

The West Bluff Hills News

issue #11 (02/01/20) Long Version

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Water

This month, we want to discuss water consumption on the property. If you don't like math or analysis, skip down to the conclusion or read the [short version](#) of this newsletter.

Water is the second most expensive item in our budget. At \$45,600 per year, our water bill is about 14% of our entire budget. This is why it is so important that we conserve water and be very diligent in stopping leaks.

At West Bluff Hills, there are ten water meters, one for each numbered complex. In addition to the personal consumption from the residents, four of these meters are connected to irrigation and one is connected to the pool/spa.

Water is billed by the city in "units" where one unit is equal to 100 cubic feet. One cubic foot of water is 7.48 gallons, so 100 cubic feet equals 748 gallons.

It is also billed on the tier schedule. The more we use, the more we pay. At tier 1 (0-40 Units) we pay \$3.87 per unit. So, \$3.87 for one unit or 748 gallons is not bad (half a cent per gallon). Once we push through 40, we move up to Tier 2 (41-80 units). This costs us \$4.67 per unit. Then beyond 80, we go to tier 3, and the cost jumps up to a whopping \$6.97 per unit. Fortunately, there is not a tier 4!

What would be the consumption from a building with no leaks, no irrigation taps and no regular wasting of water? To get an idea, we will make two assumptions. Let's assume a person uses 50 gal of water per day and there are 12 people living in each eight-unit condo complex.

Math: 50 gallons per person per day X 12 people = 600 gallons per complex per day X 30 = 18,000 gallons per month. We then divided that number by 748 to get 24 "units" (hundred cubic feet). So, a value in the 20's or 30's would be what we should expect. The pool, spa, irrigation and washing machines will bump these numbers up for certain meters.

Now let's examine the real water usage statistics by complex from March-Sept., (2019). Measurements below are in units (748 gallons). We arbitrarily chose 40 units and above as high values (shown in red). For reference, 22 units equals 16,456 gallons, 100 units equals 74,800 gallons.

All data below assumes meter readings by the City of Carlsbad are accurate. Usage, in units, is sorted by building, from lowest to highest.

Building	Mar.	April	May	June	July	Aug	Sept.	Average
6907	20	21	26	19	19	24	25	22.0
6905	23	24	22	21	24	23	21	22.6
6915	25	25	23	34	23	25	24	25.6
6921	33	54	54	37	26	21	24	35.6
6919	137	92	27	23	20	16	18	47.6
6909	18	29	45	66	67	66	47	48.3
6911	22	54	37	51	67	80	91	57.4
6913	21	96	68	90	92	105	112	83.4
6903	32	81	55	80	134	156	125	94.7
6901	22	90	230	102	175	170	196	140.7

What does this data tell us? During our seven month analysis, it looks like 6907, 6905, and 6915 fell into our empirical norm,(22 to 26 units per month). But, the 6915 building may have had a leak in June (34 units). We guess that 6921 had a leak in April and May of this year and it was repaired by June. We will even go as far as hypothesizing that this leak started in late March and wasn't repaired until mid June.

Look at data for 6919. There was perhaps a big leak in March and April, but it appears it was fixed by May. Without earlier bills, we do not know when this leak started. It could have been leaking for months!

The data from 6909 are a red flag. They suggest that a leak occurred in May and is continuing monthly through this analysis. Excess water use during the five "red" months for 6909 is estimated to be about 100 units (or 74,800 gallons). This equates to about \$450 in excess water charges.


The next four condo complexes (11,13,03,01) are beyond analysis. We see some crazy numbers, especially for the 6901 building. A second confusing set of data is to examine the month of March. Take 6919 out of the picture and you will see that all the meter readings were within our empirical norm. Were there no leaks and was irrigation totally shut down that month?

Remember, this is all empirical data and required some assumptions. We do feel that any individual studying this data would at least say something is not right. Recommendation: Additional studies, coupled with corrective measures should be performed.

