

This presentation premiered at WaterSmart Innovations

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Once Bitten, Twice as High: Maintaining a Conservation Focus

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Fall 2017 - Customers began reporting unusual billing patterns (low August, high September)



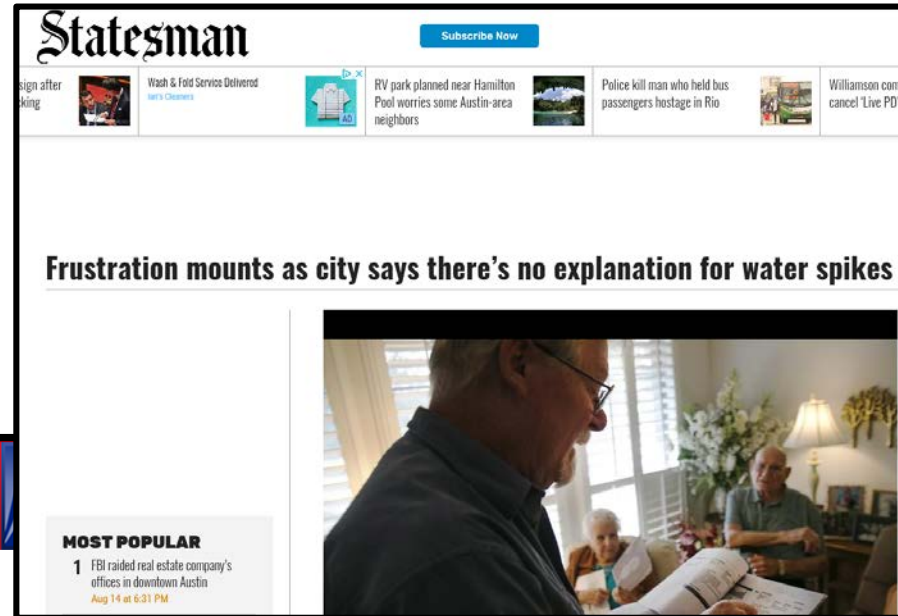
AUSTIN DEVELOPMENT TRANSPORTATION RESOURCES THE REGION



WATER

Monday, December 18, 2017 by Jessi Devenyns

Phantom water bill charges remain an unsolved mystery at Austin Water

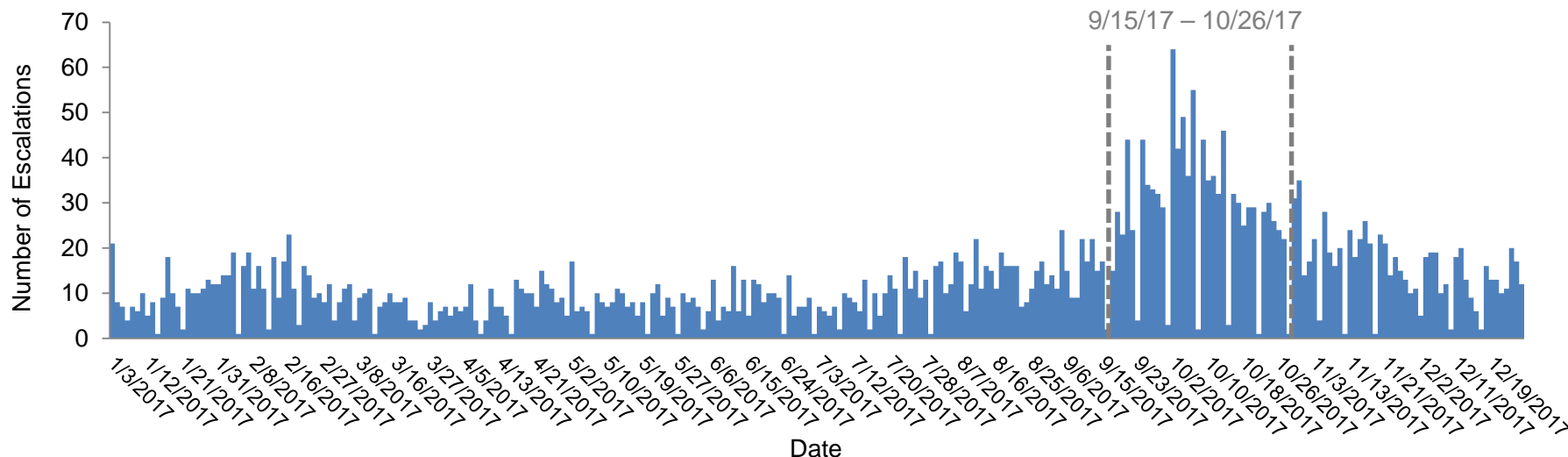


It's happening again: big spikes in Austin Water bills affecting customers across the city

Water bill issues

2017 Escalation Increase & Response

An acute increase in high water escalations began in October 2017.



