

# Review of Water Meter Change Out and Complaints

City Council Presentation October 22, 2019

# Water Meters

- What issues we started to see in 2017 and 2018:
  - The warranty on the current water meter system expired
  - Meter signal batteries started to fail
  - Taking meter technicians longer to read cycles

# Water Meters

- During this time customers experienced late bills or bills that were estimated
- Bills were generally estimated low so as not to overcharge customer, but this may have customers to believe their water usage was lower than it was
- Staff removed late penalties and did not turn off water accounts for non-payment

# Water Meters

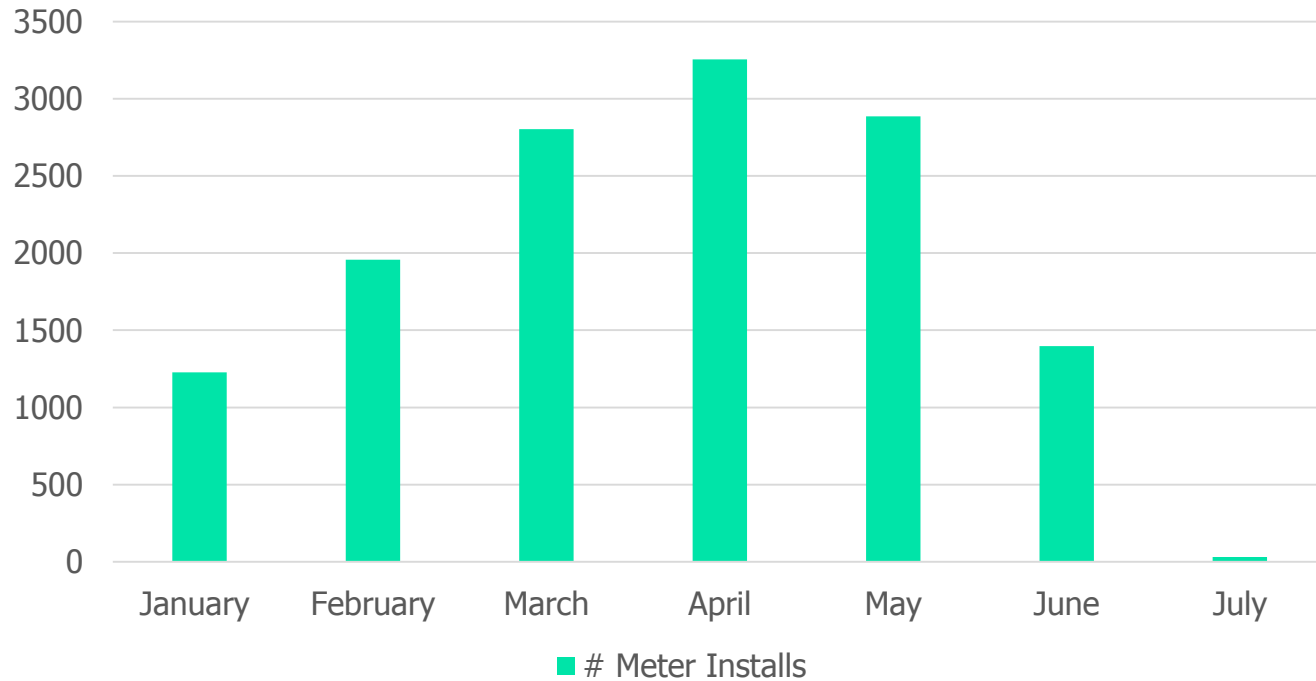
- Staff began researching options
- The City published an RFP
- The City issued bonds for \$4 million
- From the RFP, staff received multiple bids
- Council approved Hydropro Solutions to purchase the equipment and install 14,000 meters
- Hydropro subcontracted PMI to perform the installations

# Water Meters

- PMI began changing out meters around the first of the year, this being the first phase of the project
- The change out process took about 15 to 30 minutes and door hangers were left for the residents whose meter was changed

# Water Meters

■ PMI finished installing meters in July 2019



# Water Meters

- After July, staff began to work installing the remaining 300 meters that needed work done on the meter box or were new addresses added after the project proposal was finalized
- To date the City has 167 meters left to install
  - Anticipated completion by end of year

# Water Meters

- The new meters send water usage data wirelessly twice per day (noon and midnight)
- Data that comes in will show usage by the hour for the past 12 hours
- Per the contract, each day the City should get at least 98.5% of the meters read wirelessly
  - Today was 97.1%, the project is ongoing to increase that number by changing out metal meter boxes and metal lids