Additional Analysis:

First, we should be reminded that our irrigation system is attached to four of the complex units: 11,13, 03 and 01 would be the best guess but physical identification will be required. We have no knowledge what our landscape contractor programmed for irrigation nor do we know if and when there were any broken sprinkler pipes that ran unchecked. But, 196 units of water consumed by 6901 in September is 146,608 gallons! That's for one meter for one month! Another way to think of it is the "twelve" residents of 6901 each used 407 gallons of water per day instead of 50!

Let's examine an actual bill for the 6901 complex for the month of May, 2019. In the upper right, we see 230 units of water were consumed.

		City of Carlsbad Utility Bill P.O. Box 9009 · Carlsbad CA 92018-9009 · 760-602-2420 www.carlsbadca.gov · Pay online at https://waterbill.carlsbadca.gov		KEEP THIS PORTION FOR YOUR RECORDS	
ACCOUNT NUMBER 07023500-00			SERVICE ADDRESS 6901 QUAIL PL		# DAYS IN BILLING CYCLE 33
METER SIZE 2 "	METER NUMBER 0010957363		PREVIOUS READING 10705	CURRENT READING 10935	CURRENT USAGE 230
			PREVIOUS READ DATE 05/01/19	CURRENT READ DATE 06/03/19	USAGE LAST YEAR 109
			1 UNIT = 748 GALLONS		TOTAL AMOUNT DUE \$1585.68
		UNITS	CHANGE		
Usage This Year:		230	+42%		
Usage 2013:		161			
Previous Balance		559.88			
Late Fee		50.00			
Payment 06/14/19		-559.88			
PREVIOUS BALANCE NOW DUE		50.00			
Tier1 Usage 40 @		3.87	154.80		
Tier2 Usage 40 @		4.67	186.80		
Tier3 Usage 150 @		6.97	1045.50		
Monthly Delivery Charge			145.58		
Backflow Charge			3.00		
CURRENT CHARGES			1535.68		
TO AVOID PENALTY PAY BEFORE			07/17/19		
TOTAL AMOUNT DUE			\$1585.68		

THE CARLSBAD MUNICIPAL WATER DISTRICT HAS NEW TECHNOLOGY THAT ENABLES STAFF TO NOTIFY CUSTOMERS ABOUT POTENTIAL LEAKS BY EMAIL, PHONE OR TEXT. BE SURE TO UPDATE YOUR CONTACT INFORMATION. GO TO THE "WATER" PAGE ON THE CITY OF CARLSBAD WEBSITE WWW.CARLSBADCA.GOV TO UPDATE YOUR CONTACT INFORMATION.

ANY PREVIOUS BALANCE IS NOW DUE. MINUS IN FRONT OF BALANCE INDICATES A CREDIT.

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230 units X 748 gal/unit equals 172,000 gallons of water! 172,000 gallons of water! What happened? Our only guess is a major leak somewhere. Note also on the bill that this meter recorded 109 units for the same month last year. This equates to a 53% increase. One might wonder if 109 is a stable number.

Finally, in our analysis, let's deal with another hypothetical: "What would our water bill be if each complex used 25 units of water per month, every month".

Simple math, 25 units of water X \$3.87 per unit = \$96.75 X 10 buildings = \$967.50 per month x 12 months = \$11,610. per year. **Let's take this one step further and double it to 50 units per month!** It will push every meter into tier 2 but the total bill is still only \$24,180 for the year (compared to \$45,600 that we now pay.. oops, it's much higher than that). If we could reduce our water bill by \$20,000 yearly it would be a substantial part of our budget, equating to a 6% reduction. For 2020, a savings of \$20K would have meant no HOA fee increase.

Here are more sobering numbers. In the year 2017, we spent \$39,600 on water. In the year 2018, we budgeted \$39,600 for water but spent \$45,300. Last year, 2019, we budgeted \$45,600 and ended out spending \$51,206. If we convert the extra money spent over budget for last year to gallons of water used (at tier 3), we get 804 units or 601,619 gallons! Math: $(51,206 - 45,600) \div 6.97$ dollars per unit X 748 gallons per unit.

We consumed **600,000** additional gallons of water in 2019 than we did in 2018.

