



2021

Lakewood Water District
Annual Water Quality & Business Report

Our Water
Our Community
Our Future



Focusing ON TOMORROW,
TODAY



Dear Lakewood Water District Customers

We would like to welcome you to our 2021 Annual Report. In doing so, we look forward to coming out of the last two years stronger than ever. Let us introduce you to our theme for this year, **"Focusing on Tomorrow, Today."** The key word here is *Focusing*. Your Water District with our heightened awareness and adaptation to the recent pandemic has developed a keen focus on our operations to deliver the best service and quality water to you, our customers, today and for our future.

Our theme represents our goals and objectives for the year and includes our *Capital Improvement and Replacement and Rehabilitation* programs. It includes our ongoing programs for monitoring and testing water quality that continues to provide you with high quality, safe, reliable drinking water, the best water around, in our opinion, and at the lowest rates practicably possible.

We are a 78-year-old Water District, and with that we have an aging infrastructure system that includes tanks, wells, pumping facilities, and treatment facilities. Our *Focus on Tomorrow* includes an acceptable and adopted plan for replacements, as needed, when needed, and includes a formal plan to pay it forward. A plan to keep our District fiscally and financially strong, remaining in line with our financial policies.

We are coming into 2022 healthy, strong, and focused on working for you and our community and to continue earning your trust in services and water quality.

Sincerely,

Your Lakewood Water District Commissioners



(Left to right) **John Korsmo**, President, **Greg Rediske**, Vice President, and **Gary Barton**, Secretary



Your Lakewood Water District Team Serving You

(In order from left to right, top to bottom). **Randy, Jeri-Lynn, Briana, Christian, Shaun, Teri, Amber, Debbie, Doreen, Luke, Megan, Philip, Michelle, Carrie, Marshall, Kevin, Ian, Bobby, Bob, Chris B., Chris R., Clark, Eric, Jordan, Kyle, Payton, Rod, Sam, Sandy, Tyler, Don, Brent, Jacob, Lucas, Ryan, Zac**

Lakewood Water District Projects



Installing Concrete at the Steilacoom Boulevard Tank Seismic Retrofit Project



GAC Filter Vessels for Scotts Well Treatment Project



Installing Well Casing at R-2 Well



Steilacoom Boulevard Tank Seismic Retrofit Project



General Water Main Repairs



Scotts Wellfield Treatment Project

PROJECTS COMPLETED IN 2021

- 108th Avenue Water Main Crossing
- 39th Avenue Water Main Phase 2 from Steilacoom Boulevard to 96th
- 39th Avenue Water Main Phase 3 from 96th to 108th
- Gravelly Lake Drive Water Main from Nyanza to Washington Boulevard
- View Road N-3 Well
- View Road Treatment Plant Upgrades
- Washington Boulevard Tank Recoating

PROJECTS PLANNED FOR 2023

- Drill 2 New Wells
- Front Street Water Main from 92nd to 96th
- Hipkins Road Water Main
- Lake Steilacoom Drive Water Main Phase 2
- Phase 2 Water Main of North Fort Roadway improvements Washington from North Gate to Interlaaken
- Seismic Retrofits at 104th and Bridgeport Tank
- Seismic Retrofits at Washington Boulevard Tank
- Spanaway Connection to Wholesale Transmission Main

PROJECTS IN PROGRESS FOR 2022

- 112th Street Water Main Pacific Highway to South Tacoma Way
- 39th Avenue Phase 4 Water Main
- Advanced Earthquake Early Warning Sensors at Two Critical Sites
- Emergency Generators and Seismic Improvements at Critical Well and Pump Station Sites (starting in 2022; to be completed in 2023)*
- Evaluation of Wells at Abitibi Mill Site
- LWD Steel Building Project
- Naomi Lawn Water Main, New Grove, and Highland
- North Fort Roadway Improvements Water Main, Washington Boulevard to Interlaaken (Late 2022/ Early 2023)
- Pump Station Reliability Improvements at 88th Street and Pine Street
- R-2 Well at 112th Street
- Rehabilitate and Expand Capacity of F-2 Well at 104th Street and Bridgeport Way
- Rehabilitate and Expand Capacity of P-2 Well at Steilacoom Boulevard
- Rehabilitate and Expand Capacity of S-2 Well at Angle Lane
- Rehabilitate P-1R Well at Steilacoom Boulevard
- Scotts Well Site Treatment Facilities and G-3 Well and treatment*
- Steilacoom Boulevard Tank Seismic Retrofits*
- Spanaway connection to Wholesale Transmission
- Main Study of Aquifer E

*Projects with grant funding



Cyber Security

Lakewood Water District takes Cyber Security and the protection of both our water system and our customer's data very seriously. Over the last four years, we have made many improvements to our Cyber Security infrastructure and policies to protect our water system and our customer data.