# Water Meters

- During the installation process, staff received some complaints about leaks resulting from the change out and/or damage to the property for lines not being properly flushed
- The city investigated claims of leaks and coordinated repairs when applicable
- Staff is working to facilitate resolution of a few of these

# High Water Bills

- Throughout the year, and prior to the meter change out, staff received complaints about high water bills
- Starting in August, staff began seeing an increase in complaints – something that is not unusual – complaints often increase in the hotter summer months when residents increase use of sprinkler systems

# High Water Bills

- Staff became aware of a significant amount of discussion/complaints on social media about high water bills
- Claims generally involved:
  - Bills being too high
  - Meters being faulty – residents believing they could not have used that much water
  - The meter swap caused a leak

# High Water Bills

- Frontline staff worked with the customers to determine if this is an issue and if it can't be resolved would forward the complaint to city management
- Staff had ordered postcards going over common causes of high water bills and asking citizens with questions to contact Utility Billing and/or the City Management

# Water Meter Tests

- The big concern expressed is that the new meters are not reading flows accurately
- Each meter comes with documentation on tests at the factory
- The City wanted an independent test

# Water Meter Tests

- 3<sup>rd</sup> party test – Fluid Meter Service
  - 15 done to date, another 5 planned
- Tests are done at 3 different flow levels – low, medium and high
- All tests so far have shown meters are measuring within the parameters set by The American Water Works Association – within 1.5%

# Water Meter Tests

**FLUID METER SERVICE CORP.**  
 SALES • REPAIR • TESTING • CALIBRATION  
 METERS • CONTROL VALVES • BACKFLOW PREVENTERS

FMS (800) 944-4472  
 (512) 258-3594 Tel.  
 (512) 258-4386 Fax

7304 McNeil Dr., #604  
 Austin, TX 78729

Customer: City of Schertz

Date: 10-15-19

Phone:

Serial Number	Register Read	74 GPM	2 GPM	15 GPM	NOTES
11508610	0127006	100.0%	101.0%	101.0%	5/8 x 3/4" master meter
11507819	0047501	99.0%	100.8%	100.5%	"
11504320	0183511	99.5%	99.0%	100.0%	"
11494378	0017921	100.0%	101.0%	100.5%	"
11500781	0206124	99.6%	100.8%	100.6%	"

*G. J. Fahr*

# Water Meter Tests

- These results don't mean there are not other issues
- Staff continues to research complaints
- Staff has also produced a flyer and a postcard to inform residents about their water usage and directing them to call city management if they have unresolved issues located at Utility Billing, 311, the Animal Shelter, the Library, and the Senior Center



# What Staff Has Found

- Weak signal strength on some meters
  - Meter reads not coming in daily as they should resulting in short billing some months and overbilling others
  - All water is being used just not billed in correct month
  - Since we have a tiered rate structure this could lead to higher bills
  - When made aware, staff is averaging usage out between affected months
  - Going forward, staff is reviewing accounts that aren't picking up and sending a tech out for problem solving
- Staff started rolling out mywateradvisor.com where residents can view their hourly data. Weak signal strength can cause the data to show as zero usage then a huge block

# What Staff Has Found

- Some old meters had begun to fail before they were swapped out. In those cases their consumption was estimated. Staff was very conservative on the estimation which could have resulted in higher bills once the new meters were installed and bills were based on actuals
- In some cases, the estimating was being done last summer also

# What Staff Has Found

- Estimating led to artificially low bills as bills were estimated conservatively
- With the new meters, residents are once again getting bills based on actual water usage
- This increase is more striking as usage increase in summer months due to watering

