



# Naval Base Ventura County

## 2020 Consumer Confidence Report

### **IS MY TAP WATER SAFE TO DRINK?**

Yes. In 2020, as in years past, your tap water meets all U.S. Environmental Protection Agency (EPA) and State Water Resources Control Board Division of Drinking Water (State Board) 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. This Consumer Confidence Report (CCR) includes information showing the quality of the drinking water delivered to personnel and residents at NBVC Point Mugu, Port Hueneme, and San Nicolas Island (SNI) during 2020. This CCR also includes details about where your water comes from, what it contains, and how it compares to regulatory standards.

*Español: Este informe contiene información muy importante sobre su agua de beber. Favor comunicarse con Naval Base Ventura County (NBVC) Port Hueneme para Sistema #5610701, o para Point Mugu Sistema #5610700, o para San Nicolas Island Sistema #5610702; y hay asistencia en español: NBVC\_PAO@navy.mil.*

### **WHERE DOES MY WATER COME FROM?**

#### **Point Mugu and Port Hueneme**

NBVC Point Mugu and Port Hueneme receive the same drinking water as the City of Port Hueneme and the Channel Islands Beach Community Services District, which is purchased from the Port Hueneme Water Agency (PHWA). The water supply for the PHWA treatment plant comes from the United Water Conservation District (United) and state water imported by the Metropolitan Water District (MWD) of Southern California. PHWA provides NBVC an Annual Water Quality Report (PHWA AWQR; Attachment 1) describing these sources, source water assessments that were completed on them, and activities to which those water sources are most vulnerable. The PHWA AWQR also includes information on the treatment that PHWA provides, including information on disinfection.

#### **San Nicolas Island**

The Navy produces drinking water for NBVC SNI through the desalination of sea water. Beach wells draw seawater from groundwater and pumps push the water through two Reverse Osmosis (RO) treatment systems that include desalination and water disinfection. The groundwater source is within a watershed that is most vulnerable to contamination from wildlife and fuel storage activities. A 2019 watershed sanitary survey concluded that SNI's source water has not been impacted by these potential contaminants. For additional information please contact the NBVC Water Quality Program Manager at (805) 982-3983.

---



## Naval Base Ventura County 2020 Consumer Confidence Report

### 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. The site specific tables in this report list the drinking water constituents that were detected during the 2020 calendar year. Water quality sample results from PHWA (purchased water), Point Mugu and Port Hueneme water distribution system, and SNI (treated water and distribution system) are presented in Attachment 1, 2 and 3, respectively.

NBVC also monitors water quality in the distribution systems at each installation. Water quality parameters tested included bacteriological, lead and copper, and chlorine residual. We are pleased to report that none of the water quality parameters tested at each installation were above State Board water quality standards. If these water quality test results ever exceed the State Board standard, NBVC will notify all drinking water consumers with the test results and any necessary actions.

NBVC also monitors for disinfection byproducts (Total Trihalomethanes (TTHM); MCL = 0.080 mg/L) and Haloacetic Acids Five (HAA5); MCL = 0.060 mg/L) at all three installations. Port Hueneme and San Nicolas Island remain in compliance and have not exceed the State Board standard.

The State Water Board Division of Drinking Water (DDW) issued a citation to NBVC Point Mugu for exceeding Disinfection By Products (DBP) Maximum Contaminant Levels (MCLs) of California Health and Safety Code (CHSC) Section 116555 and California Code of Regulations (CCR) Title 22 Section 64533. NBVC Point Mugu is required to take two DBP samples per month. One sample is taken at Point Mugu Building 50 (PM50) on 13th Avenue and the second is taken at PM6-31 (the most southern point of Point Mugu) on Beach Road. The MCL exceedance was identified only at PM6-31 for TTHM (0.083 mg/L; 0.003 mg/L over the MCL). TTHM concentrations at PM50 and HAA5 concentrations at PM6-31 and PM50 remain in compliance.

The MCL exceedance occurred in the second quarter (April-June) of calendar year 2020. TTHM and HAA5 MCLs is based on a locational running annual average (LRAA), calculated quarterly, for each monitoring location. The citation does not impact NBVC Point Mugu operations and the water remained potable throughout 2020. There was not an immediate risk to public health and safety.

The NBVC Public Works Department acted swiftly in response to this citation and notified the public and modified operation to reduce TTHM throughout the Point Mugu water system. As of the third quarter (July-September) of calendar year 2020, TTHMs throughout the Point Mugu water system are below the MCL and based on operational and future infrastructure changes, long-term compliance is anticipated.

---



## Naval Base Ventura County 2020 Consumer Confidence Report

### WHY ARE CONTAMINANTS IN MY WATER?

The sources of drinking water (both tap water and commercial bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals (inorganic and in some cases radioactive) and can pick up substances resulting from animals and/or human activities. Contaminants that **may** be present in source water (**before** it is treated) include:

**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.

**Clarity:** Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

**Cryptosporidium** is a microbial pathogen found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Source monitoring at NBVC SNI did **not** indicate the presence of these organisms.

