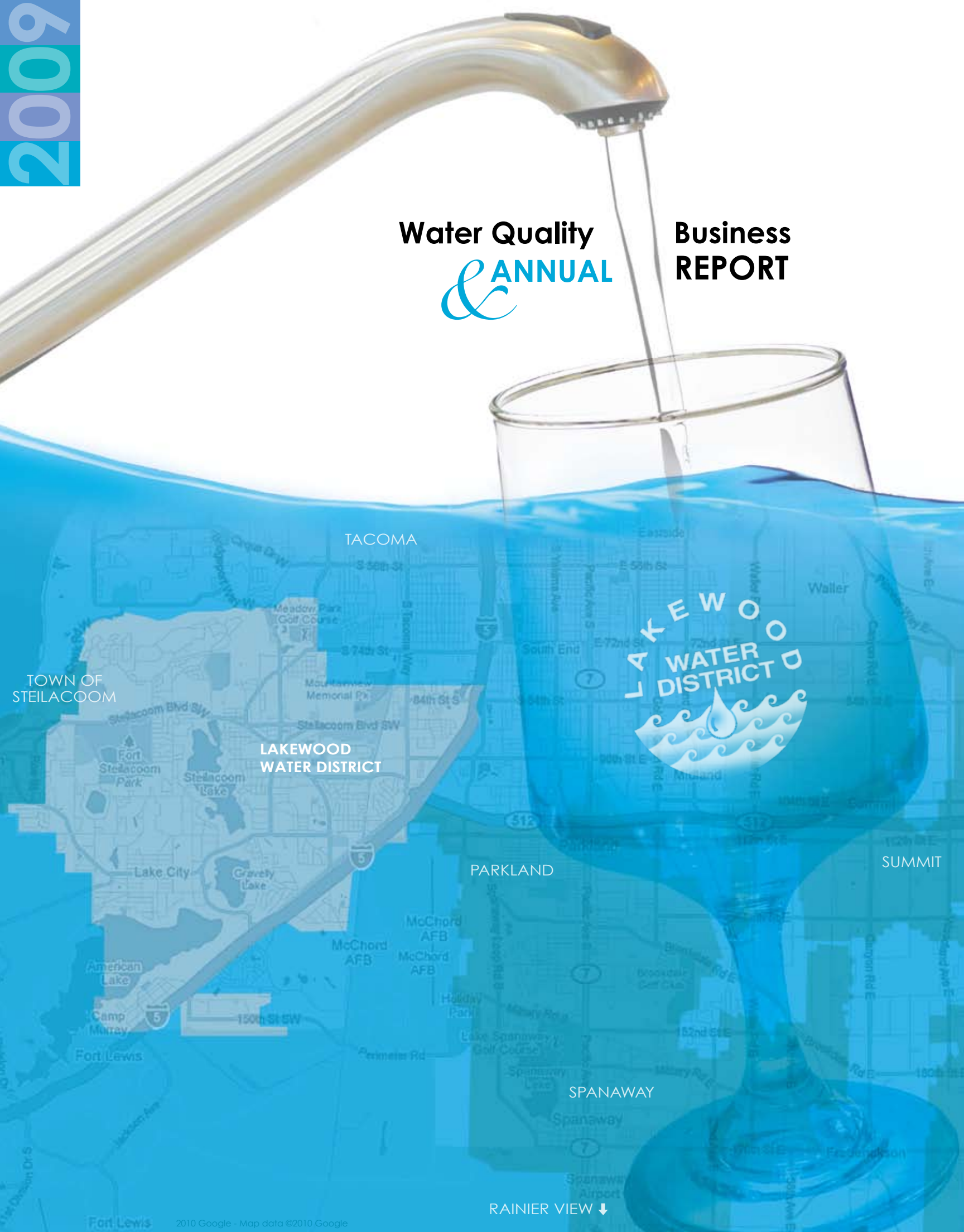


2009

# Water Quality & ANNUAL

# Business REPORT



TACOMA

TOWN OF STEILACOOM

LAKWOOD WATER DISTRICT



PARKLAND

SUMMIT

SPANAWAY

RAINIER VIEW ↓

# A MESSAGE from your Board of Commissioners

For your Lakewood Water District, the year 2009 was notable for completion of several capital improvement projects; some large, some small, as well as significant progress toward the completion of others. In the "large" category, we finished the generation of a new "455 Pressure Zone" to increase water pressure in the Sylvan Park area, and the installation of large protective casings to accommodate our water mains where they cross beneath tracks of Sound Transit leading to the Ponders area, both within budget.