# What Staff Has Found

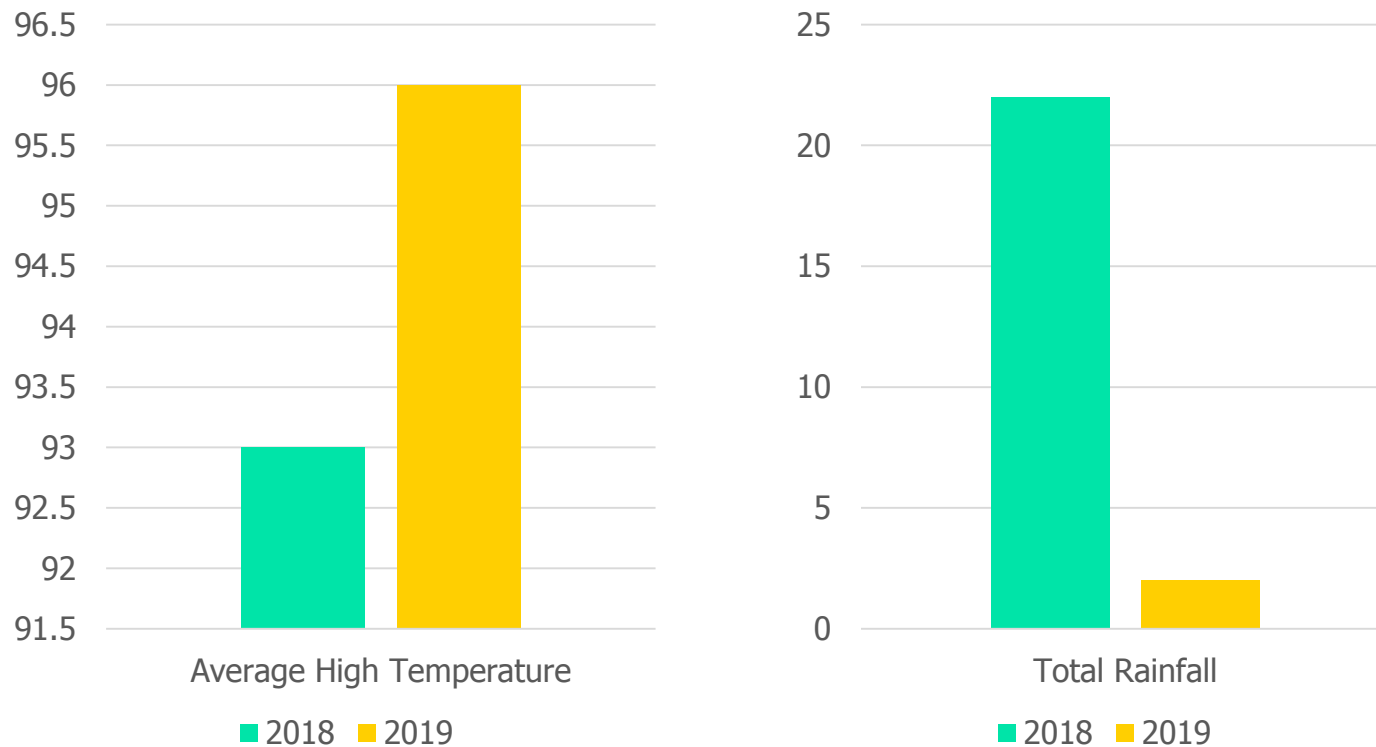
- Power outages could reset timers on irrigation systems
  - GVEC has also been swapping electric meters causing loss of power and they should now be notifying customers to check their irrigation settings after the swap

# What Staff is Doing

- Staff will continue to look for problems
- As staff is looking into these issues, and hearing about issues in the region, some factors are coming to light that could play a roll in this

