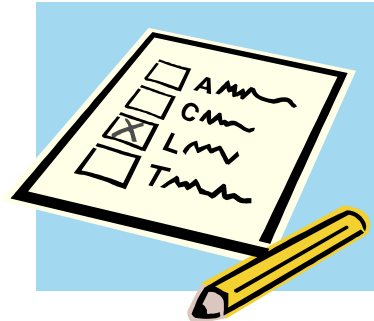


# Beaver Brook Currents

Lookout Mountain Water District Newsletter

Spring 2010



## Regular Election – May 4, 2010

The Election will be conducted by Mail Ballot. Mail ballot packets will be mailed to eligible electors during the week of April 12th. Electors do not need to request a ballot. If you are eligible to vote and have not received your mail ballot packet by April 20th, please contact the Designated Election Official at 303-526-2025. The Four Candidates' Biographies are on page 3. Two Directors' positions are open.

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### District Updates

#### Water Loss, 2010 Projects, Financing & Mill Levy

Water loss has always been a concern and an issue for LMWD since inheriting the main transmission line, originally installed in the early 1900's, from the City of Golden in 1988. The replacement dates of the original 1903 main range from 1961 to 1992 (10 sections), so as parts of the system age, we can expect water loss to increase, if it is not replaced. The past 8 years the average unexplained loss rate of 29%, ranging from 21 to 37% between 2002 to 2009. An identified leak is always repaired, usually within 24 hours. From 1990 to 1998, data indicates losses ranged between 5% to above 40% with no clear trend.

Unfortunately, there are "small" and numerous unidentified leaks in the system, which add to the water loss. The main line (9 miles a portion in wooded and mountainous terrain) and the private lateral lines (estimated 12 miles) have sections that are beyond their useful life. The cost to replace main pipeline is at least \$100/foot, so the cost of replacement is often more than the cost of lost water. The direct cost of water loss is primarily the cost of treatment, as we do not pay for raw water. LMWD has employed costly leak detection services over the years in areas that were believed to be problematic, but the results have frequently come back without locating leaks.

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## District Updates: Water Loss, 2010 Projects, Financing & Mill Levy (continued)

For 2010, LMWD has budgeted to replace a problematic section of main installed in 1961 for about \$375,000. Metering of the main pipeline and laterals to identify pipe locations of water loss is also planned for about \$90,000. When losses are found in the private laterals, it is likely that steps will be taken to recover the costs of the water loss and/or repairs will be necessary. The pipeline replacement will be lease financed over 5 years for a fixed rate of 5.34% by a municipal lender, with no other loan origination costs.

For financing, LMWD has used general obligation bonds, and currently uses Colorado Conservation Board revenue bond, Colorado Department of Local Affairs energy and mineral impact loan, and municipal lenders (Wells Fargo Public Finance and Municipal Services Group, Inc.). The District has not used certificates of participation (COPs) or vendor supplied financing in the past, however LMWD always considers several sources for competitive and feasible financing. Payments for leases and loans are funded by water charge revenue, property tax revenue or special assessments in the case of Subdistrict A. All but one billing tier of the water rates have remained the same for over the past five years, and in fact some rate tiers have been lowered in consideration of the fact that the levy has only been temporarily lowered from the voter approved levy of 17.70 in 2004. 68% of LMWD voters approved the current levy in November 2004.

This was the ballot question:

SHALL THE LOOKOUT MOUNTAIN WATER DISTRICT TAXES BE INCREASED BY \$ 115,500.00 IN THE FIRST YEAR AND BY WHATEVER AMOUNTS ARE RAISED ANNUALLY THEREAFTER, FROM AN INCREASE IN THE DISTRICT'S MILL LEVY FROM 12.200 MILLS TO 17.700 MILLS, COMMENCING TAX YEAR 2004, AND CONTINUING THEREAFTER, IN ORDER TO DEFRAY THE GENERAL OPERATING EXPENSES, AVOID IMMEDIATE WATER RATE INCREASES, AND PROVIDE FOR CAPITAL IMPROVEMENTS, AND SHALL THE DISTRICT BE AUTHORIZED TO COLLECT AND SPEND THE PROCEEDS OF SAID TAX INCREASE, ALONG WITH ALL REVENUE RECEIVED FROM ANY OTHER SOURCE, AS AN EXCEPTION TO AND WITHOUT REGARD TO ANY EXPENDITURE, REVENUE RAISING, DEBT SERVICE CHANGE REQUIREMENTS, OR OTHER LIMITATION CONTAINED WITHIN ARTICLE X, SECTION 20 OF THE COLORADO CONSTITUTION, SECTION 29-1-301, COLORADO REVISED STATUTES, OR ANY OTHER LAW?

