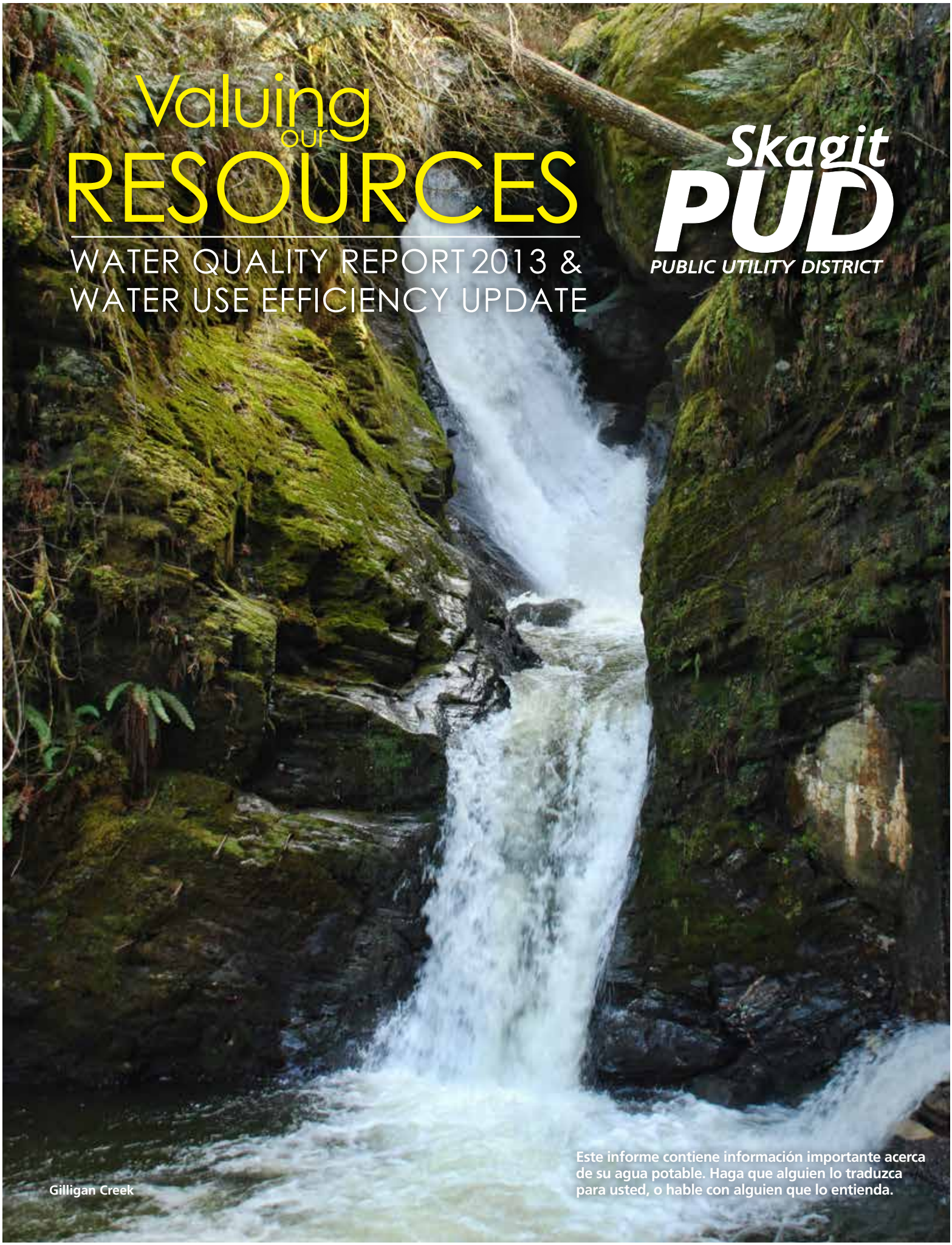
Valuing our RESOURCES

WATER QUALITY REPORT 2013 & WATER USE EFFICIENCY UPDATE

Skagit PUD
PUBLIC UTILITY DISTRICT



Gilligan Creek

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

Dear Skagit PUD Customer,

At Skagit PUD, we are committed to providing you the safest and most reliable drinking water possible. This report is a snapshot of the quality of water that we provided in 2013. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards.

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.