**Unregulated contaminant monitoring** helps EPA and the State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated.

**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 material and components associated with service lines and home plumbing. In 2019 all service (plumbing) lines that previously could not be identified were verified and NBVC does not have any lead service lines that need replacement. As a common practice for any water system with water that 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. Information on lead in drinking water, testing methods, and

---



## Naval Base Ventura County 2020 Consumer Confidence Report

steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/lead>.

***Coronavirus (COVID-19) in Water:*** Per the Center for disease Control and Prevention (CDC) the virus that causes COVID-19 has not been detected in drinking water. Conventional water treatment methods that use filtration and disinfection, such as those used by PHWA and SNI drinking water treatment systems, should remove or inactivate the virus that causes COVID-19. Additionally, there is no evidence that the virus that causes COVID-19 can be spread to people through the water in pools, hot tubs, or water playgrounds. For more information please consult the Center for disease Control and Prevention (CDC) website ([www.cdc.gov/coronavirus/2019-ncov/faq.html#Water](http://www.cdc.gov/coronavirus/2019-ncov/faq.html#Water)).

### ***What are per- and polyfluoroalkyl substances and where do they come from?***

Per- and polyfluoroalkyl substances (PFAS) are a group of thousands of man-made chemicals. PFAS have been used in a variety of industries and consumer products around the globe, including in the United States, since the 1940s. PFAS have been used to make coatings and products that are used as oil and water repellents for carpets, clothing, paper packaging for food, and cookware. They are also contained in some foams (aqueous film-forming foam or AFFF) used for fighting petroleum fires at airfields and in industrial fire suppression processes because they rapidly extinguish fires, saving lives and protecting property. PFAS chemicals are persistent in the environment and some are persistent in the human body – meaning they do not break down and they can accumulate over time.

### ***Is there a regulation for PFAS in drinking water?***

There is currently no established federal water quality regulation for any PFAS compounds. In May 2016, the EPA established a health advisory (HA) level at 70 parts per trillion (ppt) for individual or combined concentrations of perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). Both chemicals are types of PFAS.

Out of an abundance of caution for your safety, the Department of Defense's (DoD) PFAS testing and response actions go beyond EPA Safe Drinking Water Act requirements. In 2020 the DoD promulgated a policy to monitor drinking water for PFAS at all service owned and operated water systems at a minimum of every three years.

The EPA's health advisory states that if water sampling results confirm that drinking water contains PFOA and PFOS at individual or combined concentrations greater than 70 ppt, water systems should quickly undertake additional sampling to assess the level, scope, and localized source of contamination to inform next steps.

---



## Naval Base Ventura County 2020 Consumer Confidence Report

### ***Has Naval Base Ventura tested its water for PFAS?***

Yes. In December 2020 samples were collected from the installation distribution system.

### ***Drinking Water Results Below MRL***

We are pleased to report that drinking water testing results were below the Method Reporting Limit (MRL) for all 18 PFAS compounds covered by the sampling method, including PFOA and PFOS. This means that PFAS were not detected in your water system. In accordance with DoD policy, the water system will be resampled every three years for your continued protection.

[https://www.cnic.navy.mil/om/base\\_support/environmental/water\\_quality/Testing\\_for\\_Perfluorochemicals.html](https://www.cnic.navy.mil/om/base_support/environmental/water_quality/Testing_for_Perfluorochemicals.html)

[https://www.cnic.navy.mil/regions/cnsw/om/environmental\\_support/water\\_quality\\_information.html](https://www.cnic.navy.mil/regions/cnsw/om/environmental_support/water_quality_information.html)

### **ARE CONTAMINANTS REMOVED FROM MY WATER?**

State of the art treatment systems utilized by PHWA and SNI are designed to remove contaminants and ensure that tap water is safe to drink. The EPA and State Board issue regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health. PHWA and the Navy follow and comply with drinking water regulations.

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/ 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.

*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 U.S. EPA's Safe Drinking Water Hotline (1-800-426-4791).*

---



## Naval Base Ventura County 2020 Consumer Confidence Report

### **WATER CONSERVATION**

Despite recent rainfall events, Ventura County remains in a drought. NBVC residents and personnel are encouraged to continue to conserve water. For more information on ways to conserve water, visit [www.epa.gov/watersense/](http://www.epa.gov/watersense/) or contact NBVC Installation Energy Manager at (805) 989-3752.

### **HOW CAN I GET MORE INFORMATION?**

For additional information or questions regarding this report, please contact, Naval Base Ventura County Water Quality Program Manager at (805) 982-3983.