Austin Water & Austin Energy took a four part approach with an immediate focus on individual restorative efforts.

Analytic:

Perform meter to bill data analytics to identify specific issues

Restorative:

Solve any immediate issues and make the customer whole

Preventative:

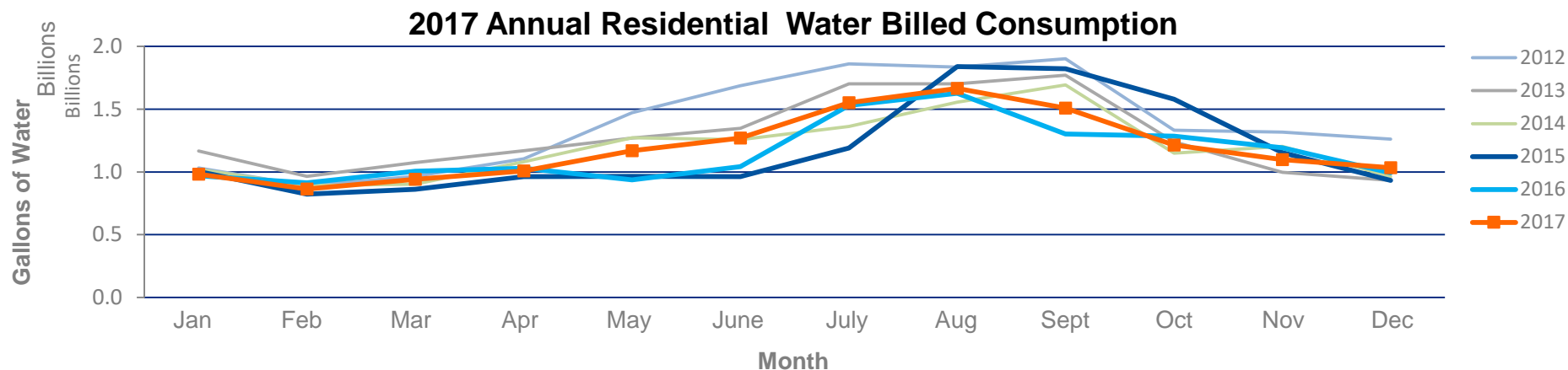
Improve existing business processes and quality assurance measures

Proactive:

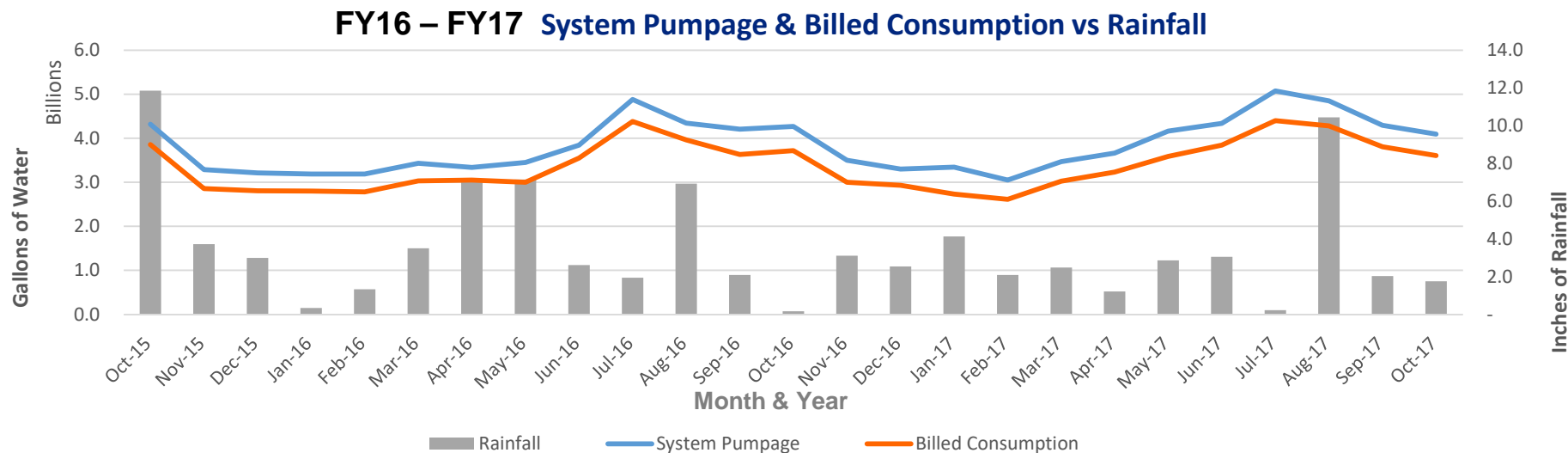
Identify future opportunities to improve customer experience

