



Naval Base Ventura County
2022 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 2023



Naval Base Ventura County 2022 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.

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 2022, 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 2022. This CCR also includes details about where your water comes from, what it contains, and how it compares to regulatory standards.

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



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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 sampled during the 2022 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 Attachments 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 (DBP; Total Trihalomethanes (TTHM); Maximum Contaminant Level (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.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During the calendar year 2022, we did not monitor for TTHM and HAA5 from the Port Hueneme



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distribution system during the month of April 2022 and therefore, cannot be sure of the quality of your drinking water during that time.

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 they do not meet the lead-free requirement. In 2019, the lead in service (plumbing) line inventory



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confirmed that NBVC does not have any lead service lines. During 2023 and 2024, additional service lines will be assessed per Revised Lead and Copper Rule requirements.

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 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 industrial and consumer products around the globe, including in the U.S., for decades. Due to their widespread use and environmental persistence, most people in the United States have been exposed to certain PFAS. 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.

Is there a federal or California regulation for PFAS in drinking water?

There is currently no federal drinking water standard for any PFAS compounds. In May 2016, the U.S. Environmental Protection Agency (EPA) established a lifetime drinking water 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.



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In California, there is not a PFAS drinking water regulation.

The Department of Defense (DoD) issued a policy in 2020 to monitor drinking water for PFAS at all DoD owned and operated consecutive water systems. A consecutive system is a public water system that buys or otherwise receives some or all of its finished water from a wholesale system. The DoD policy states that if water sampling results confirm that drinking water contains PFOA and PFOS at individual or combined concentrations greater than the 2016 EPA HA level of 70 ppt, water systems will request the Purveyor take immediate action to decrease the PFAS levels to below 70 ppt.

What about the EPA's 2022 interim Health Advisories or proposed regulations?

EPA issued interim Health Advisories for PFOS and PFOA in 2022. However these newer levels are below quantifiable limits (i.e., below detection levels). EPA is expected to issue a proposed regulation on PFAS drinking water standards for public comment in the next few months. DoD looks forward to the clarity that a nationwide regulatory standard for PFOS and PFOA in drinking water will provide.

In addition, EPA issued interim Health Advisories for PFOS and PFOA in 2022. However, these newer levels are below quantifiable limits (i.e., below detection levels).

In anticipation of this EPA drinking water regulation and to account for emerging science that shows potential health effects of PFOS and PFOA at levels lower than 70 ppt, DoD is evaluating its efforts to address PFAS in drinking water, and what actions we can take to be prepared to incorporate this standard, such as reviewing our current data and collecting additional sampling where necessary. DoD remains committed to communicating and engaging with our communities throughout this process.

Has NBVC tested its water for PFAS?

Yes. In 2022 samples were collected from Point Mugu, Port Hueneme and San Nicolas Island water systems.

We are pleased to report that drinking water testing results were below the Method Reporting Limit (MRL) for all 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.

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



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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 was conducted in 2022 to ensure that all newly installed or repaired drinking water fixtures test below the action level of 15 ppb.

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

For more information, please contact the NBVC Water Program Manager at (805) 982-3983.

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).



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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 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) 989-9011.

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 NAVFAC_SW_NBVC_PWD_EV_Water_UD@us.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.

WATER QUALITY DATA

Tables summarizing drinking water contaminants sampled in the water distributed to NBVC customers during the 2022 calendar year are provided as follows: Port Hueneme and Point Mugu water quality information and data (Attachment 1: water purveyor (PHWA) and Attachment 2: NBVC distribution data) and San Nicolas Island water quality information and data (Attachment 3: NBVC water purveyor and distribution data). Unless otherwise noted, the data presented in these tables is from testing done January 1 through December 31, 2022. 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.



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TEMPORARY WATER DISINFECTANT CHANGE AND WATER FLUSHING

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.

Facilities and homes that have been vacant or have low water use should utilize on-going water “flushing” to maintain water quality. “Flushing” involves opening taps and letting the water run to remove water that has been standing in the interior pipes and/or the outlets. The “flushing” time can vary by the type of outlet being cleared. See Attachments 5 for further information on “flushing” guidance.



