

This presentation premiered at WaterSmart Innovations

watersmartinnovations.com





WaterSmart Innovations

AMI + BFD = OMG



By: Debby Figoni

Water Conservation
Administrator
City of Beverly Hills





Acronym Explained

AMI + BFD = OMG

**Automated
Meter
Infrastructure** + **Big
Fat
Data** = **Oooh
My
Goodness!**





Delicious Data

- 💧 You know if there's an issue
- 💧 You can figure out the solution faster
- 💧 You can figure out trends
- 💧 You can save more water
- 💧 You can help your customers & Mother Nature





B.H.'s Conservation History

- 💧 AMI installed 11 years ago
- 💧 Initially read every 6 hours, now hourly
- 💧 Customer portal
- 💧 12,000 meters





Conservation Stage C

- 💧 15% Reduction from 2013
- 💧 Water 3 days a week (June – Sept)
- 💧 Water 2 days a week (Oct – May)
- 💧 Appx 8 minutes per station for pop-up sprinklers & 15-20 minutes for drip





What The BFD ...





What The BFD ...is Used For

- Creates a Daily Leak List
 - “top 100 list” residential
 - “top 100 list” commercial
- Connects to Customer Portal program
 - Communicates with AMI program
 - Alerts are sent out
- Targets Water Flow Issues & Excessive Irrigation
- Excites & Overwhelms me





AMI Customer Contact

ANNUAL COMMUNICATION FOR 2020

💧 Auto Alerts	140,000
💧 Emails & texts	4,700
💧 Calls	3,150
💧 Letters	400
💧 Audits (in person & FT {90%})	400





How I Use It

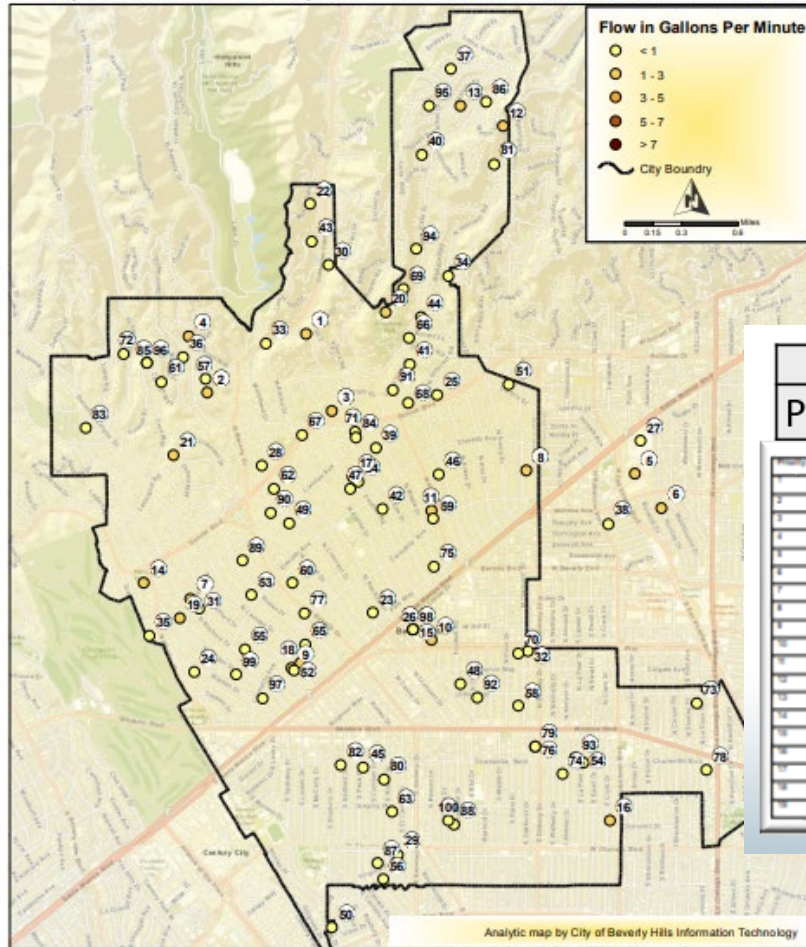
So Many Ways To
Slide & Dice & Chop
the Data





Top 100 List

Top 100 Residential and Municipal Customers with Continuous Water Flow -Date: 9/27/2018



Daily Residential
AND
Daily Commercial

Priority	Name	Acct	Address	GPM	# of Days
1	Customer Name		Customer Address		
2	Customer Name		Customer Address		
3	Customer Name		Customer Address		
4	Customer Name		Customer Address		
5	Customer Name		Customer Address		
6	Customer Name		Customer Address		
7	Customer Name		Customer Address		
8	Customer Name		Customer Address		
9	Customer Name		Customer Address		
10	Customer Name		Customer Address		
11	Customer Name		Customer Address		
12	Customer Name		Customer Address		
13	Customer Name		Customer Address		
14	Customer Name		Customer Address		
15	Customer Name		Customer Address		
16	Customer Name		Customer Address		
17	Customer Name		Customer Address		
18	Customer Name		Customer Address		
19	Customer Name		Customer Address		
20	Customer Name		Customer Address		



How I Use It

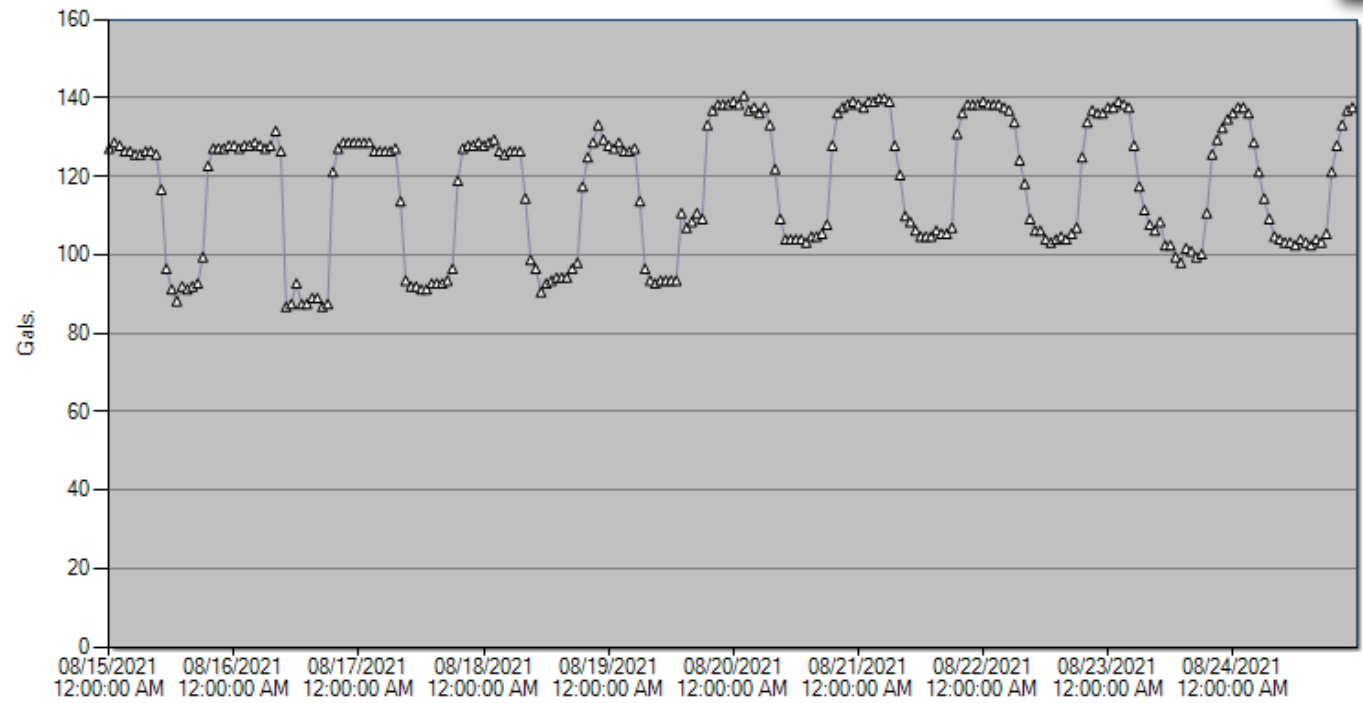
Task	Program/Created by
Check Leak List	Aclara, City's IT Dept
Check highest water users	Water Tracker
Check excessive water users	EagleView (soon Eagle Aerial) – AND - IT Dept
Confirm why a bill is high	Aclara
Check data against data	All 4 programs
Check data for email & calls	Customers
Drive the Streets	Water Tracker (on my phone)



Name That Flow

NAME
that
TUNE

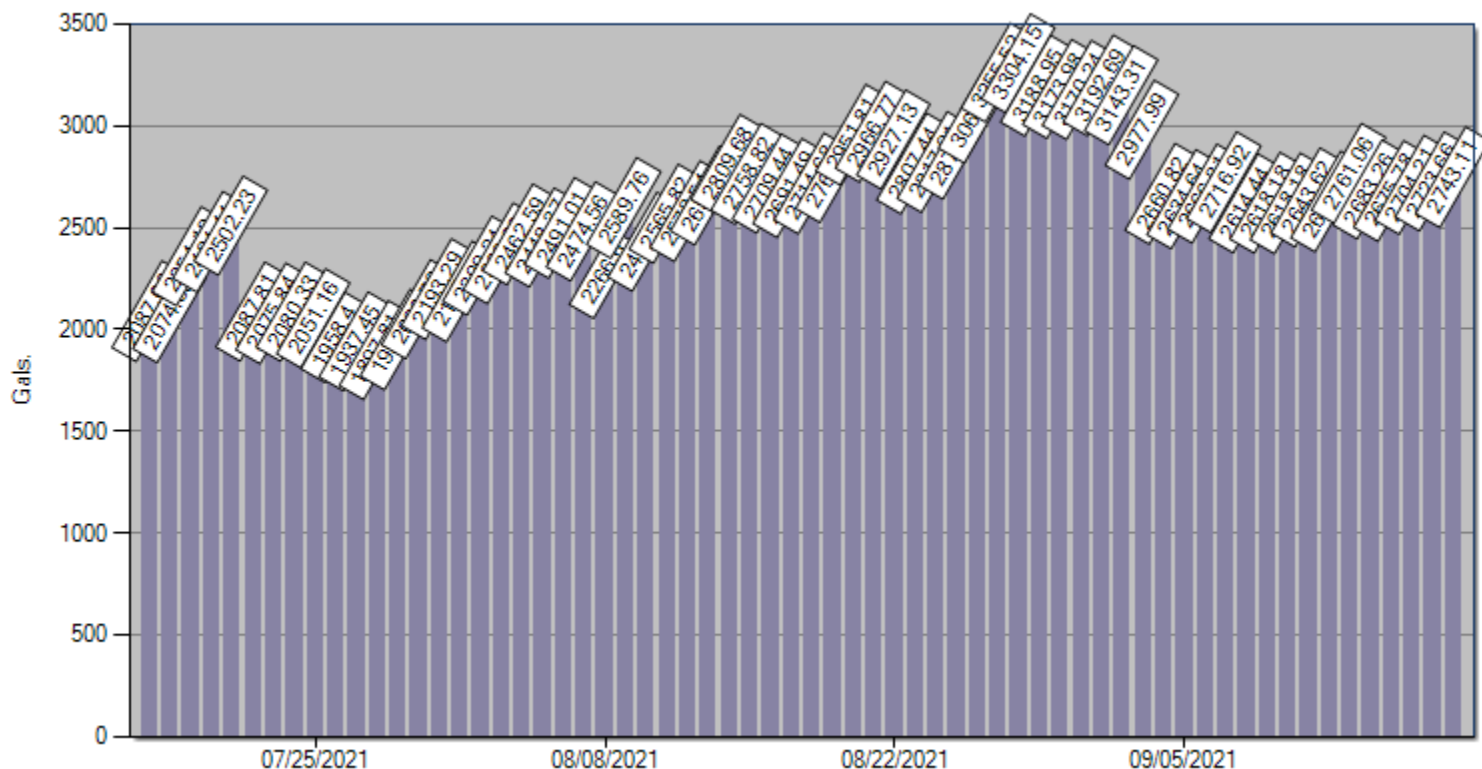
Interval Consumption, 08/15/2021 to 08/24/2021