Initial Analysis Found No Irregularities

Billed consumption in 2017 aligned with previous years.

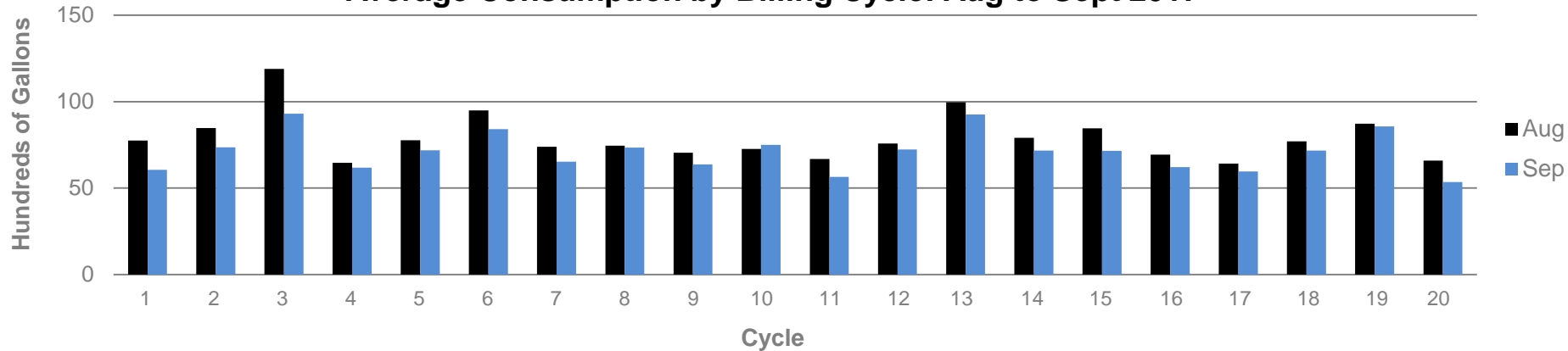


Austin Water pumpage and billed consumption aligned with rainfall patterns as expected.



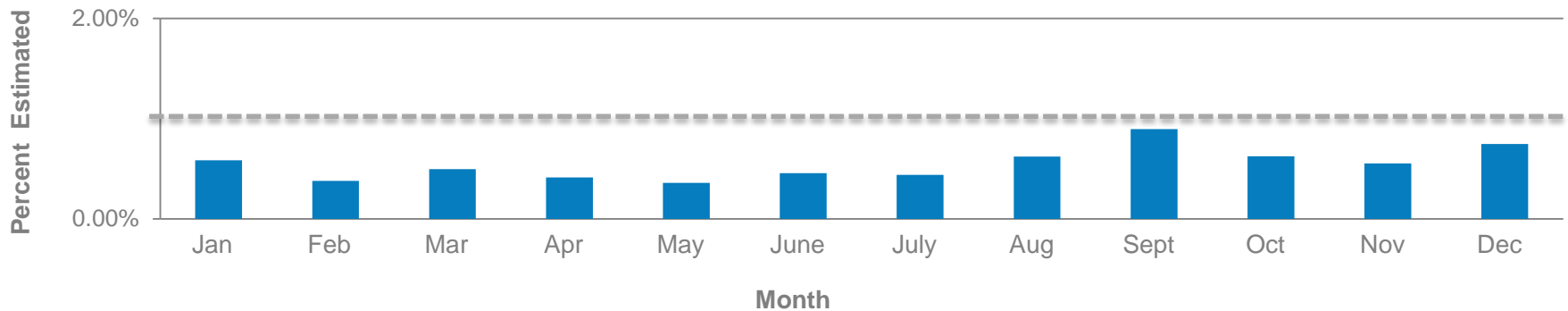
August to September consumption at the cycle level aligned with seasonal trends as expected.