District Staff receive mandatory Cyber Security training and are regularly tested on their ability to detect malicious emails and identify potential malware. Additionally, District staff participate in training and exercises to increase their Cyber Security knowledge and help other local entities do the same.

Over the coming months and years, the District will continue to look for ways to improve its Cyber Security posture and meet or exceed all statutory and best practice Cyber Security requirements. This will include continued review, testing, and refining of current policies and procedures, compliance with any new statutory requirements, and continued education of District Staff.

Lead and Copper Rule Discussion

In December 2020, the EPA updated the Lead and Copper Rule for the first time since 1991. These updates are meant to strengthen regulations and further reduce the potential exposure of the public to lead. Lead enters water primarily through contact with a lead pipe, solder, or fittings often found within the home rather than the public water system. These materials were very common in older homes or communities and have generally been phased out of construction materials over time. The District is fortunate in that the majority of the water system was installed after lead piping and lead service lines were common.

In addition, our water sources have a neutral pH (not acidic), which helps prevent the leaching of metals in piping and plumbing, including lead. As a result, we've historically had only low- or no-detection of lead and copper in our water samples. To continue providing safe, reliable drinking water in the coming months and years, the District will be partnering with local schools and the community to increase water sampling and develop a program to identify and replace any lead service lines in the water system. More information on this subject can be found on the District's website www.lakewoodwater.org.



PFAS Discussion

PFAS are a group of human-made chemicals that have the potential to adversely affect human health and the environment. PFAS has been manufactured and used in the US and worldwide since the 1950s in food packaging, non-stick cookware, and firefighting foam. In 2016, the District first detected PFAS in some groundwater wells after being notified of potential contamination from firefighting foams used at JBLM. Since then, the District has tested each of its active groundwater wells for PFAS compounds at least annually and monthly in many cases. The District continues to provide water quality that meets and exceeds the latest regulations related to PFAS in drinking water through a combination of installing new treatment facilities and turning off wells that exceed levels identified by the State. More information about PFAS and how we are addressing it can be found on our website www.lakewoodwater.org.

Another Clean Audit... now 26 Years and Counting

The State Auditor's Office (SAO) completed its annual audit of the District's accounts and records and again awarded the District a clean report. The SAO's official Accountability Audit and Financial Statement Audit Reports again noted no deficiencies and, again, complimented the District on its strong financial policies, precise accounting internal controls, and competent and cooperative staff.

For more information on our audit history, please consult our website at www.lakewoodwater.org.



(Above from left to right) Philip, Michelle and Carrie taking the best care of the District's financial affairs.

Lakewood Water District Balance Sheet Year Ended December 31, 2021

Unaudited

Assets	(\$) Dollar amounts
Cash and Investments	16,046,968
Other Current Assets	2,742,349
Total Current Assets	18,789,317
Total Net Utility Plant	124,683,801
Deferred Outflows	463,649
TOTAL ASSETS	146,480,065
Liabilities	
Current Liabilities	4,456,213
Bonds Payable	59,005,060
Net Investment in Capital Assets	71,134,686
Deferred Inflows	2,677,126
TOTAL LIABILITIES & EQUITY	146,480,065

The Source of Your Water

The District's sole source of water is from underground aquifers-water-bearing strata of permeable rock, sand, or gravel. No surface water, desalinated water, or recycled water is used. The District has a total of 29 active wells which together provide a maximum production capacity of 37 million gallons per day (mgd), with a total water right capacity to pump up to over 60 mgd.