LMWD had hoped to significantly reduce the levy in 2008, but the treatment facility had to be upgraded for a cost of \$1.2 million in 2008. The District chose the most feasible and proactive alternative which required an addition of 800 square feet to the Facility. Membrane filtration is a cost-effective alternative to the twenty years old technologically obsolete filtration system. The project is being financed as a lease purchase at a rate of 4.45% ending in 2019.

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### Beaver Brook Watershed Update

The following entities have been involved in ongoing preservation efforts of the Beaver Brook Watershed for the past 15 years, culminating in the 906-acre purchase by the US Forest Service of the original 6,000 acres of the Beaver Brook Watershed in the Fall of 2009:

- \*Great Outdoors Colorado
- \*Clear Creek County Open Space
- \*Save Open Lands, Vistas & Environment
- \*Lookout Mountain Water District
- \*Friends of the Beaver Brook Watershed
- \*Mountain Area Land Trust
- \*Clear Creek County Commissioners
- \*US Forest Service

*Photo: Upper Beaver Brook Reservoir and dam*



## Candidates' Biographies

### John Hermanussen

John grew up in Colorado and graduated from the University of Colorado in Mechanical Engineering in 1981. In 1985 he completed his MBA majoring in Finance.

He secured his Professional Engineer license while working with many water and wastewater utilities, BLM, local governments and contractors.

After 20 years in engineering, John became an entrepreneur working the last 8 years as a realtor, developer and builder. His experience with management, finance, and contracting of multi-million dollar projects will benefit LMWD.

John and his wife, Cheri, have two teenage sons.

John wishes to bring a fresh perspective involving community members' expertise to help solve leakage and other problems and bring transparency to LMWD.

### Balasingam "Verl" Murugaverl

Verl has been a Lookout Mountain resident for 20 years and part of the LMWD since 1999. He has been a professor of Chemistry at the University of Denver since 1997, receiving his PhD from there in 1989. His primary research area is water purification.

His work on water treatment in collaboration with the Bureau of Reclamation has resulted in the invention of a superior chlorine resistant reverse osmosis membrane, which has been patented.

Verl and his wife, Atsuko, have a daughter in high school.

In addition to a fresh outlook, Verl will bring unparalleled expertise in water quality and analytical capabilities to LMWD.

### Mark Mancini

LMWD Board of Directors March 2008 to present.

Mark is a graduate of University of Colorado with a Bachelor of Science in Civil Engineering.

Mark has been involved in all areas of the development review and engineering design for 35 years. He worked for the city of Aurora Public Works Department for 25 years and is currently employed with the City of Denver development/engineering section, specializing in storm drainage, erosion control and flood plain management. He has been a registered Professional Engineer with the the State of Colorado for 25 years.

Along with his wife Mary and son Nick, Mark has lived in Paradise Hills for 15 years.

Mark truly believes the Lookout Mountain Water System is a major asset for our community and feels the board members and residents must continue to update the system to current standards.

### Ron Thomte

LMWD Board of Directors February 2010 to present.

Ron has lived in Colorado for 60 years and on Lookout Mountain for 25 years. He graduated from Western State College in Gunnison Colorado, majoring in Business Administration with a minor in Accounting.

Ron retired in 2005, having worked in the waste and recycling industry. Within that industry his primary area of focus was in business office operations, including accounting.

Ron believes he can be an asset to the Lookout Mountain Water District as a member of the Board of Directors. His familiarity and knowledge of the immediate area and of the state, as well as his business experience in the private sector will be useful. Ron has been involved in privately owned small business and large corporations.

# Residential Water Rates Effective since November 25, 2005



## Billing period is every 60 days

### Thousand Gallons:

0 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	over 30
Minimum charge						
\$26.98	\$5.06	\$6.06	\$7.56	\$9.56	\$12.06	\$15.06

## Overview of the District

The District must comply with a number of regulatory agencies for water quality and administration/governmental issues. The LMWD water source is surface water from the Beaver Brook Watershed, flowing from the South fork of Beaver Brook and filling the Upper Beaver Brook Reservoir. Raw water is then treated at the Lower Beaver Brook Reservoir where the John P. Downs Treatment Facility is located; it is sampled and treated to meet the required quality standards and released to flow by gravity through a 12-20" main and pumped to a Million gallon storage reservoir, and then distributed by gravity to about 500 households, governmental agencies and businesses, terminating at the LM Reservoir near Buffalo Bill's Grave.

LMWD is a Special District as governed by Title 32 of the Colorado Revised Statutes. In terms of a system it is comprised of tap owners and property owners included in the District's boundaries, the Board of Directors, and the contractors and consultants who provide operation and management. Its assets include the land, rights to water within its reservoirs, a treatment facility, and components of the distribution system, such as the main pipeline and meters.