Average Consumption by Billing Cycle: Aug to Sept 2017



*Billing system estimates were within expected range. Typically, **less than 1%** of Residential bills are estimated.*

Estimated Residential Water Bills 2017



About as Useful as a White Crayon?

Unusual Usage Patterns

- Analysis of escalation cases created between July and December
- Confirmed clustering of cases in particular neighborhoods
- Unusual usage patterns identified in 135 routes
- Characterized by an unusually low August read followed by higher September read
- Eventually, investigation discovered fraudulent reads linked to two meter readers with disproportionate number of routes assigned.

AE/AW began with a top down analysis of all routes:

1,080 Routes (~206K Customers)

Of the 1,080 routes, AE/AW identified which routes had an aggregate lower August consumption followed by a higher September:

135 Routes (~32K Customers)

Of the 135 routes, AE/AW identified which individual customers had a lower August consumption followed by a higher September:

~17,800 Customers

Of the 17,800 customers, identified which customers had a **higher total charge for August + September** than if the consumption had been spread equally over those months.

Higher Tier Effect

These customers will receive bill smoothing:
~7,400 Customers

Lower Tier or Debit

These customers will not benefit from smoothing:
~10,400 Customers

Of the 17,800 customers, some may also qualify for a **High Bill Administrative Adjustment:**

~700 customers

Step One: Reverse Financial Harm to Customer

AW & AE worked together to “smooth” the consumption between the two months, which will result in a credit for ~7,400 customers

- Average credit of \$20
- Credit not exceeding \$80 in most cases
- Credits total approximately \$138K
- Affected Customers are already receiving notification letters
- Bill Smoothing completed by March 15, 2018, but...
- Many customers still unsatisfied

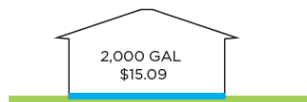
A TALE OF THREE HOUSES

Smoothing will adjust the affected customer's water bill by spreading the amount evenly across the two months, minimizing the effect of the tiered water rate structure and potentially resulting in a credit.

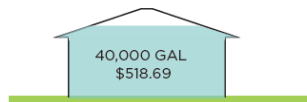
EXAMPLE 1



MONTH 1:

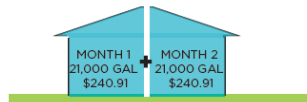


MONTH 2:



Total non-smoothing cost
for months 1 + 2 = \$533.78

SMOOTHING IS:
(MONTHS 1+2) ÷ 2 x TIER RATE



Total for smoothing cost
for months 1 + 2 = \$481.82

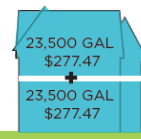
✓ **CREDIT = \$51.96**



EXAMPLE 2



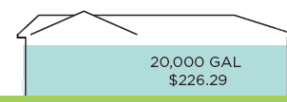
Total non-smoothing cost
for months 1 + 2 = \$559.45



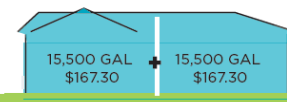
Total for smoothing cost
for months 1 + 2 = \$554.94