What's in your drinking water?

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.

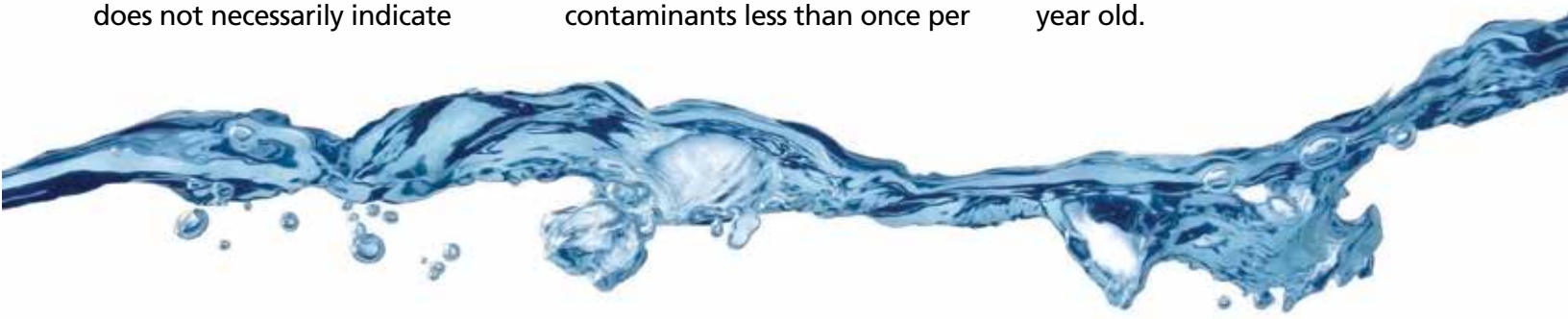
Assessing your health risk

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).

Water Quality Data

The Drinking Water Results tables included within this report list all the drinking water contaminants that we detected during the 2013 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in the tables are from testing done January 1 to December 31, 2013. The state requires us to 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. Some of the data, though representative of the water quality, is more than one year old.



[glossary: water quality definitions]

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

Haloacetic Acids. A disinfection by-product from chlorinating water that contains natural organic matter.

Maximum Contaminant Level (MCL). 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.

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.

Maximum Residual Disinfectant Level (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 (MRDLG). 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.

Not Applicable (n/a). Does not apply.

Not Detected (n/d). Indicates that the parameter was not detected above the Specified Reporting Limit.

Nephelometric Turbidity Units (NTU). A unit of measure for turbidity based on the amount of light that is reflected from the water.

Part per million (ppm). One part per million is equivalent to half of an aspirin tablet dissolved in a full bathtub of water (approximately 50 gallons).

Part per billion (ppb). One part per billion is equivalent to half of an aspirin tablet dissolved in 1,000 bathtubs of water (approximately 50,000 gallons).

Total Coliforms. 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.

Trihalomethanes. A disinfection by-product from chlorinating water that contains natural organic matter. The most common by-product is chloroform.

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

Turbidity. A measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

Judy Reservoir Public Water System: ID# 79500 E

For customers 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. Water is also pumped from the Skagit River to Judy Reservoir during critical periods or when the streams run low in order to protect fish habitat.

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

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 ensure proper dosages are maintained.

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.

2013 Drinking Water Results – Regulated Contaminants

Lead and Copper	AL	MCLG	Skagit PUD Water	Number of sites found above the Action Level			Typical Source of Contaminant
Lead (ppb) (2012)	15	0	2 (90th % Level)*	0 site out of 30 sites sampled			Corrosion of household plumbing
Copper (ppm) (2012)	1.3	1.3	0.07 (90th % Level)*	0 sites out of 30 sites sampled			Corrosion of household plumbing
Microbiological Contaminants	**MCL (MRDL)**	**MCLG (MRDLG)**	**Skagit PUD Water**	**Range of Detections**	**Sample Date**	**Violation**	**Typical Source of Contaminant**
Turbidity (NTU)	TT	n/a	0.03	0.02 - 0.05	2013	NO	Soil erosion
Total Coliform Bacteria	5% of Samples	0.0 Samples	0%	n/a	2013	NO	Naturally present in environment
Disinfection By-Products							
Trihalomethanes (ppb)	80	n/a	22.0	10.5 - 38.8	2013	NO	By-product of drinking water disinfection
Haloacetic Acids (ppb)	60	n/a	29.0	19.0 - 40.4	2013	NO	By-product of drinking water disinfection
Total Chlorine Residual (ppm)	4.0	4.0	1.04	0.08 - 1.69	2013	NO	Measure of disinfectant added to water
Chlorite (ppm)	1	0.8	0.43	0.11 - 0.49	2013	NO	By-product of drinking water disinfection
Inorganic Compounds							
Barium (ppm)	2	2	0.01	n/a	2011	NO	Erosion of natural deposits

