.

Our water is safe to drink.

Source of our Water

The Naval Base Kitsap Bangor water system provides drinking water to over 15,000 people, drawing water from the Sea Level Aquifer through four groundwater source wells S01, S02, S04 & S09 located on base. The depths of the wells range from 300 to 500 feet below the ground surface. Groundwater wells are safeguarded through wellhead protection efforts. All water facilities are monitored and patrolled. Access to the water system within the Naval Base Kitsap Bangor boundaries is secured and limited to water supply activities. Additionally, our aquifer is not exposed to air and is not subject to direct pollution and contamination the way surface water sources are. The aquifer is recharged by rainfall that falls on the Kitsap Peninsula and slowly percolates through the ground.

The water system is operated and maintained by experienced personnel certified by the state of Washington. Treatment of the installation water currently consists of:

- Chlorination for disinfection to control microbes that could be present in the water
- Addition of orthophosphate to reduce corrosion of lead and copper in plumbing

Information from EPA

The sources of drinking water include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land and through the ground, it dissolves naturally occurring minerals, and in some cases, radioactive material. It can also pick up substances resulting from the presence of animals or from human activity. These substances are referred to as contaminants by the Environmental Protection Agency (EPA).

Contaminants that may be present in source water include:

a. Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;
b. 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;
c. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;
d. 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;
e. 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, the EPA and the Washington State Department of Health (WDOH) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) and Washington State Department of Agriculture (WDOA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 at 800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 (1-800-426-4791).

Secondary Drinking Water Contaminates

EPA has established National Secondary Drinking Water Regulations (NSDWRs) that set non-mandatory water quality standards for 15 contaminants, including Manganese. EPA does not enforce these "secondary maximum contaminant levels" (SMCLs). They are established only as guidelines to assist public water systems in managing their drinking water for aesthetic considerations, such as taste, color, and odor. These contaminants are not considered to present a risk to human health at the SMCL.

In May 2015, a source sample at S09 exceeded the SMCL for manganese. The WDOH was notified and a series of investigative samples in the distribution system were accomplished with all sample results less than the SMCL. The WDOH prescribed no further action.

Additional Information for Lead

In Washington State, lead in drinking water comes primarily from materials and components used in household plumbing. The more time water has been sitting in pipes, the more dissolved metals, such as lead, it may contain. Elevated levels of lead can cause serious health problems, especially in pregnant women and young children.

To help reduce potential exposure to lead: for any drinking water tap that has not been used for 6 hours or more, flush water through the tap until the water is noticeably colder before using for drinking or cooking. You can use the flushed water for watering plants, washing dishes, or general cleaning. Only use water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is likely to contain higher levels of lead. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water is available from EPA's Safe Drinking Water Hotline at 1-800-426-4791 or online at http://www.epa.gov/safewater/lead.

Compliance (Action Level) for lead and copper samples is based on a 90th percentile. This means that the concentration of lead and copper must be less than or equal to the action level in at least 90% of the samples collected. In other words, out of every 10 locations sampled, 9 were at or below the Action Level.

Water Quality Summary

Your drinking water is regularly tested per applicable federal and state regulations for both the water source and the distribution system. The water system uses only EPA approved laboratory methods to analyze your drinking water. Samples are drawn from the sources and designated sample sites in the distribution system by certified Water Shop personnel. The samples are then transported to an accredited laboratory where a full spectrum of water quality analyses is performed for the parameters listed below.

Sampling Schedule	
Parameter	Frequency
Coliform Monitoring [1]	Monthly
Lead and copper	Every 3 years
Asbestos	Every 9 years
Total Trihalomethane (TTHM)	Quarterly
Halo-Acetic Acids (HAA5)	Quarterly
Volatile Organic (VOC)	Every 6 years
Complete Inorganics (IOC)[2]	Every 9 years
Herbicides	Every 9 years
Pesticides	Every 9 years
Manganese [3]	Every 3 years
Gross Alpha	Every 6 years.
Radium 228	Every 6 Years
Residual Chlorine	Daily
Nitrates	Annually

[1] Parameters in this group include total coliform, fecal coliform, and heterotrophic bacteria.

[2] Parameters in this group include metals, nitrate, and asbestos.

[3] Manganese is a Secondary Inorganic Contaminate and is only tested for at sources S04 and S09 as prescribed by the WDOH.

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Detected Contaminants

In order to ensure that tap water is safe to drink, EPA and WDOH prescribe regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the 2015 calendar year. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the 2015 calendar year. The EPA or the State requires us 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. As such, some of the data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

Contaminates	MCLG	MCL	Your Water	Range		Sample Date	Violation	Typical Sources
				Low	High			
Inorganic Contaminates								
Nitrate (ppm)	10	10	0.16	0.10	0.16	2015	No	Runoff from fertilizer use; leaching from septic tank sewage; erosion of natural deposits.
Volatile Organic Contaminants								
Haloacetic Acids (HAA) (ppb)	N/A	60	8.5*	1.1	15	2015	No	By-product of drinking water disinfection
Total Trihalomethane (TTHM) (ppb)	N/A	80	6.6*	0	8.1	2015	No	By-product of drinking water disinfection
Radioactive Contaminates								
Gross Alpha activity (pCi/L)	0	15	1.8	1.3	1.8	2014	No	Erosion of natural deposits
Radium-228 (pCi/L)	0	5	0.9	0.2	0.9	2014	No	Erosion of natural deposits

* Highest LRAA for the 2015 calendar year

Contaminates	MCLG	AL	Your Water (90^{th}%)	Sample Date	# of Samples Exceeding AL	Violation	Typical Sources
Inorganic Contaminates							
Lead (ppb)	0	15	1*	2015	1**	No	Corrosion of household plumbing systems; erosion of natural deposits.
Copper (ppm)	0	1.3	0.5*	2015	0	No	Corrosion of household plumbing systems; erosion of natural deposits.

* This is the 90th% value from the most recent testing which is below the AL demonstrating our system is in compliance with the Lead & Copper Rule.
** Sample exceeding the AL occurred on 6/18/2015 at Bldg. 4620 with a value of 16 ppb.

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Contaminates	SMCL	Your Water	Range		Sample Date	Violation	Typical Sources
			Low	High			
Secondary Inorganic Contaminates							
Iron (ppb)	300	112	ND	112	2015	No	Erosion of natural deposits
Manganese (ppb)	50	83	ND	83	2015	Yes	Erosion of natural deposits

Definitions and Abbreviations

AL (Action Level) – The concentration of a contaminant, which, if exceeded, triggers treatment techniques or other requirements, which must be followed.

Level Detected – Laboratory analytical result for a contaminant; this value is evaluated against an MCL or AL to determine compliance.

LRAA – Locational Running Annual Average

MCL (Maximum Contaminant Level) – 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. Under the Safe Drinking Water Act, the EPA establishes these MCLs for compliance purposes.

MCLG (Maximum Contaminant Level Goal) – 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.

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

N/A – Not Applicable

ND – Not Detected. The compound was not detected above the Lab's Method Detection Limit

ppb – 1 part per billion (equivalent to one penny in $10,000,000).

ppm – 1 part per million (equivalent to one penny in $10,000).

ppt – 1 part per trillion (equivalent to one penny in $10,000,000,000).

pCi/L – Picocuries per liter. A measurement of radioactivity in water.

Range – Represents the end values recorded from the highest and lowest analytical results of a reported contaminant.

Public Involvement

Drinking water system information may be obtained by contacting the Naval Base Kitsap Public Affairs Office, at 360-627-4031.