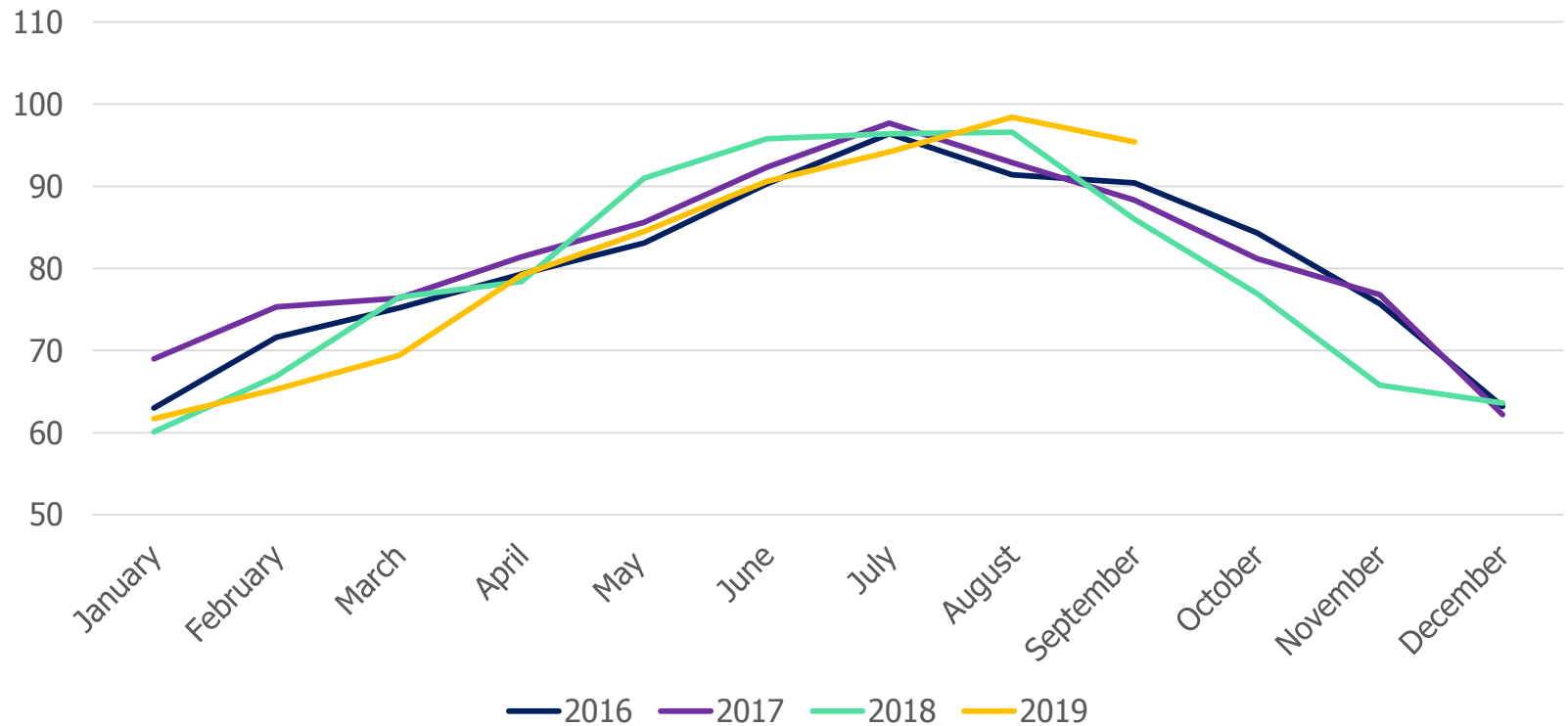
# Temperature & Rainfall

Data for July, August, and September for 2018 and 2019



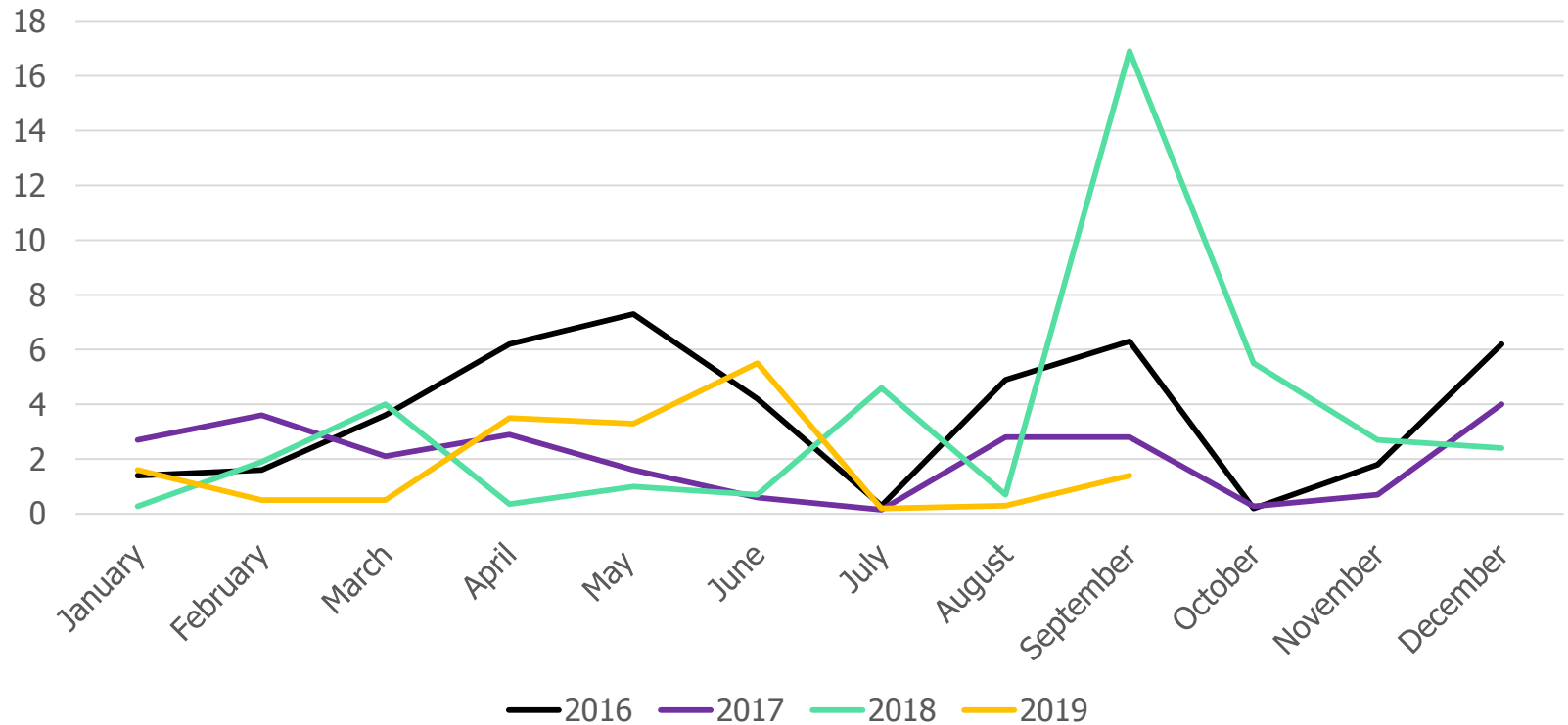
# Temperature

## Monthly Average High Temperatures



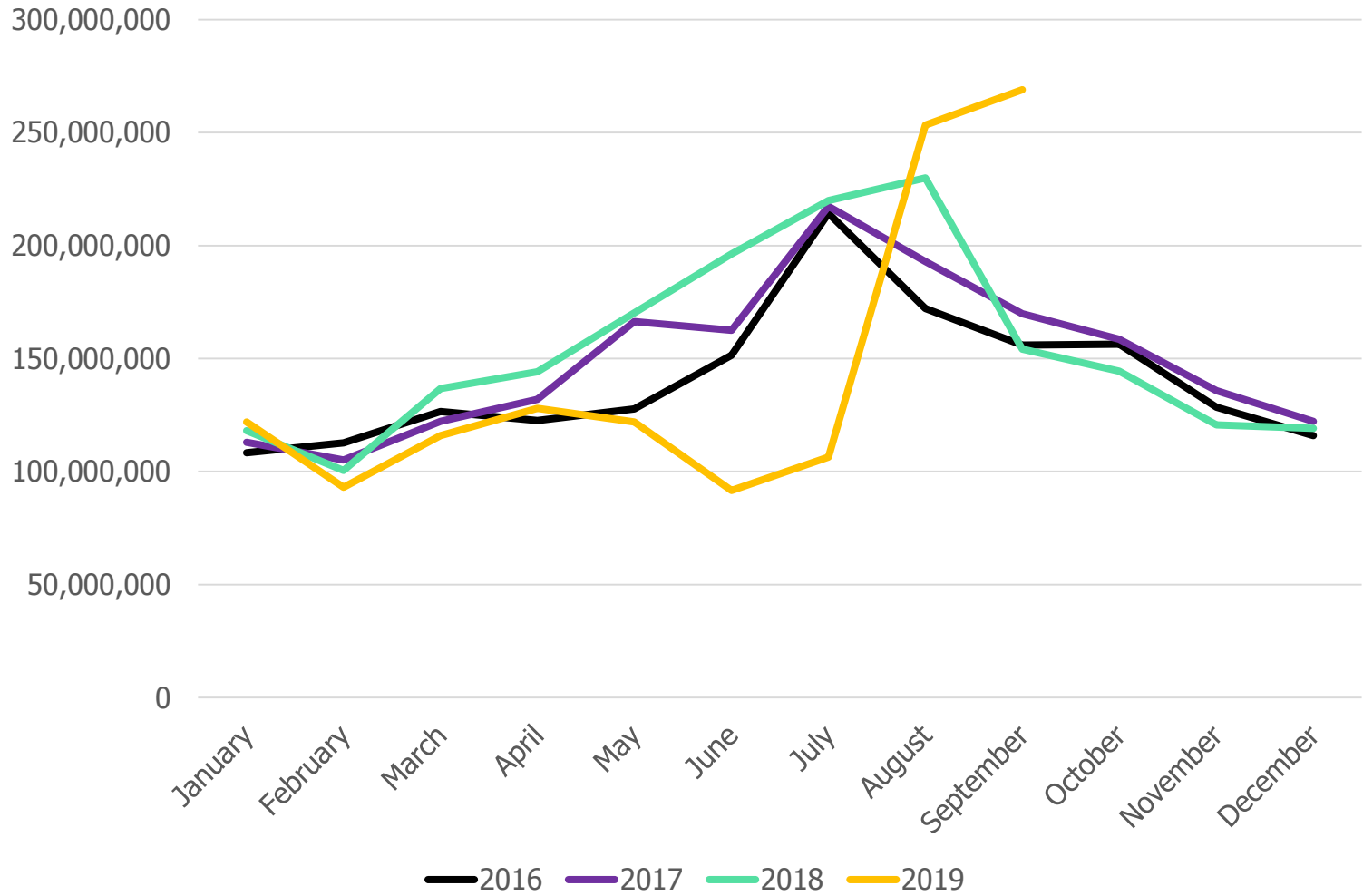
# Rainfall

## Total Monthly Rainfall





# Schertz City Wide Water Use



# Other Communities

## ■ SAWS

- Pumped 297.9 million gallons per day in August; highest August average since 2010
