



## U.S. NAVAL SUPPORT ACTIVITY NAPLES GAETA OLDE MILL INN



### 2016 DRINKING WATER CONSUMER CONFIDENCE REPORT

#### Is our water safe to drink?

Gaeta Olde Mill Inn's drinking water system receives treated water from Acqua Latina, the water purveyor for the City of Gaeta. During the 2016 calendar year, with the exception of Turbidity and Chlorine Residual (see "Additional Information for Turbidity and Chlorine Residual" below), our drinking water fully complied with the DoD's Final Governing Standards (FGS), which are derived from the U.S. DoD Overseas Environmental Baseline Guidance Document (OEBGD), U.S. Environmental Protection Agency (EPA) and Italy's drinking water standards. When Italy and U.S. standards differ, the *most protective* requirement is adopted into the FGS.

This annual Consumer Confidence Report for calendar year 2016 includes general and mandatory information to educate everyone about our water sources, treatment processes and standard requirements and is based on water quality data for the water supplied by Acqua Latina directly to the OMI water distribution system during the 2016 calendar year.

Due to the consistent nature of elevated turbidity and lack of disinfectant in the Gaeta drinking water supply, NSA Naples determined the Gaeta Olde Mill Inn (OMI) drinking water "Not Fit For Human Consumption". The water provided to Naval Support Activity Naples Detachment (NSAND) Gaeta Fleet Landing was also listed as "Not Fit for Human Consumption." Bottled water has been regularly provided to U.S. Navy personnel at these facilities following non potability advisories. Based on historical practice and in concert with the standard applied throughout the Naples area, as recommended in the Naples Public Health Evaluation, a "Limited Use" determination for municipal water has been applied and personnel have been authorized to use it for external sanitary uses such as showering, bathing and hand washing.

In 2016 NSA Naples completed the construction of a Water Treatment Plant (WTP) at OMI to address treatment concerns and reduce turbidity levels below the U.S. Safe Drinking Water Act and FGS limits. Operational testing of the WTP equipment at OMI and start-up water quality monitoring activities were carried out between July and December 2016.

Although outside of calendar year 2016 covered in this CCR, based on the water quality monitoring results, and in consultation with the U.S. Naval Hospital Naples Italy, Preventive Medicine Authority, on 9 January, 2017 NSA Naples issued a Record of Decision for water quality declaring the OMI drinking water now "Fit For Human Consumption". The Fit For Human Consumption decision applies everywhere on OMI except building 753 which, because of its isolated plumbing, remains not Fit For Human Consumption.

A detailed list of constituents found in our drinking water is included in this report, along with a comparison to the maximum levels considered safe for the general public by these standards.

#### Additional information for Turbidity and Chlorine residual

The City of Gaeta water system, supplied by Acqua Latina, has historically been subject to high levels of Turbidity (water cloudiness) and low levels of chlorine residuals (disinfectant).

Turbidity has no health effects. However, turbidity can interfere with the water disinfection which may provide a medium for microbial growth in the water. Therefore, Turbidity may indicate the presence of disease causing organisms. These organisms include bacteria, viruses, and parasites

which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. If you experience any of these symptoms and they persist, you may want to contact your health care provider.

Until January 2017, "Non-Potability" signage was posted next to each faucet and a "bottled water advisory" was in place for NSAND Gaeta and OMI Gaeta personnel to reduce the health risk associated with ingestion such as drinking, cooking, and maintaining oral hygiene. Starting 9 January 2017 the advisory and signage remain in place only for NSAND Gaeta and for Building 753 (MWR Maintenance building at OMI) that do not receive U.S. Navy treated water.

### Where does our water come from and how is it treated?

OMI and NSAND Gaeta purchase treated water from Acqua Latina. Acqua Latina receives its water from two sources: the Capodacqua wells and the Mazzoccolo springs. Water is disinfected at both locations using Ultraviolet (UV) light and sodium hypochlorite (a form of chlorine) disinfection. Water is stored in several reservoirs before it is pumped to the City of Gaeta. To monitor the quality of water delivered to its customers, Acqua Latina routinely collects and analyzes water samples at several points along its aqueduct every week. Samples are split and also submitted to the local health department for testing.

### Why are there contaminants in drinking water?

Drinking water, including bottled water, may reasonably be expected to contain small amounts of some contaminants. 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.

Due to this, some contaminants may be present in source drinking water, such as:

- **Microbial contaminants**, such as viruses and bacteria, that may come from wildlife, sewage treatment plants, septic systems, and livestock;
- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses;
- **Inorganic contaminants**, naturally occurring 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;
- **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 storm water runoff, and septic systems; and
- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

The presence of contaminants does not necessarily indicate that water poses a health risk. In order to ensure that tap water is safe to drink, regulations limit the amount of certain contaminants in water provided by public water systems. Regular sampling is conducted to detect the level of contaminants in the water system. If the results are above regulatory limits, you will be notified by e-mail and Public Notification. You can learn more about contaminants and any potential health effects by visiting the EPA's Drinking Water Standards web site: <http://permanent.access.gpo.gov/lps21800/www.epa.gov/safewater/standards.html>

## Source water assessment

In July 2014 the Naval Facilities Engineering Command (NAVFAC) conducted a comprehensive sanitary survey of the OMI drinking water system. Sanitary surveys are performed every three years and provide an evaluation of the adequacy of the drinking water source, facilities, equipment, operation and maintenance for producing and distributing safe drinking water. NAVFAC is continually improving the drinking water system based on the recommendations contained in the 2014 sanitary survey report.