In cooperation with the City of Lakewood as they bring sewers to Tillicum, we are taking advantage of their ditches to replace our aged water mains. That project is nearing completion, again within budget.

Our largest project, construction of a transmission line to deliver our excess water to the Spanaway, Rainier View, and Summit areas, as well as other possible buyers yet to fall prey to our marketing efforts, has progressed satisfactorily and will be operational during 2010. Before leaving this topic, we would like to share again with you the reason we embarked on this expensive project.

We are extremely proud of our history of low rates, particularly when compared to all other water purveyors in the region. We strive constantly to maintain that enviable position by employing competent and devoted people, keeping a close eye on all expenditures, and seeking sources of revenue in addition to that realized from the sale of water to our retail customers. But, costs of doing business keep going up. It seems we are almost constantly faced or threatened with unfunded mandates from state and federal agencies requiring more capital and operating expenditures. Recent examples are the mandated chlorination of our water and the requirement that we install protective casings to accommodate Sound Transit.



Larry Ghilarducci

John Korsmo

Bill Philip

Since we are blessed with an abundance of water (in excess of the needs of you, our retail customers), we determined some time ago that, if we could market that excess, the additional revenue would allow us to minimize rate increases to all of you. Accordingly, we have for some time provided the Town of Steilacoom with all of its water without our having any responsibility for its distribution system to its customers. We now have contracted with Rainier View, Spanaway, and Summit

to sell them sorely needed water on the same basis. Hence, construction of the transmission line to deliver their water. The revenue realized from these wholesale customers has been and will be instrumental in our minimizing rate increases to all of you.

However, even this additional revenue will not provide the District with the total funds required in the next five years to

meet our needs. Old water mains, pumping and water treatment equipment, heavy equipment, and trucks continue to need replacing; the costs of materials, outside services, and insurance premiums of all kinds, for example, continue to rise; and we face possible unfunded mandates to treat our water in additional ways. As a result, we want to alert you now of the likelihood of rate increases during the next five years. The amounts will be determined annually during our budget process. Rest assured, however, that we are committed to keeping rates as low as possible while continuing to provide the same high level of service and product as we have throughout the history of the District. 💧

*We are blessed with an abundance of water – marketing the excess brings in additional revenue, allowing us to minimize rate increases.*

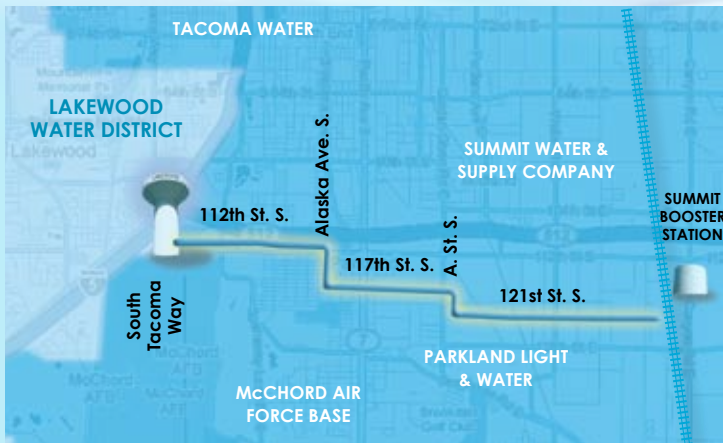


Your Lakewood Water District Staff here to serve you

# W HOLESAL WATER transmission main

In 2006, Lakewood Water District started the design phase and permitting process for a transmission water main that would deliver District wholesale water to neighboring purveyors in Pierce County. After securing necessary wholesale water contracts to help pay for the capital costs of the project, making a number of subsequent route modifications, and securing pertinent wheeling contracts, final design of the proposed Wholesale Transmission Water Main from Lakewood Water District to Summit Water & Supply Company was completed by RH2 Engineering on June 24, 2009. The project was bid in mid-July and awarded to low-bidder DPK, Inc. of Kent, Washington in early August. At the time of this writing, it is expected the pipeline will be complete by the time you receive this report.