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Attachment 1

**Port Hueneme Water Agency
2022 Annual Water Quality Data and Report**

PORT HUENEME WATER AGENCY

2022 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 2022 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 2022. 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 Dennis Martinez Water General Manager for (PHWA) Port Hueneme Water Agency, at (805) 986-6566. 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

2022 Water Quality Report to Purveyors

| Parameter | Units | State MCL | PHG (MCLG) | State DLR | Range Average | Purchased CMWD (Calleguas) | Purchased OWD (Oxnard) | Purchased UWCD (United) | BWRDF (Blended) | Major Sources in Drinking Water |
|--------------------------|-------|-----------|------------|-----------|---------------|----------------------------|------------------------|-------------------------|-----------------|---------------------------------|
| | | [MRDL] | [MRDLG] | | | | | | | |
| Percent of Supply | | | | | | 12% | 8% | 80% | 100% | |

PRIMARY STANDARDS--Mandatory Health-Related Standards

CLARITY (a)

| Parameter | Units | Highest Single Value | 0.1 | NA | <0.2 | ND | |
|------------------------------------|-------|----------------------------|------|----|------|------|-------------|
| Combined Filter Effluent Turbidity | NTU | TT = % of samples <0.3 NTU | 100% | NA | 100% | 100% | Soil runoff |

MICROBIOLOGICAL

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

INORGANIC CHEMICALS

| Parameter | Units | 1000 | 600 | 50 | Range | ND - 240 | NA | ND | NA | |
|--------------------------------|-------|------|-------|-----|-------------|-----------|----------|-----------|-------------|---|
| Aluminum | ppb | | | | Average | 80 | NA | ND | NA | Erosion of natural deposits; residue from some water treatment process |
| Arsenic | ppb | 10 | 0.004 | 2 | Average | 2 | NA | 2.5 | NA | Erosion of natural deposits; runoff from orchards; electronics production wastes |
| Barium | ppb | 1000 | 2000 | 100 | Average | ND | NA | 23.1 - 24 | NA | Discharge from oil & metal refineries; erosion of natural deposits |
| Chromium | ppb | 50 | (100) | 10 | Average | ND | NA | 0.5 | NA | Discharge from steel & pulp mills and chrome plating; erosion of natural deposits |
| Treatment-related Fluoride (c) | ppm | 2.0 | 1 | 0.1 | Range | 0.7 - 0.9 | ND - 0.6 | ND - 0.6 | 0.28 - 0.97 | |
| | | | | | Highest RAA | 0.7 | 0.2 | 0.3 | 0.765 | Water additive that promotes strong teeth |
| Nitrate (as N) | ppm | 10 | 10 | 0.4 | Range | ND - 0.9 | 0 - 6.6 | 3.7 - 6.6 | ND | Runoff & leaching from fertilizer use & sewage; erosion of natural deposits |
| | | | | | Average | ND | 1.1 | 4.7 | ND | |
| Selenium | ppb | 50 | 30 | 5 | Range | 6 - 13 | NA | 8 - 25 | NA | Discharge from refineries, mines and chemical manufacturers, runoff |
| | | | | | Average | ND | NA | 16.5 | NA | |

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

| Parameter | Units | 15 | (0) | 3.0 | Range | ND - 3.1 | NA | 4.68 - 9.48 | NA | |
|-----------------------------------|-------|----|------|-----|---------|----------|----|-------------|----|-----------------------------|
| Gross Alpha Particle Activity (d) | pCi/L | | | | Average | ND | NA | 7.6 | NA | Erosion of natural deposits |
| Uranium | pCi/L | 20 | 0.43 | 1.0 | Range | ND - 3 | NA | 5.79 - 6.23 | NA | Erosion of natural deposits |
| | | | | | Average | ND | NA | 6.06 | NA | natural deposits |

