



Naval Base Ventura County
2021 Drinking Water Consumer Confidence Report

Water System Names and Public Water System Numbers:

Point Mugu – CA5610700
Port Hueneme – CA5610701
San Nicolas Island – CA5610702

Report Date:
01 July 2022



Naval Base Ventura County 2021 Consumer Confidence Report

OUR COMMITMENT TO PROVIDING SAFE DRINKING WATER

Naval Base Ventura County (NBVC) is pleased to present our Water Quality Report, also referred to as the Consumer Confidence Report (CCR). The CCR is an annual report containing data from water quality testing performed during the past year and may include earlier monitoring data for some constituents.

Last year, the water delivered to you met all U.S. Environmental Protection Agency (EPA) and State Water Resources Control Board Division of Drinking Water (State Board) drinking water health standards. Details within provide information on where we get our water, what is in your water, and how it compares to state standards that are considered safe for the public.

Special Note to Consumers: While this report presents drinking water data from 2021, we want consumers to feel confident that our drinking water system remains safe to drink as we all face difficulties with the evolving challenges created by COVID-19 impacts. Our water comes from local drinking water treatment plants where it is treated in accordance with the Safe Drinking Water Act (SDWA) to remove contaminants prior to being disinfected at multiple locations throughout NBVC's water distribution system. Our essential water system personnel continuously monitor, sample, and disinfect the water prior to reaching your tap. The water system operators, utility managers, contractors, laboratory personnel, and the Navy command work with State regulatory agencies to ensure, with a high level of confidence, that NBVC's drinking water quality meets state and federal regulations.

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

IS MY TAP WATER SAFE TO DRINK?

Yes. In 2021, as in years past, your tap water meets all EPA and State Board water quality standards.

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 2021. This CCR also includes details about where your water comes from, what it contains, and how it compares to regulatory standards.



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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.

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 2021 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.



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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 Point Mugu, Port Hueneme and San Nicolas Island and all three installations remain in compliance and have not exceed the State Board standard.

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.

What about 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. NBVC is responsible for providing high quality drinking water; however, there may be an unknown variety of materials used in plumbing components installed historically. The Reduction of Lead in Drinking Water Act (RLDWA) went into effect on January 4, 2014. The RLDWA has reduced the lead content allowed in water system and plumbing products by changing the definition of lead-free in Section 1417 of the SDWA from not more than 8% lead content, to not more than a weighted average of 0.25% lead with respect to the wetted surfaces of pipes, pipe fittings, plumbing fittings, and plumbing fixtures. The SDWA prohibits the use of these products in the installation or repair of any public water system or facility providing water for human consumption if



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they do not meet the lead-free requirement. In 2019, the lead in service (plumbing) line inventory confirmed that NBVC does not have any lead service lines.

How can I minimize exposure to lead?

- **Flush.** It is always a good idea to flush your faucet at work and/or at home, especially when water has been sitting for several hours (i.e. overnight or over a weekend). You can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes prior to utilizing for consumption. You may need to flush longer if your building has recently been shut down or experienced reduced occupancy. Contact your Facility Manager or Assistant Public Works Officer for flushing guidance.
- **Use cold water.** Hot dissolves lead more quickly than cold water, so use cold water to prepare food and drinks.
- **Clean your aerator.** Debris can be trapped on the aerator screens on water outlets containing metals, especially if construction or plumbing work may have occurred in your area. Simply twist off the aerator, tap and clean any debris which may be caught on the filtration screen, and reinstall.
- Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at <http://www.epa.gov/lead>.

What about at the Child Development Centers (CDC) and Youth Centers (YC)?

In the U.S., the EPA recommends, but does not require, testing for lead in drinking water in schools and child care centers. However, Navy policy, OPNAV M-5090.1 requires the Lead in Priority Areas (LIPA) testing program in the best interest of all the children, parents, and staff served by the distribution system. This routine sampling is conducted every five years at all drinking water fixtures. NBVC personnel conducted routine sampling in 2019 at our CDCs and YCs. All drinking water fixtures sampled in 2019 tested below the action level of 15 parts per billion (ppb).

Changes to OPNAV M-5090.1 now requires installations to conduct an annual audit of all their CDCs and YCs to identify any newly installed or repaired drinking water fixtures during the calendar year (CY). Any newly installed or repaired fixture identified during the audit must be sampled and tested for lead to ensure lead-free products were used. The LIPA audit will be conducted in 2022 to ensure that all newly installed or repaired drinking water fixtures test below the action level of 15 ppb.