You've Got A lot of Issues

Daily Consumption, 07/17/2021 to 09/18/2021





Name That Flow

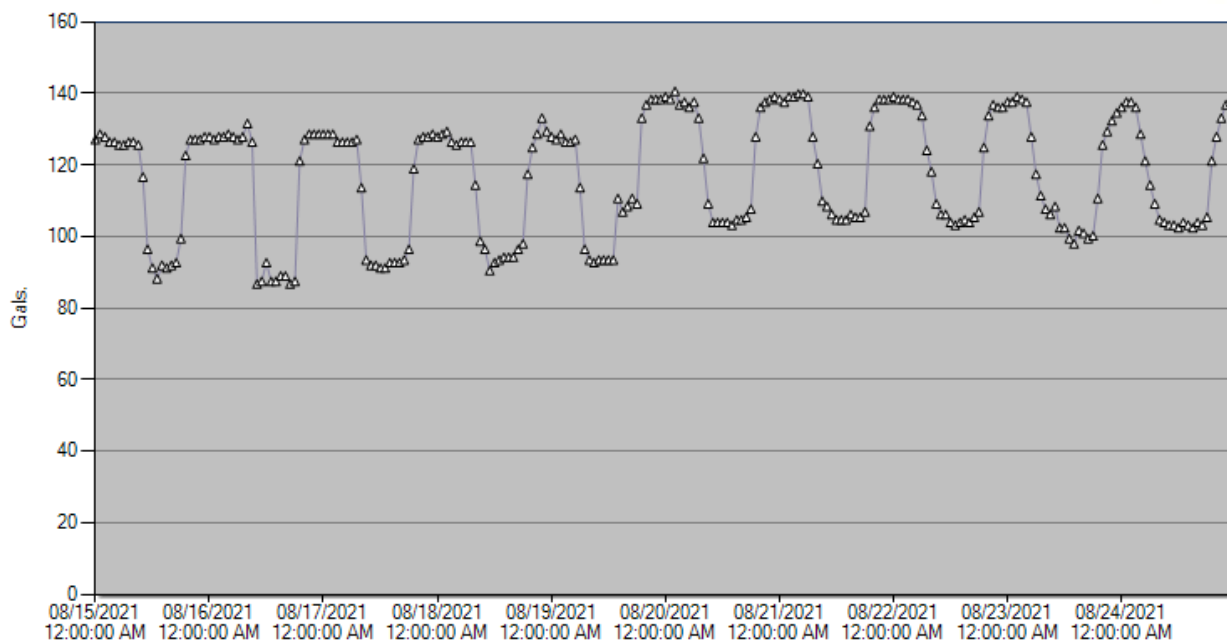


THE WONDER SERIES

I Wonder...
What Could It Be?

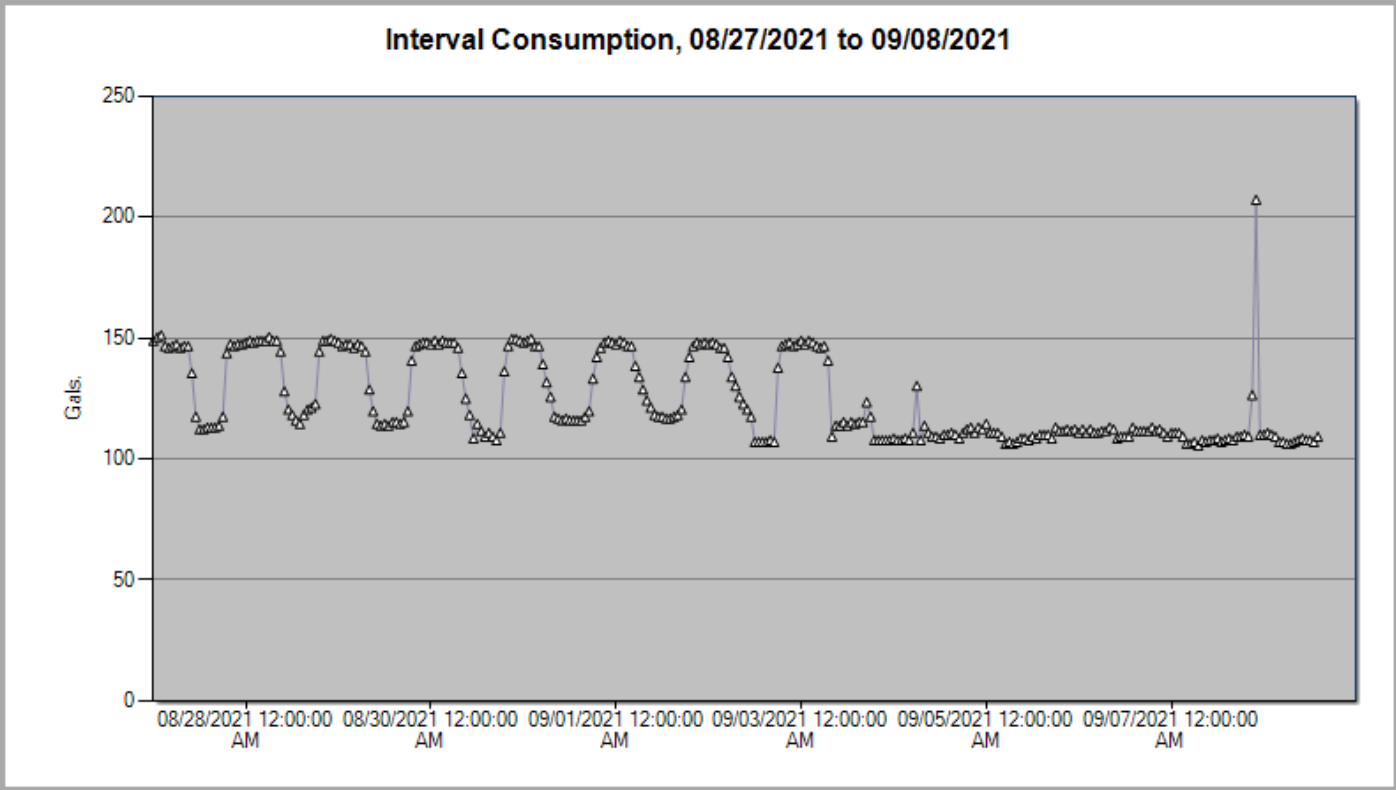


Interval Consumption, 08/15/2021 to 08/24/2021





Name That Flow

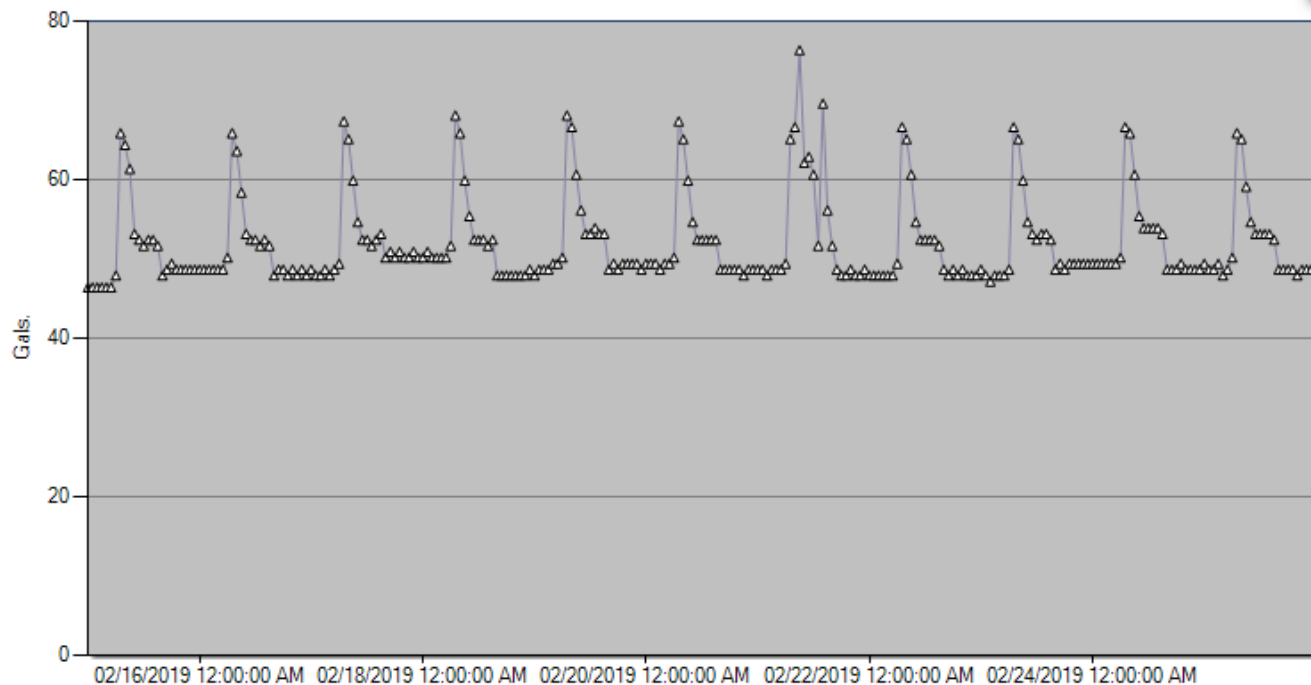




Name That Flow


NAME
that
TUNE

Interval Consumption, 02/15/2019 to 02/25/2019





Getting the Data

Aclara  STAR AMI System 7

Premise Communications DCU Installation Reporting Administration Batch Groups EVC

Premise Views Edit Delete Xmits On-Demand Read

Premise Selection

Search By: Address

Search For: 610*

Search Reset

Select a View

☐ Readings ☐ Maintenance ☐ Diagnostics ☒ Consumption ☐ Transmissions

Enter Date Range

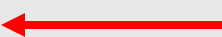
Start: 08/1/2021 End: 10/07/2021 Search Reset

Select or Enter a Premise

Address Matches


- 610 ALTA DR
- 610 ARKELL DR
- 610 BURK PL
- 610 COLE PL
- 610 FOOTHILL RD
- 610 HILLCREST RD
- 610 N ALPINE DR
- 610 N ARDEN DR
- 610 N BEDFORD DR
- 610 N BEVERLY DR
- 610 N CAMDEN DR
- 610 N CANON DR
- 610 N CRESCENT DR
- 610 N ELM DR
- 610 N LINDEN DR
- 610 N MAPLE DR
- 610 N OAKHURST DR
- 610 N PALM DR
- 610 N REXFORD DR
- 610 N ROBERTSON E
- 610 N ROBERTSON E

Records 28; Page 1 of 1






Leak & Excessive Irrigation?


**BEVERLY HILLS**


[Reports](#)[People](#)[Notifications](#)[Settings](#)


City of Beverly Hills ▾

 [Reports](#)


[New Report](#)


 [Interactive Queries](#)


 [Maps](#)


 [Lambda Functions](#)

Reports

 **2020 Allowance vs Usage 35 percent over**
Active Published

 **Top 100 continuous usage**
This report is a subset from Aclara generate report. This report is delayed by 1 day.
Active Published

