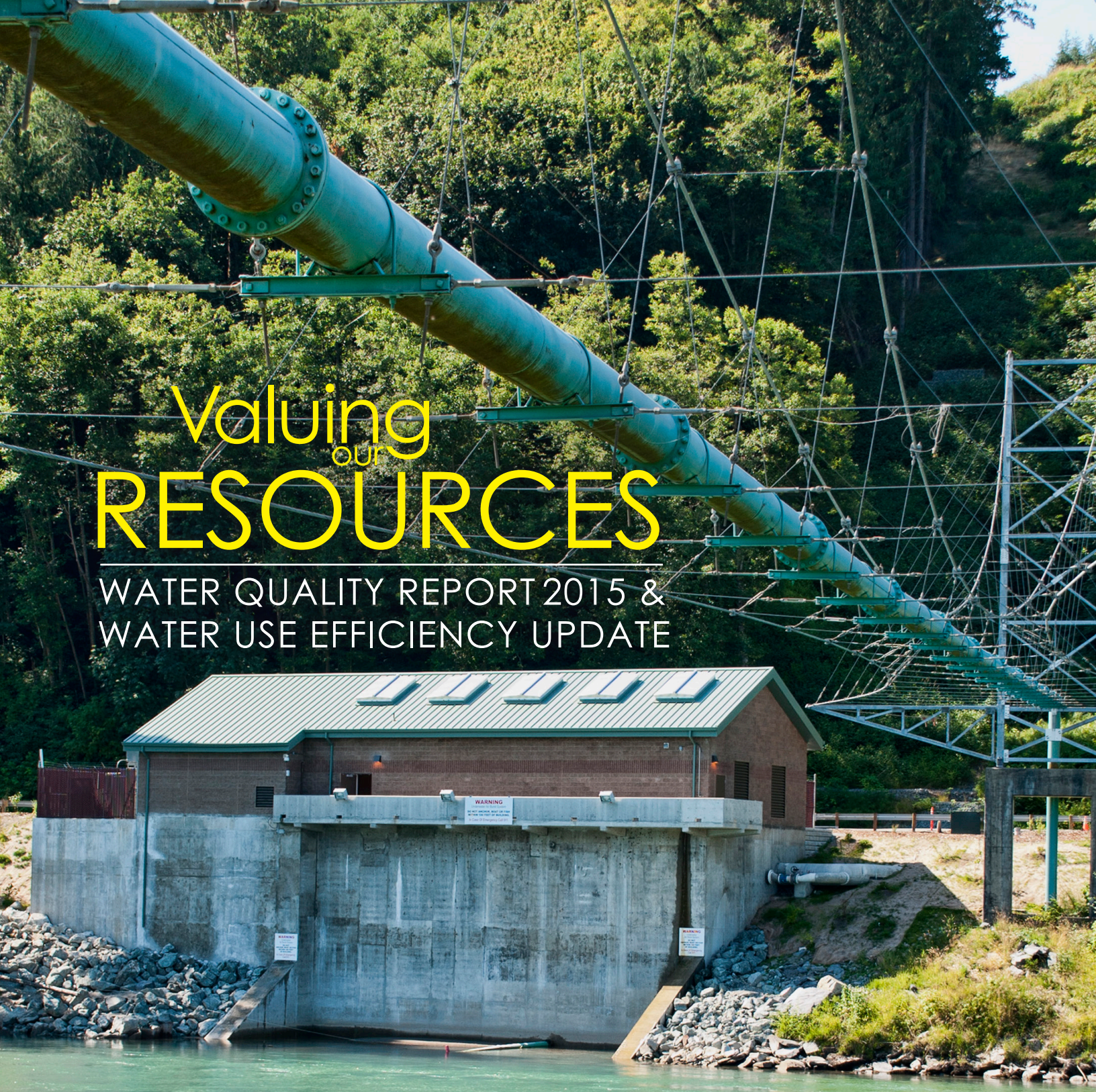


Valuing our RESOURCES

WATER QUALITY REPORT 2015 & WATER USE EFFICIENCY UPDATE

Skagit PUD
PUBLIC UTILITY DISTRICT

Skagit River Diversion Pump Station

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 2015. 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.