DISINFECTION BY-PRODUCTS AND DISINFECTANT RESIDUALS

| Parameter | Units | 10 | 0.1 | 1.0 | Range | ND - 15 | NA | NA | NA | |
|---------------------------|-------|-------|-----|-----|-------------|------------|----|-------------|-----------|---|
| Bromate (e) | ppb | | | | Highest RAA | 4.9 | NA | NA | NA | By-product of drinking water disinfection |
| Total Chlorine Residual | ppm | [4.0] | [4] | -- | Range | 1 - 2.5 | NA | 1.69 - 2.12 | 0.7 - 3.1 | Drinking water disinfectant added for treatment |
| | | | | | Highest RAA | 2.1 | NA | 1.94 | 2.53 | |
| Haloacetic Acids (f) | ppb | 60 | -- | 1.0 | Range | 2.0 - 29.0 | NA | 9 - 16 | 5 - 11 | By-product of drinking water disinfection |
| | | | | | Highest RAA | 11 | NA | 13 | 7 | |
| Total Trihalomethanes (f) | ppb | 80 | -- | 1.0 | Range | 3 - 57 | NA | 11 - 68 | 27 - 52 | By-product of drinking water chlorination |
| | | | | | Highest RAA | 29 | NA | 34.4 | 34.8 | |

SECONDARY STANDARDS--Aesthetic Standards

| Parameter | Units | 200 | 600 | 50 | Range | ND - 240 | NA | ND | NA | |
|------------------------|-------|-------|-----|-----|---------|------------|--------------|-------------|-----|--|
| Aluminum | ppb | | | | Average | 79.6 | NA | ND | NA | Erosion of natural deposits; residue from some water treatment process |
| Chloride | ppm | 500 | -- | -- | Range | 63 - 105 | 1.6 - 69 | 64 - 69 | 38 | Runoff/leaching from natural deposits; seawater influence |
| | | | | | Average | 78.7 | 17.8 | 66.5 | 38 | |
| Color | Units | 15 | -- | -- | Range | ND - 1 | NA | ND - 5 | ND | Naturally occurring organic materials |
| | | | | | Average | 1 | NA | 2.5 | ND | |
| Manganese | ppb | 50 | -- | 20 | Range | ND - 110 | NA | 0 - 0.6 | ND | |
| | | | | | Average | ND | NA | 0.01 | ND | Leaching from natural deposits |
| Odor Threshold | TON | 3 | -- | 1 | Range | ND - 3 | NA | ND | ND | |
| | | | | | Average | 3 | NA | ND | ND | Naturally occurring organic materials |
| Specific Conductance | µS/cm | 1,600 | -- | -- | Range | 557 - 1020 | 420 | 1440 - 1560 | 815 | Substances that form ions when in water; seawater influence |
| | | | | | Average | 676 | 420 | 1512 | 815 | |
| Sulfate | ppm | 500 | -- | 0.5 | Range | 71 - 232 | 8.67 - 529 | 428 - 529 | 206 | Runoff/leaching from natural deposits; industrial wastes |
| | | | | | Average | 113 | 126.6 | 480.5 | 206 | |
| Total Dissolved Solids | ppm | 1,000 | -- | -- | Range | 332 - 643 | 35.34 - 1170 | 1080 - 1170 | 540 | |
| | | | | | Average | 412 | 319 | 1130 | 540 | Runoff/leaching from natural deposits |
| Turbidity (monthly) | NTU | 5 | -- | -- | Range | ND | NA | <0.2 | ND | |
| | | | | | Average | ND | NA | <0.2 | ND | Soil runoff |