**The 90th percentile level is the highest result obtained in 90% of the samples collected when the results are ranked in order from lowest to highest.*

Fidalgo Island Public Water System: ID# 00932Y

For those living in or near 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 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.

2013 Drinking Water Results – Regulated Contaminants

Lead and Copper	**AL**	**MCLG**	**Anacortes Water**	**Number of sites found above the Action Level**			**Typical Source of Contaminant**
Lead (ppb) (2011)	15	0	3 (90th % Level)*	0 sites out of 10 sites sampled			Corrosion of household plumbing
Copper (ppm) (2011)	1.3	1.3	0.09 (90th % Level)*	0 sites out of 10 sites sampled			Corrosion of household plumbing
Microbiological Contaminants	**MCL (MRDL)**	**MCLG (MRDLG)**	**Anacortes Water**	**Range of Detections**	**Sample Date**	**Violation**	**Typical Source of Contaminant**
Turbidity (NTU)	TT	n/a	0.02	0.01 - 0.03	2013	NO	Soil erosion
Total Coliform Bacteria	5% of	0.0 Samples	0% Samples	n/d	2013	NO	Naturally present in environment
Disinfection By-Products							
Trihalomethanes (ppb)	80	n/a	18.0	11.7 - 29.2	2013	NO	By-product of drinking water disinfection
Haloacetic Acids (ppb)	60	n/a	12.0	7.3 - 23.6	2013	NO	By-product of drinking water disinfection
Chlorine Residual (ppm)	4.0	4.0	0.73	0.34 - 0.87	2013	NO	Remaining chlorine from disinfection process
Inorganic Compounds							
Barium (ppm)	2	0	0.008	n/a	2012	NO	Erosion of natural deposits

**The 90th percentile level is the highest result obtained in 90% of the samples collected when the results are ranked in order from lowest to highest.*

Alger Public Water System: ID# 01400K

Source of Your Drinking Water

The District obtains water for Alger from an artesian well located east of Alger. This well draws water from an aquifer approximately 60 feet below the ground surface. The facility automatically pumps water out of the aquifer to a water storage tank located west of Interstate 5. Water then flows by gravity back to the community, based on water demands from the families that reside in Alger.

Chlorine as a Disinfectant

Chlorine is added on a continual basis to drinking water that is distributed to Alger. Although the taste and odor of this disinfectant is undesirable to some people, chlorine is added to eliminate harmful bacteria that may be found in water.

Chlorine is the best method of protection for water systems that are the size of Alger.

2013 Drinking Water Results – Regulated Contaminants

Lead and Copper	AL	MCLG	Alger Water	Number of sites found above the Action Level			Typical Source of Contaminant
Lead (ppb) (2012)	15	0	5 (90th % Level)*	0 sites out of 5 sites sampled			Corrosion of household plumbing
Copper (ppm) (2012)	1.3	1.3	0.38 (90th % Level)*	0 sites out of 5 sites sampled			Corrosion of household plumbing
Microbiological Contaminants	**MCL (MRDL)**	**MCLG (MRDLG)**	**Alger Water**	**Range of Detections**	**Sample Date**	**Violation**	**Typical Source of Contaminant**
Turbidity (NTU)	TT	n/a	0.12	n/a	2008	NO	Soil erosion
Total Coliform Bacteria	5% of Samples	0.0 Samples	0%	n/d	2013	NO	Naturally present in environment
Disinfection By-Products							
Trihalomethanes (ppb)	80	n/a	12.6	n/a	2012	NO	By-product of drinking water chlorination
Haloacetic Acids (ppb)	60	n/a	4.7	n/a	2012	NO	By-product of drinking water chlorination
Total Chlorine Residual (ppm)	4	4	0.13	0.03 - 0.29	2013	NO	Measure of disinfectant added to water
Inorganic Compounds							
Arsenic (ppb)	10	0	6	n/a	2008	NO	Erosion of natural deposits
Radionuclides							
Beta/photon (pCi/L)	50	0	2.1	n/a	2009	NO	Erosion of natural deposits