## Some people must use special precautions

There are people who 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/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 USEPA's Safe Drinking Water webpage [www.epa.gov/safewater/sdwa](http://www.epa.gov/safewater/sdwa)

## Additional information for 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. Italian Navy personnel and NAVFAC Public Works personnel provide oversight on drinking water quality at NSAND Gaeta and OMI respectively and have direct control over the materials used in plumbing components on the facility. This ensures that no lead service lines or components are used on the drinking water system. As a general safety practice, whenever - and wherever - you plan to use tap water for drinking or cooking, you can minimize the potential for lead exposure by flushing the tap for 30 seconds to 2 minutes prior to use. Information on lead in drinking water and steps you can take to minimize exposure is available from the USEPA Safe Drinking webpage [www.epa.gov/safewater/sdwa](http://www.epa.gov/safewater/sdwa)

## Water Quality Data Table

During 2016, more than 400 tests were performed for over 130 contaminants. Unless otherwise noted, the table below only lists the contaminants that were detected during calendar year 2016. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. All contaminants detected in OMI and NSAND Gaeta's drinking water are below the Maximum Contaminant Levels (MCLs) allowed by FGS and EPA applicable requirements.

Contaminants	MCLG or MRDLG	EPA MCL, TT, or MRDL	FGS MCL	Your Water	Range		Sample Year	Violation	Typical Source
					Low	High			
<b>Disinfectants &amp; Disinfection By-products</b> (There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)									
Chlorine (as Cl <sub>2</sub> ) (ppm)	4	4	4 <sup>1</sup>	0.535 <sup>2</sup>	0.228	0.53	2016	No	Water additive used to control microbes
Chlorine Dioxide (ppb)	800	800	800 <sup>1</sup>	80 <sup>2</sup>	80	160	2016	No	Water additive used to control microbes
TTHMs [Total Trihalomethanes] (ppb)	NA	80	30	2.5	NA		2016	No	By-product of drinking water disinfection
<b>Inorganic Contaminants</b>									
Aluminum (ppm)	NA		0.2	0.012	NA		2016	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Barium (ppm)	2		2	0.017	NA		2016	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Bromate (ppb)	10		10	2.17	NA		2016	No	By-product of drinking water disinfection
Chloride (ppm)	NA		250	9.0	ND	9.0	2016	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrate [measured as Nitrogen] (ppm)	10		10	0.6	ND	0.6	2016	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Contaminants	MCLG or MRDLG	EPA MCL, TT, or MRDL	FGS MCL	Your Water	Range		Sample Year	Violation	Typical Source
					Low	High			
Sodium (ppm)	NA		200	6.1	NA		2016	No	Erosion of natural deposits; Leaching
Sulfate (ppm)	NA		250	3.0	NA		2016	No	Discharge from mines and smelters and from kraft pulp and paper/textile mills and tanneries
<b>Microbiological Contaminants</b>									
Turbidity (NTU) <sup>2</sup>	0	1	1	0.78	0.26	0.78	2016	No	Soil run off
<b>Radioactive Contaminants (Tested every 4 years)</b>									
Alpha emitters (pCi/L)	0	15	15	0.76	0.1	0.76	2016	No	Erosion of natural deposits
Beta/photon emitters (pCi/L)	0	50	50	0.43	ND	0.43	2016	No	Decay of natural and man-made deposits. The EPA considers 50 pCi/L to be the level of concern for Beta particles.
Radium [Combined 226/228] (pCi/L)	0	5	5	0.55	0.20	0.55	2016	No	Erosion of natural deposits
<b>NOTES:</b>									
<sup>1</sup> MCL from Overseas Environmental Baseline Guidance Document (OEBGD)									
<sup>2</sup> Samples collected in the drinking water distribution system									

<b>Inorganic Contaminants at Consumer Taps</b>							
Contaminants	MCLG	AL	Your Water	Sample Year	# Samples Exceeding AL	Exceeds AL	Typical Source
Copper [Action level at consumer taps] (ppm)	1.3	1.3	0.038	2016	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead – [Action level at consumer taps] (ppb)	0	15	1.9	2016	0	No	

<b>Unit Descriptions</b>	
<b><u>Term</u></b>	<b><u>Definition</u></b>
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
ppb	ppb: parts per billion, or micrograms per liter ( $\mu\text{g/L}$ )
ppm	ppm: parts per million, or milligrams per liter ( $\text{mg/L}$ )
PQL	Practical Quantitation Limit of the best method
<b>Important Drinking Water Definitions</b>	
AL	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements.
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.
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.
MNR	Monitored Not Regulated.
MPL	State Assigned Maximum Permissible Level.
MRDL	Maximum residual disinfectant level. 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.
MRDLG	Maximum residual disinfection level goal. 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.
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
Variances and Exemptions	EPA permission not to meet an MCL or a treatment technique under certain conditions.

## Points of Contact

If you have any questions regarding this report or about the drinking water processes, please contact the Public Works Department Environmental Office, members of the Installation Water Quality Board, at DSN 626-6644 or commercial 081-568-6644.

For any health related questions, please contact the U.S. Naval Hospital Naples Preventive Medicine Office, members of the Installation Water Quality Board, at DSN 629-6299 or commercial 081-811-6299.