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Routine test results are available from the Commander Navy Region Southwest website at:
<https://cnrsw.cnrc.navy.mil/Operations-and-Management/Environmental-Support/Drinking-Water-Quality-Information/>.

For more information, please contact the NBVC Water Program Manager at (805) 989-3983.

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).

WATER CONSERVATION

Despite recent rainfall events, Ventura County remains in a drought. NBVC residents and personnel are encouraged to continue to conserve water. To ensure NBVC drinking water remains in at the highest of quality, water system operators perform hydrant and water system flushing. Although this may appear to be misuse of water, it is essential to keep water at the highest of quality. For more information on ways to conserve water, visit www.epa.gov/watersense/ or contact NBVC Installation Energy Manager at (805) 989-3752.



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WATER COMPLAINTS

Does the filter on your fountain or faucet need to be changed? Please coordinate with your building monitor or facility manager. Make sure filters are marked with the date they were changed out and keep a log book.

Does your water have an odd taste, color, odor, suspended solids, or do you suspect a water-related illness? Please email NBVC_EV_Water_Program@navy.mil with details (i.e. building number, concern, complaint POC).

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 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 through 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 2021 calendar year. Unless otherwise noted, the data presented in these tables is from testing done January 1 through December 31, 2021. 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
2021 Consumer Confidence Report**

Attachment 1

**Port Hueneme Water Agency
2021 Annual Water Quality Data and Report**

PORT HUENEME WATER AGENCY

2021 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 2021 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 2021. 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 3rd Monday of the month @ 4pm at the City of Port Hueneme Civic Center located at 250 N. Ventura Road.

PORT HUENEME WATER AGENCY
2021 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)		
Percent of Supply						15%	85%	100%	

PRIMARY STANDARDS--Mandatory Health-Related Standards

CLARITY (a)

Parameter	Units	Highest Single Value			0.06	0.3	0.1	
Combined Filter Effluent Turbidity	NTU	TT = % of samples <0.3 NTU			100%	100%	100%	Soil runoff

MICROBIOLOGICAL

Parameter	Units	State MCL [MRDL]	PHG (MCLG) [MRDLG]	State DLR	Range Average	ND	ND	ND	
Total Coliform Bacteria	(b)	2 or 5.0%	(0)	--	Range Average	ND ND	ND ND	ND ND	Naturally present in the environment
Fecal Coliform and <i>E. coli</i>	(b)	(b)	(0)	--	Range Average	ND ND	ND ND	ND ND	Human & animal fecal waste

INORGANIC CHEMICALS

Parameter	Units	State MCL [MRDL]	PHG (MCLG) [MRDLG]	State DLR	Range Average	ND - 240	ND	NA	
Aluminum	ppb	1000	600	50	Range Average	76 76	ND ND	NA NA	Erosion of natural deposits; residue from some water treatment process
Arsenic	ppb	10	0.004	2	Range Average	ND - 4 ND	4 - 6 5	NA NA	Erosion of natural deposits; runoff from orchards; electronics production wastes
Barium	ppb	1000	2000	100	Range Average	.11 ND	ND - 25 12.5	NA NA	Discharge from oil & metal refineries; erosion of natural deposits
Chromium	ppb	50	(100)	10	Range Average	ND ND	ND ND	NA NA	Discharge from steel & pulp mills and chrome plating; erosion of natural deposits
Treatment-related Fluoride (c)	ppm	2.0	1	0.1	Range Highest RAA	0.7 - 1.0 0.7	0.6 - 0.6 0.6	0.49 - 0.99 0.72	Water additive that promotes strong teeth
Nitrate (as N)	ppm	10	10	0.4	Range Average	ND ND	3.7 - 7.3 5.2	3.6 3.6	Runoff & leaching from fertilizer use & sewage; erosion of natural deposits
Selenium	ppb	50	30	5	Range Average	ND ND	22 - 31 26.5	NA NA	Discharge from refineries, mines and chemical manufacturers, runoff

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

Parameter	Units	State MCL [MRDL]	PHG (MCLG) [MRDLG]	State DLR	Range Average	ND	4.38 - 9.25	NA	
Gross Alpha Particle Activity	pCi/L	15	(0)	3.0	Range Average	ND ND	7.71	NA	Erosion of natural deposits
Uranium	pCi/L	20	0.43	1.0	Range Average	ND - 3 ND	5.11 - 6.63 5.93	NA	Erosion of natural deposits