ADDITIONAL PARAMETERS (Unregulated)

| Parameter | Units | NS | -- | -- | Range | 84 - 128 | NA | 200 - 220 | 130 | |
|-------------------------------|-------|--------|------|-------|---------|-------------|------------|-------------|------|--|
| Alkalinity | ppm | | | | Average | 96 | NA | 210 | 130 | |
| Boron | ppm | NL=1 | -- | 0.1 | Range | .14 - .46 | NA | 0.7 | .6 | |
| | | | | | Average | .21 | NA | 0.7 | .6 | |
| Calcium | ppm | NS | -- | -- | Range | 32 - 71 | 2.1 - 152 | 149 - 152 | 70 | |
| | | | | | Average | 42.4 | 5.3 | 150.5 | 70 | |
| Chlorate | ppb | NL=800 | -- | 20 | Range | ND - 243 | NA | NA | NA | |
| | | | | | Average | 186 | NA | NA | NA | |
| Chromium (Total) | ppb | 50 | NONE | 10 | Range | ND | NA | ND - 1 | NA | |
| | | | | | Average | ND | NA | 0.5 | NA | |
| Corrosivity (g) | Al | NS | -- | -- | Range | 11.4 - 12.5 | NA | 12.7 - 12.7 | 12.6 | |
| | | | | | Average | 12.2 | NA | 12.7 | 12.6 | |
| Hardness (Total Hardness) | ppm | NS | -- | -- | Range | 107 - 281 | 7.6 - 589 | 586 - 589 | 273 | |
| | | | | | Average | 153 | 152.5 | 587.5 | 273 | |
| Magnesium | ppm | NS | -- | -- | Range | 6.2 - 17 | 0 - 52 | 51 - 52 | 24 | |
| | | | | | Average | 12 | 52 | 51.5 | 24 | |
| N-Nitrosodimethylamine (NDMA) | ppt | NL=10 | -- | -- | Range | ND - 2.7 | NA | NA | NA | |
| | | | | | Average | 0.1 | NA | NA | NA | |
| pH | Units | NS | -- | -- | Range | 7.4 - 8.3 | 6.5 - 7.82 | 7.80 - 7.82 | 8.2 | |
| | | | | | Average | 8.2 | 6.82 | 7.81 | 8.2 | |
| Potassium | ppm | NS | -- | -- | Range | 2 - 4.8 | 0.14 - 5 | 4 - 5 | 3 | |
| | | | | | Average | 2.7 | 1.2 | 4.5 | 3 | |
| Radon | pCi/L | NS | -- | 100.0 | Range | ND | NA | 28 - 213 | NA | |
| | | | | | Average | ND | NA | 118.6 | NA | |

PORT HUENEME WATER AGENCY

2022 Water Quality Report to Purveyors

| | | | | | | | | | |
|----------------------|-----|----|----|-----|---------|----------|----------|-----------|----|
| Sodium | ppm | NS | -- | -- | Range | 58 - 103 | 4.7 - 96 | 95 - 96 | 69 |
| | | | | | Average | 69.4 | 27.4 | 95.5 | 69 |
| Total Organic Carbon | ppm | TT | -- | 0.3 | Range | .9 - 2.6 | NA | 0.7 - 0.8 | NA |
| | | | | | Average | 1.7 | NA | 0.76 | NA |

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

PORT HUENEME WATER AGENCY

2022 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
 $\mu\text{S/cm}$ = 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 ($\mu\text{g/L}$)
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) | Calleguas Municipal Water District- Surface Water Source |
| UWCD (United) | United Water Conservation District |
| BWRDF (Blended) | Brackish Water Reclamation Demonstration Facility (BWRDF) - Samples taken after Calleguas and United sources were blended. |
| OWD (Oxnard) | City of Oxnard Water Department |

- (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 2022.
- (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
2022 Consumer Confidence Report**