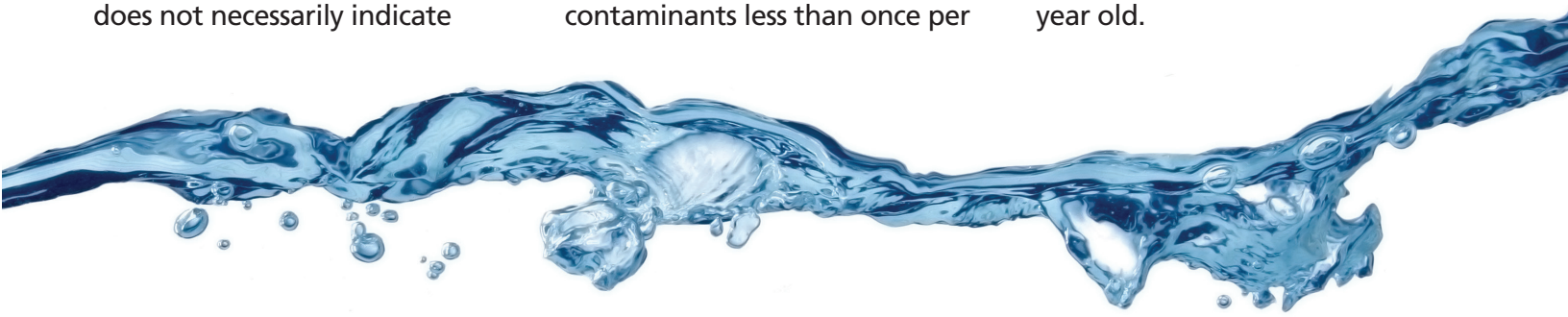
Assessing your health risk

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 2015 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, 2015. 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# 79500E

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 the Cultus Mountain watershed. Water is also pumped from the Skagit River to Judy Reservoir. 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, sand and gravel, removing suspended particles and impurities. After leaving the treatment plant, the pH is adjusted and the water is disinfected using chloramines.

2015 Drinking Water Results – Regulated & Unregulated Contaminants

Lead and Copper	AL	MCLG	Skagit PUD Water	Number of sites found above the Action Level			Typical Source of Contaminant
Lead (ppb)	15	0	2 (90th % Level)*	0 sites out of 30 sites sampled			Corrosion of household plumbing
Copper (ppm)	1.3	1.3	0.05 (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 - 0.08	2015	NO	Soil erosion
Total Coliform Bacteria	5% of Samples	0.0 Samples	0.0	0.0	2015	NO	Naturally present in environment
Disinfection By-Products							
Trihalomethanes (ppb)	80	n/a	32.7	15.9 - 47.2	2015	NO	Disinfection by-product
Haloacetic Acids (ppb)	60	n/a	26.5	13.2 - 48.0	2015	NO	Disinfection by-product
Total Chlorine Residual (ppm)	4.0	4.0	0.92	0.02 - 1.64	2015	NO	Measure of disinfectant added to water
Chlorite (ppm)	1	0.8	0.42	0.25 - 0.57	2015	NO	Disinfection by-product
Inorganic Contaminants							
Barium (ppm)	2	2	0.01	n/a	2011	NO	Erosion of natural deposits
Nitrate (ppm)	10	10	0.18	n/a	2015	NO	Erosion of natural deposits
Unregulated Contaminant Monitoring**							
Chlorate (ppb)	Not Established		118	113 - 128	2015	n/a	Disinfection by-product
Strontium (ppb)	Not Established		31	29.0 - 33.0	2015	n/a	Naturally occurring element
Hexavalent Chromium (ppb)	Not Established		0.14	0.121 - 0.170	2015	n/a	Disinfection by-product
Chromium (ppb)	Not Established		0.33	0.24 - 0.51	2015	n/a	Disinfection by-product

**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.*

***Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to help EPA determine their occurrence in drinking water and for potential need for future regulations.*

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.