What can be done

1. Hire a professional: There are companies that specialize in leak detection. Our board should enlist these services. To spend \$500 - \$1000 to check for leaks and save \$20,000 over a year is a no-brainer. Leak detection should be an ongoing contracted service. They can do the tests and search for the leaks.
2. Study the bills: Management should contact the Carlsbad Water District with this info and ask what they can do to help. Show them this report! Perhaps they have a sophisticated monitoring program that can identify excess consumption in real time.
3. Conservation: You know the drill. Toilets are the biggest water consumer in your home. If you haven't already, upgrade your toilet to a newer low volume model. Is your toilet refilling when it is not in use? If so, you have a leak. Turn off the taps when you are not actively using the water, like brushing your teeth, have a full load of dishes when running the dishwasher.
4. Leaks: Irrigation pipe leaks

The actual water consumption from our irrigation system can be calculated by comparing meter readings over time with the irrigation on and off. Data should show how much consumption from irrigation contributes to individual meter readings. Here is [a sample experiment](#) to obtain such information. Abnormally high readings on these meters should prompt an immediate inspection of the corresponding landscape lines.

A landscape irrigation specialist should be hired to evaluate our system and timing programs. What are the minimal/nominal volumes required to keep our landscaping looking good without over watering? What seasonal variations should be programmed in? Once set, do we allow our landscape company to tinker with the settings without contacting management? Do we have moisture sensors? Do some areas get flooded when the system runs? Our irrigation system could be old and antiquated. Does our landscape company check all lines for leaks on every visit? If most of this excess water is coming from broken irrigation pipes, it may be time to upgrade.

5. Leaking pipes in your unit or at your water heater are your responsibility.

Our copper water lines are 40 years old. Depending on the quality of the water and other factors, copper water lines have a lifespan of 20-50 years. Pitting and corrosion occurs over time and a typical type of leak is called a "pinhole" leak.

With a pinhole leak, one may not notice a drop in water pressure but maybe something odd like a very warm bathroom floor. This is a sign that there is a leak in your hot water line embedded in the concrete slab. Hissing sounds in a wall are an indicator. Downstairs units may have noticeable moisture in their ceiling drywall, or the resident may see wet walls and dripping. Look for moisture under your sinks and on the floor around the dishwasher. When moisture or hissing noises are noticed, action to identify a leak should be taken immediately.

Landlords: Notify your tenants to be on the lookout for such early signs, especially if you get a notice that the water bill is high in your complex. Leak detection companies can locate a leak for you. They use sound detection equipment and the cost of such services is minimal. Repairing a difficult leak, on the other hand, may cost as much as \$3000 or more (under slab).

6. Water leaks should not be allowed to continue month after month. There should be monitoring of our water consumption, be it the property manager, landscaping company, a special contractor, or even one or two on-site volunteer owners. When abnormal water bills are discovered and irrigation is ruled out, steps should be taken to notify all owners of the building in question. The leak should be located and fixed. Owners who fail to fix a known leak should be responsible for excess water charges.

Remember, water is not free. We pay for it in the association dues and renters pay via increases in rent.

*Special request: We are attempting to see how many of our subscribers are reading this long version of the news. If you are reading this, please send us an

email and let us know you read the long version! Email:
WestBluffHills@gmail.com Thanks!