- Unusual for San Antonio was July and August, these were drought months but the Edwards Aquifer didn't get low enough for restrictions
- They have also been flooded with calls for unusual high water bills

# What Staff Has Found

- Majority of leaks found after the new meters were installed were existing; staff didn't have a way to find the leak and notify customers on the old system
- There were a couple of cases where it was apparent the leak was at the connection to the meter and the leak was fixed at no cost to the customer

# What Staff Has Found

- The City has a tiered system for water use. The more water used the higher rate that is paid.
- This could result in a higher than expected bill.

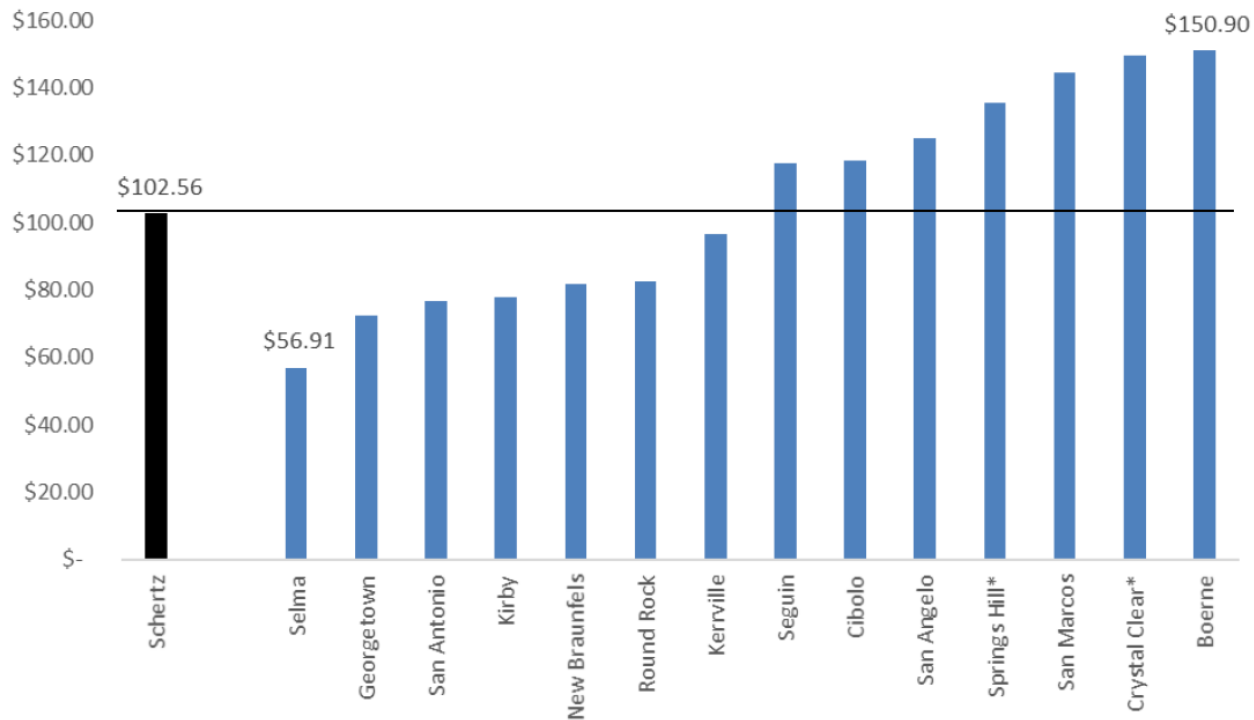
# Rate Structure

Schertz	
<b>Base Rate</b>	<b>\$24.61</b>
Range in gallons	Rate per 1,000 gallons
0-6,000	\$3.04
6,001-9,000	\$3.09
9,001-12,000	\$3.34
12,001-15,000	\$3.61
15,001-18,000	\$3.82
18,001-30,000	\$4.81
30,001-45,000	\$5.46
45,001-60,000	\$5.81
60,001-75,000	\$6.03
75,001+	\$6.15