Our constant goal is to provide you with a safe and dependable supply of drinking water. To meet quality requirements, samples and testing occur throughout the system including laterals and in homes, at state mandated intervals. An annual Drinking Water Quality Report as required by the CDPHE is produced and copies may be requested at any time. Testing procedures and results may be requested as well, some of which the District does on a voluntary basis.

Please see our website for more information.

## Reporting Water Loss

Wasted water means more water must be treated to replace it and thus unnecessary costs. Please report any evidence of outside water pipeline leaks or breaks to 303-688-7072. Also, please report any use of fire hydrants that appears to be unofficial business (other than Lookout Mountain Water District or Foothills Fire Protection District) to 303-688-7072. Please note vehicle make, model, color and license number if possible and exact time of day.

Tap owners are responsible to repair private service line leaks or household leaks as soon as possible.

## Safety and Security



Please be aware that our staff needs to come near or on to your property for reading meters, meter repair or water line repairs. If anyone enters your property and claims to be with LMWD please feel free to ask for identification. Most of the time staff vehicles will have identification. Do not let anyone into your home without verification.

Please report suspicious activity around fire hydrants, water valves or vaults and reservoirs to the Sheriff's Department or if an emergency, please call 911. Please note vehicle make, model, color and license number if possible and exact time of day.

## Meetings and Board of Directors

The Board of Directors normally meets on the second Monday of the month at 8:30 a.m. at 317 S. Lookout Mountain Road (Highland Rescue Team Ambulance Station). **As always, meetings are open to the public.** The Meeting Schedule for the year is posted at the HRT Ambulance Station as well as on our web site.

John Roscoe	(2008 – 2012)
Court Young	(2008 – 2012)
Don Ranta	(2008 – 2012)
Mark Mancini	(2008 – 2010)
Ronald Thomte	(appointed 2010)

Elections are normally held every other May in even-numbered years, and a regular term is four years.

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### In Memory of William “Bill” Siefert



Mr. Siefert served as Treasurer on the Board of Directors from 2003 until he passed away at the end of 2009. His dedication and consideration in this role was invaluable and he will be greatly missed.

Bill and his wife, Ann, have been residents of Panorama Estates on Lookout Mountain since 1961. He was an active member with Panorama Estates Homeowners Association and Canyon Area Residents for the Environment. He received a BS from St. Peter’s College and an MBA from Farleigh Dickensen University, both from New Jersey.

Mr. Siefert’s work history included over ten years with Charles Pfizer & Co. as Mountain States Sales Manager and twenty years as Owner, CEO and President of Siefert Surgical Supply, a wholesale distributor of medical equipment and supplies.

When Mr Siefert joined the LMWD Board of Directors , he had to learn about the unique problems and circumstances associated with collecting, storing, treating and delivering an adequate and dependable supply of water to the customers of the district

Bill’s business experience added to the effectiveness of the board as it coped with the ever increasing competition for water use among the Front Range communities and the proliferation of rules and regulations that govern its use. He had been impressed by the dedication and ability of his fellow board members and especially the quality and effectiveness of the professional contractors to the district.

## Automatic Payment Service (APS)

Stop writing that check and save a stamp! The District offers payment by direct debit to your financial institution's account. How does it work?

1. You sign an authorization directing your bank to make an electronic payment each billing cycle. The electronic payment is processed very similarly to how a check is processed between our bank's account and your account.
2. Your bill arrives to your home showing your water charges and the date that they will be paid out of your financial institution's account. Your bill will remind you "no payment due" since it will be paid automatically on the due date. This is a good time to record the amount in your checkbook register.
3. You can cancel a direct payment at any time, as long as we have enough time to make the change with the financial institution.

We have many customers already using APS. We remind you to notify us if you wish to change your account or close your account.

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## Privately Owned Lateral Systems, Hydrants, and Owner Responsibilities

Over eighty percent of the District's customers are served through privately owned, shared pipelines that are connected to the District's main pipeline. We refer to these private shared lines as "laterals". The laterals are owned and managed by either an organization, as tenants in common, or an individual; usually the organization is a homeowners association, but it could also be a corporation or a partnership.

For a number of reasons-- to facilitate arranging for emergency repairs, to provide for financing of repairs and improvements, to set policy for any proposed new taps on a lateral--it is highly desirable for a lateral to be owned by a single ownership entity, formed by agreement of the District tap-owners served by the lateral.

If you are served by a lateral without a formal ownership organization and desire information about how to form one, please contact us.