The District's wells are in four aquifers-A, C, E, and G-with A being the shallowest and G being the deepest. Aquifers are generally of glacial origin and tend to be coarse grained and highly permeable. There are three layers of soil that prevent water from passing between the aquifers, called Aquitards, between the four aquifers. Aquitards are strata of finer-grained and less-permeable layers and usually of interglacial origin. The District's Aquitards are made up of sediments deposited by the ancestral Nisqually and Puyallup rivers. Historical sedimentation is not unlike the alluvium presently being deposited by these rivers today.

Recharge (replenishing) of the aquifers comes from local rainfall in the Clover/Chambers drainage basin. The District's deepest aquifers-E and G-will most likely receive some additional, deep underflow recharge from the south Puyallup/Graham area westward to the Puget Sound, including snowpack from Mt. Rainier.



Ryan records stream data

Water Use Efficiency Rule (WUE):

The District is compliant with all facets of the Water Use Efficiency Rule, we have set a new goal for the next 6 years. This emphasizes responsible use and economic incentives to reduce uses that don't provide benefits to the user or the community. The District's lost water for last year was 7.2 percent with a three-year average of 8.5 percent, all well below the State's requirement of 10 percent. This speaks to the value of the R&R Program, the Leak Detection Program, and the long-term success of the new meters and the AMI System. LWD is pleased to have shown such a significant reduction in this unaccounted for water (as high as 15 percent a number of years ago), and to have successfully maintained this reduction over this significant period of time.

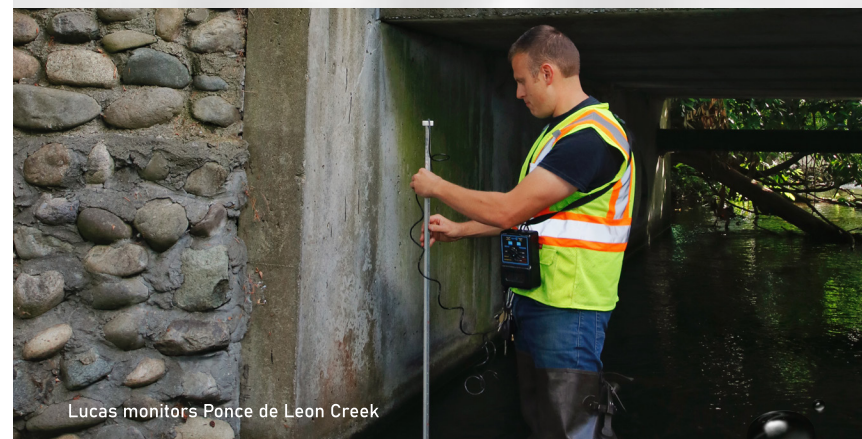
For Your Health

IMPORTANT INFORMATION FROM THE ENVIRONMENTAL PROTECTION AGENCY (EPA)

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 the water poses a health risk.

Some may be more vulnerable to contaminants in drinking water than the general population. The following can be particularly at risk of infection: **the immuno-compromised**, such as those with cancer undergoing chemotherapy; **those having had organ transplants**, HIV/AIDS, or other immune system disorders; and **some elderly and infants**. These should seek advice about drinking water from their healthcare providers.

More information about contaminants, potential health effects, and EPA/CDC guidelines on appropriate means to lessen the risk for infections by cryptosporidium and microbial contaminants is available from the **Safe Drinking Water Hotline at 1.800.426.4791**.



Lucas monitors Ponce de Leon Creek

Monitoring Our Lakes and Streams

We consistently keep an eye on the levels of select lakes and streams in our service area.

The lake levels are indicators of the water table level in the Steilacoom Gravel, deposited by the receding Vashon Glacier. Water in the gravel also leaks through the Vashon till or springs out above the till, adding to the flows of the area's major springs such as Ponce de Leon, Chambers, Garrison, and Sequelichew. The District collects monthly data from gauges on Ponce de Leon and on five lakes (American, Gravelly, Hidden, Louise, and Waughop). This information, together with the data collected from the Pierce County Stream Team, is vital to the District's Aquifer Management Program as well as the Tacoma-Pierce County Health Department's long-term groundwater monitoring program.