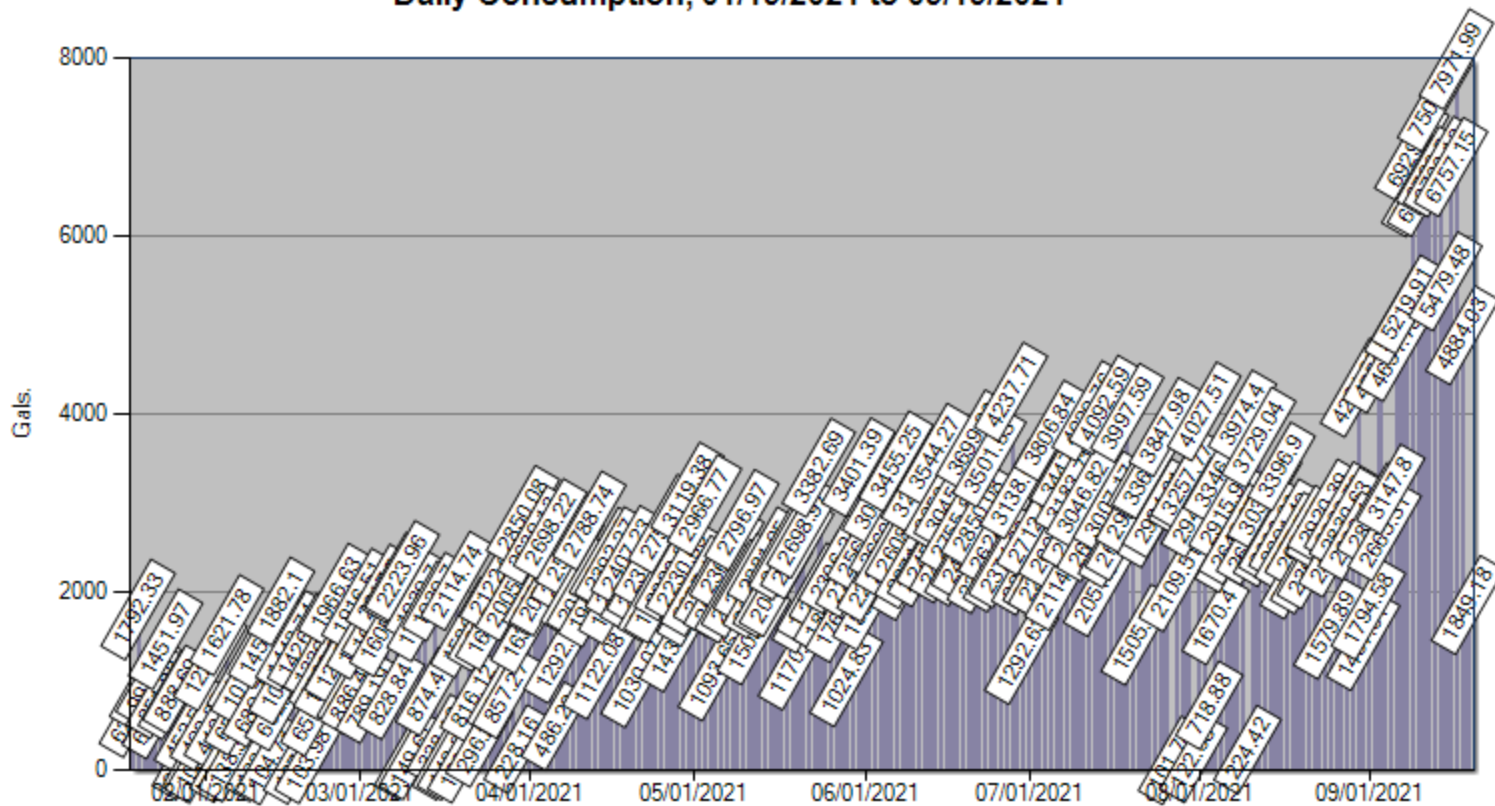
 **All services current billing cycle usage**
Usage for all city accounts in each of their current billing cycle.
Active Published





Leak & Excessive Irrigation?

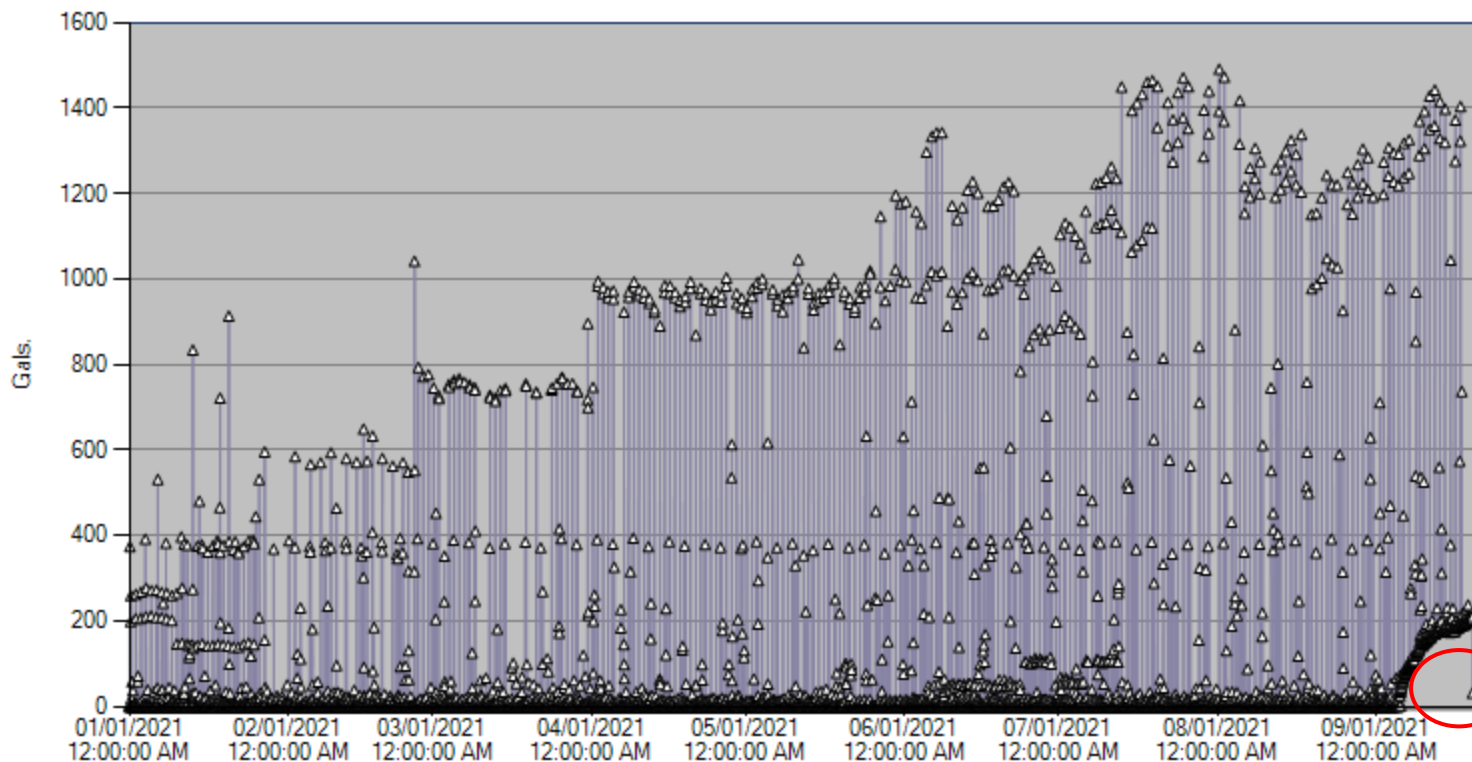
Daily Consumption, 01/19/2021 to 09/19/2021





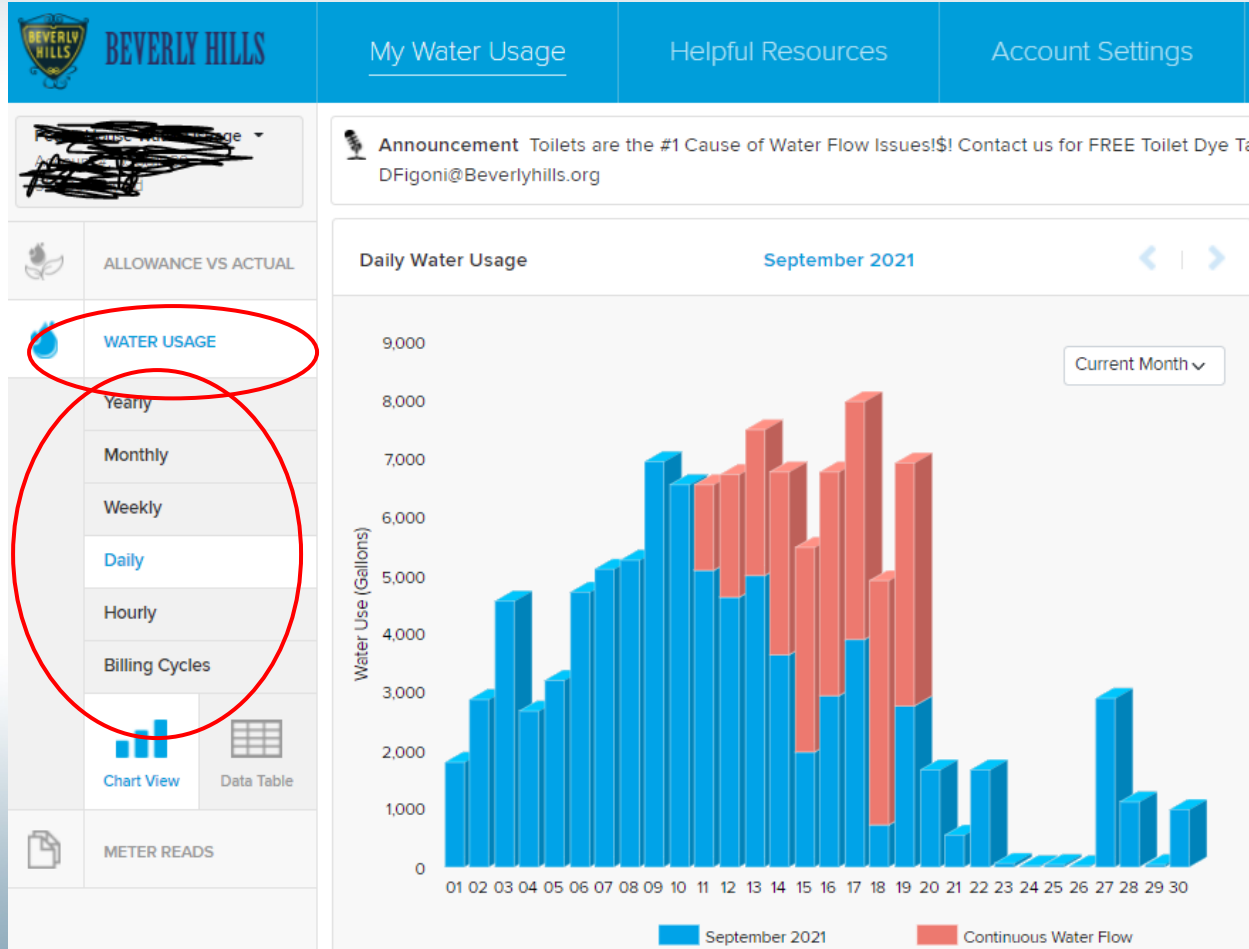
Leak & Excessive Irrigation?

Interval Consumption, 01/01/2021 to 09/19/2021





Water Tracker





Water Tracker


 **BEVERLY HILLS**


[My Water Usage](#)


[Helpful Resources](#)

[Account Settings](#)



 **Announcement** Toilets are the #1 Cause of Water Flow Issues!\$! Contact us for FREE Toilet Dye Test Kit. Email: DFigoni@Beverlyhills.org