### **TEMPORARY WATER DISINFECTANT CHANGE**

The drinking water supply entering NBVC Port Hueneme and Point Mugu will temporarily disinfect with chlorine instead of the normal chloramines disinfectant. NBVC Public Works Department (PWD) is performing this operation as needed to keep the growth of nitrites in the water system at a safe level. Nitrites exceeding the safe level of 10 mg/L may affect how blood carries oxygen and can cause methemoglobinemia (blue baby syndrome). Nitrite levels in the Port Hueneme and Point Mugu water systems have an average of 0.2 mg/L which is well below the state levels of 4 mg/L. This is ongoing water operation ensures that our water remains within State standards and continues to be safe for our customers. See Attachments 4 for further information in these ongoing water operations.

### **WATER QUALITY DATA**

Attachments 1 to 3 include tables summarize drinking water contaminants detected in the water distributed to NBVC Port Hueneme, Point Mugu, and San Nicolas Island customers during the 2020 calendar year. Unless otherwise noted, the data presented in these tables is from testing done January 1 through December 31, 2020. State Board 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. Therefore, some of the data, though representative of water quality, is more than one year old.

---



**Naval Base Ventura County  
2020 Consumer Confidence Report**

**Attachment 1**

**Port Hueneme Water Agency  
2020 Annual Water Quality Data and Report**

# **PORT HUENEME WATER AGENCY**

## **2020 ANNUAL WATER QUALITY REPORT TO PURVEYORS**

The Port Hueneme Water Agency is committed to providing you with complete and accurate information regarding the safety of the water you drink. The State Water Resources Control Board (SWRCB) requires the Port Hueneme Water Agency (PHWA) to send an Annual Water Quality Report to all customers regarding the water quality they received during the previous calendar year. PHWA tests its water as required by SWRCB regulations and reports these results to SWRCB each month. Additionally, annual SWRCB inspections of the operational policies and procedures at PHWA are conducted. All of this is done to ensure the safety of your drinking water.

This Annual Water Quality Report summarizes the 2020 water quality test results performed by PHWA and Calleguas Municipal Water District (Calleguas). It also includes details about where your water comes from, what it contains, and how it compares to State standards. Water constituents are listed under the appropriate water quality standard and include the maximum contaminant level, federal maximum contaminant level goal or the California public health goal, and the range of results. Water testing is routinely performed for bacteria and protozoan, disinfectant residual, minerals, radioactivity, inorganic and organic chemicals, and other water quality parameters.

**Este informe contiene información muy importante sobre su agua de beber (agua potable). Tradúzcalo o hable con alguien que lo entienda bien.**

### **Where does my water come from?**

The water supply for the PHWA treatment plant comes from the United Water Conservation District (United). United's water comes from groundwater located in the El Rio area of Ventura County. This water is pumped from shallow wells drilled into the Oxnard and Fox Canyon aquifers. These two aquifers, which are naturally high in minerals, are fed by the Santa Clara River drainage basin. The drainage basin receives water from various sources such as rivers, streams, wastewater treatment plants, and agricultural runoff.

In October 2001, United completed a source water assessment survey for their water sources. This assessment provides a survey of potential sources of contamination of the groundwater that supplies United's wells. Activities that constitute the highest risk are petroleum storage tanks and fueling operations, septic systems, and abandoned animal feedlots. Groundwater at United is vulnerable to contamination by MTBE, a gasoline additive. No MTBE has been detected in United's wells. United continues to monitor the water quality. Copies of the source water assessment survey are available from United at 805-525-4431.

PHWA's water treatment plant uses two different types of state-of-the-art membrane filtration technologies to treat United's water. These desalination techniques are known as reverse osmosis (RO) and nano-filtration (NF). Three treatment trains



operate side-by-side and each one produces between 1 and 1.5 million gallons of drinking water every day. The treatment process softens the water received from United by lowering the mineral content and minimizes the corrosiveness of the water through the addition of sodium hydroxide. In addition the water is disinfected using chloramines instead of chlorine. Chloramines have better taste, fewer odors, and reduces the formation of trihalomethane in the water, which is a known carcinogen.

*Fish owners - you should chemically remove the chloramines in the PHWA water when preparing your fish tank water. Failure to remove the chloramines could result in risk to the aquatic life in the tank.*

State water imported by the Metropolitan Water District of Southern California (MWD) is also used at the PHWA treatment plant. MWD water comes from the Sierra Nevada Mountains in northern California and is conveyed through the State Water Project's network of reservoirs, aqueducts, and pump stations. The State water is filtered and disinfected by MWD surface water treatment plants and brought into Ventura County by Calleguas. Calleguas brings the State water to the PHWA treatment plant where it is blended with the treated United water and then delivered to you. The blended water contains about 2.5 parts per million chloramines.

In December 2002, MWD completed its source water assessment of its State Water Project supplies. State Water Project supplies are considered to be most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation, and wastewater. A copy of the assessment can be obtained by contacting MWD at 213-217-6850.

