LIBERTY LAKE • SEWER & WATER DISTRICT

CELEBRATING 40 YEARS

Fall Newsletter 2016

Issue 02-16

SERVING PEOPLE AND THE ENVIRONMENT WWW.LIBERTYLAKE.ORG

24th Annual Leaf Pickup

The 24th annual leaf and beach cleanup is scheduled for **Saturday November 12, 2016, 8:00 am to dusk.** The City of Liberty Lake is co-sponsoring this annual program. Leaf, beach, and yard waste will be picked up in front of residences within the Liberty Lake Sewer and Water District boundaries. If you receive water and/or sewer service from the District, you are eligible for the pick-up. The purpose of the cleanup is to protect the lake, aquifer and river from nutrient loading from stormwater that may transport decaying vegetation. Yard waste can be beneficial when composted but can be a nutrient source when mixed with stormwater that discharges to waterbodies.

The procedure will be the same as in past years; **all material must be bagged or contained for easy loading by the crews. Pick up crews will not have time to rake. Please limit materials to leaves, yard/garden vegetation, weeds, pine needles and grass clippings. Please no rocks! No Stumps! No roots! No trees or limbs! No sod! No pumpkins! No Shrubs!** Store waste material close to the street for ease of loading. Keep bags as light as possible. Assistance with loading is always appreciated.

The schedule could be altered due to inclement weather and amount of material. **Note: Bagged, contained, and/or piled aquatic weeds on beaches or docks will be picked up during the week of November 14th (only in accessible areas — otherwise material must be bagged and placed in an accessible area).** For more information please contact the District office at 922-5443. Thanks for your support!

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We're on Twitter and Facebook

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NEED HELP? CONTACT US

Administration Office
22510 E. Mission Ave., Liberty Lake, WA 99019
8AM to 5PM - Monday through Friday
info@libertylake.org
(509) 922-5443
After hours emergency please call:
(509) 623-7920

Billing Q's: Base vs. Overage

Liberty Lake Sewer & Water District sends utility bills on a monthly basis. The base rate for **sewer** is **$45.37** and **water** is **$11.79 ($57.16 total).** The water base rate allows you to use up to 32 cubic feet of water per day. Water usage in excess of 32 cubic feet per day is billed four times per year (quarterly).

Q: When will overage be billed?

A: For residential accounts overage will be billed four times a year (quarterly).
December: Usage is for the *end* of August through the *beginning* of November.
March: Usage is for the *end* of November through the *beginning* of February.
June: Usage is for the *end* of February through the *beginning* of May.
September: Usage is for the *end* of May through the *beginning* of August.

The District continues to manually read the water meters on a quarterly basis and the District bills in arrear (for what you have used). The table to the right will show your monthly base billing for sewer and water, and when to expect your water overage.

December (Base +Overage)	*January (Base)*	*February (Base)*
March (Base +Overage)	*April (Base)*	*May (Base)*
June (Base +Overage)	*July (Base)*	*August (Base)*
September (Base +Overage)	*October (Base)*	*November (Base)*

The District utility bills are due on 15th of every month with a 5-day grace period.

Please note. The District is planning for rate increases for water and sewer for 2017. Water (**base rate only**) is anticipated to increase $1.18 per month. Sewer is anticipated to increase $4.54 per month. If approved, the rate increases will be effective January 1, 2017.

If you have questions please contact us at (509) 922-5443.

What to Flush and what not to flush

National Association of Clean Water Agencies' *Toilets Are Not Trashcans* campaign is focused on protecting the pipes, pumps, water reclamation facilities, and personnel of wastewater utilities across the nation by reducing the materials that are inappropriately flushed or drained into the sewer system. Products such as wipes, paper towels, and feminine hygiene products should not be flushed but often are, causing expensive problems for utilities. Other consumer products contain ingredients, such as plastic microbeads and triclosan, that may harm water quality and the environment. FOG (fats, oils, and greases) and unused pharmaceuticals should also be kept out of the sewer system.

So what can you do?

- Avoid purchasing "flushable" items. Unfortunately, the majority of wipes on the market don't biodegrade quickly enough to avoid clogging the pumps and pipes.
- Use a recycling program or compost your food waste.
- Discard hazardous materials such as used motor oil, antifreeze, etc., at the Spokane County Regional Solid Waste Facility at 3941 N. Sullivan Road.
- If it can't be reused, recycled or composted, please place it in the garbage.

What Not to Flush

- Diapers - cloth, disposable, flushable
- Baby wipes, disinfectant wipes, moist wipes, etc.
- Toilet bowl scrub pads
- Swiffers
- Napkins - paper or cloth, paper towels
- Dental floss
- Egg shells, nutshells and coffee grounds
- Fats, oils, and greases
- Food items containing seeds and peelings
- Hair
- Sanitary napkins, tampons, condoms or any non-organic material
- Vitamins, medicines or other pharmaceuticals
- Wash cloths, towels, and rags (any cloth item)
- Clothing
- Plastic of any kind

Lake Algae Conditions

The growth and proliferation of algal blooms are the result from a combination of environmental factors such as nutrients (Phosphorus and Nitrogen), air and water temperatures, sunlight, ecosystem disturbance, hydrology (including snow pack, runoff, drought, ice cover), water volume (lake level), and water chemistry. The combination of factors that trigger and sustain an algal bloom is not well understood and it is not possible to attribute algal blooms to any specific factor. However, the District's monitoring program dating back to 1968 is aimed at understanding baselines and trends in an effort to recognize deteriorating water quality conditions and prescribe possible management strategies.