 ALLOWANCE VS ACTUAL

 WATER USAGE

Yearly


Monthly


Weekly


Daily

Hourly

Billing Cycles

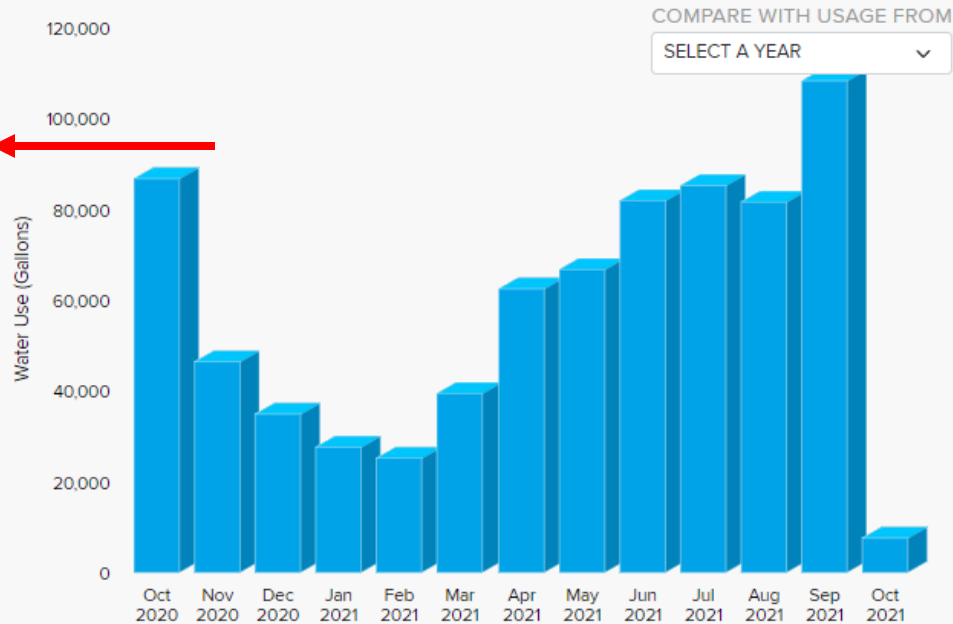
 Chart View

 Data Table

 METER READS

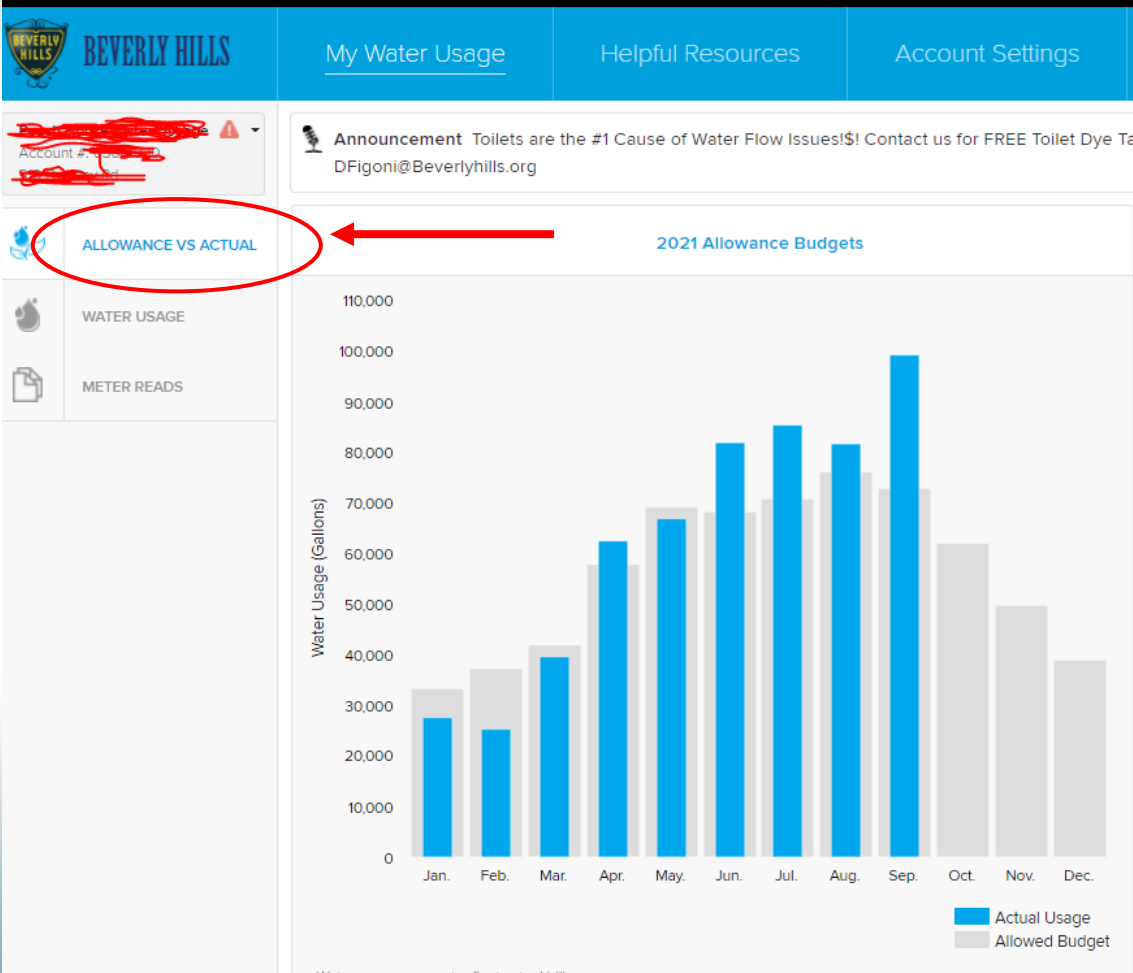
Monthly Water Usage

2020 - 2021



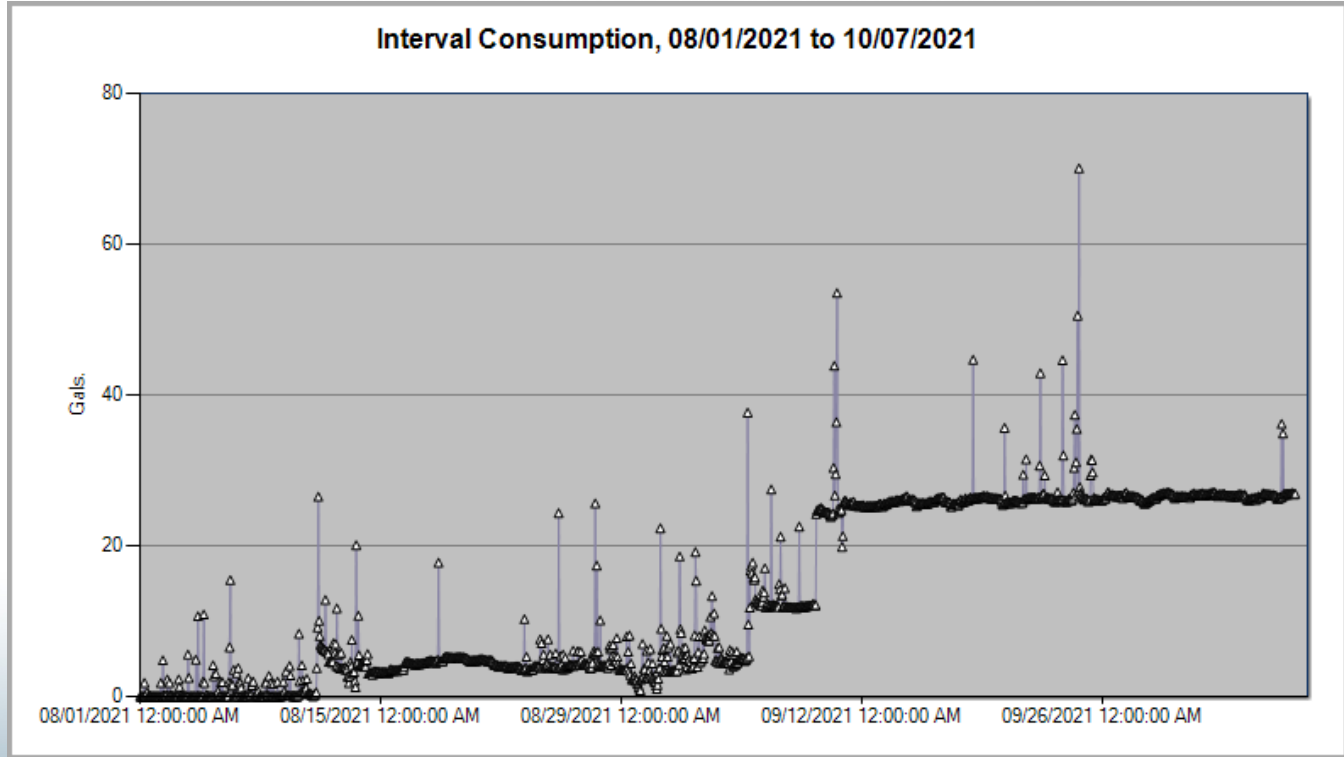


Not as Bad as It Appeared





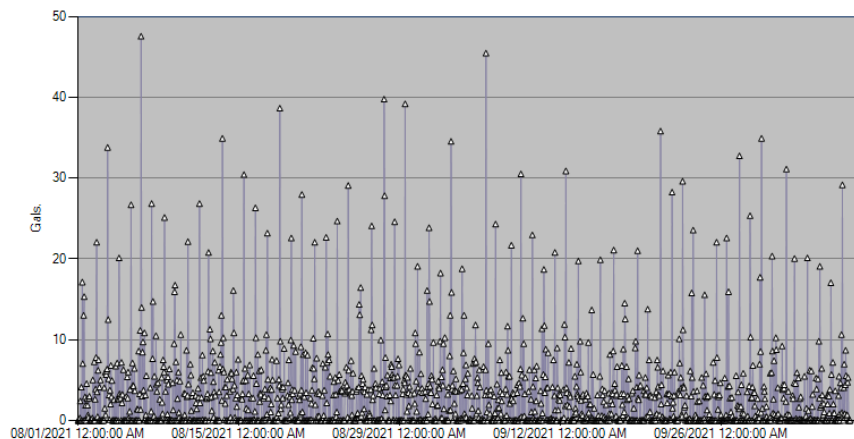
It Must Be The Meter



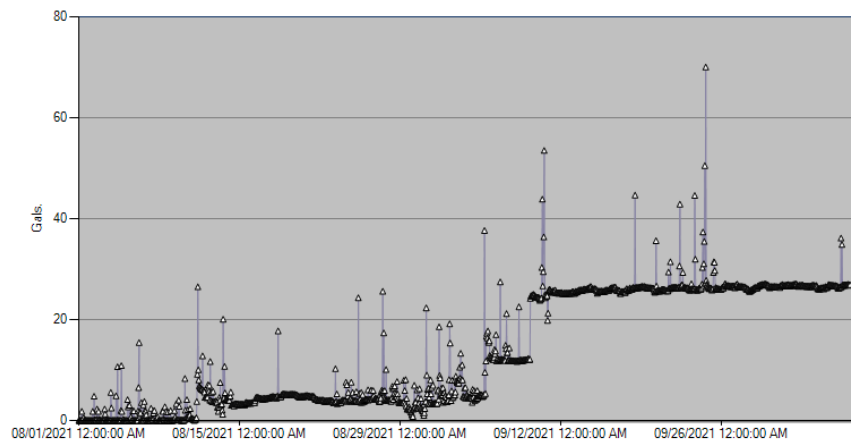


It Must Be The Meter

Interval Consumption, 08/01/2021 to 10/07/2021



Interval Consumption, 08/01/2021 to 10/07/2021

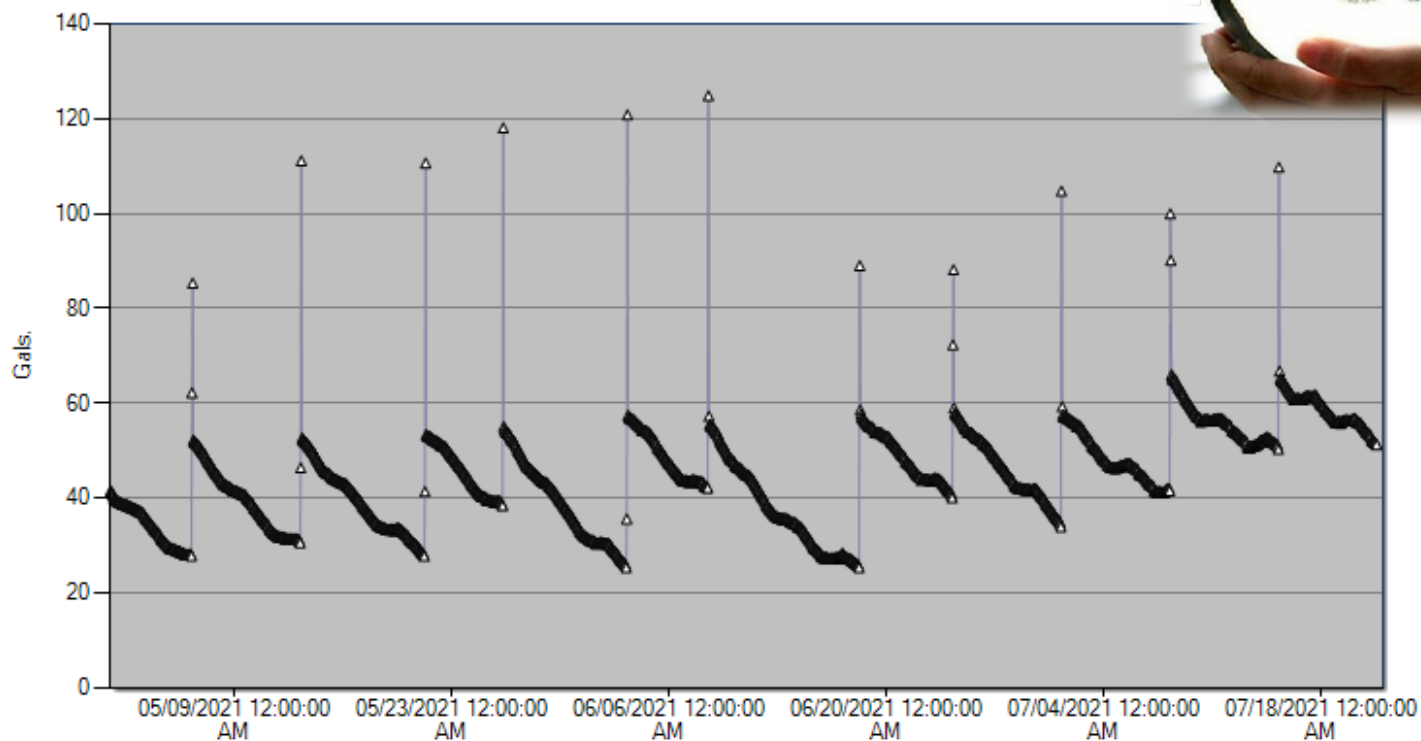




Reading the Charts



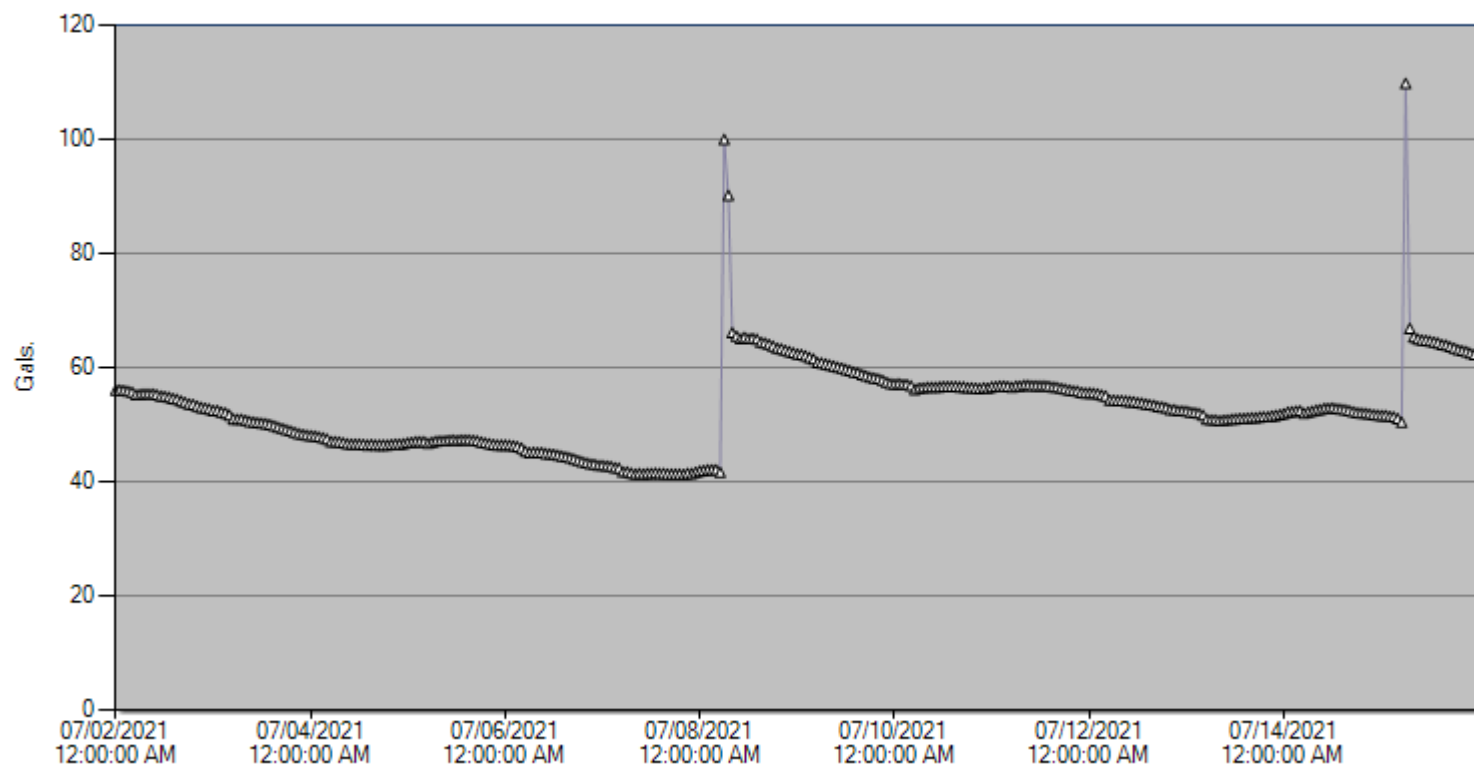
Interval Consumption, 05/01/2021 to 07/21/2021





