



NAVAL BASE VENTURA COUNTY 2011 CONSUMER CONFIDENCE REPORT

IS MY TAP WATER SAFE TO DRINK?

Yes. Your drinking water meets all U.S. Environmental Protection Agency (EPA) and California Department of Public Health (CDPH) water quality standards.

Naval Base Ventura County (NBVC) is committed to providing you complete and accurate information regarding the safety of the water you drink. Required annually by the CDPH, this Consumer Confidence Report (CCR) includes information showing the quality of the drinking water delivered to personnel and residents at NBVC San Nicolas Island (SNI) during the previous calendar year. The report also includes details about where your water comes from, what it contains, and how it compares to State standards.

Spanish: Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien. *Note: This report contains important information about your drinking water. Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this public notice in a public place or distributing copies by hand or mail. Translate it, or speak with someone who understands it.*

WHERE DOES MY WATER COME FROM?

San Nicolas Island

The Navy produces drinking water for SNI through the desalination of sea water. The reverse osmosis (RO) treatment plant draws seawater from beach wells, desalinates, and treats the water in two RO units. The finished water is distributed to approximately 76 service connections on the island. The waste brine from the RO units is discharged to a beach wet well.

HOW IS MY WATER MONITORED?

NBVC monitors the drinking water quality by taking daily, weekly, monthly, quarterly, and annual water samples according to federal and state drinking water regulations. Water testing is routinely performed to detect bacteria and protozoan, disinfectant residual, minerals, radioactivity, inorganic and organic chemicals, and other water quality parameters. The site specific table in this report lists the drinking water constituents that were detected during 2011 calendar year.

A monitoring violation was issued to NBVC SNI in 2011 due to a missed sample. On October 4, 2011, a perchlorate sample collected at the raw water sample point, located prior to the reverse osmosis treatment process, exceeded the maximum contaminant level (MCL) of 6 parts per billion (ppb). The sample result was 8.7 ppb. NBVC personnel did not collect a follow up sample within 48 hours as required by the Safe Drinking Water Act. Notification was provided to the CDPH and subsequent samples collected at both the raw water sample location and treated water sample locations were below the MCL of 6 ppb. Perchlorate is typically removed from source water by the reverse osmosis treatment process, therefore the CDPH agreed to move NBVC SNI's point of compliance for perchlorate from the raw water sample location to a treated water sample location.

WHY ARE CONTAMINANTS IN MY WATER?

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. Contaminants that may be present in source water **before** it is treated include the following:

- ❖ **Microbial Contaminants** Viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- ❖ **Inorganic Contaminants** 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.

- ❖ ***Pesticides & Herbicides*** May come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

- ❖ ***Organic Chemicals*** 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, agricultural application, and septic systems.

- ❖ ***Radioactive Contaminants*** Can be naturally-occurring or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, the EPA and CDPH prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. CDPH regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Some people 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 some infants can be particularly at risk from infections. These people should seek advice about drinking tap 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 Drinking Water Hotline at (800) 426-4791.

Radon is a radioactive gas and known human carcinogen that you cannot see, taste, or smell. 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 as a result of 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. 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. Fix your home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that are not too costly. For additional information, call your State radon program at (800) 745-7236 or call EPA's Radon Hotline at (800) SOS-RADON.

HOW CAN I GET MORE INFORMATION?

For additional information or questions regarding this report, please contact, NBVC Water Quality Program Manager at (805) 982-2969.

Other Contacts

**U.S. Environmental Protection Agency
Office of Ground Water & Drinking Water**
Safe Drinking Water Hotline (800) 426-4791
www.epa.gov/ogwdw

Water Quality Data

Unless otherwise noted, the data presented in the following table is from testing done January 1 through December 31, 2011. 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 the 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. The State requires that we monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of water quality, is more than one year old.

