



### WATER QUESTIONS?

For information about your drinking water, please call Skagit PUD at (360) 424-7104. We welcome your comments and suggestions. We also invite you to attend Skagit PUD commission meetings. The commissioners hold open meetings every Tuesday of the month at 4:30 p.m. in our Aqua Room located at 1415 Freeway Drive, Mount Vernon. You may also visit our Web site at [www.SkagitPUD.org](http://www.SkagitPUD.org).

**Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.**

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ANNUAL

# WATER QUALITY REPORT

*water testing performed in 2008*

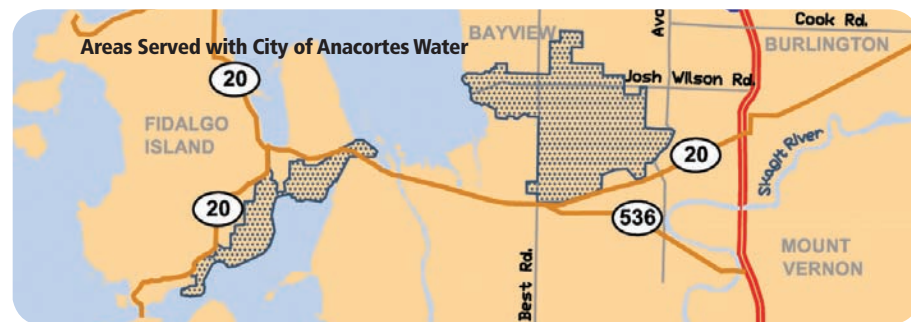


### Your water may be filtered by the city of Anacortes ...

For those living in or near **Country Club, Port of Skagit County, Bayview,** and the **Dewey Beach** and **Similk Beach** areas of Fidalgo Island, your drinking water is produced by the Anacortes water treatment plant, whose sole source of water is the Skagit River. The Anacortes water treatment plant also uses disinfection, coagulation, and filtration to treat water. The entire Anacortes treatment process is also professionally staffed and constantly monitored.

Please refer to the map to determine if you are supplied with Anacortes water.

We have included information about Anacortes water quality in this report for your review.



| Water Quality Monitoring Results For City of Anacortes Water |  |                       |   |                       |                          |           |
|--|--|-----------------------|---|-----------------------|--------------------------|-----------|
| Detected Compounds   | Source   | EPA Allowable Limits  |   | Fidalgo System Levels |                          |           |
|  |  | Ideal Level/Goal MCLG | Maximum Allowable MCL                         | Range                 | Average                  | Violation |
| <b>Water Treatment Plant Samples (After Treatment)</b>       |  |                       |   |                       |                          |           |
| Turbidity (Cloudiness)                                       | Soil erosion   | Not Applicable        | TT  | 0.02 – 0.15 NTU       | 0.03 NTUs                | No        |
| <b>System-Wide Distribution Samples</b>                      |  |                       |   |                       |                          |           |
| Chlorine   | Added as a drinking water disinfectant                 | 4 ppm (MRDLG)         | 4 ppm (MRDL)                                  | 0.41 – 0.88 ppm       | 0.50 ppm                 | No        |
| Total Coliform Bacteria                                      | Naturally present in environment                       | 0.0%                  | 5% Total Samples                              | None Detected         | None Detected            | No        |
| Total Trihalomethanes  | By-product of drinking water chlorination              | 0.0 ppb               | 80 ppb Average                                | 17.3 – 42.7 ppb       | 29.9 ppb                 | No        |
| Haloacetic Acids   | By-product of drinking water chlorination              | 0.0 ppb               | 60 ppb Average                                | 9.0 – 19.3 ppb        | 15.5 ppb                 | No        |
| Lead   | Corrosion of household and commercial plumbing systems | 0.0 ppb               | Allowable highest 90th percentile is 15 ppb   | 0.0 – 2.0 ppb         | 90th percentile 2.0 ppb  | No        |
| Copper   | Corrosion of household and commercial plumbing systems | 1.3 ppm               | Allowable highest 90th percentile is 1.30 ppm | 0.0 – 0.06 ppm        | 90th percentile 0.04 ppm | No        |

## Dear Skagit PUD Customer,

Skagit Public Utility District welcomes this opportunity to provide you with water quality information for 2008. We are committed to providing you the safest and most reliable drinking water possible. Included are details about where your water comes from, what it contains, and how it compares to state and federal standards. The Annual Water Quality Report is in accordance with U.S Environmental Protection Agency (EPA) and the Washington State Department of Health (DOH).

# Your Drinking Water

Judy Reservoir is your main source for safe and reliable drinking water



Judy Reservoir, located east of Clear Lake in an uninhabited area within the Cultus Mountain watershed, is the main source of drinking water for the cities of Burlington, Mount Vernon, and Sedro-Woolley. Completed in 1947, Judy Reservoir was named in honor of Skagit PUD's first manager L.B. Judy.

FOR THOSE LIVING IN OR NEAR Burlington, Mount Vernon, and Sedro-Woolley, your drinking water comes from Judy Reservoir, a 1.45 billion gallon reservoir located above the town of Clear Lake. Judy Reservoir is filled with water that has been diverted from four creeks in an uninhabited, nine square mile, forested area in the Cultus Mountain watershed. In 2009, water will also be pumped from the Skagit River to Judy Reservoir during critical periods or when the streams run low.

Water is pumped from Judy Reservoir to the adjacent water treatment plant, which was placed into service in 1990. The treatment

plant is staffed 24 hours per day, 365 days per year by certified water treatment plant operators who are continually trained in the water treatment profession.