2015 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)	15	0	1 (90th % Level)*	0 sites out of 5 sites sampled			Corrosion of household plumbing
Copper (ppm)	1.3	1.3	0.43 (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	1 Pos. Sample Month	0	0	n/a	2015	NO	Naturally present in environment
Disinfection By-Products							
Trihalomethanes (ppb)	80	n/a	12	n/a	2014	NO	By-product of drinking water chlorination
Haloacetic Acids (ppb)	60	n/a	2	n/a	2014	NO	By-product of drinking water chlorination
Total Chlorine Residual (ppm)	4	4	0.38	0.04 - 0.65	2015	NO	Measure of disinfectant added to water
Inorganic Contaminants							
Arsenic (ppb)	10	0	6	n/a	2015	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.*

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.

2015 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) (2014)	15	0	3 (90th % Level)*	0 sites out of 5 sites sampled			Corrosion of household plumbing
Copper (ppm) (2014)	1.3	1.3	0.42 (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	1 Pos. Sample/ Month	0	0	n/a	2015	NO	Naturally present in environment
Disinfection By-Products							
Trihalomethanes (ppb)	80	n/a	14	n/a	2014	NO	By-product of drinking water chlorination
Haloacetic Acids (ppb)	60	n/a	9	n/a	2014	NO	By-product of drinking water chlorination
Chlorine Residual (ppm)	4	4	0.61	0.34 - 1.06	2015	NO	Measure of disinfectant added to water
Inorganic Contaminants							
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
Nitrate (ppm)	10	10	3.0	n/a	2015	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.*

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.

2015 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) (2014)	15	0	2 (90th % Level)*	0 sites out of 5 sites sampled			Corrosion of household plumbing
Copper (ppm) (2014)	1.3	1.3	0.24 (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**
Total Coliform Bacteria	1 Positive Sample/	0	0	n/a	2015	NO	Naturally present in environment
Inorganic Compounds							
Nitrate (ppm)	10	10	1.0	n/a	2015	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.*

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

2015 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) (2013)	15	0	n/d (90th % Level)*	0 sites out of 10 sites sampled			Corrosion of household plumbing
Copper (ppm) (2013)	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	1 Pos. Sample Month	0	0	n/a	2015	NO	Naturally present in environment
Inorganic Contaminants							
Fluoride (ppm)	2	4	0.26	n/a	2010	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.*

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.

2015 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) (2014)	15	0	2 (90th % Level)*	0 sites out of 5 sites sampled.			Corrosion of household plumbing
Copper (ppm) (2014)	1.3	1.3	0.03 (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**
Total Coliform Bacteria	1 Pos. Sample Month	0	0	n/a	2015	NO	Naturally present in environment
Disinfection By-Products							
Trihalomethanes (ppb)	80	n/a	6	n/a	2014	NO	By-product of drinking water chlorination
Haloacetic Acids (ppb)	60	n/a	2	n/a	2014	NO	By-product of drinking water chlorination
Chlorine Residual (ppm)	4	4	0.52	0.33 - 0.72	2015	NO	Measure of disinfectant added to water

**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.*

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.

2015 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) (2014)	15	0	4 (90th % Level)*	0 sites out of 5 sites sampled			Corrosion of household plumbing
Copper (ppm) (2014)	1.3	1.3	0.62 (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	1 Pos. Sample/ Month	0	0	n/a	2015	NO	Naturally present in environment
Inorganic Contaminants							
Barium (ppm)	2	2	0.038	n/a	2010	NO	Erosion of natural deposits
Disinfection By-Products							
Trihalomethanes (ppb)	80	n/a	3	n/a	2014	NO	By-product of drinking water chlorination
Haloacetic Acids (ppb)	60	n/a	3	n/a	2014	NO	By-product of drinking water chlorination
Chlorine Residual (ppm)	4	4	0.48	0.05 - 0.84	2015	NO	Measure of disinfectant added to water

**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.*

Skagit View Village Public Water System: ID# 968795

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.