✓ **CREDIT = \$4.51**

EXAMPLE 3



Total non-smoothing cost
for months 1 + 2 = \$314.09

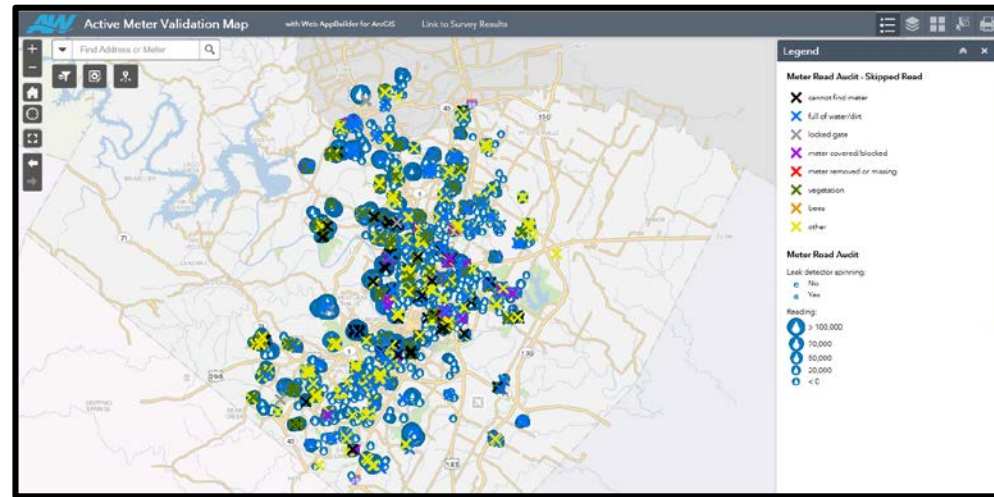
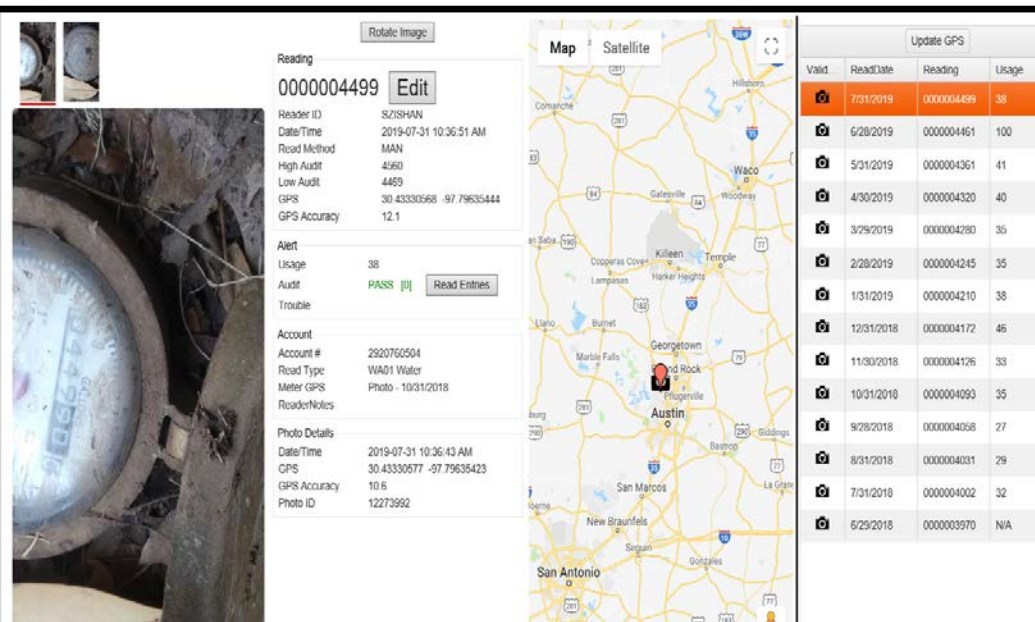


Total for smoothing cost
for months 1 + 2 = \$334.60

✗ **NO CHANGE***

*If smoothing results in a higher bill than the original amount, customers will not be charged or receive a credit.

- January 2018 – AW read verification
- January 2018 – Photos of most meter reads

Reading: 0000004499 Edit

Reader ID: S278SHAN
Date/Time: 2019-07-31 10:36:51 AM
Road Method: MAN
High Audit: 4560
Low Audit: 4469
GPS: 30.43330568 -97.79635444
GPS Accuracy: 12.1

Alert: Usage 38
Audit: PASS
Trouble: Read Entries

Account: Account # 2920760504
Road Type: VIA01 Water
Meter GPS Photo: 10/31/2018

Photo Details: Date/Time 2019-07-31 10:36:43 AM
GPS 30.43330577 -97.79635423
GPS Accuracy 10.6
Photo ID 12273992