The 4.6-mile, 20-inch pipeline follows 112th Street East from South Tacoma Way to Alaska Street; then south to 117th Street, east to "A" Street, and south to 121st Street where a connection has been installed for Spanaway Water for future use (who directly paid for the point of connection). The pipeline continues east on 121st Street East to Aqueduct Lane where a connection will be available for Tacoma Water's Pipeline #4. The 20-inch water main continues east to the Summit Water's point of connection adjacently west of the Tacoma Rail crossing near 22nd Avenue East.



This pipeline is designed to carry 7.5 million gallons per day (mgd) to Summit and other water purveyors beyond. Currently, Spanaway Water Company and Rainier View Water Company have also entered into agreements with the District to receive wholesale water with wheeling assistance from Parkland Light & Water and Tacoma Water. All purveyors who benefit from the pipeline will contribute to paying for the construction of the pipeline. The engineer's estimate for this project was \$2.92M, and the low bid by DPK, Inc. came in at \$2.54M. The District has additional water available, and is proud to be able to serve as a regional water supplier. 💧



District staff breaking ground



Crews installing 20" pipe

# W HOLESAL WATER partnerships

The District is proud to be a regional provider of wholesale water in Pierce County and greatly values its wholesale partnerships. We have enjoyed a wholesale partnership with the Town of Steilacoom for over 13 years and one with Summit Water & Supply Co. for over 7 years. The District now also has wholesale water agreements in place with Rainier View Water Company and Spanaway Water Company. Additionally, the District has wheeling agreements in place with Parkland Light & Water Company and Tacoma Water. During the course of the last few months, the District has attended board meetings and council meetings of our wholesale partners in order to express our gratitude to those agencies for their confidence and faith in the District's early vision of developing this wholesale water supply. This supply will not only help meet these utilities' water needs for years to come but will also provide a benefit to the District rate payers well into the future.

The Lakewood Water District would like to thank the utilities mentioned here for their involvement as a partner with the District in this endeavor. 💧



# DISTRICT PROJECTS 2009 – 2010

## Wholesale Water Booster Pump Station

Associated with the pipeline mentioned above, a pump station must be built to push water back inland. This 7.5 million gallon per day station is located about a third of the way along the 4.6 mile pipeline. Construction of the pump station is projected to start this summer and be ready to deliver water to the wholesale purchasers next year. The engineer's estimate is \$1.3M for this project.



Service Crew



Water treatment staff



Annual flushing

## Tillicum/American Lake Gardens

The City of Lakewood has been installing sanitary sewers in portions of the Tillicum and American Lake Gardens areas. While the roads were disrupted, Lakewood Water District replaced the older water lines in the same area. After the City installed the sewer, we put the water lines in, then the City put the street back with new curbs, sidewalks, and storm drains. This cooperative effort saved the District restoration costs. Other areas are being added to the project in the Woodbrook area for work this year. The District's portion of this project was estimated at \$852K but came in at \$632K, for a savings of approximately \$220K.

## Sound Transit relaying rails

Sound Transit, recipient of the Northern Pacific/Burlington Northern Santa Fe railroad through Tacoma and Lakewood, is replacing the old freight line with new updated commuter rail lines. The District is required to protect our water pipes that run underneath the new rail locations. Six crossings (Steilacoom Boulevard; Lakewood Drive; 100th Street; Irene Street; 108th Street; and Bridgeport Way) were completed last year, at a cost of \$608K. Three remaining crossings (Clover Creek Drive, New York Avenue, and Glenwood Avenue) are to be replaced this summer. The engineer's estimate is not known at the time of this report, but the District estimates costs at \$275K. Both projects were unfunded and mandated by Sound Transit. 💧

## MONITORING our lakes and streams

Lakewood Water District constantly monitors the levels of the lakes and streams in our service area. The area lakes are expressions of the water table in the Steilacoom Gravel deposited by the receding Vashon Glacier. Water in the Steilacoom 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 Sequelitchew. The District collects monthly data from gauges on five local lakes and two streams. Together with the data collected from the Pierce County Stream Team, this information is vital to the District's aquifer management program as well as the Tacoma-Pierce County Health Department's long-term ground water monitoring program. 💧



Ponce de Leon Creek

## WATER MAIN PROJECTS completed in 2009

**Farwest Estates, Farwest Drive SW**, 558' of 8" water main, 1 fire hydrant, 3 isolation valves, and 7 - 1" x 5/8" services installed