2015 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)	15	0	1 (90th % Level)*	0 sites out of 5 sites sampled			Corrosion of household plumbing
Copper (ppm)	1.3	1.3	1.01 (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**
Total Coliform Bacteria	1 Pos. Sample/ Month	0	0	n/a	2015	NO	Naturally present in environment
Disinfection By-Products							
Trihalomethanes (ppb)	80	n/a	1	n/a	2014	NO	By-product of drinking water chlorination
Haloacetic Acids (ppb)	60	n/a	n/d	n/a	2014	NO	By-product of drinking water chlorination
Chlorine Residual (ppm)	4	4	0.80	0.30 - 1.24	2015	NO	Measure of disinfectant added to water
Inorganic Contaminants							
Nitrate (ppm)	10	10	7	0.63 - 7.0	2015	NO	Runoff from fertilizer use; leaching from septic tank sewage; 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.

2015 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)	15	0	3 (90th % Level)*	0 sites out of 10 sites sampled			Corrosion of household plumbing
Copper (ppm)	1.3	1.3	0.114 (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	2015	NO	Soil erosion
Total Coliform Bacteria	5% of	0.0 Samples	1** Sample	n/a	2015	NO	Naturally present in environment
Disinfection By-Products							
Trihalomethanes (ppb)	80	n/a	23.8	18.4 - 32.6	2015	NO	By-product of drinking water disinfection
Haloacetic Acids (ppb)	60	n/a	9.4	6.5 - 15.2	2015	NO	By-product of drinking water disinfection
Chlorine Residual (ppm)	4.0	4.0	0.77	0.05 - 0.93	2015	NO	Remaining chlorine from disinfection process

**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.*

*** One unsatisfactory coliform bacteria sample was taken on July 7, 2015. Five repeat samples were all satisfactory. Four samples taken the following month were satisfactory.*

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.

Potential Health Effects of Lead

The greatest risk of lead exposure is to infants, young children, and pregnant women. Lead can cause serious health problems if too much enters the body. Lead is stored in the bones and can be released later in life. Lead can cause damage to the brain and kidneys, interfere with production of red blood cells that carry oxygen, and may result in lowered IQ in children. During pregnancy, the child receives lead from the mother's bones, which may affect brain development. Low levels of lead can affect adults with high blood pressure or kidney problems.

How You Can Reduce Lead Exposure?

- When your water has been sitting for several hours, flush the pipe by running the cold-water tap until the water is noticeably colder before using the water for drinking or cooking. **(The longer water has been sitting in the pipes, the more dissolved metals it may contain.)**

- Use only cold water for drinking, cooking, and making baby formula. Hot water may contain higher levels of lead or copper.

- Frequently clean the filter screens and aerators in faucets to remove captured particles.

- If building or remodeling, only use "lead free" or low lead piping and materials. Avoid using copper piping or brass fixtures for locations where water will be consumed or used in food preparation (such as kitchen or bathroom sinks).

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.

Mundt Creek

WATER USE EFFICIENCY UPDATE

In January 2008, Skagit PUD established measurable water saving goals for the six-year period from 2008 through 2013 for both the supply- and demand-side of the PUD's distribution system. These goals were established through a public process as required by the Municipal Water Law. The goals provide a benchmark for achievement and play a significant role in defining the success of Skagit PUD's Water Use Efficiency Program. The PUD re-established its six-year WUE goals in 2013 for the six-year period from 2014 through 2019. Our water use efficiency goals and the steps we are taking to meet those goals are as follows:

Measures

Skagit PUD's conservation program for 2014–2019 consists of the 10 measures. All measures will be implemented during Years 1-6 of the plan. The program reflects a continuation and/or enhancement of many of the measures in the 2008–2013 program.