### **Does my water meet EPA and State standards? Is my tap water safe to drink?**

Yes. Your water meets all United States Environmental Protection Agency (USEPA) and SWRCB water quality standards. PHWA did not have any violations of any treatment, monitoring, or reporting requirements during 2019. None of the constituents in the drinking water exceeded the maximum contaminant levels or action levels set by SWRCB or USEPA. The tables in this report list all of the drinking water constituents that were detected during the most recent sampling period as required by SWRCB.

In December 2003, PHWA completed its Vulnerability Assessment of the water facility. This work has improved the security and safety of our water supply.

### **Is tap water as safe as bottled water?**

The Food and Drug Administration (FDA), not the USEPA, regulates bottled water companies. The marketing of the bottled water companies has led consumers to believe that bottled water has higher quality standards than tap water. The FDA does not require bottled water companies to test for the same constituents (such as giardia and asbestos) that the USEPA requires for tap water. Also, the FDA does not have a prohibition on total coliform bacteria. Total coliform bacteria are prohibited in tap water. The FDA does not regulate bottled water companies that bottle and package water within the individual states. It is the responsibility of each state to

regulate its bottled water companies. This accounts for 60-70% of all bottled water companies. Fortunately, California is one of the more progressive states, but as with most of the states, there is a lack of manpower, compared to that provided by USEPA for tap water, for the enforcement of bottled water regulations.

If you do drink bottled water, do the research and educate yourself on the quality of your bottled water. Many people are misled to think that their tap water is not high quality but, in actuality, it is bottled water, which is subject to less rigorous testing and purity standards.

### **Why are contaminants 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 USEPA's Safe Drinking Water Hotline (1-800-426-4791). In order to ensure that tap water is safe to drink, the USEPA and SWRCB prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. DHS 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 water from their health care providers. The USEPA/Centers for Disease Control 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).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, wastewater plants 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.

### **Radon**

Radon is a radioactive gas that you cannot see, taste or smell. It is 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 from showering, washing dishes and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will be a small source of radon in indoor air. Radon is a known human carcinogen. 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, you may test the air in your home. There are simple ways to fix a radon problem that are not too costly. For additional information, call the EPA's Radon Hotline (800-SOS-RADON).

### **How can I get more information?**

For additional information or questions regarding this report, please contact Theo Provencio, Lead Water Utility Operator for (PHWA) Port Hueneme Water Agency, at (805) 986-6651. The public is always welcome to attend PHWA board meetings. These are held monthly on the 3<sup>rd</sup> Monday of the month @ 4pm at the City of Port Hueneme Civic Center located at 250 N. Ventura Road.

# PORT HUENEME WATER AGENCY

## 2020 Water Quality Report to Purveyors

Parameter	Units	State MCL [MRDL]	PHG (MCLG) [MRDLG]	State DLR	Range Average	Purchased	Purchased	BWRDF (Blended)	Major Sources in Drinking Water
						CMWD (Calleguas)	UWCD (United)		
<b>Percent of Supply</b>						25%	75%	100%	

### PRIMARY STANDARDS--Mandatory Health-Related Standards

#### CLARITY (a)

Combined Filter Effluent Turbidity	NTU	Highest Single Value			0.04	0.3	0.2	Soil runoff
		TT = % of samples <0.3 NTU			100%	50%	100%	

#### MICROBIOLOGICAL

Total Coliform Bacteria	(b)	2 or 5.0%	(0)	--	Range	ND - 1	ND	ND	Naturally present in the environment
					Average	ND	ND	ND	
Fecal Coliform and <i>E. coli</i>	(b)	(b)	(0)	--	Range	ND	ND	ND	Human & animal fecal waste
					Average	ND	ND	ND	

#### INORGANIC CHEMICALS

Aluminum	ppb	1000	600	50	Range	ND - 220	ND	NA	Erosion of natural deposits; residue from some water treatment process
					Average	116	ND	NA	
Arsenic	ppb	10	0.004	2	Range	ND - 2	4 - 6	NA	Erosion of natural deposits; runoff from orchards; electronics production wastes
					Average	ND	5	NA	
Barium	ppb	1000	2000	100	Range	ND	ND	NA	Discharge from oil & metal refineries; erosion of natural deposits
					Average	ND	ND	NA	
Chromium Treatment-related Fluoride (c)	ppb	50	(100)	10	Range	ND	ND	NA	Discharge from steel & pulp mills and chrome plating; erosion of natural deposits
					Average	ND	ND	NA	
Nitrate (as N)	ppm	10	10	0.4	Range	0.6 - 0.9	0.6 - 0.7	0.57 - 0.93	Water additive that promotes strong teeth
					Highest RAA	0.7	0.65	0.74	
Selenium	ppb	50	30	5	Range	ND	2.5 - 6.3	3.3	Runoff & leaching from fertilizer use & sewage; erosion of natural deposits
					Average	ND	4.4	3.3	
Sulfate	ppb	50	30	5	Range	ND	17 - 19	NA	Discharge from refineries, mines and chemical manufacturers, runoff
					Average	ND	18	NA	