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Cedargrove Public Water System: ID# 119174

Source of Your Drinking Water

The District obtains water for Cedargrove from a well located south of the Cedargrove community. This well draws water from an aquifer approximately 180 feet below the ground surface. It was constructed as part of the Cedargrove Local Utility District, which developed the entire Cedargrove water system in the early 1990s. The facility automatically pumps water out of the aquifer to a water storage tank.

Chlorine as a Disinfectant

Chlorine is added on a continual basis to drinking water that is distributed to Cedargrove. Although the taste and odor of this disinfectant is undesirable to some people, chlorine is added to eliminate harmful bacteria that may be found in water.

Chlorine is the best method of protection for water systems that are the size of Cedargrove.

2013 Drinking Water Results – Regulated Contaminants

Lead and Copper	AL	MCLG	Cedargrove Water	Number of sites found above the Action Level			Typical Source of Contaminant
Lead (ppb) (2011)	15	0	2 (90th % Level)*	0 sites out of 5 sites sampled			Corrosion of household plumbing
Copper (ppm) (2011)	1.3	1.3	0.31 (90th % Level)*	0 sites out of 5 sites sampled			Corrosion of household plumbing
Microbiological Contaminants	**MCL (MRDL)**	**MCLG (MRDLG)**	**Cedargrove Water**	**Range of Detections**	**Sample Date**	**Violation**	**Typical Source of Contaminant**
Turbidity (NTU)	TT	n/a	n/d	n/a	2010	NO	Soil erosion
Total Coliform Bacteria	5% of Samples	0.0 Samples	0%	n/d	2013	NO	Naturally present in environment
Disinfection By-Products							
Trihalomethanes (ppb)	80	n/a	12.1	n/a	2011	NO	By-product of drinking water chlorination
Haloacetic Acids (ppb)	60	n/a	8.7	n/a	2011	NO	By-product of drinking water chlorination
Chlorine Residual (ppm)	4	4	0.44	0.24 - 0.61	2013	NO	Measure of disinfectant added to water
Inorganic Compounds							
Arsenic (ppb)	10	0	1	n/a	2010	NO	Erosion of natural deposits
Barium (ppm)	2	0	0.02	n/a	2010	NO	Erosion of natural deposits
Radionuclides							
Beta/photon (pCi/L)	50	0	2.4	n/a	2009	NO	Erosion of natural deposits
Radium 228 (pCi/L)	5	0	0.67	n/a	2009	NO	Erosion of natural deposits

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Marblemount Public Water System: ID# AA642

Source of Your Drinking Water

The District obtains water for Marblemount from an aquifer approximately 215 feet below the surface. The well facility automatically pumps water out of the aquifer at 150 gallons per minute to a water storage tank. Within the system, there are 1.9 miles of eight-inch water mains, and 64,000 gallons of distribution storage capacity.

2013 Drinking Water Results – Regulated Contaminants

Lead and Copper	AL	MCLG	Marblemount Water	Number of sites found above the Action Level			Typical Source of Contaminant
Lead (ppb) (2011)	15	0	3 (90th % Level)*	0 sites out of 5 sites sampled			Corrosion of household plumbing
Copper (ppm) (2011)	1.3	1.3	0.88 (90th % Level)*	0 sites out of 5 sites sampled			Corrosion of household plumbing
Microbiological Contaminants	**MCL (MRDL)**	**MCLG (MRDLG)**	**Marblemount Water**	**Range of Detections**	**Sample Date**	**Violation**	**Typical Source of Contaminant**
Turbidity (NTU)	TT	n/a	1.41	n/a	2008	NO	Soil erosion
Total Coliform Bacteria	5% of Samples	0.0 Samples	0%	n/d	2013	NO	Naturally present in environment

**The 90th percentile level is the highest result obtained in 90% of the samples collected when the results are ranked in order from lowest to highest.*

Mountain View Public Water System: ID# 03744Y

Source of Your Drinking Water

Skagit PUD obtains water for Mountain View residents from a well located within Mountain View. The water system is untreated and uses an ion exchange process for water softening. This well draws water from an aquifer approximately 382 feet below the ground surface. The Mountain View system is designed for a maximum of 16 connections, but has no storage at this time. The system can serve up to 14 connections before standby storage is required.

