Olympic Water and Sewer Inc.
2021 Water Quality Report
ID # 68700

This is the annual report on the quality of the water delivered to homes and businesses within the Port Ludlow Master Planned Resort by Olympic Water and Sewer, Inc. (OWSI). It is designed to increase your awareness of the quality of your water and the need to protect this valuable resource.

COVID-19 mask and social distancing requirements have been relaxed. Covid is still an area of concern as we interact with our customers. If you are in contact with OWSI personnel and are concerned about infection please relay your concerns to the technician. We have masks and sanitizer and in many cases don't need to enter customer's homes to help with customers concerns.

OWSI has launched a new website. The website address is www.ows-inc.com. Customers can find information on rates, OWSI news, contact information, and a frequently asked questions section that can be resourceful**.**

Under normal conditions you may reach us between the hours of 10 a.m. and 3 p.m. Monday through Friday at (360)437-2101. If your question is regarding billing choose option 2 and for operational questions choose option 6. If you prefer email **OWSI@portludlowassociates.com** is checked daily Monday through Friday and we will respond to your requests.

For after-hours emergencies call the answering service at **1(877) 826-5787** and they will dispatch a technician.

For Questions about this report call Greg Rae at **360-437-8349** or email the OWSI email address listed above. OWSI does not hold public meetings but welcomes any question you have about water quality or any other concerns.

Additional information about contaminants in drinking water can be obtained from the EPA Safe Drinking Water Hotline at (800) 426-4791 or the Washington State Department of Health (DOH) at (800) 521-0323.

Where does your water come from? We currently pump water from five ground water wells ranging in depth from 200-560 feet. Well Nos. 2, 3 and 4N are in the area of Walker Way and Talbot Way. Well Nos. 14 and 16 are off of Teal Lake Road just north of Teal Lake.

Generally speaking, if you live above (north and west) Oak Bay Road, you are located in Service Zone A. All other areas are located in Service Zone B.

Well Number	DOH Source #	Service Zone	Treatment Method	Contaminant Treated For
2	O1	A	Filtration	Iron and Manganese
3	02	A	Filtration	Iron and Manganese
4	04	A	None	
14	06	B	Filtration	Arsenic and Manganese
16	08	B	Filtration	Arsenic and Manganese

Zones A and B are able to interconnect during certain water demand conditions. If desired please call us for clarification.

Source Water Protection, All of the wells are protected by a "Wellhead Protection Plan" that restricts activities that may pose contamination risks. DOH has on their website information on the Source Water Assessment Program for all public water systems in Washington State. The website address is www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/SourceWater/SourceWaterProtection#links. There you can click on SWAP Maps and either search for Olympic Water and Sewer Inc. in the search bar or click on the map and zoom in to Port Ludlow. We recommend the search option. Well 3 is rated as moderate susceptibility to contaminants while all other wells are rated as low. If you do not have access to the Web, we encourage you to use the Internet service through the public library system.

The quality of the water delivered to Port Ludlow. In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) and the Washington State Department of Health (DOH) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The water delivered to your homes and businesses meets all of the standards for physical, chemical and radiological contaminants. Well No. 14, at its source, exceeds limits set for arsenic. **Well 14 water is blended with Well 16 before being delivered to customers to achieve compliance with the arsenic limit. On November 1, 2021 water from wells 14 and 16 were redirected to the new filtration system resulted in further reduced arsenic levels.**

Biological Contaminants, Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful, waterborne pathogens may be present or that a potential pathway exists

through which contamination may enter the water distribution system. If found, coliforms indicate the need to look for potential problems in water treatment or distribution. If this occurs we would conduct assessments to identify problems and to correct any problems that were found during these assessments.

OWSI, in 2021 there was one unsatisfactory compliance bacteria sample. Repeat testing was satisfactory indicating a possible sampling error.

Filtration Project , In January 2021 JMG constructors broke ground on the water filtration facility. The filtration facility was constructed to remove Arsenic and Manganese from the water supplied by wells 14 and 16. The project manager was the engineering firm HDR. HDR made limited site visits and OWSI was the daily contact for JMG.

JMG was a great partner in the construction of the facilities. Their crew was experienced and innovative. The project went along smoothly and fortunately was completed before supply chain issues became a serious problem. The majority of the project was completed by August of 2021. The project halted at that point. The reason for the stoppage was that the filtration facility needed to have water ran through it but the treated water could not be supplied to consumers until testing was complete. August is at the height of the water usage season so pumping water to waste was not an option. We waited until late September and October to conduct testing of the filtration system.

OWSI personnel installed chlorination system components in service zone A wells in preparation for chlorination to proceed. November 1st 2021 the water system began chlorination in both service zones and filtration in service zone B. The project was completed within two years, which allowed an interest rate reduction on the loan secured through the state drinking water revolving fund. The project was completed under budget thanks to quality contractors and some wise business decisions. The savings resulted in a lowering of the customers surcharge by 30% from $10.00 per billing cycle to $7.00.

After a startup that had some operational issues, the chlorination and filtration are now operating as designed. Manganese testing has been non-detectable in service zone B. The reduced arsenic is between 2 and 3.5 parts per billion (ppb). The maximum level for arsenic is 10 ppb. There have been no unsatisfactory bacteria tests since the addition of chlorine to the water.

Construction of upgrades and improvements to the OWSI) water system were financed by the Drinking Water State Revolving Fund (DWSRF). The DWSRF program is administered by the Washington State Department of Health (DOH) with joint funding from the U.S. Environmental Protection Agency and Washington State. DWSRF programs operate around the country to provide states and communities the resources necessary to maintain and improve the infrastructure that protects valuable water resources nationwide.