**Woodbrook 146th Street Water Main Relocation**, 142' of 12" main relocation and 2 isolation valves installed

**Mount Grove 455 Pressure Zone Upgrade**, 391' of 12" water main, 2 isolation valves, and 1-12" pressure reduction valve installed

**Youth for Christ, Commercial Street SW/ Thorne Lane SW in Tillicum**, 624' of 8" water main, 1 fire hydrant, and 2 isolation valves installed

**Lakes High School Phase 2 Water Main Replacement, Farwest Drive SW**, 229' of 8" water main, 1 fire hydrant, 7 isolation valves, 2 fire-line connections, and 1- 3" water service connection installed

**Oak Grove Apartments, Steilacoom Boulevard/Lakewood Drive SW**, 2,773' of 8" water main, 135' of 6" water main, 11 fire hydrants, 30 isolation valves, 9 fire service connections, and 16 water service connections installed

**Wholesale Water Main Installation through the City of Lakewood and Parkland**, 24,166' of 20" water main, 8 flushing stations, 5 isolation valves, and 7 air vacuum valves installed

**Tillicum Water Main Replacement**, 4,923' of 10" water main and 3,230' of 8" water main installed to replace existing water main, 70' of 6" water main installed for new hydrant laterals, and 50' of 4" water main installed to tie back into the existing main; 11 fire hydrants, 48 isolation valves, and 119 water service connections installed

**Sound Transit Track Relocation Water Main Crossing 108th Street SW/Lakeview Avenue**, 185' of 12" main and 1 isolation valve installed

**Bridgeport Way/Pacific Highway**, 127' of 12" water main and 3 isolation valves installed

**100th Street / Lakeview Avenue**, 272' of 16" water main, 46' feet of 8" water main, and 1 isolation valve installed

**Steilacoom Boulevard/Lakeview Avenue**, 161.5' of 12" water main installed

**Irene Avenue**, 241' of 12" and 40' of 8" water main installed

# YOU CAN PAY in your PJs!

**C**ustomers now have more convenient voice and online ways to pay their bi-monthly bills. Our website allows you to pay your bill online at any time...even in the comfort of your PJs. Simply click on "Pay My Bill Using Online Services," and away you go. Also, an Interactive Voice Response (IVR) system was added as yet another payment option. You may now pay over the phone with your VISA or MasterCard or your debit card with these logos on them. The IVR system is available 24 hours a day, seven days a week. In order to use this system, you will need your full account number.

We can also use the IVR system to inform you of emergency water outages or major construction in your area. Please make sure we have your current phone number. 💧



"From tin cans and string to IVR, we've come a long way...."

# ANOTHER clean audit

**Y**our Lakewood Water District works hard every year to deliver the highest level of integrity, accuracy, and regulatory compliance through exceptional financial and compliance practices.

For the 14th year in a row, the State Auditor's Office has completed its annual review and awarded the District a clean audit, noting no deficiencies and complimenting the District on its strong financial policies, precise accounting practices, and competent and cooperative staff.

The District commissioners and staff are proud of our record of consistently clean audits and are committed to continuing our efforts to maintain our financial stability so we can serve you most efficiently. 💧

## Lakewood Water District Balance Sheet

Year Ended December 31, 2009  
(Unaudited)

### ASSETS

<i>Total Net Utility Plant</i>	\$ 49,678,373
Cash	4,989,549
Temporary Cash Investments	1,075,000
Other Current Accrued Assets	797,625
<i>Total Current Assets</i>	\$ 6,862,174
Deferred Debits	382,315
<b>TOTAL ASSETS</b>	<b>\$ 56,922,862</b>