The District accepted the system in 1993 with the understanding that it would be incorporated into the Judy Reservoir system at some future date

2013 Drinking Water Results – Regulated Contaminants

Lead and Copper	AL	MCLG	Mtn. View Water	Number of sites found above the Action Level			Typical Source of Contaminant
Lead (ppb)	15	0	n/d (90th % Level)*	0 sites out of 10 sites sampled			Corrosion of household plumbing
Copper (ppm)	1.3	1.3	0.50 (90th % Level)*	0 sites out of 10 sites sampled			Corrosion of household plumbing
Microbiological Contaminants	**MCL (MRDL)**	**MCLG (MRDLG)**	**Mtn. View Water**	**Range of Detections**	**Sample Date**	**Violation**	**Typical Source of Contaminant**
Turbidity (NTU)	TT	n/a	0.20	n/a	2011	NO	Soil erosion
Total Coliform Bacteria	5% of Samples	0.0	0.0%	n/d	2013	YES**	Naturally present in environment
Inorganic Compounds							
Fluoride (ppm)	2	4	0.26	n/a	2010	NO	Erosion of natural deposits

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**Mountain View Water System is required to monitor its drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not the drinking water meets health standards. During the month of January 2013, the District did not monitor or test for coliform bacteria, and therefore cannot be sure of the quality of the drinking water during that time. The routine coliform sample required for the month of February 2013 was collected and found no presence of coliform bacteria.

Potlatch Public Water System: ID# 69034L

Source of Your Drinking Water

Drinking water that is supplied to Potlatch Beach residents has been filtered through reverse osmosis (RO) membranes. The source of water is seawater from the Bellingham Channel. This seawater is initially filtered through sand filters, followed by high-pressure filtration through the special membranes that remove salt (and other material) from the water. Finally, calcium and chlorine are added to ensure safe water to the community.

Chlorine as a Disinfectant

Chlorine is added on a continual basis to drinking water that is distributed to Potlatch. Although the taste and odor of this disinfectant is undesirable to some people, chlorine is added to eliminate harmful bacteria that may be found in water.

Chlorine is the best method of protection for water systems that are the size of Potlatch.

2013 Drinking Water Results – Regulated Contaminants

Lead and Copper	**AL**	**MCLG**	**Potlatch Water**	**Number of sites found above the Action Level**			**Typical Source of Contaminant**
Lead (ppb) (2011)	15	0	1 (90th % Level)*	0 sites out of 5 sites sampled.			Corrosion of household plumbing
Copper (ppm) (2011)	1.3	1.3	0.11 (90th % Level)*	0 sites out of 5 sites sampled.			Corrosion of household plumbing
Microbiological Contaminants	**MCL (MRDL)**	**MCLG (MRDLG)**	**Potlatch Water**	**Range of Detections**	**Sample Date**	**Violation**	**Typical Source of Contaminant**
Turbidity (NTU)	TT	n/a	2.78	n/a	2009	NO	Soil erosion
Total Coliform Bacteria	5% of Samples	0.0	0%	n/d	2013	NO	Naturally present in environment
Disinfection By-Products							
Trihalomethanes (ppb)	80	n/a	3.8	n/a	2011	NO	By-product of drinking water chlorination
Haloacetic Acids (ppb)	60	n/a	n/d	n/a	2011	NO	By-product of drinking water chlorination
Chlorine Residual (ppm)	4	4	0.46	0.08 - 1.11	2013	NO	Measure of disinfectant added to water
Inorganic Compounds							
Barium (ppm)	2	2	0.001	n/a	2009	NO	Erosion of natural deposits
Radionuclides							
Beta/photon (pCi/L)	50	0	2.59	n/a	2009	NO	Erosion of natural deposits

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Rockport Public Water System: ID# 736006

Source of Your Drinking Water

The District obtains water for Rockport from the existing well located within Rockport State Park. Water is pumped from a depth of nearly 350 feet below the ground surface to a concrete water tank northwest of the Rockport community. The water system was created by way of the Rockport Local Utility District, which was organized in the early 1990s.