**The District's Service Plan provided for the ownership and maintenance of the laterals to be a continuing responsibility of the individual users served by the respective laterals, which includes the hydrants attached to the laterals.**

**The District undertakes no financial or other liability for maintaining or repairing any privately owned component of the public water system.**

The District's *Policies Rules and Regulations* describe these specific responsibilities for lateral owners:

- Protect the integrity of the public water system by maintaining the lines and their connection to the Main in good repair at all times, including ensuring that hydrants are in good operating condition.
- Submit an annual registration report
- Before going out for bid, obtain District approval of plans to replace or refurbish lateral lines
- Comply with prescribed procedures for reporting and repair of leaks and hydrant maintenance

A lateral organization should seek a contractor to act as an agent for emergencies, breaks and other maintenance.

To assist the lateral organizations with maintenance, Treatment Technology, the District's Certified Operator, offers Emergency and Preventative Maintenance for Laterals (303-670-3936) on a contract basis.

# Septic Tank Maintenance and LMWD Septic Tank Pumping Requirement

All customers of the Lookout Mountain Water District treat their household wastewater through an Individual Sewage Disposal System (ISDS), in most cases this is commonly called a septic tank and a leaching field. **LMWD requires that water users pump their septic tank once every two to four years; this resolution was adopted in 1997 and was a requirement of a water decree.**

**Source for ISDS information below: Jefferson County Department of Health and Environment**

303-271-5755

Please see the Jefferson County website:

[http://www.co.jefferson.co.us/health/health\\_T111\\_R56.htm](http://www.co.jefferson.co.us/health/health_T111_R56.htm)

## What's an individual sewage disposal system and how does it work?

The typical ISDS consists of a Septic Tank and Absorption Bed (sometimes called the leaching field). The septic tank is usually made of concrete or other durable materials. Most tanks will have a capacity of 1,000 gallons or more and will be divided into two compartments. Sewage (or effluent) from the dwelling flows through a building sewer and enters the first compartment of the tank. Here, bacterial decomposition occurs and materials which cannot be digested settle to the bottom as sludge or float to the top to form a scum layer.

The remaining liquid then flows into the second compartment of the tank through a series of baffles, where additional treatment occurs. Although most tanks are non-mechanical, some will have a motor or aerator which agitates the sewage. These mechanisms are an integral part of the tank and should not be removed or disconnected as this may seriously affect the operation of the system.

From the tank, the effluent is piped to the Absorption Bed and enters a series of perforated pipes bedded in gravel and underlying soil before flowing naturally back into the groundwater system. The filtering action of the soil removes most of the harmful bacteria. The result is a high degree of treatment occurring in a natural, environmentally sound process. Not all contaminants can be removed by these systems. Nitrates, a chemical by-product of human waste, are not removed and may impact the groundwater. Distance separation from wells and proper system maintenance is necessary to increase treatment effectiveness as well as the life span of the system.

## Care and Feeding of Your ISDS

One of the most important factors in proper ISDS operation is being careful of what goes into the system. An ISDS is designed to treat only household wastewater. Although typical household soaps and cleaners should not cause a problem, liquids such as paints, solvents, thinners, pesticides, or photographic chemicals should never be poured down the drain. These materials can damage your system and seriously pollute the groundwater. Likewise, items such as disposable diapers, cigarette butts, and sanitary napkins should be kept out of the system. Kitchen wastes such as bones, eggshells, and coffee grounds do not readily decompose and should be thrown out rather than put through the garbage grinder. Grease is probably the worst enemy of your ISDS; pans should be wiped clean prior to washing and excess grease or drippings should never be poured down the drain.

## Pumping Tank

Since some materials in sewage cannot be decomposed, they must be periodically removed by a licensed systems cleaner who will pump this material from the tank. The pumper should also remove all of the water from the tank; this will allow a "rest period" for the leaching field. Failure to regularly pump the tank may result in sludge being carried into the leaching field where it can plug the soil pores and cause failure. Since repairing a failing absorption bed may cost many thousands of dollars, the cost of routine pumping represents a very reasonable investment in protecting your ISDS.

## Recommended frequency for pumping/cleaning of tank in years:

Tank Size (Gallons)	Household Size (Number of People)					
	1	2	3	4	5	6
500	5.8	2.6	1.5	1.0	0.7	0.4
750	9.1	4.2	2.6	1.8	1.3	1.0
900	11.0	5.2	3.3	2.3	1.7	1.3
1000	12.4	5.9	3.7	2.6	2.0	1.5
1250	15.6	7.5	4.8	3.4	2.6	2.0
1500	18.9	9.1	5.9	4.2	3.3	2.6
1750	22.1	10.7	6.9	5.0	3.9	3.1
2000	25.4	12.4	8.0	5.9	4.5	3.7
2250	28.6	14.0	9.1	6.7	5.2	4.2
2500	31.9	15.6	10.2	7.5	5.9	4.8



**Important Information Regarding May 4 Election Enclosed!**