DISINFECTION BY-PRODUCTS AND DISINFECTANT RESIDUALS

Parameter	Units	State MCL [MRDL]	PHG (MCLG) [MRDLG]	State DLR	Range Average	ND - 9.8	NA	NA	
Bromate €	ppb	10	0.1	1.0	Range Highest RAA	3.8 3.8	NA NA	NA NA	By-product of drinking water disinfection
Total Chlorine Residual	ppm	[4.0]	[4]	--	Range Highest RAA	1.7 - 2.6 2.3	1.53 - 1.98 1.83	1.95 - 2.86 2.52	Drinking water disinfectant added for treatment
Haloacetic Acids (f)	ppb	60	--	1.0	Range Highest RAA	3.0 - 14.0 8.3	5 - 10 7.75	2 - 8 4.75	By-product of drinking water disinfection
Total Trihalomethanes (f)	ppb	80	--	1.0	Range Highest RAA	12.0 - 28.0 19.8	18 - 38 27.3	21 - 31 25.25	By-product of drinking water chlorination

SECONDARY STANDARDS--Aesthetic Standards

Parameter	Units	State MCL [MRDL]	PHG (MCLG) [MRDLG]	State DLR	Range Average	ND - 240	ND	NA	
Aluminum	ppb	200	600	50	Range Average	76 76	ND ND	NA NA	Erosion of natural deposits; residue from some water treatment process
Chloride	ppm	500	--	--	Range Average	65 - 97 76	65 - 70 67.5	43 43	Runoff/leaching from natural deposits; seawater influence
Color	Units	15	--	--	Range Average	ND - 2 2	ND ND	ND ND	Naturally occurring organic materials
Manganese	ppb	50	--	20	Range Average	ND ND	N/D N/D	ND ND	Leaching from natural deposits
Odor Threshold	TON	3	--	1	Range Average	ND ND	ND ND	ND ND	Naturally occurring organic materials
Specific Conductance	µS/cm	1,600	--	--	Range Average	519 - 965 616	1500 - 1650 1552	770 770	Substances that form ions when in water; seawater influence
Sulfate	ppm	500	--	0.5	Range Average	61 - 221 87.5	441 - 536 493.2	180 180	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids	ppm	1,000	--	--	Range Average	298 - 609 343	1120 - 1220 1164	530 530	Runoff/leaching from natural deposits
Turbidity (monthly)	NTU	5	--	--	Range Average	ND ND	0.2 - 0.3 .2	ND ND	Soil runoff

ADDITIONAL PARAMETERS (Unregulated)

Parameter	Units	State MCL [MRDL]	PHG (MCLG) [MRDLG]	State DLR	Range Average	86 - 128	210 - 220	120	
Alkalinity	ppm	NS	--	--	Range Average	97 97	215	120	
Boron	ppm	NL=1	--	0.1	Range Average	.13 - .2 .17	0.6 - 0.7 .65	.6 .6	
Calcium	ppm	NS	--	--	Range Average	27 - 70 35.2	152 - 165 158.5	55 55	
Chlorate	ppb	NL=800	--	20	Range Average	55 - 88 82.3	NA NA	NA NA	
Chromium (Total)	ppb	50	NONE	10	Range Average	ND ND	ND ND	NA NA	
Corrosivity (q)	Al	NS	--	--	Range Average	12.1 - 12.5 12.23	12.7 - 12.8 12.8	12.2 12.2	
Hardness (Total Hardness)	ppm	NS	--	--	Range Average	110 - 273 143	601 - 650 625.5	224 224	
Magnesium	ppm	NS	--	--	Range Average	12 - 26 14	54 - 58 56	21 21	
N-Nitrosodimethylamine (NDMA)	ppt	NL=10	--	--	Range Average	ND - 2.6 2.2	NA NA	NA NA	
pH	pH Units	NS	--	--	Range Average	8.1 - 8.4 8.2	7.8 - 7.8 7.8	7.95 7.95	
Potassium	ppm	NS	--	--	Range Average	2.6 - 4.7 2.9	5 5	2 2	
Radon	pCi/L	NS	--	100.0	Range Average	ND ND	44.9 - 145 97.73	NA NA	
Sodium	ppm	NS	--	--	Range Average	61 - 101 69	96 - 101 98.5	63 63	
Total Organic Carbon	ppm	TT	--	0.3	Range Average	.09 - 2.5 1.8	.5 - .9 .68	NA NA	

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

PORT HUENEME WATER AGENCY

2021 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
 μ 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 (μ 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 2021.
- (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 > 12.0 indicates non-aggressive water. AI between 10.0 and 11.9 indicates moderately aggressive water.