Chlorine as a Disinfectant

Chlorine is added on a continual basis to drinking water that is distributed to Rockport. Although the taste and odor of this disinfectant is undesirable to some people, chlorine is added to eliminate harmful bacteria that may be found in water.

Chlorine is the best method of protection for water systems that are the size of Rockport.

2013 Drinking Water Results – Regulated Contaminants

Lead and Copper	**AL**	**MCLG**	**Rockport Water**	**Number of sites found above the Action Level**			**Typical Source of Contaminant**
Lead (ppb) (2011)	15	0	4 (90th % Level)*	0 sites out of 5 sites sampled			Corrosion of household plumbing
Copper (ppm) (2011)	1.3	1.3	0.04 (90th % Level)*	0 sites out of 5 sites sampled			Corrosion of household plumbing
Microbiological Contaminants	**MCL (MRDL)**	**MCLG (MRDLG)**	**Rockport Water**	**Range of Detections**	**Sample Date**	**Violation**	**Typical Source of Contaminant**
Turbidity (NTU)	TT	n/a	0.22	n/a	2010	NO	Soil erosion
Total Coliform Bacteria	5% of Samples	0.0	0%	n/d	2013	NO	Naturally present in environment
Inorganic Compounds							
Barium (ppm)	2	2	0.038	n/a	2010	NO	Erosion of natural deposits
Disinfection By-Products							
Trihalomethanes (ppb)	80	n/a	6.2	n/a	2011	NO	By-product of drinking water chlorination
Haloacetic Acids (ppb)	60	n/a	3.8	n/a	2011	NO	By-product of drinking water chlorination
Chlorine Residual (ppm)	4	4	0.61	0.32 - 0.88	2013	NO	Measure of disinfectant added to water
Radionuclides							
Radium 228 (pCi/L)	5	0	0.87	n/a	2009	NO	Erosion of natural deposits

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Skagit View Village Public Water System: ID# 96879 5

Source of Your Drinking Water

The District obtains water for Skagit View Village from a well located within Skagit View Village. This well draws water from an aquifer approximately 70 feet below the ground surface. This well was turned over to the District as part of the Skagit View Village Local Utility District.

Skagit PUD reconstructed much of the water system in 2005. A facility automatically pumps water out of the aquifer to a water tank located south of Skagit View Village. The water is then treated by an aeration process to adjust the pH, as described on the next page. A booster pump helps deliver the water to a storage tank. From here, water flows by gravity to the community, based on water demands from the homes in Skagit View Village.

Chlorine as a Disinfectant

Chlorine is added on a continual basis to drinking water that is distributed to Skagit View Village. Although the taste and odor of this disinfectant is undesirable to some people, chlorine is added to eliminate harmful bacteria that may be found in water. Chlorine is the best method of protection for water systems that are the size of Skagit View Village.

2013 Drinking Water Results – Regulated Contaminants

Lead and Copper	AL	MCLG	Skagit View Water	Number of sites found above the Action Level			Typical Source of Contaminant
Lead (ppb) (2012)	15	0	2 (90th % Level)*	0 sites out of 5 sites sampled			Corrosion of household plumbing
Copper (ppm) (2012)	1.3	1.3	0.96 (90th % Level)*	0 sites out of 5 sites sampled			Corrosion of household plumbing
Microbiological Contaminants	**MCL (MRDL)**	**MCLG (MRDLG)**	**Skagit View Water**	**Range of Detections**	**Sample Date**	**Violation**	**Typical Source of Contaminant**
Turbidity (NTU)	TT	n/a	0.25	n/a	2008	NO	Soil erosion
Total Coliform Bacteria	5% of Samples	0.0	0%	n/d	2013	NO	Naturally present in environment
Disinfection By-Products							
Trihalomethanes (ppb)	80	n/a	2.2	n/a	2011	NO	By-product of drinking water chlorination
Haloacetic Acids (ppb)	60	n/a	n/d	n/a	2011	NO	By-product of drinking water chlorination
Chlorine Residual (ppm)	4	4	0.49	0.23 - 0.79	2013	NO	Measure of disinfectant added to water
Radionuclides							
Beta/Photon Emitters (pCi/L)	50	0	5.2	n/a	2009	NO	Erosion of natural deposits
Alpha Emitters (pCi/L)	5	0	1.9	n/a	2009	NO	Erosion of natural deposits

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Health Effects of Copper

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of 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.