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 EPA's Safe Drinking Water Hotline (800-426-4791).

DOH Office of Drinking Water and The EPA, prescribe regulations that limit the amount of certain contaminants in water provided by public water systems to ensure that tap water is safe to drink. The Food and Drug Administration (FDA) and Washington Department of Agriculture regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

The sources of drinking water in the world (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Examples of contaminants that may affect source water quality include:

- ***Microbial contaminants,*** such as viruses, parasites, and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- ***Inorganic contaminants,*** such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

- ***Pesticides and herbicides***, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- ***Radioactive contaminants*****,** which can occur naturally or result from oil and gas production and mining activities.
- ***Organic chemical contaminants***, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

Statement on Lead**,**
In Washington State, lead in drinking water comes primarily from materials and components used in household plumbing. The more time water has been sitting in pipes, the more dissolved metals, such as lead, it may contain. Elevated levels of lead can cause serious health problems, especially in pregnant women and young children. To help reduce potential exposure to lead: for any drinking water tap that has not been used for 6 hours or more, flush water through the tap until the water is noticeably colder before using for drinking or cooking. You can use the flushed water for watering plants, washing dishes, or general cleaning. Only use water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is likely to contain higher levels of lead. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water is available from EPA's Safe Drinking Water Hotline at 1-800-426-4791 or online at http://www.epa.gov/safewater/lead.

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 infants can be particularly at risk from infections. These people should seek advice about drinking 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 (800-426-4791).

The water testing table attached lists all of the drinking water contaminants that were detected during the most recent analyses (within the last five years). DOH does not require monitoring for all contaminants at frequent intervals because their concentration is not expected to vary significantly from year to year. Only detections within the previous five years are reported. Sampling dates are noted at the top of the table or within the table if more recent.

There are several other contaminants that are routinely tested for but were not detected in laboratory analysis. As you examine the data, note that the results of the laboratory testing are compared to an MCL or Maximum Contamination Limit. This is the highest level of a contaminant that is allowed in drinking water.

There were no detections of inorganic chemicals other than arsenic in 2021.

Water Quality Table 2021

Contaminant	*MCL*	*MCLG*	*Well 2*	*Well 3*	*Well 4N*	*Well 14*	*Well 16*	*Typical Source of Contamination*
Inorganic Chemicals								
Year Sampled - most recent five year data only			2019	2019	2019			
Arsenic - at source	10 ppb		ND	6 ppb	3 ppb			Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production waste.
Arsenic - distribution 2021	10 ppb	Wells 14 & 16 blended together - 2021 running Annual Avg.					7.2 ppb	Range of samples 2.0-9.7 parts per billion (ppb)
Year Sampled			2021	2021	2021	2018	2018	
No other inorganics detected								
Other	***MCL***	***MCLG***	***Well 2***	***Well 3***	***Well 4N***	***Well 14***	***Well 16***	
Year Sampled			2020	2021	2021	2016	2021	
Radionuclides (gross alpha)	15 pCi/L	0	12 pCi/L	< 3.0 pCi/L	< 3.0 pCi/L	0.05 pCi/L	< 3.0 pCi/L	Naturally occurring
Radium 228 pCi/L	5 pCi/L	<1.0	<1.0	<1.0	<1.0	1.4 pCi/L	<1.0	Naturally occurring
Radium 226 pCi/L	5 pCi/L	<1.0	<1.0					Naturally occurring
Bacteriological	***MCL***	***MCLG***						
Total Coliform (presence/absence)	TT	NA	1 unsatisfactory sample in January. Repeat sample satisfactory indicating possible sampling error.					Naturally occurring in the envioronment
Lead and Copper - 2020	**Action Level**	**MCLG**	**Result**					
Lead	15 ppb	0	0.001 ppb	Cumulative 90% avg. -sampled at customer's tap				Corrosive water and home plumbing
Copper	1.3 ppm	1.3 ppm	0.08 ppm	Cumulative 90% avg. -sampled at customer's tap				Corrosive water and home plumbing

Additional Arsenic Information: *Well 14, at the source, exceeds the limit of 10 parts per billion (ppb) set by EPA in February 2002. However, Well 16 and Well 14 are blended prior to the water being* delivered to the customer. The resultant blended water is in compliance with the arsenic limit. In November 2021 the water from wells 14 and 16 began treatment for arsenic removal.

Below is an arsenic educational statement from the State Department of Health as well as EPA language on possible health effects.

DOH Statement: Your drinking water currently meets EPA's revised drinking water standard for arsenic. However, it does contain low levels of arsenic. There is a small chance that some people who drink water containing low levels of arsenic for many years could develop circulatory disease, cancer, or other health problems. Most types of cancer and circulatory disease are due to factors other than exposure to arsenic. EPA's standard balances the current understanding of arsenic's health effects against the costs of removing arsenic from drinking water.

EPA Statement: Some people who drink water that contains arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

Health Effects: Coliform, bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful, waterborne pathogens may be present.

Copper: An essential nutrient, but some people who drink water that contains copper in excess of the action level over a relatively short time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.

Lead: Infants and children who drink water containing lead in excess of the action level could experience delays in their physical and mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Definitions and Notes

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs (see definition below) as feasible using the best available treatment technology.

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 allow for a margin of safety. MCLGs have not been established for many contaminants.

State Reporting Level (SRL): indicates the minimum reporting level required by DOH.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

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

Non Detect (ND): Result measured less than the detectable limit of the lab method.

Not Applicable (NA)

·**ppm** = parts per million ·**ppb** = parts per billion ·**pCi/L** = pico curie per liter