Attachment 2

**NBVC Point Mugu and Port Hueneme
2022 Distribution System Water Quality Data**



**Naval Base Ventura County
2022 Consumer Confidence Report**

Attachment 3

NBVC San Nicolas Island

2022 Treatment and Distribution System Water Quality Data

| Summary of Water Quality Results For 2022 - 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 ND 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 | 5.29 | 3.3-8.8 | None | Quarterly - By-product of drinking water disinfection |
| Total Trihalomethanes (ppb) (c) | 80 | N/A | 17.34 | 11.8-25.8 | None | Quarterly By-product of drinking water disinfection |
| Free Chlorine Residual (ppm) | [4.0] | [4] | 1.85 | 1.53-2.16 | None | Drinking water disinfectant added for treatment |
| INORGANIC CHEMICALS | | | | | | |
| Aluminum (ppb) | 1,000 | 600 | ND | ND | None | Erosion of natural deposits, residual from water treatment process |
| Fluoride (ppm) | 2 | 1 | ND | ND | None | Erosion of natural deposits |
| Arsenic (ppb) | 10 | 0.004 | ND | ND | None | Erosion of natural deposits; runoff from orchards; electronics and glass production waste |
| Barium (ppm) | 1 | 2 | ND | ND | None | Discharge from oil & metal refineries; mines and chemical manufacturers; erosion of natural deposits |
| Mercury (ppb) | 2 | 1.2 | ND | ND | None | Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and cropland |
| Nitrate + Nitrite (as N) (ppm) | 10 | 10 | ND | ND | None | Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits |
| Nitrite (as N) (ppm) | 1 | 1 | ND | ND | None | Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits |
| Selenium (ppb) | 50 | 30 | ND | 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) |
| 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 |
| SECONDARY STANDARDS--Aesthetic Standards | | | | | | |
| Chloride (ppm) (i) | 500 | N/A | 111 | 111 | None | Runoff/leaching from natural deposits; seawater influence |
| Odor Threshold (TON) (i) | 3 | N/A | ND | ND | None | Naturally occurring organic materials |
| Specific Conductance (µS/cm) (i) | 1,600 | N/A | 560 | 560 | None | Substances that form ions when in water; seawater influence |
| Total Dissolved Solids (ppm) (i) | 1,000 | N/A | 280 | 280 | None | Runoff/leaching from natural deposits |

| Summary of Water Quality Results For 2022 - 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 | |
| ADDITIONAL PARAMETERS (Unregulated) | | | | | | |
| Boron (ppm) (g) (i) | NS | NL = 1 | 1.0 | 1.0 | None | Naturally present in the environment. |
| Bicarbonate (ppm) (i) | NS | | 40 | 40 | None | |
| Calcium (ppm) (i) | NS | | 26 | 26 | None | Erosion of natural material |
| Sulfate (ppm) (i) | 500 | | 15.7 | 15.7 | None | |
| Sodium (ppm) (i) | NS | | 95 | 95 | None | Salt present in the water and is generally naturally occurring |
| Vanadium (ppb) (i) | NS | 50 | ND | ND | None | |
| Total Alkalinity (as CaCO ₃) (ppm) (i) | NS | | 30 | 30 | None | Erosion of natural material |
| Total hardness (as CaCO ₃) (ppm) (i) | NS | | 85.4 | 85.4 | None | Erosion of natural material |
| Magnesium (ppm) (i) | NS | | 5 | 5 | None | |
| pH (standard units) (i) | NS | | 8.5 | 8.5 | None | |
| Potassium (ppm) (i) | NS | | ND | ND | None | Erosion of natural material |
| Corrosively (Al) (h) (i) | NS | | 11.8 | 11.8 | None | |
| ABBREVIATIONS, DEFINITIONS, and NOTES | | | | | | |
| AL = Action Level | | NL = Notification Level | | TT = Treatment Technique | | |
| AI = Aggressiveness Index | | NS = Not Specified | | µS/cm = micro Siemens per centimeter | | |
| N/A = Not Applicable | | NTU = Nephelometric Turbidity Units | | ppm = parts per million, or milligrams per liter (mg/L) | | |
| ND = None Detected | | TON = Threshold Odor Number | | ppb = parts per billion, or micrograms per liter (µg/L) | | |
| <p>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.</p> <p>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.</p> <p>Maximum Residual Disinfectant Level (MRDL) = The highest level of a disinfectant allowed in your drinking water. A certain amount of disinfectant has been shown to</p> <p>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.</p> <p>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.</p> <p>Primary Drinking Water Standard = MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.</p> <p>Range = Refers to the levels—both low and high—at which contaminants were detected in your drinking water. A range of levels may exist due to changes in contaminant levels during a calendar year.</p> <p>Regulatory Action Level (AL) = The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.</p> <p>Treatment Technique (TT) = A required process intended to reduce the level of a contaminant in drinking water.</p> | | | | | | |
| <p>(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.</p> <p>(b) 90th percentile value. Samples collected and tested in 2021. Zero sites exceeded the Action Level.</p> <p>(c) Compliance is based on the quarterly locational running annual average (LRAA) of distribution system samples.</p> <p>(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.</p> <p>(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.</p> <p>(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.</p> <p>(i) Single sample annually. Test result represents average and range.</p> | | | | | | |