#### RADIOLOGICALS [analyzed every three years, for four consecutive quarters (MWD sampled 2020, CMWD sampled 2020 and UWCD 2020)]

Gross Alpha Particle Activity	pCi/L	15	(0)	3.0	Range	ND - 5.2	6.76 - 10.3	NA	Erosion of natural deposits
					Average	ND	8.32	NA	
Uranium	pCi/L	20	0.43	1.0	Range	ND - 3	4.14 - 9.46	NA	Erosion of natural deposits
					Average	ND	6.82	NA	

#### DISINFECTION BY-PRODUCTS AND DISINFECTANT RESIDUALS

Bromate €	ppb	10	0.1	1.0	Range	ND - 6.0	NA	NA	By-product of drinking water disinfection
					Highest RAA	4.4	NA	NA	
Total Chlorine Residual	ppm	[4.0]	[4]	--	Range	1.7 - 2.6	1.69 - 1.97	1.17 - 3.12	Drinking water disinfectant added for treatment
					Highest RAA	2.3	1.83	2.66	
Haloacetic Acids (f)	ppb	60	--	1.0	Range	ND - 19.0	2 - 15	2.8 - 8	By-product of drinking water disinfection
					Highest RAA	7.8	8.63	4.5	
Total Trihalomethanes (f)	ppb	80	--	1.0	Range	11.0 - 22.0	25 - 53	22 - 60	By-product of drinking water chlorination
					Highest RAA	16.3	36.9	36.25	

### SECONDARY STANDARDS--Aesthetic Standards

Aluminum	ppb	200	600	50	Range	ND - 220	ND	NA	Erosion of natural deposits; residue from some water treatment process
					Average	116	ND	NA	
Chloride	ppm	500	--	--	Range	51 - 100	61 - 62	37	Runoff/leaching from natural deposits; seawater influence
					Average	52	61.5	37	
Color	Units	15	--	--	Range	ND - 3	ND	ND	Naturally occurring organic materials
					Average	2	ND	ND	
Manganese	ppb	50	--	20	Range	ND	N/D	ND	Leaching from natural deposits
					Average	ND	N/D	ND	
Odor Threshold	TON	3	--	1	Range	ND - 2	ND	ND	Naturally occurring organic materials
					Average	2	ND	ND	
Specific Conductance	µS/cm	1,600	--	--	Range	451 - 740	1460 - 1520	825	Substances that form ions when in water; seawater influence
					Average	460	1490	825	
Sulfate	ppm	500	--	0.5	Range	53 - 93.3	441 - 450	199	Runoff/leaching from natural deposits; industrial wastes
					Average	54	445.5	199	
Total Dissolved Solids	ppm	1,000	--	--	Range	255 - 400	1020 - 1110	540	Runoff/leaching from natural deposits
					Average	260	1065	540	
Turbidity (monthly)	NTU	5	--	--	Range	ND	0.2 - 0.3	0.2	Soil runoff
					Average	ND	0.25	0.2	

### ADDITIONAL PARAMETERS (Unregulated)

Alkalinity	ppm	NS	--	--	Range	79 - 110	200 - 210	120	
					Average	82	205	120	
Boron	ppm	NL=1	--	0.1	Range	0.2	0.6 - 0.7	.6	
					Average	0.2	.65	.6	
Calcium	ppm	NS	--	--	Range	25 - 35	134 - 137	66	
					Average	26	135.5	66	
Chlorate	ppb	NL=800	--	20	Range	ND - 27	NA	NA	
					Average	27	NA	NA	
Chromium (Total)	ppb	50	NONE	10	Range	ND	ND - 12	NA	
					Average	ND	ND	NA	
Corrosivity (g)	Al	NS	--	--	Range	12.1 - 12.2	12.3 - 12.4	12.2	
					Average	12.1	12.35	12.2	
Hardness (Total Hardness)	ppm	NS	--	--	Range	107 - 155	528 - 539	268	
					Average	108	533.5	268	
Magnesium	ppm	NS	--	--	Range	11 - 17	47 - 48	25	
					Average	12	47.5	25	
N-Nitrosodimethylamine (NDMA)	ppt	NL=10	--	--	Range	ND - 2	NA	NA	
					Average	2	NA	NA	
pH	Units	NS	--	--	Range	8.3 - 8.4	7.5 - 7.6	7.9	
					Average	8.4	7.55	7.9	
Potassium	ppm	NS	--	--	Range	2.5 - 4	5	3	
					Average	2.6	5	3	
Radon	pCi/L	NS	--	100.0	Range	ND	80.9 - 236	NA	
					Average	ND	184.58	NA	
Sodium	ppm	NS	--	--	Range	46 - 85	84 - 86	64	
					Average	47	85	64	
Total Organic Carbon	ppm	TT	--	0.3	Range	1.3 - 2.3	0.7 - 1.3	NA	
					Average	2.2	1	NA	