Map Satellite

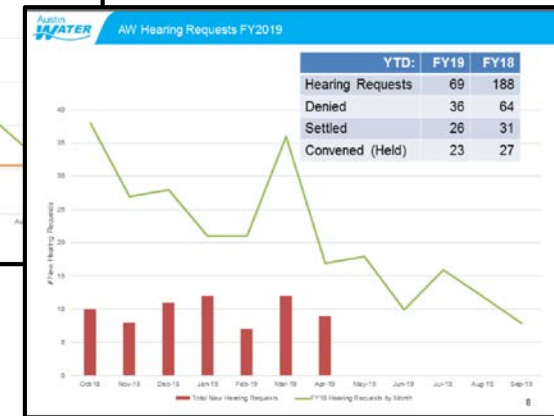
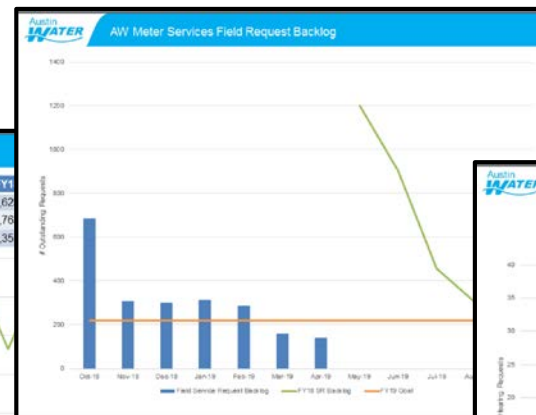
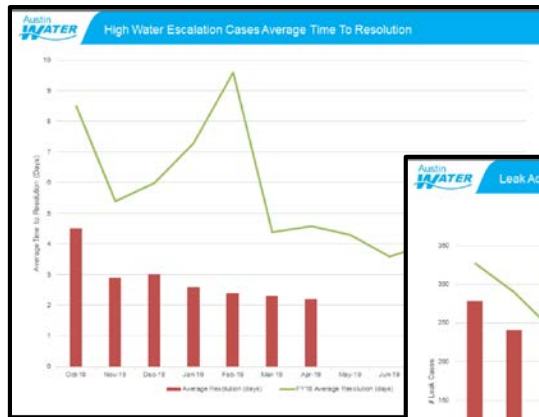
Update GPS

Valid	Read Date	Reading	Usage
📷	7/31/2019	0000004499	38
📷	6/28/2019	0000004461	100
📷	5/31/2019	0000004361	41
📷	4/30/2019	0000004320	40
📷	3/28/2019	0000004280	35
📷	2/28/2019	0000004245	35
📷	1/31/2019	0000004210	38
📷	12/31/2018	0000004172	46
📷	11/30/2018	0000004126	33
📷	10/31/2018	0000004093	35
📷	9/28/2018	0000004058	27
📷	8/31/2018	0000004031	29
📷	7/31/2018	0000004002	32
📷	6/29/2018	0000003970	N/A

