

Annual Consumer Confidence Report on the Quality of Drinking Water  
for Calendar Year 2015  
U. S. Naval Station, Guantanamo Bay

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- **What is the purpose of this report?**

This is an annual report on the quality of water delivered by the U. S. Naval Station, Guantanamo Bay (GTMO). A requirement for this was brought about when Congress amended the Safe Drinking Water Act in 1996. It added a provision requiring all community water systems to deliver a brief annual water quality report to their customers. Included in this report is pertinent information about the source of our water, any contaminants detected and possible sources of contaminants for the calendar year 2015.

- **What is the source of our water and the basic treatment process?**

Our raw water supply is drawn from Guantanamo Bay, approximately 160 feet north of the DESAL Water & Power Plant Compound. This is our “source water” and in our case, it is salt water. The source water is turned into drinking water through a process called “reverse osmosis”. A textbook definition of reverse osmosis (RO) is: The application of pressure to a concentrated solution that causes the passage of a liquid from the concentrated solution to a weaker solution across a semi-permeable membrane. The membrane allows the passage of water (solvent); but does not allow the passage of the dissolved solids (solutes). The RO plant is currently capable of producing about 1.6 million gallons per day. Water produced from the RO plant is transferred to treated water storage tanks before being processed through the water treatment plant. At the treatment plant, water is held in large storage tanks before entering the distribution system to the customer’s tap.

- **Is our water system meeting the rules that govern our operations?**

The quality of drinking water at GTMO is in compliance with the Overseas Environmental Baseline Guidance Document (OEBGD). The OEBGD establishes monitoring frequencies for possible contaminants and requires us to keep records of all water quality tests. We are in compliance with the OEBGD.

- **How can I get involved?**

If you have any questions about the quality of water at GTMO or would like more information on the Drinking Water Program at GTMO; please contact Public Works Environmental Office at 5625.

- **Do I need to take any special precautions?**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons (such as those 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).

- **Are there contaminants in my drinking water and why?**

Drinking water (including bottled water) may reasonably be expected to contain at least small amounts of contaminants. Their presence does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

*Contaminants that may be present in source waters include:*

*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 that can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

*Pesticide & Herbicide Contaminants:* may come from a variety of sources such as agriculture storm water runoff and residential uses.

*Organic Chemical Contaminants:* may include synthetic and volatile organic chemicals that may be by-products of industrial processes or petroleum production; and can also come from gas station, urban storm water runoff and septic systems.

*Radioactive Contaminants:* can be naturally occurring or be the result of oil and gas production and mining activities.

**Glossary:** The definitions and abbreviations below give a better understanding to the meaning of terms and abbreviations concerning contaminants found in our drinking water as indicated in the table on the next page.

**AL:** Action Level. The concentration of a contaminant (which, if found to be exceeded) will trigger further treatment or other procedures that the water system must follow to lower the level.

**MCL:** Maximum (allowable) Contaminant Level. The highest level of a contaminant that is allowed in drinking water (by regulation).

**MCLG:** Maximum Contaminant Level Goal. The level of a contaminant in drinking water below which there is no known or expected risk to health.

**mg/L:** milligrams per liter, equivalent to parts per million.

**ND:** Not detectable. A value below the detectable limit by the lab test procedure.

**NPDWR:** National Primary Drinking Water Regulations: legally enforceable standards that apply to public water supply systems. Primary standards aim at protecting drinking water quality by setting limits on the levels of specific contaminants that can adversely affect public health and are known or anticipated to occur in public water systems.

**NSDWR:** National Secondary Drinking Water Regulations: non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. EPA recommends secondary standards to water systems but does not require systems to comply.

**NTU:** Nephelometric Turbidity Units -- a measure of the clarity of water. Turbidity is measured with an instrument called a nephelometer, which measures the intensity of light scattered by suspended matter in the water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**pCi/L:** picocuries per liter -- a measure of radioactivity in water.

**Turbidity:** A measure of the cloudiness of water. We measure turbidity because it is a good indicator of the effectiveness of the water treatment system.

## Level of Detected Contaminants: Year 2015

Contaminant	Sampling Site	Units	MCL or Highest Level Allowed	Level Detected (or Range of Detections)	Violations (Y/N)	Typical Source of Contaminant
<b>1. NPDWR</b>						
<b>A. ORGANICS</b>						
Total Trihalomethanes (TTHM's)	AV-526 LP BEQ	mg/L	0.080	0.032 -0.044	No	by-product of disinfection by chlorination
Halo Acetic Acid 5 (HAA5)	AV-526 LP BEQ	mg/L	0.060	0.006 – 0.018	No	by-product of disinfection by chlorination
<b>B. INORGANICS</b>						
Copper	Residential Units: See list Below***	mg/L	AL=1.3 90 <sup>th</sup> Percentile	0.00 – 1.9	No (90 <sup>th</sup> Percentile MCL not exceeded)	corrosion of plumbing; erosion of natural deposits
Copper (Re-sample date of analysis – 10/26/15)	N317 and EP811	mg/L	AL=1.3	0.061 & 0.18 (respectively)	No	corrosion of plumbing; erosion of natural deposits
Lead	Residential Units: See list Below***	mg/L	AL=0.015 90 <sup>th</sup> Percentile	0.00 – 0.0045	No (90 <sup>th</sup> Percentile MCL not exceeded)	corrosion of plumbing; erosion of natural deposits
Fluoride	Water Plant #3 Bldg 815	mg/L	4	0.29 – 1.19	No	water treatment additive which promotes strong teeth; erosion of natural deposits
Nitrate	Water Plant #3 Bldg 815	mg/L	10	ND	No	run-off from fertilizer use; erosion of natural deposits
<b>C. MICROBIALS</b>						
Total Coliform	Residential Units: See list Below***	number of positive samples	No more than one positive sample per month	0	No	naturally present in the environment; indicator species for fecal waste
Turbidity	Reverse Osmosis Plant Product Water	NTU	0.3	0.01-0.24	No	breakdown of natural minerals and deposits; indicator of filter efficiency

## 2. NSDWR

Contaminant	Sampling Site	Units	MCL or Highest Level Allowed	Level Detected (or Range of Detections)	Violations (Y/N)	Typical Source of Contaminant
Sodium	Water Plant #3 Bldg 815	mg/L	250	110	n/a	breakdown of natural minerals and deposits
Chlorides	Water Plant #3 Bldg 815	mg/L	250	160 - 240	n/a	breakdown of natural minerals and deposits
Iron	Water Plant #3 Bldg 815	mg/L	0.3	0.00 – 0.09	n/a	water distribution pipe corrosion
Sulfate	Water Plant #3 Bldg 815	mg/L	250	0.00 - 5.00	n/a	run-off from fertilizer use; erosion of natural deposits
Total Dissolved Solids	Water Plant #3 Bldg 815	mg/L	500	341 - 452	n/a	breakdown of natural minerals and deposits