Summary of Water Quality Results For 2011

SAN NICOLAS ISLAND PRIMARY DRINKING WATER STANDARDS			Reverse Osmosis				Major Sources in Drinking Water
Parameter	Percent of Supply		100%			# of Months in Violation	
	MCL [MRDL]	PHG (MCLG) [MRDLG]	Average	Range			
PRIMARY DRINKING WATER STANDARDS--Mandatory Health-Related Standards							
CLARITY							
Turbidity (NTU) (TT) (a)	Highest Single Value		0.097			None	Soil runoff
	% of samples <0.3		100%				
LEAD AND COPPER							
Lead (ppm) (b)	0.015	0.0002	(b) 0.0012	ND-0.0196		None	Internal corrosion of household water plumbing systems.
Copper (ppm) (b)	1.3	0.3	(b) 0.046	ND-0.104		None	Internal corrosion of household water plumbing systems.
DISINFECTION BY-PRODUCTS AND DISINFECTANT RESIDUALS							
Haloacetic Acids (ppb) (c)	60	--	5.5	ND-11		None	By-product of drinking water disinfection
Total Trihalomethanes (ppb) (c)	80	--	20.8	8.4-33.1		None	By-product of drinking water disinfection
Free Chlorine Residual (ppm) (d)	[4.0]	[4]	0.878	0.2-3.35		None	Drinking water disinfectant added for treatment
INORGANIC CHEMICALS							
Aluminum (ppb)	1,000	600	ND	N/A		None	Erosion of natural deposits, residual from water treatment process
Arsenic (ppb)	10	0.004	ND	N/A		None	Erosion of natural deposits; runoff from orchards; electronics production waste
Barium (ppm)	1	2	ND	N/A		None	Discharge from oil & metal refineries; mines and chemical manufacturers; erosion of natural deposits
Nitrate (as NO3) (ppm)	45	45	ND	N/A		None	Runoff & leaching from fertilizer use & sewage; erosion of natural deposits
Nitrite (as N) (ppm)	1	1	ND	N/A		None	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Perchlorate (ppb) (Treated)	6	6	ND	N/A		None	Chemical used in solid rocket propellant, fireworks, explosives, flares, matches, and a variety of industries.
Perchlorate (ppb) (Raw Water) (e)	6	6	4.5	1.1-8.7		Violation due to missed resample	Chemical used in solid rocket propellant, fireworks, explosives, flares, matches, and a variety of industries.
Selenium (ppb)	50	50	ND	N/A		None	Discharge from refineries, mines, and chemical manufacturers, runoff
RADIOLOGICAL							
Gross Alpha (pCi/l) (f)	15		6.92	1.07-12.4		None	Erosion of natural deposits
Uranium (pCi/l) (f)	20	0.43	1.85	1.71-1.99		None	Erosion of natural deposits
MICROBIOLOGICAL							
Total Coliform Bacteria (g)	2	(0)	0	N/A		None	Natural in Environment
Fecal Coliform Bacteria (g)	(g)	(0)	0	N/A		None	Human & animal fecal waste
SECONDARY STANDARDS--Aesthetic Standards							
Chloride (ppm)	250		37	N/A		None	Runoff/leaching from natural deposits; seawater influence
Odor Threshold (TON)	3		ND	N/A		None	Naturally occurring organic materials
Specific Conductance (µS/cm)	1,600		127	N/A		None	Substances that form ions when in water; seawater influence
Sulfate (ppm)	500		ND	N/A		None	Runoff/leaching from natural deposits; industrial wastes
Apparent Color (Unfiltered) (Units)	15		9	N/A		None	Naturally-occurring organic materials
Total Dissolved Solids (ppm)	1,000		60	N/A		None	Runoff/leaching from natural deposits
ADDITIONAL PARAMETERS (Unregulated)							
Alkalinity (ppm)	NS		ND	N/A			
Boron (ppb)	NS	1000	400	N/A			
Total Hardness (ppm)	NS		ND	N/A			
pH (pH units)	NS		7.74	6.78-8.75			
Potassium (ppm)	NS		1	N/A			
Sodium (ppm)	NS		22	N/A			
Vanadium (ppb)	NS	50	ND	N/A			
Calcium (ppm)	NS		ND	N/A			
Magnesium (ppm)	NS		ND	N/A			

ABBREVIATIONS, DEFINITIONS, and NOTES

NS = Not Specified TON = Threshold Odor Number TT = Treatment Technique
 N/A = Not Applicable NTU = Nephelometric Turbidity Units pCi/L = picocuries per liter (a measure of radiation)
 ND = None Detected ppm = parts per million, or milligrams per liter (mg/L) ppb = parts per billion, or micrograms per liter (µg/L)

Maximum Contaminant Level (MCL) = The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible.

Maximum Contaminant Level Goal (MCLG) = The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL) = The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

Maximum Residual Disinfectant Level Goal (MRDLG) = The level of a disinfectant added for water treatment below which there is no known or expected health risk. MRDLs are set by the U.S. Environmental Protection Agency.

Public Health Goal (PHG) = The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Primary Drinking Water Standard = MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Treatment Technique (TT) = A required process intended to reduce the level of a contaminant in drinking water.

- (a) The turbidity level of filtered water shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month and shall not exceed 1.0 NTU.
- (b) 90th percentile value. Samples collected and tested in 2009.
- (c) Compliance is based on a running annual average of distribution system samples.
- (d) Running annual average meets compliance standards.
- (e) Sample collected at raw water sample port prior to treatment. All treated samples were below MCL.
- (f) Samples collected and tested in 2009.
- (g) Total coliform MCLs: No more than 2 monthly samples may be total coliform positive. Fecal coliform/E. coli MCLs: The occurrence of 2 consecutive total coliform positive samples, one of which containing fecal coliform/E. coli, constitutes an acute MCL violation. These MCLs were not violated in 2011.