2021 Water Quality Sampling/Monitoring Report

Your water meets all federal, state, and local quality standards, ensuring that you enjoy safe, clean, potable water. Not listed are 63 volatile organic chemicals for which we tested, all resulting in either Not Detected (ND) or well below the Maximum Contaminant Level (MCL). The number and frequency of non-bacteriological samples are determined by the Water Quality Monitoring Schedule (WQMS) issued by the Washington State Department of Health (DOH).

Sample Type	Samples Taken Per Year	Last Sample Year	Next Sample Year	EPA/DOH MCL (max level allowed)	LWD Highest Level Detected	LWD Lowest Level Detected	Number of Samples Over MCL	AL (action level)	Typical Sources
Arsenic ¹	DOH WQMS List	2019	2028	10 ppb	5 ppb	<1 ppm	0		Erosion of natural deposits
Asbestos	1 every 9 yrs	2020	2028	7 mil	<0.16	--	0	7 mfl	Friable fiber
Copper	30 every 3 yrs ³	2020	2023	N/A	0.364 ppm	.032 ppm	0	1.3 ppm	Household plumbing
Fecal Coliform	840 per yr	2021	2022	0	ND	ND	0	0	Human and animal fecal waste
Total Coliform	840 per yr	2021	2022	<5% positive	ND	ND	0	0	Found throughout the environment
Haloacetic Acids	2 per yr	2021	2022	60 ppb	ND	ND	0	0	Disinfection by-product
Lead ²	30 every 3 yrs ⁴	2020	2023	N/A	42.5 ppb ⁶	<1 ppb	0	15 ppb	Household plumbing
Nitrates	19 per yr ⁵	2021	2022	10 ppm	1.94 ppm	<0.2 ppm	0	0	Erosion of natural deposits
Total Trihalomethanes	2 per yr	2021	2022	80 ppb	3.76 ppb	2.11 ppb	0	0	Disinfection by-product



Our Testing Resulted In No Violations

The chart above only reflects a portion of the testing LWD performs. Complete Source Water Assessment (testing result information) is available at the District office.

Table Term Definitions:

- AL:** Federal Action Level. Must take action to minimize levels if concentrations exceed these numbers.
- MCL:** Maximum Contaminant Level. The highest level of a contaminant allowed in drinking water.
- ND:** Not Detected
- ppb:** parts per billion, or micrograms per liter (ug/L)
- ppm:** parts per million, or milligrams per liter (mg/L)
- WQMS:** Water Quality Monitoring Schedule
- MFL:** Million fibers/liter

One part per million corresponds to one minute in two years or a single penny in \$10,000.
One part per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000.

¹ Your drinking water currently meets the EPA's revised drinking water standard for arsenic; however, it does contain low levels of arsenic. There is a small chance that some people who drink water containing low levels of arsenic for many years could develop circulatory disease, cancer, or other health problems. Most types of cancer and circulatory diseases are due to factors other than exposure to arsenic. The EPA's standard balances the current understanding of arsenic's health effects against the costs of removing arsenic from drinking water.

² 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. Lakewood Water District 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 Safe Drinking Water Hotline at 800.426.4791 or at www.epa.gov/safewater/lead.

³ Only 30 required, but we ended up taking 31.

⁴ Only 30 required, but we ended up taking 31.

⁵ But we only took 19 samples this year because the J3, N1, and N3 Wells were down.

⁶ Spoke to customer, this was due to customer sampling error. We retested on 2/9/2021 and the result was 2.7 ppb.

If you would like to learn more about our water, or have questions regarding water quality or what you can do to help keep our water supply clean and safe, please contact us at Lakewood Water District or any of the following:



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Randall M. Black, General Manager
Email: rblack@lakewoodwater.org

Washington State Department of Health (WDOH)
www.doh.wa.gov/ehp/dw

Environmental Protection Agency (EPA)
www.epa.gov/safewater

Safe Drinking Water Hotline
800.426.4791, email: hotline-sdwa@epa.gov

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To request additional copies of this year's Annual Water Quality & Business Report, please contact the District office at 253.588.4423 or csweb@lakewoodwater.org

You can also access this report on our website at www.lakewoodwater.org.

Comparisons of Lakewood Water District Rates with Surrounding Utilities

BI-MONTHLY BILLING PER 1500/CF