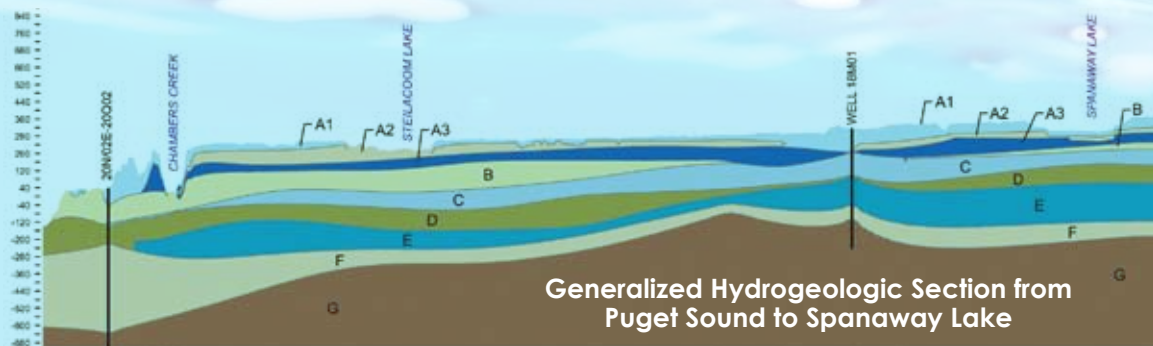
### CURRENT LIABILITIES & EQUITY

Current Liabilities	\$ 1,700,213
Deferred Credits	4,917
Contributions in Aid of Construction	15,066,467
Bonds Payable	16,193,078
Unappropriated Retained Earnings	23,958,187
<b>TOTAL LIABILITIES &amp; EQUITY</b>	<b>\$ 56,922,862</b>

# The SOURCE of your water

**T**he District has a total of 30 active wells which together provide a maximum production capacity of approximately 30 million gallons per day (mgd), with a total water right capacity to pump up to over 60 mgd. The District's sole source of water is from underground aquifers; no surface water, desalinated water, or recycled water is used.

The Lakewood area has two basic geologic formations exposed at the surface: the Steilacoom Gravel and the Vashon Till. The Gravel was deposited by vigorous, widespread and braided glacial outwash rivers, which flowed from the receding Vashon Glacier and emptied into a short-lived glacial lake west and south of present day Lakewood. The Gravel is highly permeable, rapidly receiving all rainwater, and is less than 30 feet thick in most places. The area lakes



Reference: Provided by Robinson Noble, Inc. based on "Hydrogeologic Framework, Groundwater Movement, and Water Budget in the Chambers-Clover Creek Watershed and Vicinity, Pierce County, Washington, 2010, United States Geologic Survey.

are expressions of the water table in the Steilacoom Gravel. The Steilacoom Gravel and Vashon Till lie on older sequences of glacial and interglacial deposits that extend at least 1500 feet below the surface at Lakewood. Water enters these deposits by leaking downward from near-surface deposits. With few exceptions, the major wells in the area extend to these deeper deposits, tapping aquifers at greatly different depths. Aquifer Zones are designated as layers A, C, E, and G from shallowest to deepest. Aquifer Zones are of glacial origin and tend to be coarse grained and highly

permeable. Aquitards B, D, and F, which are of interglacial origin, represent finer grained and less permeable layers whose sediments were deposited by ancestral Nisqually and Puyallup rivers. Historical sedimentation is not unlike the alluvium presently being deposited by these rivers today. Recharge of the aquifers follows ground water gradients that extend from the east to the west into Puget Sound. Most recharge will be from the Clover/Chambers drainage basin, but E and G level aquifers most likely receive some deep underflow from east of the Puyallup River basin as well. 💧

# KEEPING your WATER clean and safe

**L**akewood Water District works hard every day to provide you with the highest quality of water. We want you to have the safest, cleanest, best-tasting water possible. We follow all regulations of the Washington State Department of Health under the Safe Drinking Water Act.

Every week, we test the water at its source and during the treatment and distribution processes.

Your water meets or exceeds all standards for safety. The chart across the page in this report shows the few compounds detected in the water, along with their detection levels and typical sources of those elements. Samples are taken on a regular basis and tested both at our own facilities and at independent, state-certified testing laboratories.

Because our water source is underground aquifers, and therefore considered at a low risk for possible contaminants, some testing parameters are required less frequently. The chart includes how many samples are taken per year, the last year samples were taken, the results of those samples, and the next sample year.

Lakewood Water District tests for many possible contaminants not listed in our regular water quality testing program. Most of the tests show no detectable levels. A complete list of those items for which we test, but which are undetected, is available at the District office. 💧

## WE MEET or BEAT EPA standards

**L**akewood Water District meets or exceeds all governmental standards regarding lead and copper in your drinking water.