Abbreviations and notes used in this report are listed on the next page

# PORT HUENEME WATER AGENCY

## 2020 Water Quality Report to Purveyors

### ABBREVIATIONS AND NOTES

AI = Aggressiveness Index  
AL = Federal Regulatory Action Level  
DLR = Detection Limits for Purposes of Reporting  
MCL = Maximum Contaminant Level  
MCLG = Maximum Contaminant Level Goal  
MFL = Million Fibers per Liter  
 $\mu$ S/cm = MicroSiemen per Centimeter  
MPN = Most Probable Number  
MRDL = Maximum Residual Disinfectant Level  
MRDLG = Maximum Residual Disinfectant Level Goal  
NA = Not Analyzed  
ND = None Detected

NL = Notification Level  
NS = No Standard  
NTU = Nephelometric Turbidity Units  
pCi/L = PicoCuries per Liter  
PHG = Public Health Goal  
ppm = Parts per Million, or Milligrams per Liter (mg/L)  
ppb = Parts per Billion, or Micrograms per Liter ( $\mu$ g/L)  
ppt = Parts per Trillion, or Nanograms per Liter (ng/L)  
ppq = Parts per Quadrillion, or Picograms per Liter (pg/L)  
RAA = Running Annual Average  
TON = Threshold Odor Number  
TT = Treatment Technique

CMWD (Calleguas)  
UWCD (United)  
BWRDF (Blended)

Calleguas Municipal Water District- Surface Water Source  
United Water Conservation District  
Brackish Water Reclamation Demonstration Facility (BWRDF) - Samples taken after Calleguas and United sources were blended.

- (a) The turbidity level of the 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 at any time.
- (b) Total coliform MCLs: No more than 5.0% of the monthly samples may be total coliform positive (or 2 samples if a system collects less than 40 samples per month). Calleguas collects less than 40, Metropolitan collects greater than 40. 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 2020.
- (c) The Metropolitan Water District treats their water by adding fluoride to the naturally occurring level in order to help prevent dental cavities in consumers. The fluoride levels in the treated water are maintained within a range of 0.6 - 1.2 ppm, as required by Department regulations.
- (d) The gross beta particle activity MCL is 4 millirem/year annual dose equivalent to the total body or any internal organ. The screening level is 50 pCi/L.
- (e) Compliance for treatment plants that use ozone is based on a running annual average of monthly samples. UWCD water is not subject to these requirements.
- (f) Compliance is based on a running annual average of quarterly distribution system samples.
- (g) AI measures the aggressiveness of water transported through pipes. Water with AI <10.0 is highly aggressive and would be very corrosive to almost all materials found in a typical water system. AI  $\geq$  12.0 indicates non-aggressive water. AI between 10.0 and 11.9 indicates moderately aggressive water.



**Naval Base Ventura County  
2020 Consumer Confidence Report**

**Attachment 2**

**NBVC Point Mugu and Port Hueneme  
2020 Distribution System Water Quality Data**

Parameter (Units)	MCL [MRDL]	PHG (MCLG) [MRDLG]	Source Water Provided by PHWA			Major Sources in Drinking Water
			Average	Range / Result	# of Months in Violation	

**PRIMARY DRINKING WATER STANDARDS--Mandatory Health-Related Standards**

**Summary of Water Quality Results For 2020 - Point Mugu Water Distribution System.**

**LEAD AND COPPER**

Lead (ppm) (b) 2020	AL=0.015	0.2	(b) 0	ND	None	Internal corrosion of household water plumbing systems; discharge from industrial manufacturers; erosion of natural deposits.
Copper (ppm) (b) 2020	AL=1.3	0.3	(b) 0.066	ND-0.091	None	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives.

**DISINFECTION BY-PRODUCTS AND DISINFECTANT RESIDUALS**

Haloacetic Acids (ppb) (c)	60	N/A	10	2.6-23	None	Quarterly - By-product of drinking water disinfection
Total Trihalomethanes (ppb) (c)	80	N/A	46	14-92	None	By-product of drinking water disinfection
Free Chlorine Residual (ppm) (d)	[4.0]	[4]	1	0.933-1.6	None	Drinking water disinfectant added for treatment

**MICROBIOLOGICAL**

Total Coliform Bacteria (f)	1	(0)	0	0	None	Natural in Environment
Fecal Coliform Bacteria (f)	(f)	(0)	0	0	None	Human & animal fecal waste

**Summary of Water Quality Results For 2020 - Port Hueneme Water Distribution System.**

**LEAD AND COPPER**

Lead (ppm) (b) (2019)	N/A	N/A	(b) 0	ND	None	Internal corrosion of household water plumbing systems; discharge from industrial manufacturers; erosion of natural deposits.
Copper (ppm) (b) (2019)	N/A	N/A	(b) 0.151	ND-0.0196	None	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives.