San Antonio	
<b>Base Rate</b>	<b>\$12.82</b>
Range in gallons	Rate per 1,000 gallons
0-2,992	\$0.74
2,993-4,489	\$1.295
4,490-5,985	\$1.665
5,986-7,481	\$2.034
7,482-10,473	\$2.405
10,474-14,962	\$2.775
14,963-20,199	\$3.329
20,200+	\$4.809

# Bill Comparisons

## Water/WW Rate Comparison 10,000 Gallons Water and 8,000 Gallons WW



# Staff Recommendation

- Check irrigation system for leaks and timer settings
  - Irrigation systems use an average of 3,000 gallons per cycle (SAWS reports)
- Sign up for [mywateradvisor.com](http://mywateradvisor.com) to view monthly, daily, and hourly usage data for your home or business as well as set up high usage alerts

# Staff Recommendation

- In light of the recent concerns, staff will continue to not assess late penalties or turn off accounts that are delinquent until November
- Please continue to call Utility Billing if you have any questions or concerns over the water bill



# What Staff Has Found

- Tested meters are reading correctly
- Staff will focus on unresolved cases
- August water take from SSLGC was largest in City's history
- SAWS also had a record August for consumption

# What Staff is Still Doing

- Postcards directing frustrated residents to call city management
- Will continue to test meters for accuracy
- Continue to work with customers who have concerns about their bills, and in particular ones where we have not been able to determine why use is as high as it is

# What Staff is Still Doing

- Cases where we have not been able to determine why use is as high as it is:
  - A limited number of spikes in usage
  - Customers don't feel their irrigation systems are using as much water as the system indicates

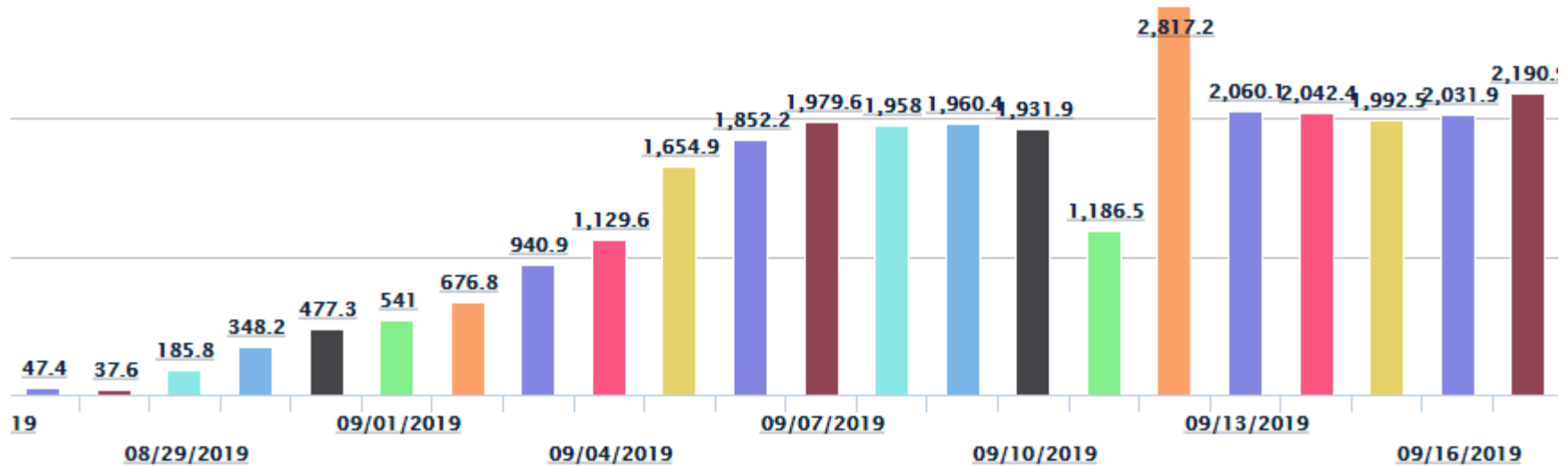
# Example of Staff Procedures

- Customer calls in with questions on a high water bill
- Staff checks their billed consumption history in the billing software
- Verifies billed consumption is high