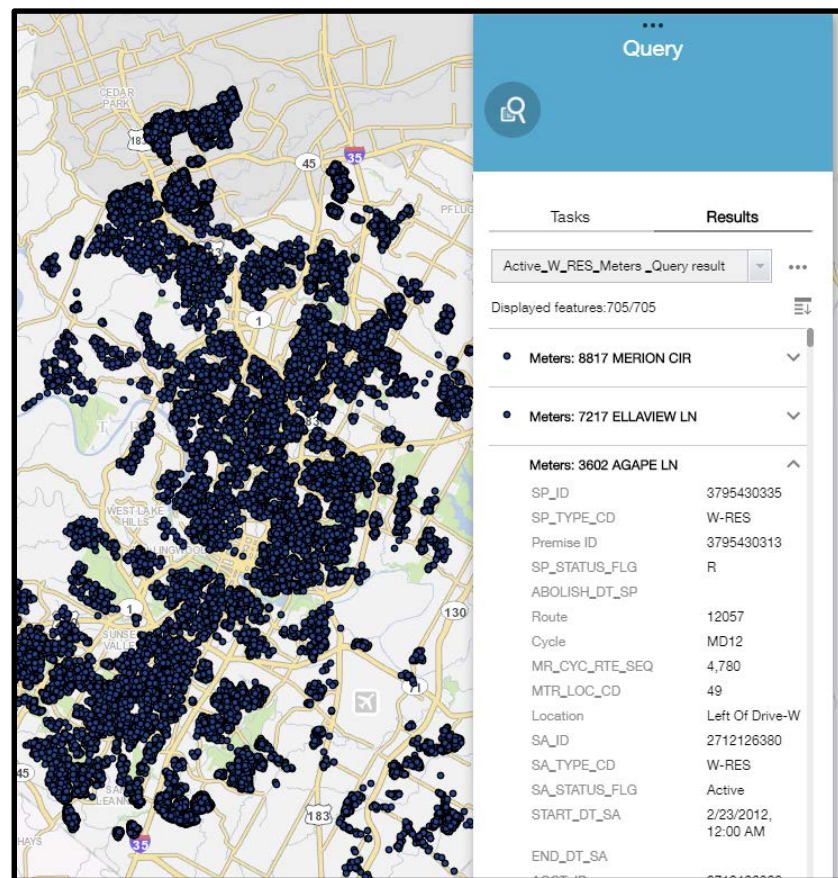
- May 2018 – Policy changes related to adjustments and hearings
- June 2018 - Temporary staff added to AW meter services to speed response

- March-August 2018 – Customer Service training for all AW staff
- May 2018 – AE increased number of customer experience Quality Assurance reviews of agent calls
- May 2018 – AE launched “tone & empathy” training for leaders and customer service representatives
- October 2018 – new permanent positions in AW consumer services and meter shop to facilitate review and response
- 2019 – AW reorganization & new position: Assistant Director for Customer Experience

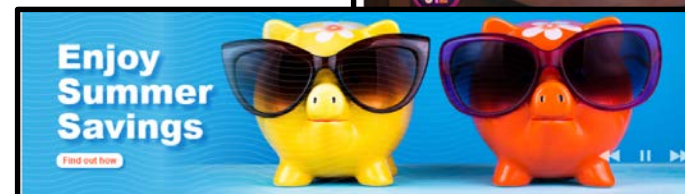
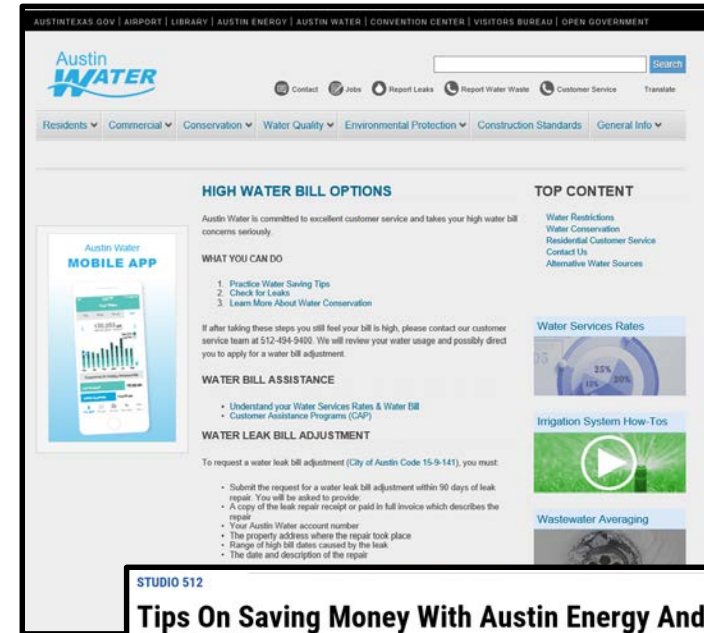
- December 2017-August 2018 – Joint workgroup of Electric Utility and Water/Wastewater Commissions
- February 2018 – Briefings & Memos to City Council and Public Utility Commission
- February-April 2018 – Multiple community open houses
- October 2018-May 2019 – Monthly customer service metric reports to Water/Wastewater Commission