### Lead and Copper Levels

The government requires that we test for these elements, because significant levels can pose health risks. Infants and children who drink water that contains lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems, high blood pressure, or may be at risk of getting cancer.

The primary sources for potential lead and copper in drinking water are homes built or re-plumbed with copper pipes prior to 1985 when lead-based solder was banned. If your home or building is "high risk," you may want to flush water that has been standing for six hours or longer prior to using it for cooking or drinking.

Many people run their faucet until they notice the temperature change – usually less than 30 seconds. Use water-wise practices, though, and use that flushed water for watering plants or washing dishes. You should never use HOT water for cooking, drinking, or

making baby formula, because hot water can dissolve metals faster.

If your home does not meet the Environmental Protection Agency's "high risk" criteria, you may still be at some risk from lead leaching from brass faucets. You only need to run 6-8 ounces of water to flush what is inside the faucet.

### Low, Natural Levels of Arsenic

Your drinking water meets the EPA's drinking water standard for arsenic. It does contain very low levels of arsenic, but this naturally occurs as a result of runoff from natural deposits. 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 disease are due to factors other than exposure to arsenic. The EPA's standard balances the current understanding of arsenic's health effect against the costs of removing arsenic from drinking water. 💧



American Lake

## WATER USE efficiency rule

**P**ublic water purveyors have basic standards they are required to meet. Recently, these standards were increased by the Water Efficiency Rule to include 1) source and use meter requirements; 2) system leak standards, 3) conservation goals and objectives, and 4) reporting requirements. Lakewood Water District historically complied with all requirements except #3, adopting a conservation program. A public hearing was held and the findings adopted by the Board on January 17, 2008 with subsequent modifications on June 29, 2009. The Conservation Program includes two quantifiable goals: 1) reduction of water loss, and 2) reduction of consumed water by ¼ percent per year. Additionally, measures were adopted to accomplish these goals by identifying and repairing leaks, conducting water audits, providing historical information on utility bills, and public education. We are pleased to report that Lakewood Water District now complies with all provisions of the Water Efficiency Rule. 💧

# WATER QUALITY monitoring results

The table below reflects the maximum allowed levels of certain contaminants and the levels experienced in Lakewood Water District. Not listed are 63 volatile organic chemicals for which we tested, all resulting in either Not Detected (ND) or well below the MCL. Your water meets or exceeds all federal, state, and local quality standards, ensuring that you enjoy safe, clean water. 💧

Sample Type	Samples Taken per Year	Last Sample Year	Next Sample Year	MCL (maximum level allowed)	Highest Level Detected	Detected Range	Number of Samples MCL	MCLG	Typical Sources
<b>Arsenic</b>	22 every 3 yrs	2007	2010	10 ppb	<6 ppb	<2ppb - <6ppb	0		Erosion of natural deposits
<b>Asbestos</b>	3 every 3 yrs	2007	2010			No structures detected	0	0	Friable fibers
<b>Copper</b>	30 every 3 yrs	2008	2011	1.3 ppm AL	.54 AL	.02 - .54 AL	0	1.3 ppm AL	Household plumbing
<b>Fecal Coliform</b>	840 per yr	2009	2010	0	ND	ND		0	Human and animal fecal waste
<b>Total Coliform</b>	840 per yr	2009	2010	<5% positive	ND	ND	0	0	Found throughout the environment
<b>Haloacetic Acids</b>	4 per yr	2009	2010	60 ppm	ND	ND	0	0	Byproduct of drinking water disinfection
<b>Lead</b>	30 every 3 yrs	2008	2011	15 ppb AL	.004 AL	<.002 - .004 AL	0	0	Household plumbing
<b>Nitrates</b>	22 per yr	2009	2010	10 ppm	2.0	<0.2 - 2.0	0	0	Erosion of natural deposits
<b>Total Trihalomethanes</b>	4 per yr	2009	2010	80 ppm	4.0 ppb	0.0 - 4.0 ppb	0	0	Byproduct of drinking water disinfection

## Our testing resulted in no violations.

Due to the consistently high quality of water in the District, the Washington State Department of Health awarded testing waivers for Synthetic Organic Chemicals for 2008. All of the elements for which we tested in 2008 either met or exceeded federal and state standards. Complete Source Water Assessment information is available at the District office.

## Definitions:

**MCLG:** (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.

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

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

**AL:** (Action Level) The concentration of a contaminant which triggers treatment or other requirement which a water system must follow.