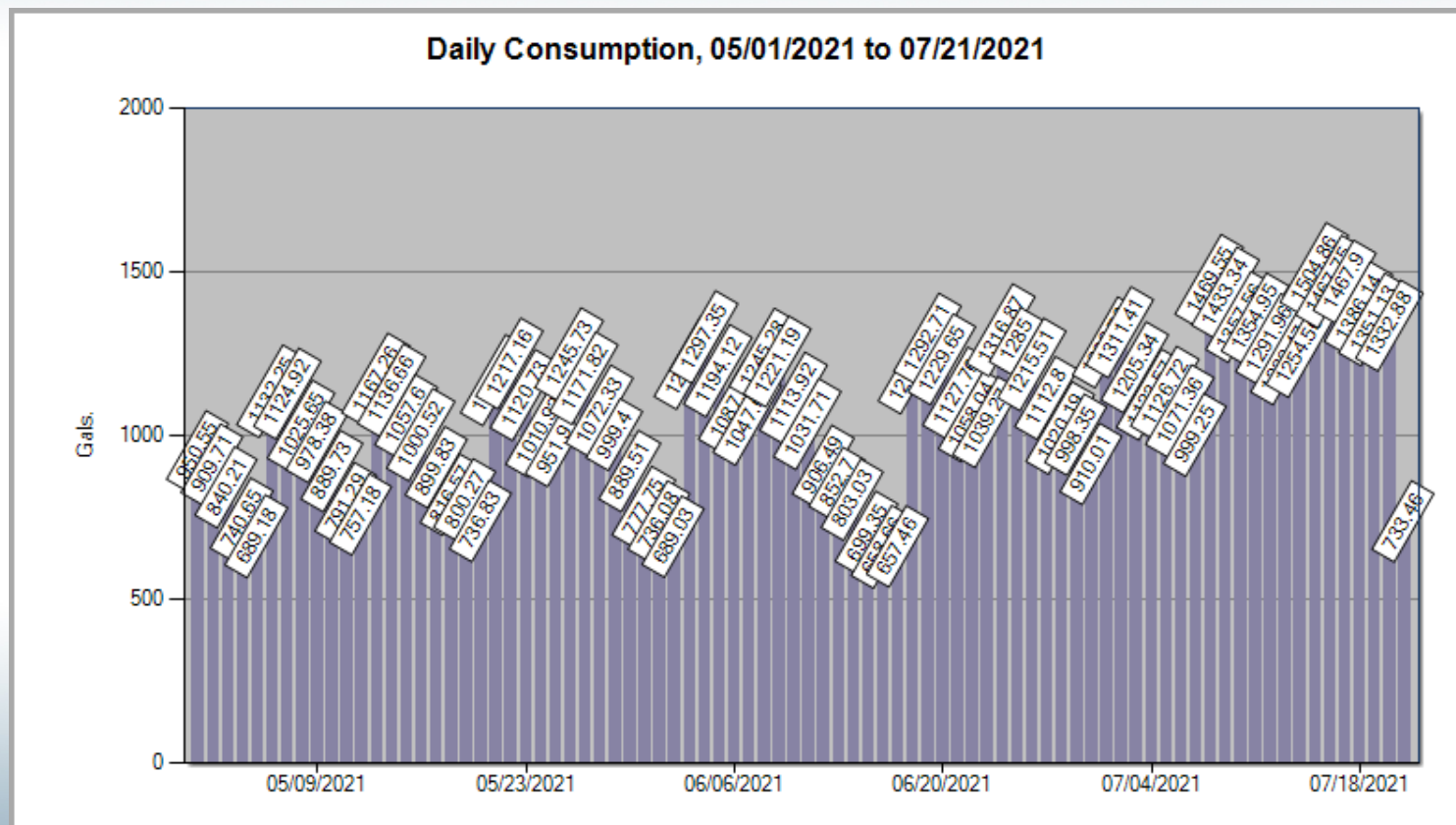
Reading the Charts

Interval Consumption, 07/02/2021 to 07/15/2021



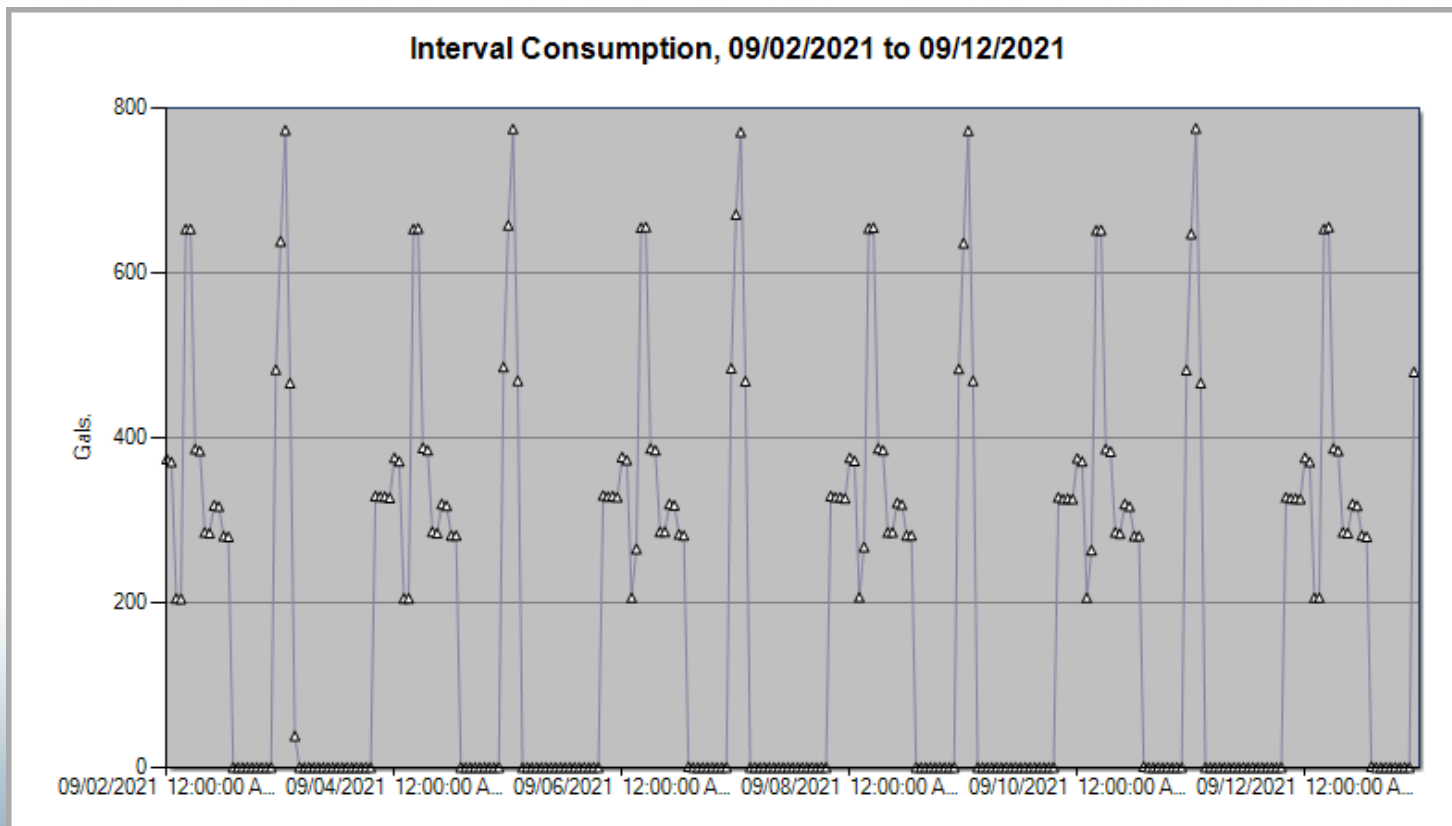


Reading the Charts



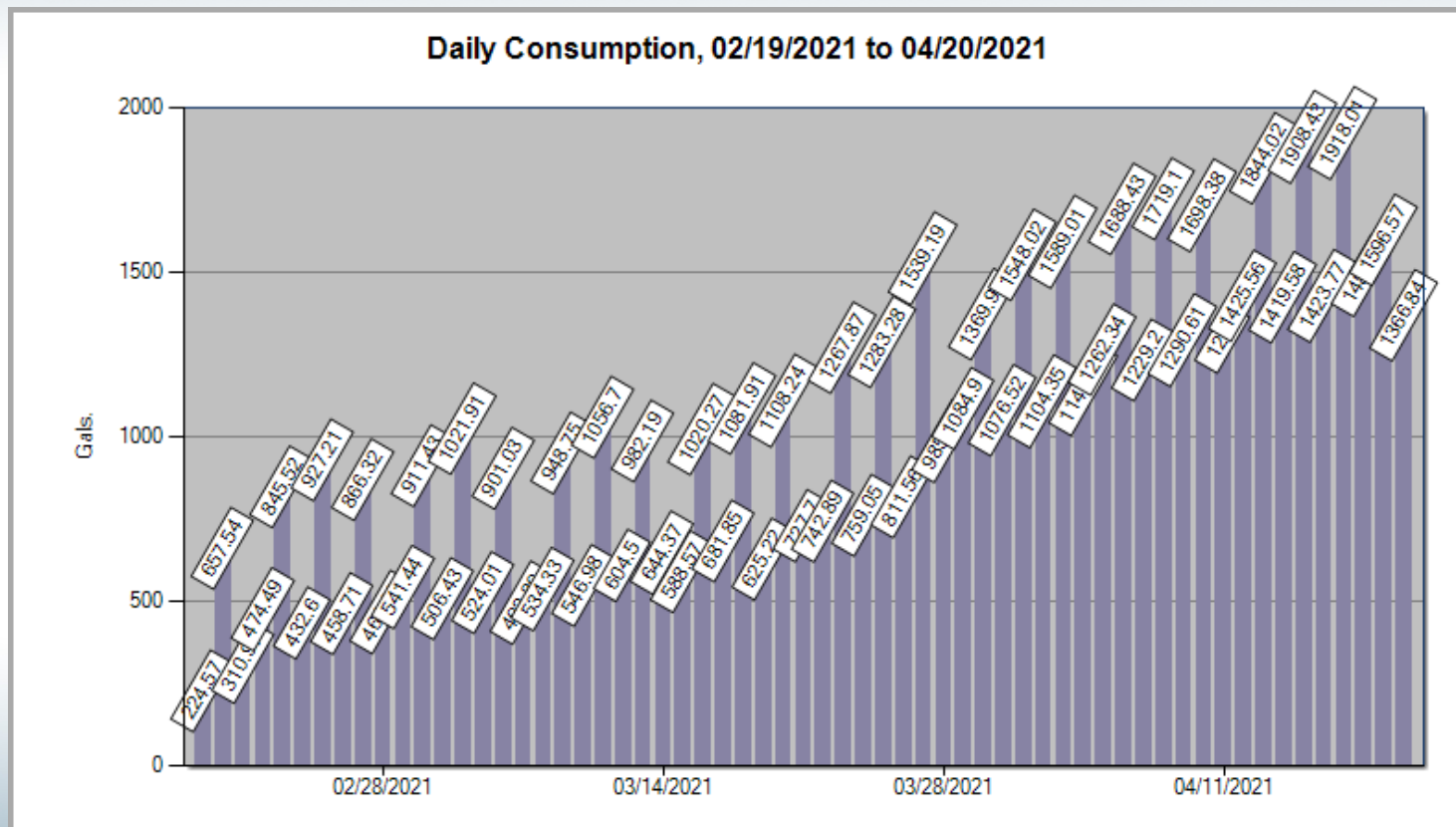


Look at patterns and flow rates





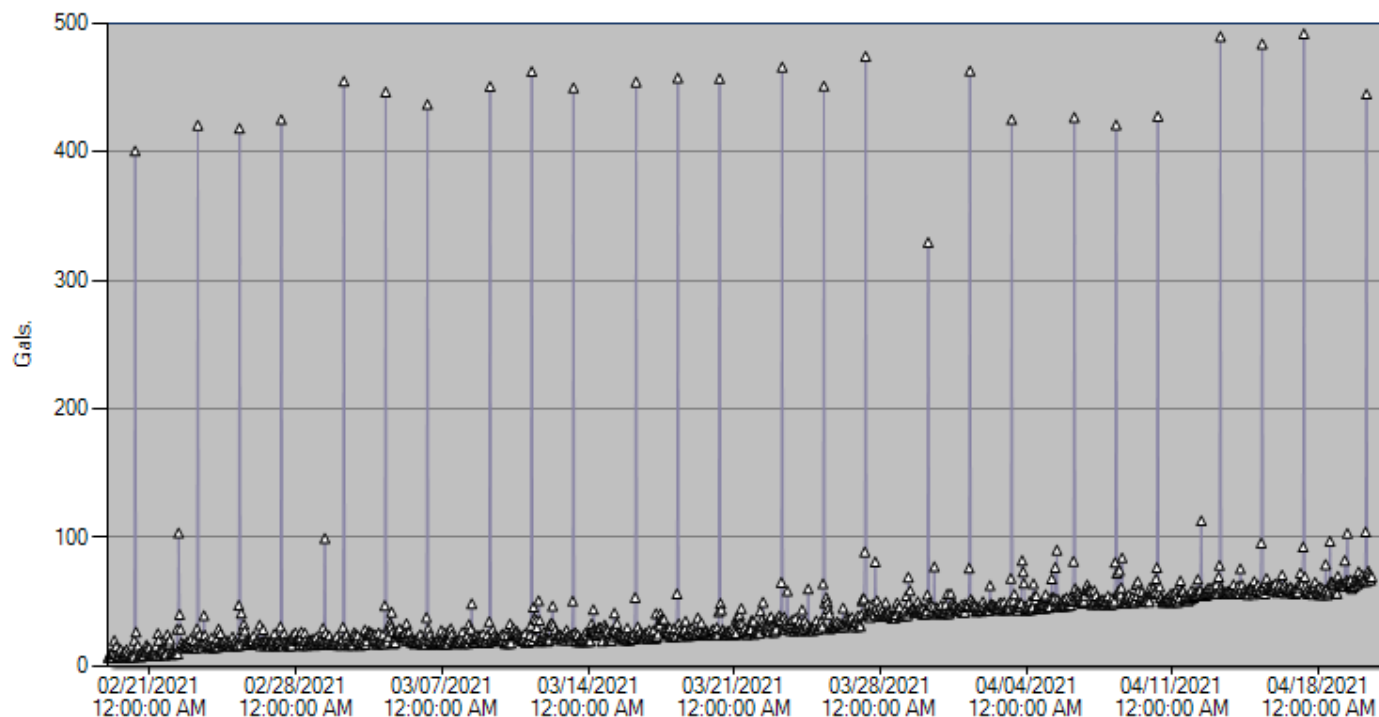
Name That Flow





Pipe or Toilet?

Interval Consumption, 02/19/2021 to 04/20/2021





#1 Water Flow Issue?



**Get a
Handle
