



**PORT ANGELES COMPOSITE
GALES ADDITION WATER DISTRICT
WATER-QUALITY REPORT FOR 2007
(DOH #432960)**

Dear Water Customer:

We're pleased to provide you with this year's Annual Water-Quality Report. We want to keep you informed about the excellent water and services you have been receiving over the past year. Our goal is and always has been, to provide to you a safe and dependable supply of drinking water. *Informed customers are our best allies in maintaining safe drinking water!*

We encourage public interest and participation in our community's decisions affecting drinking water. Regular meetings with the District's Board of Commissioners are held each Monday at our Port Angeles office (2431 Highway 101 East) at 1:30 p.m. The public is welcome. You may also learn more about PUD #1 of Clallam County by contacting our website at www.clallampud.net, or by calling 360-452-9771 or toll free at 1-800-542-7859.

WATER SYSTEM INFORMATION

Water Source: This system's primary water source is purchased water from the City of Port Angeles. The City's water source is groundwater from the Ranney Collector (well) located on the east bank of the Elwha River. Their DOH system identification number is 68550M.

Potable water produced by the City of Port Angeles is chlorinated and fluoridated to optimal levels at the source. For more information on chlorination and fluoridation, contact the Washington State Department of Health at www.doh.wa.gov or Center for Disease Control at www.cdc.gov.

The Ranney Collector has been classified as groundwater under the influence (GWI) of surface water. This designation requires the City to meet the requirements of the Surface Water Treatment Rule (SWTR). Regulatory compliance options available under the SWTR include filtration and complying with criteria to avoid filtration. The City and the Washington State Department of Health have negotiated an agreement that will effectively meet the filtration avoidance requirements by construction of a federally-funded municipal water treatment facility under the Elwha River Ecosystem and Fisheries Restoration Act. The City anticipates the water treatment facility will be in place by September 30, 2009. In the meantime, you will receive a quarterly notice produced by the City of Port Angeles regarding the SWTR (see back of page 5).

Water purchased from the City is rechlorinated and stored at the 525,000-gallon Gales Addition Reservoir. From this reservoir, potable water flows back to the eastern portion of Gales Addition, Morse Creek Canyon, Lower Monroe Road, and Mt. Pleasant Road areas. Under emergency conditions, water may also be diverted from the Morse Creek Treatment Plant to provide water to these areas.

The western portion of Gales Addition (west of Lees Creek) is provided water directly from a connection with the City's water main. If necessary, this area could also receive water from the Gales Addition Reservoir.

Also from the Gales Addition Reservoir, water is pumped to a 130,000-gallon reservoir for service to the Monroe Road / L.U.D. #2 area; and up to two 60,000-gallon reservoirs to serve the Mt. Angeles Road / L.U.D. #3 area.

Water-quality testing and monitoring of this water system is completed daily by certified District personnel. *We are pleased to report that the water provided by the District meets or exceeds established water-quality standards.*

Water-Quality Data Table Definitions:

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

Maximum Contaminant Level Goal or 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.

Maximum Residual Disinfectant Level or MRDL: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal or MRDLG: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

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

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

Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Water-Quality Data: Most of the contaminants that we sample for were not detected (ND). The Water-Quality Data Table shows only those contaminants that were detected. None of the contaminants detected were at high enough levels to be a violation of the Water Quality Standards. Most of the data presented in the Water-Quality Data Table is from testing completed in 2007, per State law. We monitor for some contaminants less than once per year, and for those contaminants, the date of the last sample is shown in the table. All monitoring results of regulated and unregulated contaminants are available at our Port Angeles office.

Key to the Water-Quality Data Table:

- AL = Action Level
- MCL = Maximum Contaminant Level
- MCLG = Maximum Contaminant Level Goal
- MFL = million fibers per liter
- mrem/year = millirems per year (a measure of radiation absorbed by the body)
- NTU = Nephelometric Turbidity Units
- NA / ND = Not Applicable / Not Detectable
- pCi/L = picocuries per liter (a measure of radioactivity)
- ppm = parts per million, or milligrams per liter (mg/l)
- ppb = parts per billion, or micrograms per liter (µg/l)
- ppt = parts per trillion, or nanograms per liter
- ppq = parts per quadrillion, or picograms per liter
- TT = Treatment Technique

Regulated Water-Quality Data Table:

Contaminant	Sample Date	Unit	MCL	MCLG	Detected Level	Range	Violation	Major Sources
CITY OF PORT ANGELES WATER SOURCE (GALES ADDITION / MONROE ROAD / MT. ANGELES ROAD AREAS):								
Disinfection Byproducts (DBPs)								
Total Trihalomethanes	8/2/07	ppb	80	NA	6.0	0-80	NO	By product of drinking water chlorination.
Halo-Acetic Acids [HAA5]	8/2/07	ppb	60	N/A	3.0	0-60	NO	By product of drinking water chlorination.
CITY OF PORT ANGELES WATER SOURCE (GALES ADDITION / MONROE ROAD / MT. ANGELES ROAD AREAS):								
Inorganic Contaminants Continued								
Lead (10 Samples)	9/20/06	ppb	AL=15	0	4	NA	NO	Corrosion of household plumbing systems; erosion of natural deposits.
Copper (10 Samples)	9/20/06	ppm	AL=1.3	1.3	0.91	NA	NO	Corrosion of household plumbing systems; erosion of natural deposits.

Contaminant	Sample Date	Unit	MCL	MCLG	Detected Level	Range	Violation	Major Sources
Fluoride (tested by City of Port Angeles)	Monthly	ppm	4	2	0.949 Average	NA	NO	Water additive which promotes strong teeth and is regulated by the State.

Water-Quality Table Footnotes:

Fluoride is a natural substance found in varying degrees in almost all water supplies. The City of Port Angeles started adding optimal levels of fluoride in May 2006 to promote healthy teeth.

If you have any health-related questions about fluoridated water, please call the Clallam County Health Department at (360) 417.2377, visit their website at www.clallam.net/HealthServices. We recommend that you notify your family dentist and physician that you are now provided optimum fluoride levels in your potable (drinking) water supply. This is especially important for infants (whose diet consist mostly of liquids, such as baby formulas or concentrated juices mixed with water) and the elderly.

Lead and Copper monitoring requirements have been reduced to 10 water samples every three years due to consistently lower detection levels since testing began in 1993. Samples are scheduled next for 2009.

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 materials and components associated with service lines and home plumbing. Clallam County PUD is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the EPA's Safe Drinking Water Hotline (1.800.426.4791) or at www.epa.gov/safewater/lead. Additional information on Lead and Copper in Drinking Water is also enclosed.

Other Test Results:

Chlorine Residual: Chlorine is used as a disinfectant in the water treatment process, and should be detectable in at least 95% of the samples taken each month. All of the samples taken for this water system showed a chlorine residual.

Total Coliform Bacteria: Zero Coliform Bacteria were detected in the monthly samples collected. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present.

Hardness: Calcium and Magnesium are naturally occurring minerals in groundwater. These minerals are measured to determine water hardness. Hardness interferes with the sudsing action of soap. According to the U.S. Geological Survey, the scale of hardness is: 0-55 mg/l = Soft; 55-100 mg/l = Slightly Hard; 100-200 mg/l = Moderately Hard; >200 = Very Hard. Hardness for this system (from sample taken in July 2006) showed 42.8 mg/l. Appliance manufacturers convert this number into Grains per Gallon by dividing it by 17.1 (e.g., 42.8 mg/l / 17.1 = 2.50 Grains per Gallon).

Additional Health Information: As mentioned before, the EPA regulates the amount of certain contaminants in the water that is provided by public water systems. However, FDA regulations were established to limit the contaminants in bottled water, which must provide the same protection for public health.

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 (1.800.426.4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves

naturally-occurring minerals and 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 include:

- (A) *Microbial contaminants*, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- (B) *Inorganic contaminants*, such as salts and metals, which can be naturally-occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- (C) *Pesticides and herbicides*, which may come from a variety of sources such as agriculture, stormwater runoff, and residential uses.
- (D) *Organic chemical contaminants*, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.
- (E) *Radioactive contaminants*, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Some people may be more vulnerable to contaminants in drinking water than is 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* are available from the EPA's Safe Drinking Water Hotline (1.800.426.4791).

Variations and Exemptions: Under a waiver granted in October 2005 through 2007 by the Washington State Department of Health, this water system is not required to monitor for synthetic organic chemicals (pesticides and herbicides). Previous background test results from DOH indicated that this substance does not occur in this water source. The EPA and DOH grant a variance or exemption only upon finding that the variance or exemption will not result in an unreasonable risk to health.

Water Use Efficiency Rule: The Washington State Legislature recently passed a Municipal Water Law, which directed the DOH to adopt a rule that establishes water use efficiency (WUE) requirements for all municipal water suppliers. Water use efficiency will help us conserve water for the environment and future generations. It will also enhance public health by improving water system efficiency and reliability.