**Naval Base Ventura County
2021 Consumer Confidence Report**

Attachment 2

**NBVC Point Mugu and Port Hueneme
2021 Distribution System Water Quality Data**

Parameter (Units)	MCL [MRDL]	PHG (MCLG) [MRDLG]	Distribution Water Results			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 2021 - Point Mugu Water Distribution System.						
LEAD AND COPPER						
Lead (ppm) (b) 2020	AL=0.015	0.2	(b) ND	N/A	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) 0.074	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	6	2 - 10	None	Quarterly - By-product of drinking water disinfection
Total Trihalomethanes (ppb) (c)	80	N/A	31	17-52	None	By-product of drinking water disinfection
Free Chlorine Residual (ppm) (d)	[4.0]	[4]	1	1.042-1.912	None	Drinking water disinfectant added for treatment
MICROBIOLOGICAL						
Total Coliform Bacteria (f)	(f)	(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 2021 - Port Hueneme Water Distribution System.						
LEAD AND COPPER						
Lead (ppm) (b) 2019	N/A	N/A	(b) ND	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-0.196	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	5	2 - 15	None	Quarterly - By-product of drinking water disinfection
Total Trihalomethanes (ppb) (c)	80	N/A	30	18-80	None	By-product of drinking water disinfection
Free Chlorine Residual (ppm) (d)	[4.0]	[4]	2	1.517-2.133	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
 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.

(b) 90th percentile value. Port Hueneme & Point Mugu samples collected/tested in 2019 & 2020, respectively without exceeding 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 2021.



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Attachment 3

NBVC San Nicolas Island

2021 Treatment and Distribution System Water Quality Data

Summary of Water Quality Results For 2021 - 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	
PRIMARY DRINKING WATER STANDARDS--Mandatory Health-Related Standards						
CLARITY						
Turbidity (NTU) (a)	(TT) % of samples <0.2		Highest Single Value 0.081 100.0%		None	Soil runoff
LEAD AND COPPER						
Lead (ppm) (b) 2021	AL=0.015	0.2	(b) ND	ND	None	Internal corrosion of household water plumbing systems; discharge from industrial manufacturers; erosion of natural deposits.
Copper (ppm) (b) 2021	AL=1.3	0.3	(b) ND	ND	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	3	1-5	None	Quarterly - By-product of drinking water disinfection
Total Trihalomethanes (ppb) (c)	80	N/A	15.125	7-20	None	By-product of drinking water disinfection
Free Chlorine Residual (ppm) (d)	[4.0]	[4]	1.72	1.21-2.133	None	Drinking water disinfectant added for treatment
INORGANIC CHEMICALS						
Aluminum (ppb)	1,000	600	N/A	70	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	ND	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	7	None	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
MICROBIOLOGICAL						
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 2021 - 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	
SECONDARY STANDARDS--Aesthetic Standards						
Chloride (ppm)	500	N/A	N/A	109	None	Runoff/leaching from natural deposits; seawater influence
Specific Conductance (µS/cm)	1,600	N/A	N/A	512	None	Substances that form ions when in water; seawater influence
Total Dissolved Solids (ppm)	1,000	N/A	N/A	280	None	Runoff/leaching from natural deposits
ADDITIONAL PARAMETERS (Unregulated)						
Boron (ppm) (g)	NS	NL = 1	N/A	0.8	None	
Bicarbonate (ppm)	NS		N/A	40	None	
Calcium (ppm)	NS		N/A	14	None	
Sulfate (ppm)	NS		N/A	10.3	None	
Sodium (ppm)	NS		N/A	83	None	Salt present in the water and is generally naturally occurring
Total Alkalinity (as CaCO ₃) (ppm)	NS		N/A	30	None	
Total hardness (as CaCO ₃) (ppm)	NS		N/A	43.2	None	
pH (standard units)	NS		N/A	8.5	None	
Potassium (ppm)	NS		N/A	3	None	
Corrosively (AI) (h)	NS		N/A	11.5	None	

ABBREVIATIONS, DEFINITIONS, and NOTES

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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 2021. 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 2021.
- (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
2021 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

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.