Water quality in Liberty Lake over the past decade has a continued trend of lower total Phosphorus, higher zooplankton densities, higher transparency measurements, and lower total algae levels.

Beginning about 2003, there appears to be a definite decrease in annual volume weighted total Phosphorus, with the majority of the annual averages close to or below target levels of Phosphorus concentrations in the lake. A generally accepted target value for Liberty Lake for average total Phosphorus is 20 µg/L and ideally within the range of 20 µg/L to 30 µg/L. An indication of the positive trend in Phosphorus levels is the distribution of average annual depth weighted total Phosphorus between the years 2003 and 2014. 58% of the yearly averages were 20 ug/L or less, 33% were within the target range of 20 µg/L to 30 µg/L, and only one of the yearly average values was greater than the range within the last decade (2014 Liberty Lake Water Quality Report, Washington State University).

Algae concentrations over the past 7 years have also been very low and in line with the lower nutrient concentrations. Peak cyanobacteria (blue-greens) have been less than 20% of the total peak algae species, and have been much lower between the years 2011 and 2014 (2014 Liberty Lake Water Quality Report, Washington State University). The 2015 bloom gives the District little information to provide a strong explanation for the reappearance of large numbers of cyanobactera (blue-green algae) in the summer. The high number the past couple of years relative to the past decade is a concern. It is important to repeat that the District's monitoring program is aimed at understanding baselines and trends in an effort to recognize deteriorating water quality conditions. The data over the past decade does not suggest deteriorating water quality and lake quality conditions. Perhaps the most important thing to recall in 2015 that was different from the past 12 years of data previously described is that the 2015 water year was the hottest and driest on record. Liberty Lake data shows that the lake experienced a long and stable period of stratification (lack of water column mixing) as a result of high temperatures with low winds. In addition, the drought impacted the lake volume where Liberty Lake hit the second lowest lake level observed in 62 years.

Early 2016 was not looking to be much different than 2015. April 2016 was the second warmest on record and according to National Oceanic and Atmospheric Administration (NOAA), June 2016 was the warmest June on record for the contiguous United States dating back to 1895. Although the summer conditions seemed to shape up, this fall things seemed to get worse. Currently the most prolific algae present in the lake are Anabaena flosaqua, a "blue-green" algae common in many lakes and rivers, other algae species are Woronichinia and Microcystis. Algae samples to-date have shown that this bloom, as well as previous blooms in 2015 and Spring 2016, have not produced toxins. Since cyanobacteria toxins pose human health concerns and can be lethal to pets in relatively small amounts, caution should always be taken when a bloom occurs. Only laboratory tests can confirm whether a bloom is toxic or non-toxic.

Although as previously described it is not possible to attribute algal blooms to any one specific factor, it is important to recognize that the decade's past water quality data suggest that the 2015 climatic event most likely attributed to the water quality conditions observed. In nature, as in humans, responses to extreme events (such as an injury) are immediate and the recovery from such an event is gradual. Although data for 2016 is currently being analyzed by WSU and the District, it is possible that 2016 lake conditions could be part of the response and recovery from 2015 and the early 2016 climatic conditions. These weather processes are part of the annual environmental variability and of course are not amenable to control or manipulation (2015 Liberty Lake Water Quality Report, Washington State University). The District is committed to understanding what is causing the algae blooms, if they will become more frequent and intense, and determine what management strategies can be employed to abate future blooms. If you have any questions, we encourage you to contact us at (509) 922-5443.

Fire Hydrants

There are approximately 600 fire hydrants in the LLSWD. Fire hydrant requirements are determined by the International Fire Code (IFC). Fire hydrants installed in compliance with the minimum design standards and located within a publicly owned easement or right-of-way are owned by the water purveyor.

Hydrants shall be located so as to be accessible to fire apparatus and not be obstructed by any structure or vegetation or have the visibility impaired for a distance of fifty feet in the direction of vehicular approach to the hydrant. There shall be a clear area around the hydrant of not less than thirty-six inches for clearance of a hydrant wrench on both outlets and the control valve.

Hydrant owners are responsible for hydrant maintenance, and all hydrants shall be maintained in operable condition.

The District takes responsibility for inspection and maintenance, painting, visibility and accessibility. Spokane Valley Fire Department conducts courtesy flow and pressure testing annually. Testing is done in accordance with the provisions of the IFC and residual pressure at the fire hydrant is to be a minimum of twenty pounds per square inch while flowing at the required flow rate so that positive pressure is maintained in the system at all times. All of the District hydrants meet this standard.

It is unlawful to park a vehicle or to place any obstruction within fifteen feet of a fire hydrant. Hydrant color standard is chrome yellow. The District has three major hydrant brands: American Darling, Mueller, and M&H. Please help the District and the Fire Department keep your fire hydrants free from obstructions.

FUN FACTS

The first fire hydrant was invented by George Smith (a fireman) about 1817. He invented the fire hydrant after realizing that his home-city of Manhattan was running out of water to supply everyone.

Liberty Lake Sewer and Water District #1

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