A few primary elements of this rule include improving operational efficiency; evaluating and reporting water production and usage; and reducing water leaks both on the distribution side and the customer side of the water system. The table below lists production amounts vs. purchased/authorized usage and the percentage difference of the unaccounted-for or probable system leakage. The goal is to account for a minimum of 90% of water produced.

Distribution System Leakage Summary (in millions of gallons: 1 cubic foot = 7.48 gallons)	
Total Water Produced – Annual Volume	128
Total Water Purchased and Authorized Usage – Annual Volume	111
Distribution Unaccounted-for or System Leakage – Percent	13%

Together we can reduce the percentage to 10% or less, and save water in the process! Here are some tips to work towards this goal and to be more water efficient:

- If you see an odd wet spot in a normally dry area, call the PUD.
- Someone other than the Fire Dept. or PUD using a fire hydrant, call the PUD.
- Check for leaks on your side of the meter and monitor your water bill.
- Ask your local nursery about landscaping with native plants.
- For deep root and drought tolerance, water your plants deeply, but less often.

- Replace old water appliances with Energy Star appliances – get a PUD REBATE: www.clallampud.net.
- For more information, go to these web-sites: www.wateruseitwisely.com and www.h2ouse.org.

Abbreviated Terms Used in This Report (alphabetical order):

AIDS: Acquired Immune Deficiency Syndrome

FDA: Food and Drug Administration

CDC: Centers for Disease Control

HIV: Human Immuno-Deficiency Virus

DOH: (Washington State) Department of Health

MGD: Million Gallons per Day

EPA: Environmental Protection Agency

WUE: Water Use Efficiency

For more information or questions regarding this report, please call PUD #1 of Clallam County at 360.565.3254.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER QUARTERLY NOTICE

Dear PUD Water Customer:

You are receiving City of Port Angeles water that is purchased by Clallam County PUD from the City of Port Angeles.

The following "*Important Information About Your Drinking Water*", is a notice produced by the City and sent to all the City of Port Angeles customers. It will be sent to you on a quarterly basis until the required water treatment is provided by the City. The City anticipates being in compliance with all State water treatment requirements by September 30, 2009.

Please note that this is not a "boil water" notice.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER Our Water System Does Not Meet Treatment Requirements

The water you drink is provided by the City of Port Angeles water system. Test results indicate that our source contains organisms typically found in surface water (such as rivers, lakes and streams), but not in protected ground water sources. The state Department of Health re-designated our source, which is a well adjacent to the Elwha River that we refer to as the Elwha Pump Station. It is designated as a "groundwater under the direct influence of surface water" (GWI) source. The treatment currently provided does not meet all the current State requirements for GWI sources. Our water currently is treated in the following manner:

The primary disinfection injection point, using chlorine, is located at the Elwha Pump Station. Re-Chlorination Stations are located at our reservoirs to ensure that a minimum chlorine residual is maintained throughout the distribution system.

Disinfection alone does not always kill all disease-causing organisms, such as Giardia and other parasites. Filtration, in combination with disinfection, is an effective way to remove such parasites. We are required to have effective filtration and disinfection, but do not currently have this treatment.

What you should do:

- **You do not need to boil your water or take other corrective actions.** However, if you have specific health concerns, consult your doctor.
- Some people, including organ or bone marrow transplant recipients, those on chemotherapy, those with HIV/AIDS, some elderly, and infants may be at increased risk. These people should seek advice about drinking water from their health care providers. Guidelines on ways to lessen the risk of infection by microbes are available from the Environmental Protection Agency's Safe Drinking Water Hotline at 1.800.426.4791.

What this means to you:

- Inadequately treated water may contain disease-causing organisms such as bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and headaches. These symptoms, however, may also have other causes. If you experience any of these symptoms, and they persist, you may want to seek medical advice.
- This situation does not require that you take immediate action. If it did, you would have been notified immediately. We do not know of any cases of contamination or water-related illnesses and results of ongoing bacterial water quality tests do not indicate a problem occurring.

What the City of Port Angeles is doing:

- We are working with the Washington Department of Health to determine the appropriate steps to take to protect your health. Proposed treatment facilities are being designed by a Professional Engineer and the design documents have been submitted to the Department of Health for approval. We will provide information when available regarding proposed treatment options and corresponding cost estimates. The current estimated completion date for installation of a treatment plant is on or before September 30, 2009.

If other people, such as tenants, residents, patients, students, employees, or visitors receive water from you, it is important that you provide this notice to them by posting it in a conspicuous location or by direct hand or mail delivery. If you have any questions, contact your water system at 360.452.9771.

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