2014–2019 Water Use Efficiency Measures

- Public Outreach
- Indoor Retrofit Kits
- Shower Timers
- School Outreach
- Toilet Leak Kits
- Soil Moisture Meters
- Rain Barrel Program
- System Leak Detection & Repair
- Bill Showing Consumption History
- Large Meter Testing

Goals

1. Save a cumulative total of 6 million gallons of water by 2019.

For 2015, Skagit PUD's goal for estimated cumulative water savings through the WUE program was 572,040 gallons. **Skagit PUD achieved an estimated 590,540 gallons saved.**

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

In 2015, 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.

Over the years, Skagit PUD has offered school groups tours of Judy Reservoir and the water treatment plant. In 2012, Skagit PUD began piloting to elementary classrooms a new program called *The Story of Drinking Water*—an exploration of water's role in our environment and society, with an emphasis on the importance of good water stewardship practices. In 2015, Skagit PUD hosted over 540 students and parents on field trips to Judy Reservoir.

Hardware measures provide the most quantifiable method for calculating potential water savings as compared to behavioral measures. As a result, 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 $11 at our main office. In 2015, Skagit PUD distributed 25 retrofit kits with an estimated water savings of 265,020 gallons.

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. In 2015, Skagit PUD placed 100 rain barrels into the community with an estimated water savings of 60,500 gallons. Although the total is not a huge water savings compared to other hardware measures, the act of collecting rainwater can be an inspiration to find other ways to conserve water around the home and at work.

Skagit PUD continues to focus on creating public awareness of the need to use water wisely. The PUD provides outdoor water-saving tips in our *Pipeline* newsletter. In 2015, Skagit PUD offered 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.

2. Reduce distribution system leakage to 10 percent or less of total water produced per year.

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 2015, the average water loss reported from distribution system leakage for all systems operated by Skagit PUD was **6.6 percent.** DSL for the Judy Reservoir system continues to decrease, down from 10.9 percent in 2013, to 9.7 percent DSL in 2015.

We believe the explanation for the decrease lies in the increased effort staff have placed on tracking unbillable water use within the system, such as line flushing or fire hydrant use.

Water System Performance 2015

Judy Reservoir Production	3,033,898/Kgals Produced
Judy Reservoir Billed	2,698,325/Kgals Billed
% Distribution System Leakage	9.7% DSL
Alger Production	12,134/Kgals Produced
Alger Billed	8,238/Kgals Billed
% Distribution System Leakage	7.9% DSL
Cedargrove Production	9,727/Kgals Produced
Cedargrove Billed	9,307/Kgals Billed
% Distribution System Leakage	0.2% DSL
Fidalgo Island Production	54,190/Kgals Produced
Fidalgo Island Billed	45,319/Kgals Billed
% Distribution System Leakage	13.6% DSL
Marblemount Production	4,576/Kgals Produced
Marblemount Billed	1,264/Kgals Billed
% Distribution System Leakage	7.7% DSL
Mountain View Production	1,184/Kgals Produced
Mountain View Billed	1,165/Kgals Billed
% Distribution System Leakage	0.6% DSL
Potlatch Beach Production	641/Kgals Produced
Potlatch Beach Billed	609/Kgals Billed
% Distribution System Leakage	3.4% DSL
Rockport Production	3,908/Kgals Produced
Rockport Billed	3,275/Kgals Billed
% Distribution System Leakage	5.1% DSL
Skagit View Village Production	3,991/Kgals Produced
Skagit View Village Billed	3,704/Kgals Billed
% Distribution System Leakage	3.0% DSL

Numbers calculated in thousands of gallons.

The chart at the left reports each system's water production performance for 2015. 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.

The DSL calculation also takes into account water that is produced but not billable, for example: backwash, customer leak adjustments, estimated fire suppression usage, estimated project line flushing, etc.

The total average DSL in 2015 for all systems is 6.6 percent. The DSL standard set by the state is 10 percent or less for the last three-year average.

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