**DISINFECTION BY-PRODUCTS AND DISINFECTANT RESIDUALS**

Haloacetic Acids (ppb) (c)	60	N/A	7	2.3-17	None	Quarterly - By-product of drinking water disinfection
Total Trihalomethanes (ppb) (c)	80	N/A	41	13-86	None	By-product of drinking water disinfection
Free Chlorine Residual (ppm) (d)	[4.0]	[4]	2	1.75-2.48	None	Drinking water disinfectant added for treatment

**MICROBIOLOGICAL**

Total Coliform Bacteria (f)	1	(0)	0	0	None	Natural in Environment
Fecal Coliform Bacteria (f)	(f)	(0)	0	0	None	Human & animal fecal waste

**ABBREVIATIONS, DEFINITIONS, and NOTES**

- AL = Action Level
- AI = Aggressiveness Index
- µS/cm = micro Siemens per centimeter
- 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)
- NL = Notification Level

**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.

(b) 90th percentile value. Samples collected and tested in 2018. Zero sites exceeded the Action Level.

(c) Compliance is based on a running annual average of distribution system samples.

(d) Running annual average meets compliance standards. Highest running annual average was reported.

(f) Total coliform MCLs: No more than 1 monthly samples may be total coliform positive. Fecal coliform/E. coli MCLs: A routine sample and a repeat sample are total coliform positive samples and one of which containing fecal coliform/E. coli, constitutes an acute MCL violation. These MCLs were not violated in 2019.



**Naval Base Ventura County  
2020 Consumer Confidence Report**

**Attachment 3**

**NBVC San Nicolas Island**

**2020 Treatment and Distribution System Water Quality Data**



Summary of Water Quality Results For 2020 - San Nicolas Island

Parameter (Units)	MCL [MRDL]	PHG (MCLG) [MRDLG]	Treatment Method: Reverse Osmosis Source Water is 100% Seawater			Major Sources in Drinking Water
			Average	Range / Result	# of Months in Violation	
<b>PRIMARY DRINKING WATER STANDARDS--Mandatory Health-Related Standards</b>						
<b>CLARITY</b>						
Turbidity (NTU) (a)	(TT) % of samples <0.3		Highest Single Value 0.081 100.0%		None	Soil runoff
<b>LEAD AND COPPER</b>						
Lead (ppm) (b) (2018)	AL=0.015	0.2	(b) 0.0014	ND - 0.0023	None	Internal corrosion of household water plumbing systems; discharge from industrial manufacturers; erosion of natural deposits.
Copper (ppm) (b) (2018)	AL=1.3	0.3	<b>(b) 0.106</b>	0.007-0.169	None	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives.
<b>DISINFECTION BY-PRODUCTS AND DISINFECTANT RESIDUALS</b>						
Haloacetic Acids (ppb) (c)	60	N/A	13	1.8-24	None	Quarterly - By-product of drinking water disinfection
Total Trihalomethanes (ppb) (c)	80	N/A	75.9	30-106	None	By-product of drinking water disinfection
Free Chlorine Residual (ppm) (d)	[4.0]	[4]	1.623	1.167-1.8	None	Drinking water disinfectant added for treatment
<b>INORGANIC CHEMICALS</b>						
Aluminum (ppb)	1,000	600	N/A	ND	None	Erosion of natural deposits, residual from water treatment process
Fluoride (ppm)	2	1	Average	ND	None	Erosion of natural deposits
Arsenic (ppb)	10	0.004	N/A	ND	None	Erosion of natural deposits; runoff from orchards; electronics production waste
Barium (ppm)	1	2	N/A	ND	None	Discharge from oil & metal refineries; mines and chemical manufacturers; erosion of natural deposits
Barium (ppb)	1,000	2,000	N/A	ND	None	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Mercury (ppb)	2	1.2	N/A	ND	None	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and cropland
Nitrate + Nitrite (as N) (ppm)	10	N/A	N/A	0.3	None	Runoff and leaching from fertilizer use; leach-ing from septic tanks and sewage; erosion of natural deposits
Nitrite (as N) (ppm)	1	1	N/A	ND	None	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (ppb)	50	30	N/A	ND	None	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
<b>MICROBIOLOGICAL</b>						
Total Coliform Bacteria (f)	1	(0)	N/A	0	None	Natural in Environment
Fecal Coliform Bacteria (f)	(f)	(0)	N/A	0	None	Human & animal fecal waste