on
Leaks**



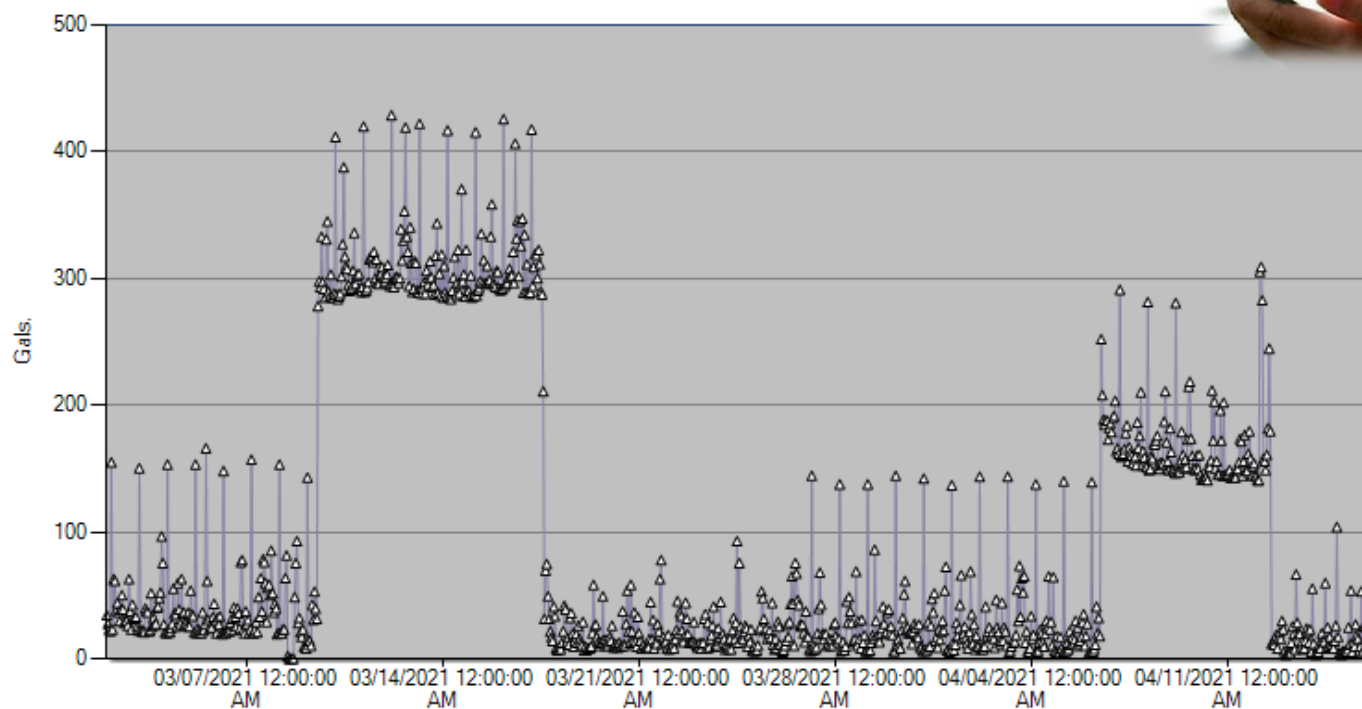
**Did you know that one running toilet can leak
200 gallons EVERY hour?! That's almost 5,000 gallons a day!**
For tips on finding water leaks, flip this open and keep reading!



Reading the Charts

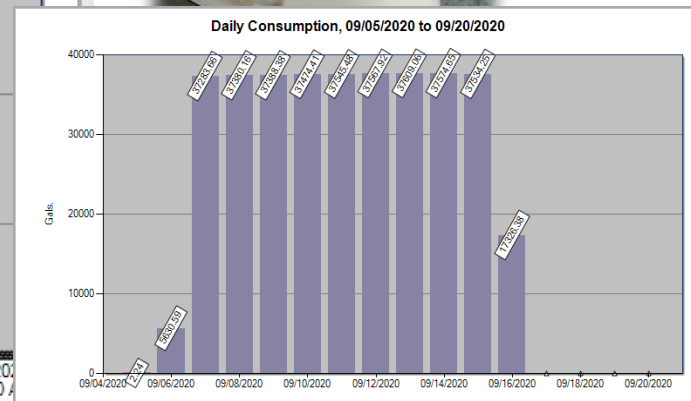
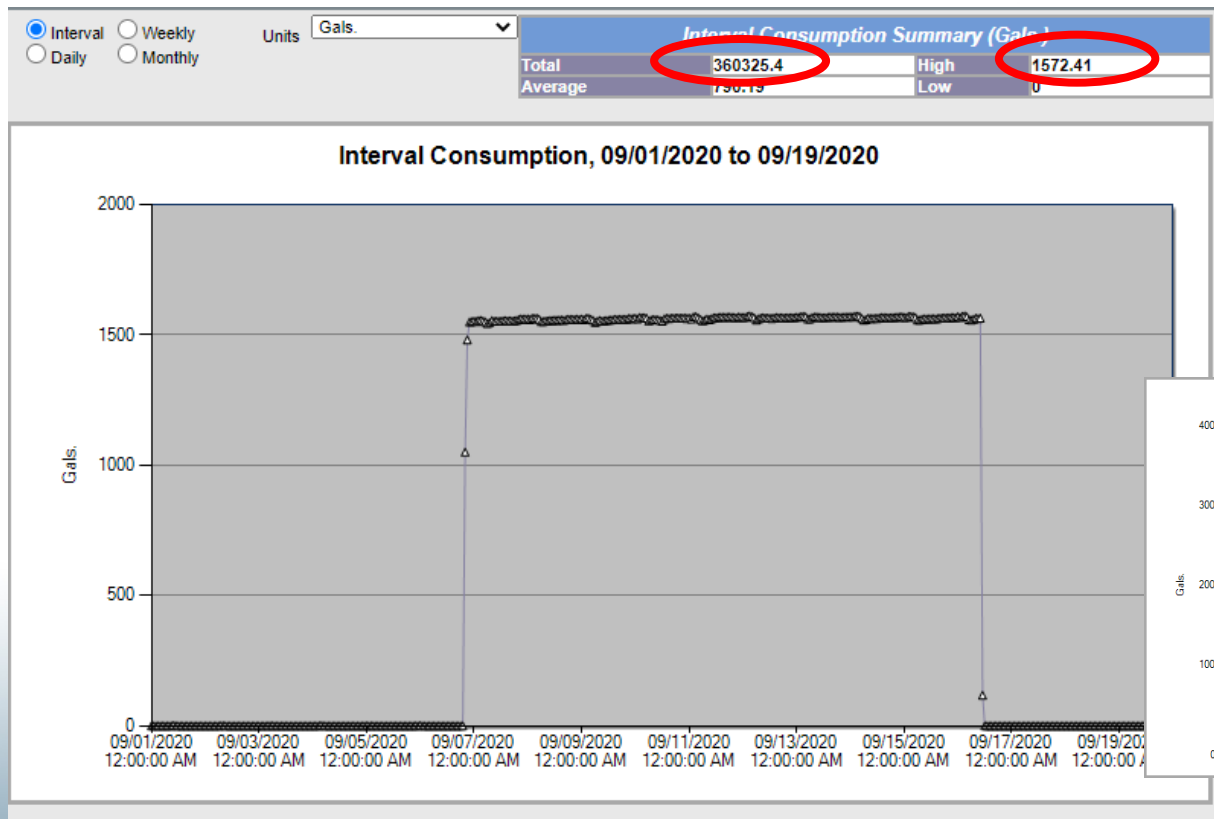


Interval Consumption, 03/02/2021 to 04/15/2021





WTF ? What The Flush?