Summary / Conclusion

- Water is the second most expensive item in our budget at \$45,600 per year. It accounts for 14% of our entire budget. In 2018, our water bill was \$45,300. In 2019, it was \$51,206. We consumed 600,000 more gallons of water in 2019 than we did in 2018.
- Water is measured in hundreds of cubic feet which are called "units". One unit equals 748 gallons.
- There are ten meters on the property. Some are tied into our landscape irrigation system.
- Of those not linked, it appears that each building (8 condos) should consume about 25 units of water per month or about 19,000 gallons.
- Some of our meters have shown huge swings and extremely high water consumptions up to 230 units or 172,000 gallons per month
- Excessive consumption is caused by lack of conservation and/or water leaks. Leaks inside a condo could be something simple like a dripping faucet or leaky toilet valve. Or, it could be something more complex such as a pinhole leak in a copper pipe embedded within a concrete slab. There are companies that can identify leaks for a minimal cost.
- Irrigation leaks are also common. A busted sprinkler pipe that goes unnoticed for days or weeks will make a big impact on our water bills.
- Because of leaks, we could be paying \$20,000 or more yearly in excess water charges.
- We will never be able to prevent water leaks but with a meter-monitoring program, coupled with the services of a leak detection company, we should be able to identify leaks more quickly, fix the problem sooner and save the Association a substantial amount of money. Property management is the front line for reviewing the numbers monthly as they receive the water bills. Management should also contact the City of Carlsbad water department with this report and request feedback or solutions. An ongoing real-time study could be performed by our landscape company, a leak detection company, or even by one or two on-site owners.
- Water is not free. We pay for it with our association dues. Landlords, please ask your renters to conserve water and report all leaks, both inside and outside.

A special board meeting was scheduled for December 16, 2019. The purpose of this meeting was for electing new board members. Unfortunately only 27 ballots (of 80) were received and 41 were required for a quorum. The meeting was adjourned and continued on Dec. 23 at which time it was legal to call the election with less than 50% (but greater than 25% of the voters). There were 28 valid ballots at that time and the five candidates running for the board

were elected. They are Richard Laird, Vicki Robertson, Michael Garner, Lisa Campillo, and Teresa Shima.

Then, a regular board meeting was held on January 28, 2020. This was the first meeting of the new board. Here is a summary:

- New board officers are: President: Lisa Campillo, Vice President: Rick Laird, Secretary: Michael Garner, Treasurer: Vicki Robertson and member at large: Teresa Shima
- Upstairs flooring issues: An acoustical engineer from Eilar Associates made a presentation on building structures, impact noise testing parameters and the services they provide. The board voted to have Eilar inspect our condo architectural plans to determine if [resilient channels](#) were incorporated between floors. They will also provide suggestions for our flooring and mitigation policy. Until the policy is finalized, there will be no approvals for hard surface flooring in upstairs units.
- The new parking policy with some revisions was approved and it now goes out, by mail, to the membership for a 28 day approval. If there is anything you (owners) would like to add or subtract from this policy, simply send an email to Prescott listing your concerns. Be sure you do it within 28 days of receipt. With no further changes, it will become policy when adopted at an upcoming board meeting.
- SB323 was recently passed and will require some modifications and policy in our election procedures and dispute policies. If you are interested, learn more [here](#).
- Landscape: the rebars next to sprinklers (near 6921) that are deemed a liability will be removed.
- The laundry room, 6921 is ready to go but the company that supplies the machines states that it is not profitable to place machines there. They may install only one washer and dryer. The board is looking into other options such as purchasing machines.
- Pool and Spa: There have been some fluctuations in the chlorine levels which can be more precisely controlled with automatic chemical feeders. The board authorized purchasing two units.
- The 2019 financials were discussed. We plan to present a summary of these financials in our next issue.
- Leaky roof 6913. The board is getting multiple bids. Cost should be \$3500-\$5500. Hopefully it will be fixed before the next rain.
- There may soon be volunteer positions available for financial assistance (work with the treasurer) and for work on a landscape committee. If you want to help out in either area, contact management.
- Meeting adjourned at 8:18 pm

The next board meeting will be held on February 25th at 6 pm. Location: The Prescott Companies – 5950 La Place Court, Suite 200 Carlsbad, CA 92008. All owners are welcome.

Our property manager is Margaret Rios and if you are a WBH owner and need to contact management, call 760-634-4700, or email:

customerservice@prescottmgt.com You can also mail your concerns to Prescott at the above address. Prescott is a big company so be sure to state that you are a West Bluff Hills homeowner. It is also a good idea to include "Homeowner Correspondence, For The Board" on every communiqué.

All issues of "The News" are available in pdf for easy viewing and download and can be found here <http://www.724network.com/WBH>

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