**Naval Base Ventura County
2022 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.



**Naval Base Ventura County
2022 Consumer Confidence Report**

Attachment 5

**NBVC Port Hueneme, Point Mugu and San Nicolas Island
Suggested Water Flushing Guidance**

Information on Maintaining or Restoring Water Quality in Buildings or Homes with Low or No Use

WHAT IS FLUSHING?

“Flushing” involves opening taps and letting the water run to remove water that has been standing in the interior pipes and/or the outlets. The flushing time can vary by the type of outlet being cleared.



FLUSHING TO IMPROVE WATER QUALITY

- Establishing an ongoing flushing program is one of the quickest and easiest solution to ensure the water quality is preserved by decreasing water age.
- A temporary shutdown or reduced operation of a building and reductions in normal water use can create hazards for returning occupants.
- Flushing can be used as a regular practice to ensure the water is regularly moving.

CDC'S Flushing Guidance

Flush your water system

- a. Flush hot and cold water through all points of use (e.g., showers, sink faucets)
 - i. Flushing may need to occur in segments (e.g., floors, individual rooms) due to facility size and water pressure. The purpose of building flushing is to replace all water inside building piping with fresh water.
- b. Flush until the hot water reaches its maximum temperature. Where possible, hot water at the tap should reach at or above 120°F. Anti-scalding controls and devices may limit the maximum temperature at the point of use.
- c. Care should be taken to minimize splashing and aerosol generation during flushing.
- d. Other water-using devices, such as ice machines, may require additional cleaning steps in addition to flushing, such as discarding old ice. Follow water-using device manufacturers' instructions.
- e. Ensure safety equipment including eye wash stations, and safety showers are clean and well-maintained. Regularly flush, clean, and disinfect these systems according to manufacturers' specifications.

EPA'S Flushing Instructions

Remember that each drinking water outlet should be flushed individually; flushing a toilet will not flush your water fountains. All flushing should be recorded in a log submitted daily to the office, or person, in charge of this program.

- Locate the faucet furthest away from the service line on each wing and floor of the building, open the faucets wide, and let the water run for 10 minutes. For best results, calculate the volume of the plumbing and the flow rate at the tap and adjust the flushing time accordingly. This 10-minute time frame is considered adequate for most buildings.
- Open valves at all drinking water fountains without refrigeration units and let the water run for roughly 30 seconds to one minute, or until cold.
- Let the water run on all refrigerated water fountains for 15 minutes. Because of the long time period required, routinely flushing refrigerated fountains may not be feasible. Open all kitchen faucets (and other faucets where water will be used for drinking and/or cooking) and let the water run for 30 seconds to one minute, or until cold.

EPA's Tips for Developing a Flushing Plan

When using flushing as a regular practice or as a short-term remediation effort:

- Determine how water enters and flows through your facility by developing a plumbing profile;
- Locate all water outlets that are used for consumption;
- Utilize signage to indicate when and for how long flushing needs to occur at each outlet;
- Identify options for collection and non-potable re-use of flushed water (e.g., plant watering); and
- Develop a system for accountability, including identifying one person who is in charge and record keeping.

NBVC wants to ensure that all customers are confident that the water they consume is safe. Your drinking water meets all Federal and State water quality standards. Although the water provided to the customers remains compliant, internal facility piping or reduced water usage in buildings or homes resulting in stagnant water in your plumbing system affects water quality. Therefore, following the flushing guidance will restore the water quality in your facilities or homes. 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://cnrsw.cnicy.navy.mil/Operations-and-Management/Environmental-Support/Drinking-Water-Quality-Information/>