**Summary of Water Quality Results For 2020 - San Nicolas Island**

Parameter (Units)	MCL [MRDL]	PHG (MCLG) [MRDLG]	Treatment Method: Reverse Osmosis Source Water is 100% Seawater			Major Sources in Drinking Water
			Average	Range / Result	# of Months in Violation	
<b>SECONDARY STANDARDS--Aesthetic Standards</b>						
Chloride (ppm)	500	N/A	N/A	162	None	Runoff/leaching from natural deposits; seawater influence
Specific Conductance (µS/cm)	1,600	N/A	N/A	726	None	Substances that form ions when in water; seawater influence
Total Dissolved Solids (ppm)	1,000	N/A	N/A	330	None	Runoff/leaching from natural deposits
<b>ADDITIONAL PARAMETERS (Unregulated)</b>						
Boron (ppm) (g)	NS	NL = 1	N/A	1.2	None	
Bicarbonate (ppm)	NS		N/A	40	None	
Calcium (ppm)	NS		N/A	19	None	
Sulfate (ppm)	NS		N/A	16	None	
Sodium (ppm)	NS		N/A	103	None	Salt present in the water and is generally naturally occurring
Total Alkalinity (as CaCO <sub>3</sub> ) (ppm)	NS		N/A	40	None	
Total hardness (as CaCO <sub>3</sub> ) (ppm)	NS		N/A	55.6	None	
pH (standard units)	NS		N/A	8.3	None	
Potassium (ppm)	NS		N/A	5	None	
Corrosively (AI) (h)	NS		N/A	11.6	None	

**ABBREVIATIONS, DEFINITIONS, and NOTES**

AL = Action Level  
 NS = Not Specified  
 N/A = Not Applicable  
 ND = None Detected  
 NL = Notification Level

AI = Aggressiveness Index  
 TON = Threshold Odor Number  
 NTU = Nephelometric Turbidity Units  
 ppm = parts per million, or milligrams per liter (mg/L)  
 ppb = parts per billion, or micrograms per liter (µg/L)

µS/cm = micro Siemens per centimeter  
 TT = Treatment Technique  
 pCi/L = picocuries per liter (a measure of radiation)

**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 0.1 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 2018. Zero sites exceeded the Action Level.
- (c) Compliance is based on a running annual average of distribution system samples
- (d) Running annual average meets compliance standards. Highest running annual average was reported.
- (e) Sample collected and analyzed in 2015.
- (f) Total coliform MCLs: No more than 1 monthly samples may be total coliform positive. Fecal coliform/E. coli MCLs: A routine sample and a repeat sample are total coliform positive samples and one of which containing fecal coliform/E. coli, constitutes an acute MCL violation. These MCLs were not violated in 2019.
- (g) The babies of some pregnant women who drink water containing boron in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.
- (h) AI measures the aggressiveness of water transported through pipes. Water with AI < 10.0 is highly aggressive and would be very corrosive to almost all materials found in a typical water system. AI ≥ 12.0 indicates non-aggressive water. AI between 10.0 and 11.9 indicates moderately aggressive water.



**Naval Base Ventura County  
2020 Consumer Confidence Report**

**Attachment 4**

**NBVC Port Hueneme and Point Mugu  
Temporary Water Disinfectant Change – Public Announcement**



## **Temporary Water Disinfectant Change Public Announcement**

The drinking water supply entering NBVC Port Hueneme and Point Mugu will be temporarily disinfected with chlorine instead of the normal chloramines disinfectant. NBVC Public Works Department (PWD) is performing this operation as needed to keep the growth of nitrites in the water system at a safe level. Nitrites exceeding the safe level of 10 mg/L may affect how blood carries oxygen and can cause methemoglobinemia (blue baby syndrome). Nitrite levels in the Port Hueneme and Point Mugu water systems have an average of 0.2 mg/L which is well below the state levels of 4 mg/L. If you have any concerns about constituents in the drinking water please refer to the NBVC Consumer Confidence Report posted on the Navy website every summer.

[https://www.cnic.navy.mil/regions/cnrsw/om/environmental\\_support/water\\_quality\\_information.html](https://www.cnic.navy.mil/regions/cnrsw/om/environmental_support/water_quality_information.html)

Temporary changeover to chlorine typically last for 4 to 6 weeks and start the third week in the following months: February, May, August, and November.

During these periods, the PWD water systems operators will be flushing the distribution system to promote the disinfection changes. The flushing will be done via the base fire hydrants. The water systems operators will make every effort to minimize the impact of flushing to all of the tenants and residents at NBVC.

**It is unlikely that water users will notice any change in the appearance or smell of their tap water; however, if any changes are noticed base personnel should do the following:**

- 1. If a stronger than normal chlorine odor exists after an extended absence, allow the water to run for a few minutes to reduce the odor.**
- 2. Use of water filters with activated carbon (e.g., Brita, ZeroWater, PUR, etc.) will enhance the taste and odor of your tap water. Boiling the water will also alleviate chlorine odor from the water.**
- 3. Chlorine smells typically are associated with warm or hot water. Regular flushing of the warm water system (water heaters, etc.) is a good practice to cycle water and improve water aesthetics, especially if the home or facility are vacant or has low use. Running hot showers or baths is a good way to cycle the water through your systems. Flushing the cold water system is also recommended to maintain water quality in your home or facility.**

The switchback to chloramines will occur when the temporary operation is completed. Should anyone have questions regarding this notice or the temporary change, please contact the PWD Water Systems Operation Supervisor, Steve Latting at 805-207-4055.

**IMPORTANT NOTE!!! Your drinking water will continue to be safe, of high quality, and will meet all Federal and State water quality standards.**