You Can Reduce Your Copper Exposure By Flushing

It is recommended that you let the water run before using it for cooking or drinking whenever the household water remains unused for more than six (6) hours. This would include the times when you first get up in the morning or when you come home from work. The longer the water sits in your household pipes, the more copper it may contain.

Flushing the faucet means running the cold-water faucet until the water feels a cold as it can get, or for a period of about one minute. Also, avoid cooking with or consuming water from hot water taps as hot water dissolves copper more readily than cold water does.

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.

WATER USE EFFICIENCY UPDATE

In 2008, Skagit PUD established measurable water-saving goals for the next six years for both the supply- and demand-side of our distribution system. The goals provide a benchmark for achievement and play a significant role in defining the success of the PUD's water use efficiency program. Our water use efficiency goals and the steps we are taking to meet those goals are as follows:

1. Reduce consumption per Equivalent Residential Units from 178 gallons per service per day to 175 gallons per service per day.

Billing data for 2013 indicates that our Equivalent Residential Units—water use for a typical single-family residence—was **151 gallons** per service per day, which is consistent with previous years.

Skagit PUD continues to focus its public education efforts on providing customers with simple water-saving ideas to use at their home or business.

In 2013, Skagit PUD's public outreach activities included staffed informational booths at local community events, festivals and employee fairs. Skagit PUD staff shared ideas on how to identify and stop common leaks, conserve water, and ways to use water more efficiently.

Skagit PUD sells low-cost indoor retrofit kits, which include one 1.5 GPM low-flow showerhead, plus a kitchen and bathroom aerator. The kits sell for $10 at our main office.

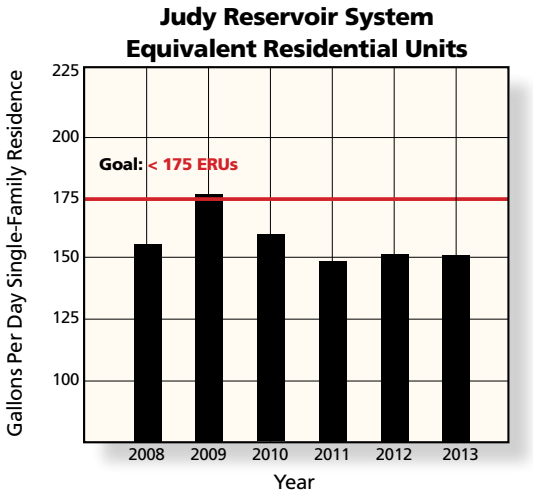
2. Reduce the summer peak flows from 1.7 times Average Daily Demand to 1.6 times Average Daily Demand.

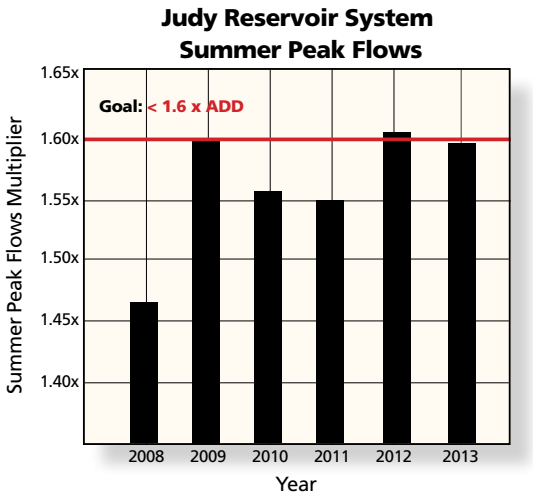
During summer months, about 30 percent of a family's household water use per day is devoted to outdoor purposes. More than half of that outdoor water is used for watering lawns and gardens.