COVID Closed Trends

Restaurants & Hotels

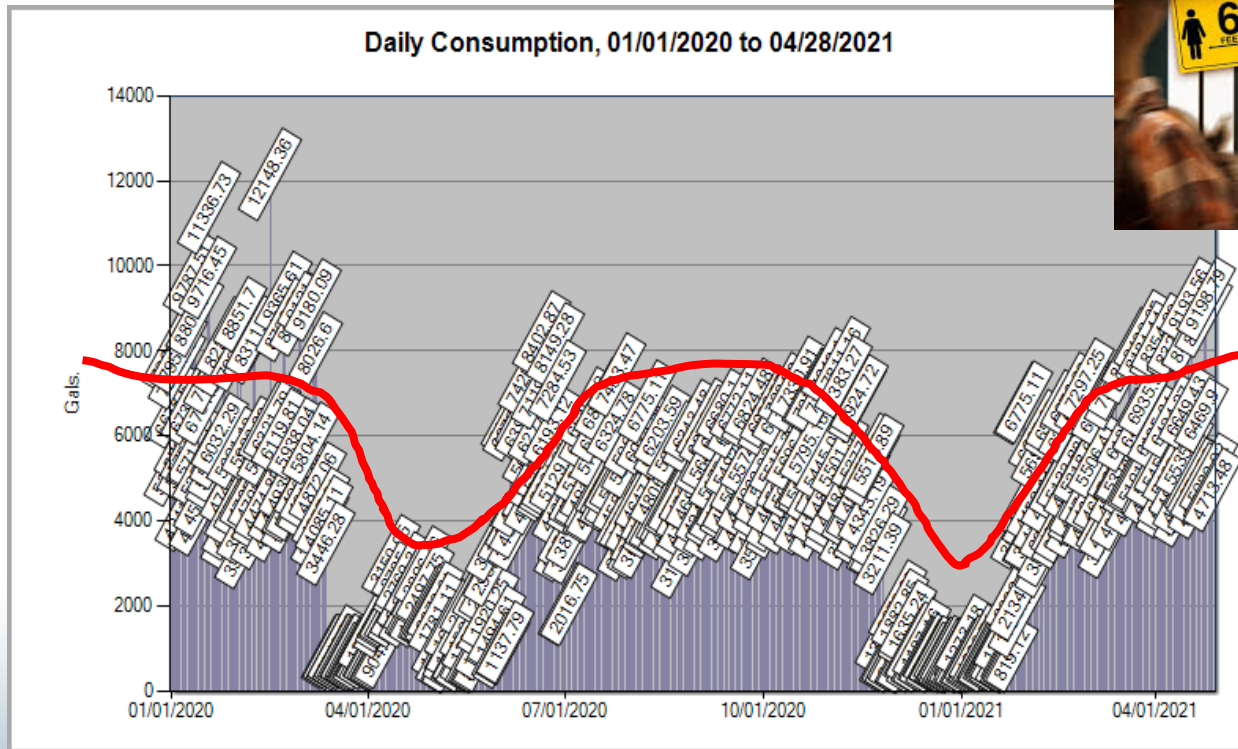


What Was The Impact?



COVID & Water Use

Restaurants – Trend #1

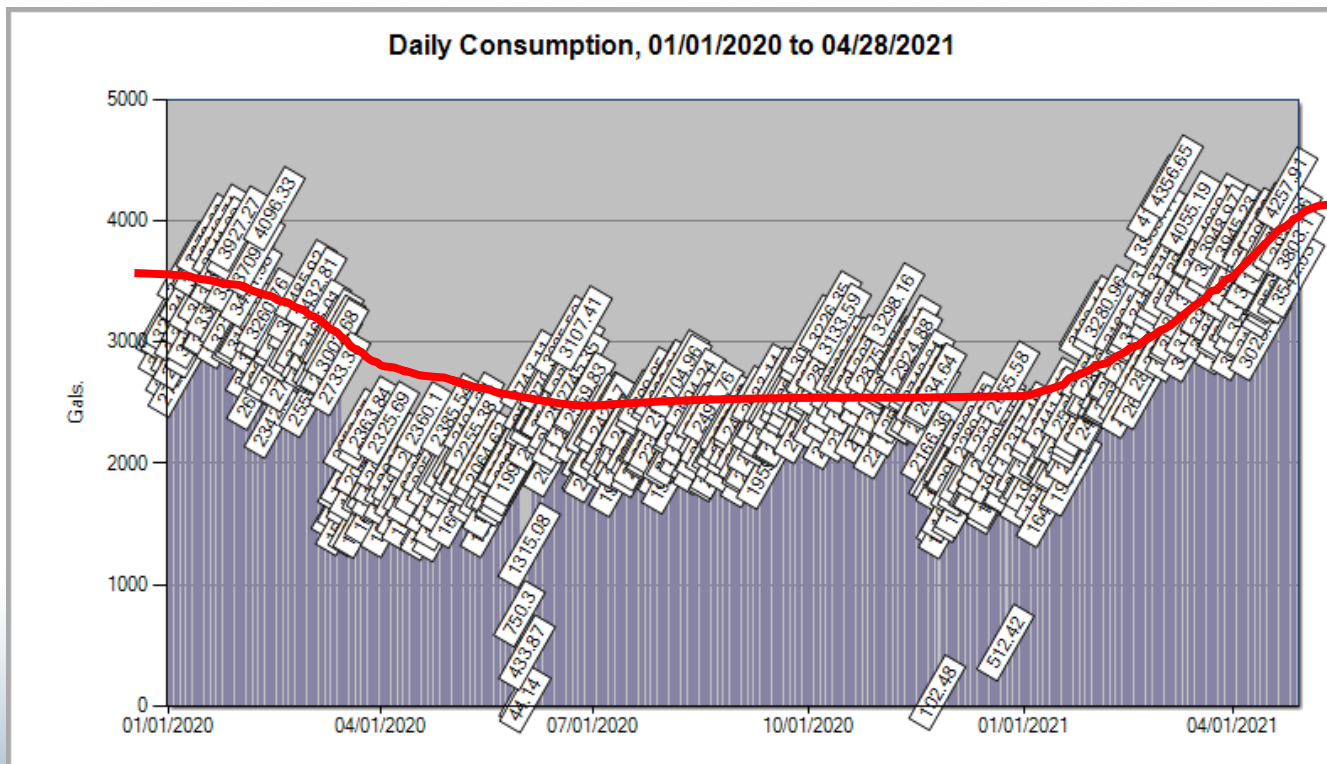


January = Pre-COVID Usage & Dips = COVID Closed

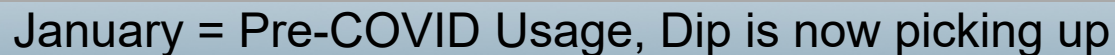


COVID & Water Use

Restaurants – Trend #2



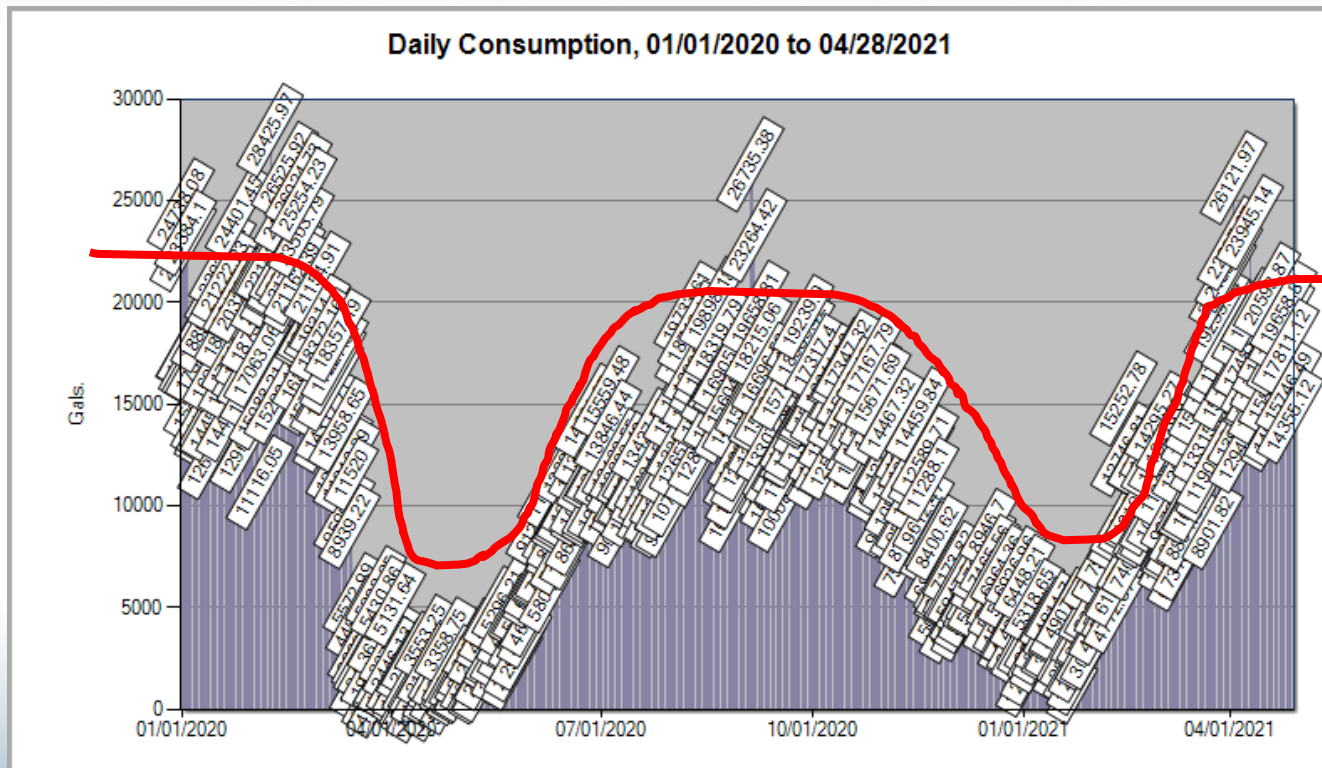
Small change in usage – restaurant stayed open.