		Read		Total
Month	Date	Previous	Current	Consumption
Sep	10/07/2019	124	789	665
Aug	09/06/2019	53	124	71
Jul	08/06/2019	39	53	14
Jun	07/06/2019	24	39	15
May	06/06/2019	11	24	13
Apr	05/06/2019	0	11	14
Mar	04/05/2019	1981	1994	13
Feb	03/06/2019	1970	1981	11
Jan	02/06/2019	1956	1970	14
- Year : 2018 Total 12				
Dec	01/07/2019	1941	1956	15
Nov	12/06/2018	1927	1941	14
				Avg 52

# Example of Staff Procedures

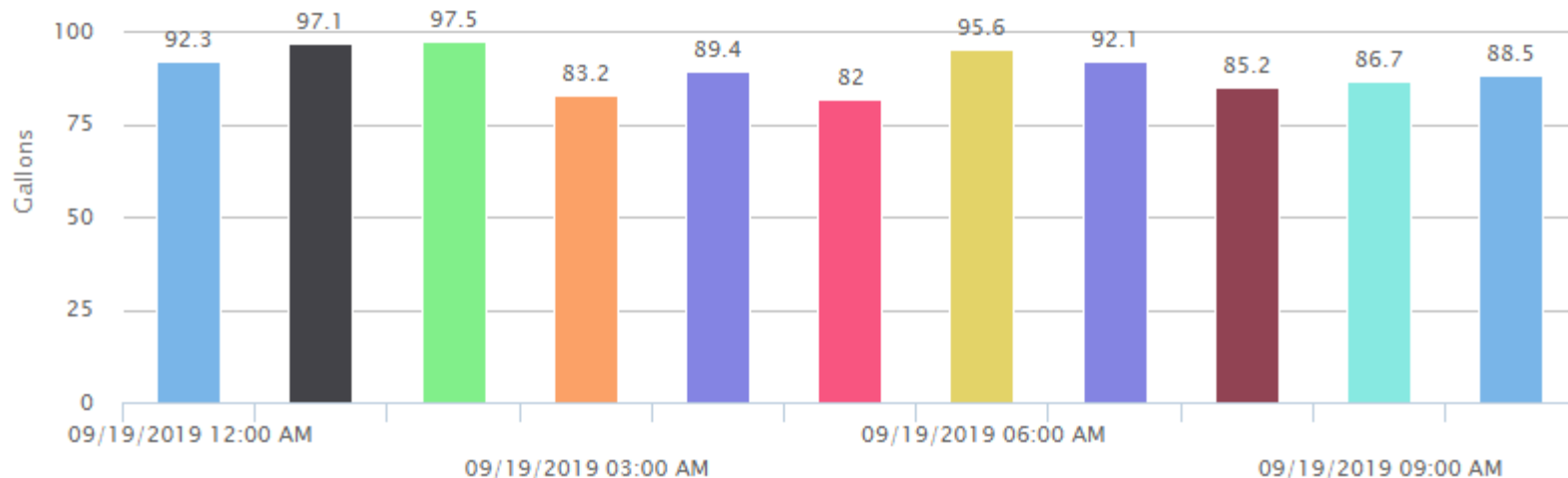
- Staff logs into Harmony to view customer data



- Notices a rising daily usage and a consistent high usage daily

# Examples of Staff Procedures

- Staff then looks at hourly usage data to see if it is constantly running or if there is a specific time frame of usage



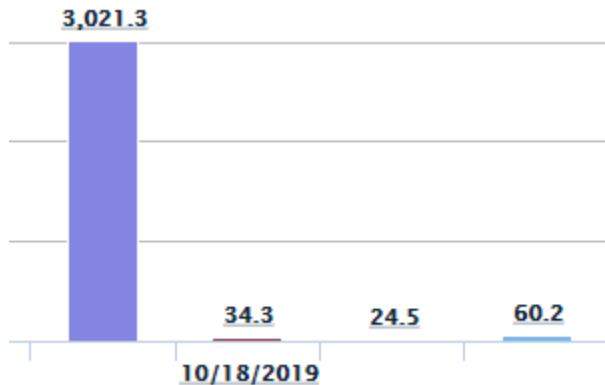
- Finds the usage is constant, indicating a leak

# Example of Staff Procedures

- This information can be printed and given to the customer or can be viewed by the customer on [mywateradvisor.com](http://mywateradvisor.com)
- Due to the waters continuous flow, staff works with the customer to see if there is a faucet left on or a leak in their pipes
- In this case a plumber was required to located and stop the leak

# Examples of Staff Procedures

- Staff can tell the leak was stopped on 10/17/2019



- Staff communicates to the customer to fill out a leak adjustment form to lower the bill