**ND:** Not Detected

**NA:** Not Applicable

**pCi/L:** Pico Curie per Liter

**ppm:** parts per million, or milligrams per liter (mg/L)

**ppb:** parts per billion, or micrograms per liter (ug/L)

**1 mg/L** = 1000 ug/L

For aqueous (water) samples:

**1 mg/L** = 1 part per million (ppm)

**1 ug/L** = 1 part per billion (ppb)

**ug** = micrograms

## IMPORTANT INFORMATION from the 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 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 at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-

compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk for infections. These people should seek advice about drinking water from their healthcare providers.

EPA/CDC guidelines on appropriate means to lessen the risk of infections by cryptosporidium and microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791. 💧

# COMPARISONS of Lakewood Water District rates with surrounding utilities

Two-Month Billings of Residential Costs for  
Water as of July 1, 2010



P.O. BOX 99729  
LAKEWOOD, WA 98496-0729

PRSR SD  
US POSTAGE  
PAID  
TACOMA, WA  
PERMIT 356

Company Name	Total Charge for 1500 Cu Ft
<b>Lakewood Water District</b> (253-588-4423)	<b>\$22.50</b>
Dupont (253-964-8121) Ext. # 385	\$38.34
Parkland Light & Water (253-531-5666)	\$38.10
Spanaway Water Co. (253-531-9024)	\$39.50
Town of Steilacoom (253-581-1912)	\$62.29
Summit Water & Supply Co. (253-537-7781)	\$59.04
Tacoma Water (Inside City) (253-383-9600)	Winter \$49.43 Summer \$52.55
Tacoma Water (Outside City) (253-383-9600)	Winter \$59.33 Summer \$63.09

**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 feel  
free to contact us at Lakewood  
Water District, or any of the following  
organizations:

**Lakewood Water District**

P.O. Box 99729  
11900 Gravelly Lake Drive SW  
Lakewood, WA 98496-0729  
253-588-4423  
Randall M. Black, General Manager  
E-mail: [rblack@lakewood-water-dist.org](mailto:rblack@lakewood-water-dist.org)

**Washington State Department of Health  
(WDOH) Web site**

[www.doh.wa.gov/ehp/dw](http://www.doh.wa.gov/ehp/dw)

**Environmental Protection Agency (EPA)  
Web site**

[www.epa.gov/safewater](http://www.epa.gov/safewater)

**Safe Drinking Water Hotline**

1-800-426-4791

**Safe Drinking Water E-mail**

[hotline-sdwa@epa.gov](mailto:hotline-sdwa@epa.gov)

If you would like more copies of this  
year's **Water Quality & Annual Business  
Report**, please call the District office at  
**253-588-4423**.

## LWD AWARDED by American Water Works Association

**Y**our Lakewood Water District

received three distinctive honors  
by the Pacific Northwest Section of the  
American Water Works Association this past  
year: the 2009 Excellence in Education  
and Conservation Award for a medium  
utility, "Water Conservation for Youth –  
Learning the Water Dance," part of the  
District's Water-Wise Use public education  
program; the 2010 Excellence in Education  
and Conservation Award for a medium  
utility, for our 2008 Annual Report; and,  
most recently, the "Outstanding Leadership  
and Support by an Organization Award,"  
presented at the May 2010 PNWS  
Conference hosted in Tacoma. Twenty-  
one of 27 staff directly contributed to the  
success of this year's conference.

Lakewood Water District has been an  
active member of the American Water

Works Association for many years, at both the  
regional and local levels and most recently  
at the national level as well. The District was  
instrumental in re-initiating and rejuvenating  
the local South Sound Subsection just two  
years ago. The subsection has since become  
a rich resource of quarterly trainings,  
providing cutting-edge knowledge and  
exposure to state-of-the-art equipment and  
technology for water professionals in this  
area. These trainings have also provided a  
fresh, new source of Continuing Education  
Units (CEUs) necessary for State-certified  
water workers and managers.

Most recently, our District General Manager  
attended the AWWA Fly-in at our Nation's  
capital where he was able to meet with 10  
out of 11 members of Congress to discuss  
current hot-button water matters with our  
Washington State delegates. 💧



Water Dance Award



2008 Annual Report Award



Leadership Award