COVID & Water Use

Hotels – Trend #1

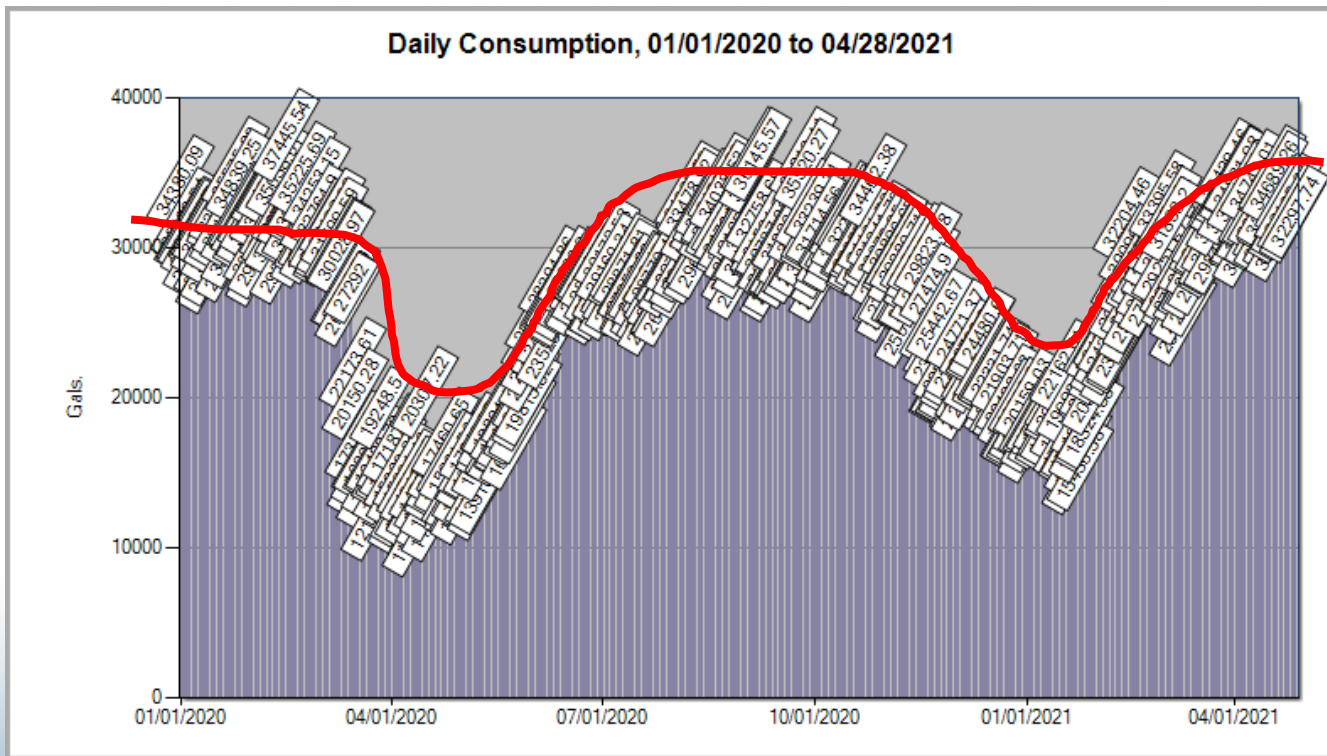


January = Pre-COVID Usage & Dips = COVID Closed



COVID & Water Use

Hotels – Trend #1/2

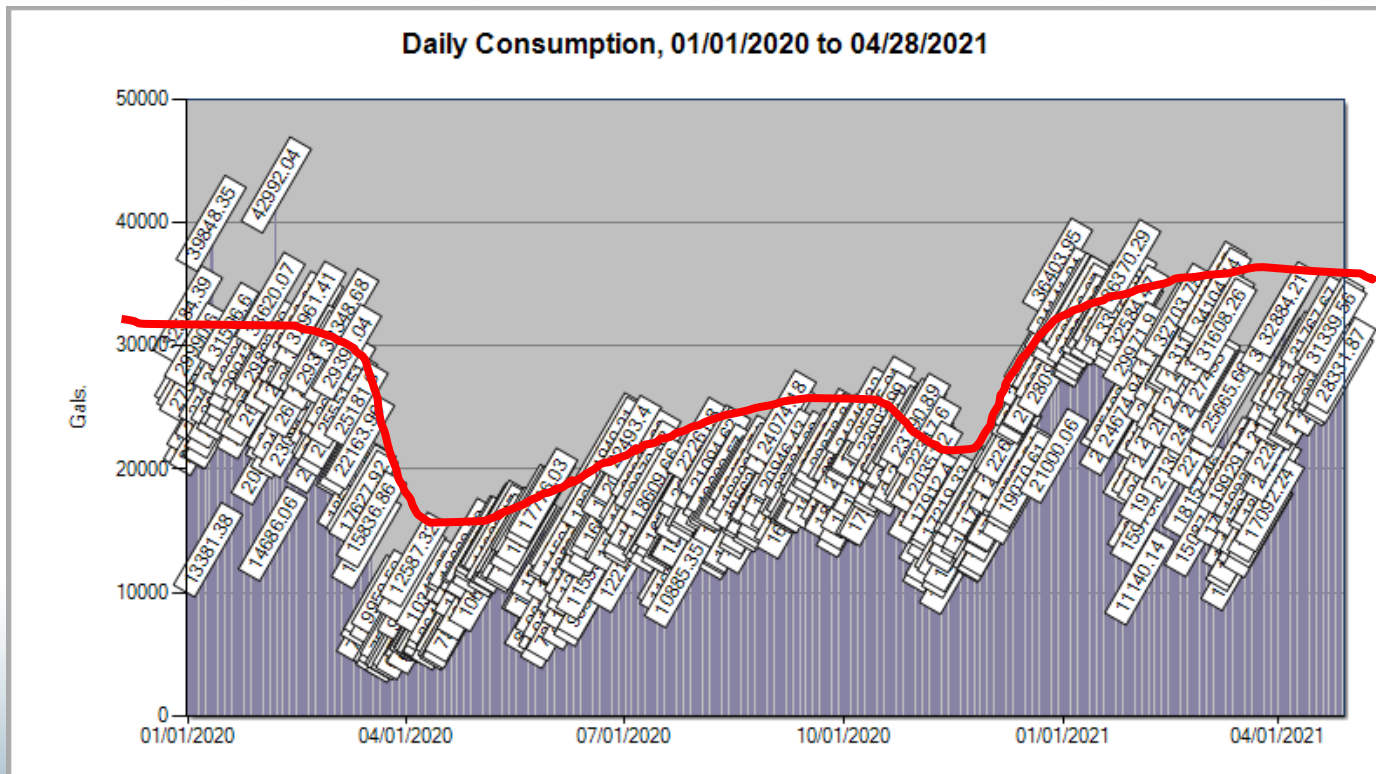


January = Pre-COVID Usage & Dips = COVID Closed



COVID & Water Use

Hotels – Trend #2

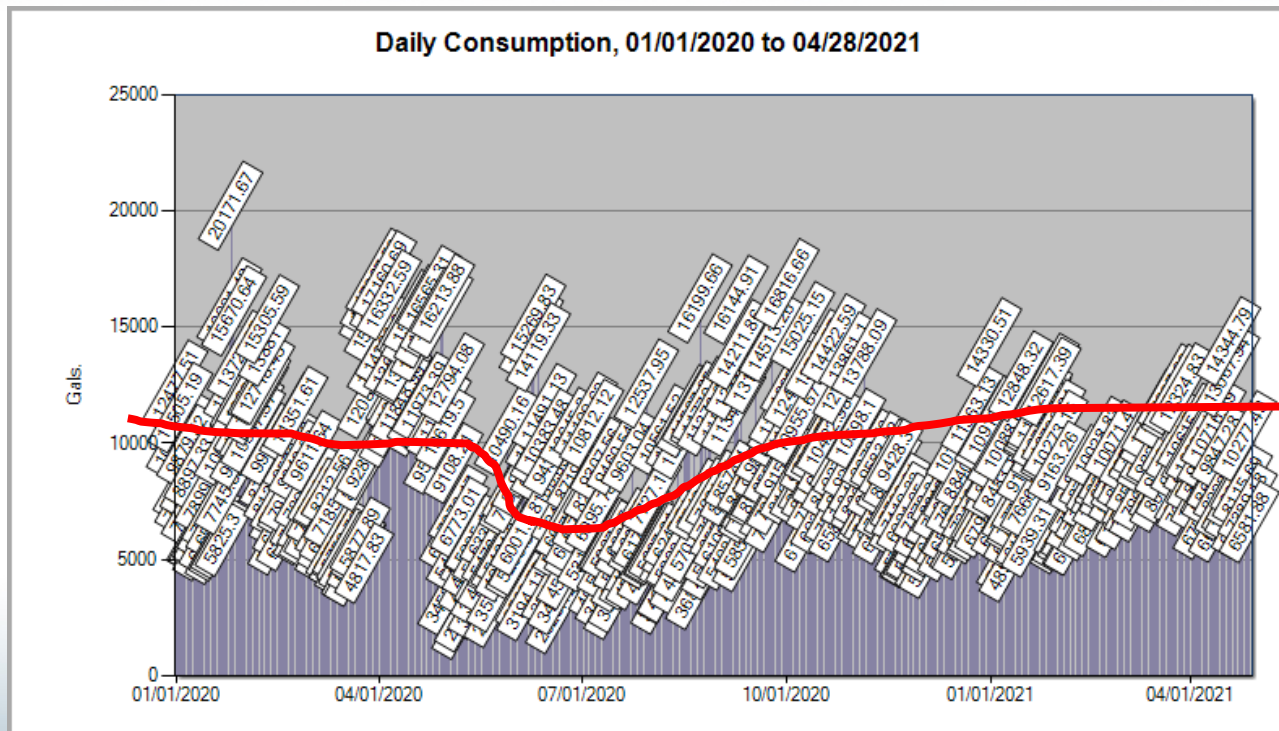


Only dip in usage during was 1st COVID closed



COVID & Water Use

Hotels – Trend #3



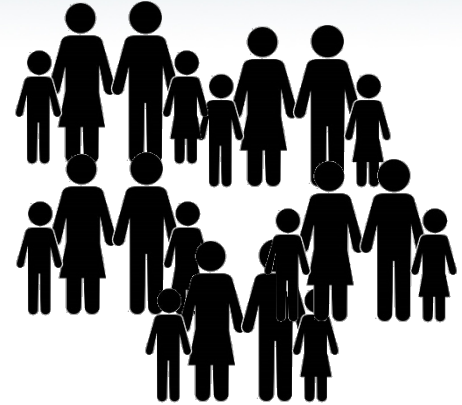
No significant change in usage – hotel stayed open.



BFD to Motivate

I Explain...

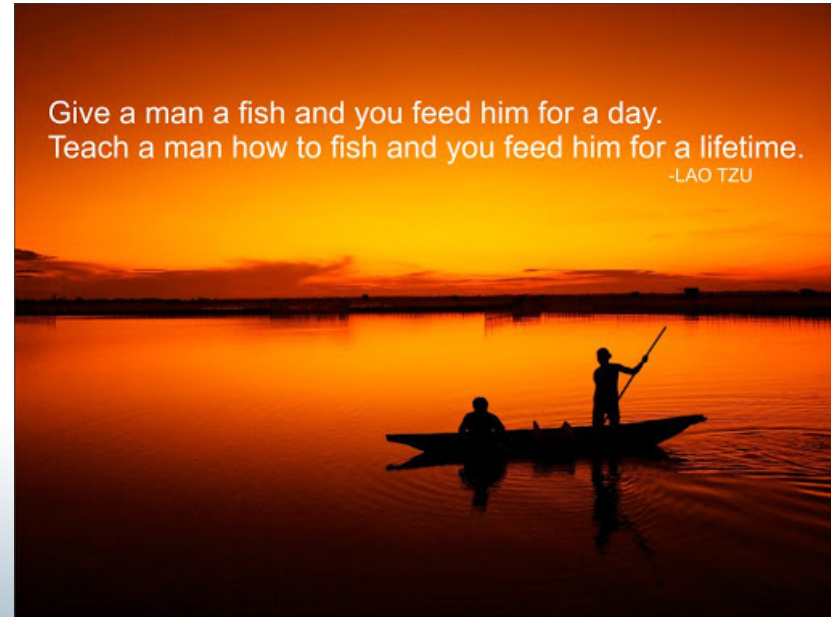
- 💧 The water use in gallons
- 💧 My “Water’s Intuition”
- 💧 The flow patterns
- 💧 The money
- 💧 Higher use options for the water
- 💧 Drought, Environment and Safety





How To Create Change

- 💧 Use Your Data with Confidence
- 💧 Educate & Assist Customers to Use the Data
- 💧 Teach the customer to Fish





My Goal & Passion

Teaching people to use water efficiently





Questions?

Debby Figoni

Water Conservation
Administrator

310-285-2492

dfigoni@beverlyhills.org