The treatment process begins with primary disinfection using chlorine dioxide. Then, agents are added to cause small particles to combine into larger clusters that can be more easily settled and filtered from the water, a process called coagulation and flocculation. The water passes through filters of anthracite and sand, removing suspended particles and impurities. After leaving the treatment plant, the pH is adjusted and the water is disinfected using

chloramines. The levels of additives are monitored constantly to assure proper dosages are maintained.

The treatment plant was designed to produce about 18 million gallons of drinking water each day. Skagit PUD has recently expanded its capacity at the water treatment plant to 30 million gallons of water each day. This will satisfy the needs of our rapidly growing area. Treated water flows to the customers in the Skagit Valley by way of two major transmission pipelines that are part of the 600 miles of pipelines that serve PUD customers.

## Source Water Protection

To achieve improved protection of public water supply sources and the health of Washington's citizens, the Washington State Department of Health has developed the Source Water Assessment Program (SWAP).

The SWAP program evaluates

potential threats to the safety of our water supplies by assessing sources of contamination. The SWAP is designed to give you and your community more information about the source of your drinking water, and any threats to its long-term quality that we can identify

and address through a pollution prevention approach.

To learn more about the SWAP, contact the Washington State Department of Health at (360) 236-3149 or visit [www.doh.wa.gov/ehp/dw](http://www.doh.wa.gov/ehp/dw).

| Water Quality Monitoring Results For Judy Reservoir System  |   |                       |                       |                    |                |           |
|---|---|-----------------------|-----------------------|--------------------|----------------|-----------|
| Detected Compounds  | Source  | EPA Allowable Limits  |                       | Judy System Levels |                |           |
|   |   | Ideal Level/Goal MCLG | Maximum Allowable MCL | Range              | Average        | Violation |
| <b>Water Treatment Plant Samples (After Treatment)</b>  |   |                       |                       |                    |                |           |
| Turbidity (Cloudiness)  | Soil erosion                                    | Not Applicable        | TT                    | 0.02 – 0.04 NTU    | 0.03 NTUs      | No        |
| Total Chlorine  | Drinking water disinfectant added for treatment | 4 ppm MRDLG           | 4 ppm MRDL            | 0.83 – 1.84 ppm    | 1.67 ppm       | No        |
| Chlorite  | By-product of chlorine dioxide disinfection     | 0.8 ppm               | 1 ppm                 | 0.42 – 0.72 ppm    | 0.65 ppm       | No        |
| <b>System-Wide Distribution Samples</b>   |   |                       |                       |                    |                |           |
| Total Coliform Bacteria   | Naturally present in environment                | 0.0%                  | 5% Total Samples      | None Detected      | None Detected  | No        |
| Total Trihalomethanes   | By-product of drinking water chlorination       | 0.0 ppb               | 80 ppb Average        | 12.8 – 58.9 ppb    | 53.7 ppb       | No        |
| Haloacetic Acids  | By-product of drinking water chlorination       | 0.0 ppb               | 60 ppb Average        | 3.9 – 79.6 ppb     | 46.6 ppb       | No        |
| <b>Secondary Detected Compounds</b> (Substances that cause changes in water's cosmetic or aesthetic qualities: taste, color and odor) |   |                       |                       |                    |                |           |
| Sodium  | Naturally present in environment                | Not Applicable        | Not Applicable        | 8.5 ppm            | Not Applicable | No        |

## Water Quality Definitions

|                         |   |
|-------------------------|---|
| <b>Total Coliforms</b>  | A group of non-pathogenic bacteria used in testing water to indicate the presence of pathogenic bacteria. They are naturally present in the environment. If coliforms were found in more samples than allowed, it would be a warning of potential problems. |
| <b>Chloramines</b>      | Compounds used for disinfection; formed by the reaction of chlorine with ammonia. Chloramines extend the disinfecting power of chlorine and reduce the formation of trihalomethanes.  |
| <b>DBP</b>              | Disinfection By-Products. Compounds which are formed when water is treated with a disinfectant.   |
| <b>Haloacetic Acids</b> | A disinfection by-product from chlorinating water that contains natural organic matter.   |
| <b>Trihalomethanes</b>  | A disinfection by-product from chlorinating water that contains natural organic matter. The most common by-product is chloroform.   |
| <b>MCL</b>              | Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as feasible using the best available treatment technology.   |
| <b>MCLG</b>             | Maximum Contaminant Level Goal. 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.  |
| <b>MRDL</b>             | Maximum Residual Disinfectant Level. 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.  |
| <b>MRDLG</b>            | Maximum Residual Disinfectant Level Goal. The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the health benefits of the use of disinfectants to control microbial contaminants.     |
| <b>Turbidity</b>        | A measure of the cloudiness of water due to suspended particles.  |
| <b>NTU</b>              | Nephelometric Turbidity Units. A unit of measure for turbidity based on the amount of light that is reflected from the water.   |
| <b>ppm</b>              | Part per million. One part per million corresponds to one penny in \$10,000 or one minute in two years.   |
| <b>ppb</b>              | Part per billion. One part per billion corresponds to one penny in \$10,000,000 or one minute in 2000 years.  |
| <b>TT</b>               | Treatment Technique. A required process intended to reduce the level of a contaminant in drinking water.  |
| <b>AL</b>               | Action Level. The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement a water system must follow.  |



## SAFE DRINKING WATER:

### Understanding potential sources of contaminants

The sources of drinking water (both tap water and bottled water) include lakes, rivers, 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.

Contaminants in drinking water sources may include:

**Microbial contaminants**, such as viruses 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 storm water 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.

**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 storm water runoff, and septic systems.

**Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production, and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for 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

some 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 Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791) or at [www.epa.gov/safewater](http://www.epa.gov/safewater).



## Assessing your health risk

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as people with cancer undergoing chemotherapy, people 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 from their health care providers about drinking water.

Environmental Protection Agency/ Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).