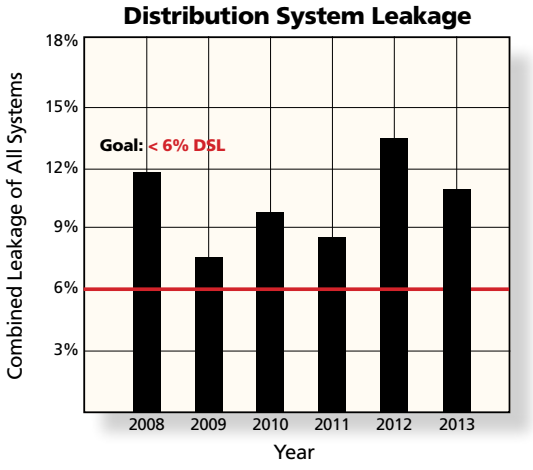
Skagit PUD's summer peak water flows for 2013 were **1.59 times the average daily demand** (ADD). ADD is defined as the average quantity, over a one-year period, of daily water usage in the water system. In 2013, ADD for the Judy Reservoir system was 8.1 million gallons per day (mgd). The summer peak flow was 12.89 mgd. The trend of the last several years, which has featured cool conditions in the late spring and early summer transitioning to warm conditions in the late summer and early autumn, continued in 2013.

In an effort to continue to reduce summer peak flows, Skagit PUD is focused on creating public awareness of the need to use water wisely. The PUD provides outdoor water-saving tips in our *Pipeline* newsletter. Skagit PUD offers customers a soil moisture meter, which promotes healthier lawns, gardens, shrubs and helps save water by eliminating improper watering. The meters accurately measure the moisture in the soil at the root level where it counts and let's you know if it's time to water or not.

Back in 2010, Skagit PUD first introduced its Rain Barrel Program to single family and commercial customers in order to create awareness and visibility around water use practices. As part of this continuing program, District staff conduct small group workshops that teach customers how to build, set-up and maintain their rain barrel. The act of collecting rainwater can be an inspiration to find other ways to conserve water around the home and at work.







3. Reduce distribution system leakage by one percent.

All water services in Skagit PUD's water systems are metered. The PUD tracks high use meters to check on accuracy and our meter technicians routinely replace service meters that show signs of inaccuracy or failure.

In 2013, the average water loss reported from distribution system leakage within Skagit PUD's main Judy Reservoir system was **10.9 percent.** This is a 19.3 percent reduction in distribution system loss over 2012. The explanation for the large decrease lies in the increased effort Skagit PUD has placed on tracking unbillable water use within the system, such as line flushing or fire hydrant use. In order to improve our measured water production rate accuracy, Skagit PUD plans to replace older production meters located at Judy Reservoir's water treatment plant.

Water System Performance 2013

Judy Reservoir Production	2,922,370/Kgals Produced
Judy Reservoir Billed	2,601,997/Kgals Billed
% Distribution System Leakage	10.9% DSL
Alger Production	9,572/Kgals Produced
Alger Billed	7,102/Kgals Billed
% Distribution System Leakage	7.6% DSL
Cedargrove Production	9,062/Kgals Produced
Cedargrove Billed	8,286/Kgals Billed
% Distribution System Leakage	3.2% DSL
Fidalgo Island Production	47,866/Kgals Produced
Fidalgo Island Billed	42,648/Kgals Billed
% Distribution System Leakage	7.5% DSL
Marblemount Production	2,902/Kgals Produced
Marblemount Billed	1,387/Kgals Billed
% Distribution System Leakage	4.3% DSL
Mountain View Production	1,542/Kgals Produced
Mountain View Billed	1,085/Kgals Billed
% Distribution System Leakage	27.7% DSL*
Potlatch Beach Production	557/Kgals Produced
Potlatch Beach Billed	547/Kgals Billed
% Distribution System Leakage	1.9% DSL
Rockport Production	3,479/Kgals Produced
Rockport Billed	3,073/Kgals Billed
% Distribution System Leakage	4.6% DSL
Skagit View Village Production	3,723/Kgals Produced
Skagit View Village Billed	3,373/Kgals Billed
% Distribution System Leakage	8.0% DSL

Numbers calculated in thousands of gallons.

The chart at the left reports each system's water production performance for 2013. All water that is not authorized consumption is considered distribution system leakage (DSL). Some examples of water use considered leakage include: water main breaks, theft, meter inaccuracies, meter reading errors, data collection and calculation errors.

* Mountain View Estates is an older system serving only 13 customers. The distribution line needs replacement. The District is seeking grant funding to incorporate this satellite well system into the Judy System.

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