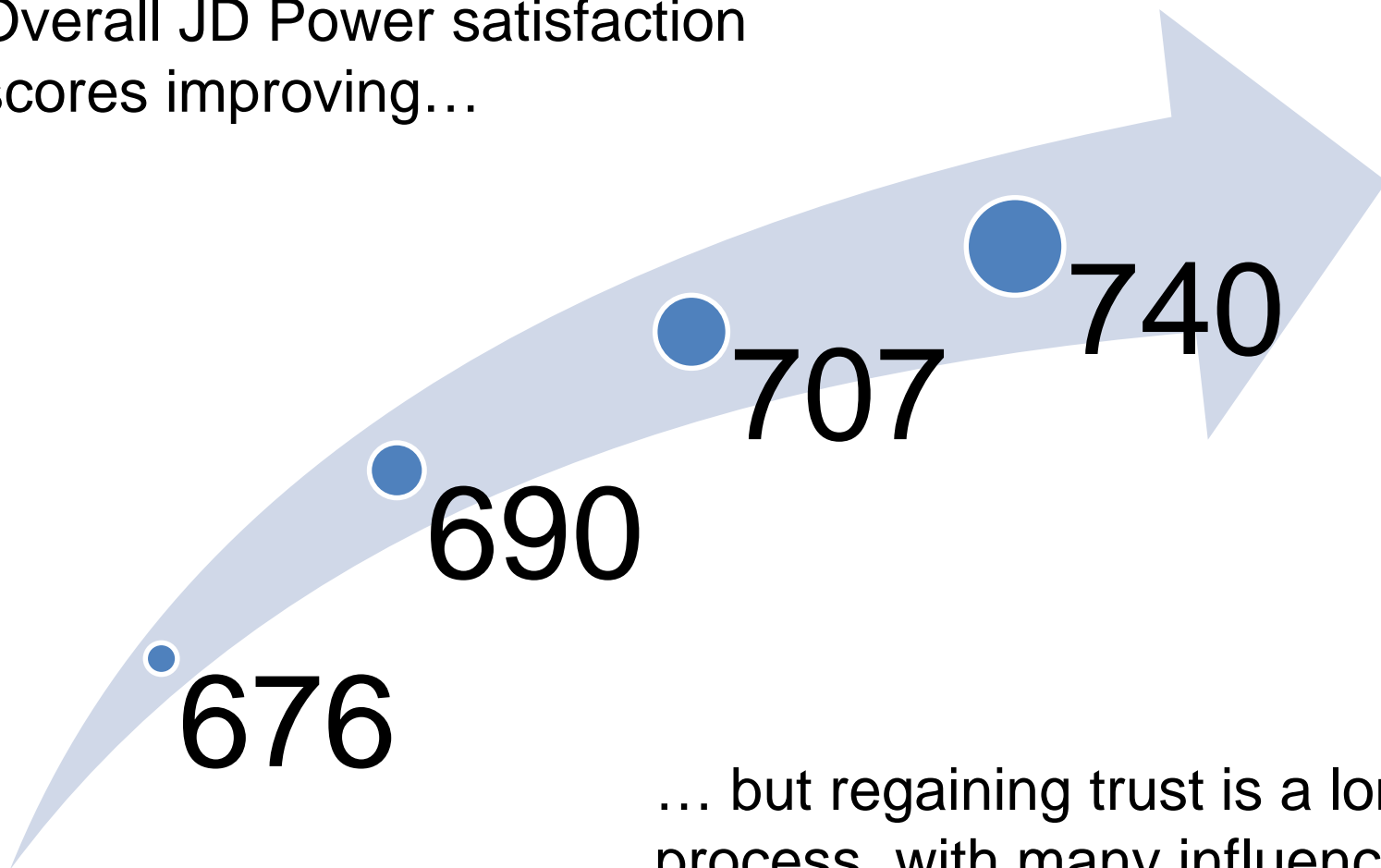
- GPS screening reports to guard against meter reading fraud
- Adjustments to prioritize very high reads for further review
- Efforts to reduce estimated bills and review accounts with consecutive estimates
- New flag and review for bill segments over specified \$
- GPS tool to review daily meter reads for unexpected high use



- *(Note: this is the critical one...)*
- New webpage dedicated to high bills
- Water enforcement staff retasked for additional irrigation audits during high demand periods
- Joint Austin Energy/Austin Water “Summer Savings” campaign
 - Print, radio, TV, morning news spots & community events
- Email to customers whose bill \$ doubled from April to July prior year
 - 49% open rate

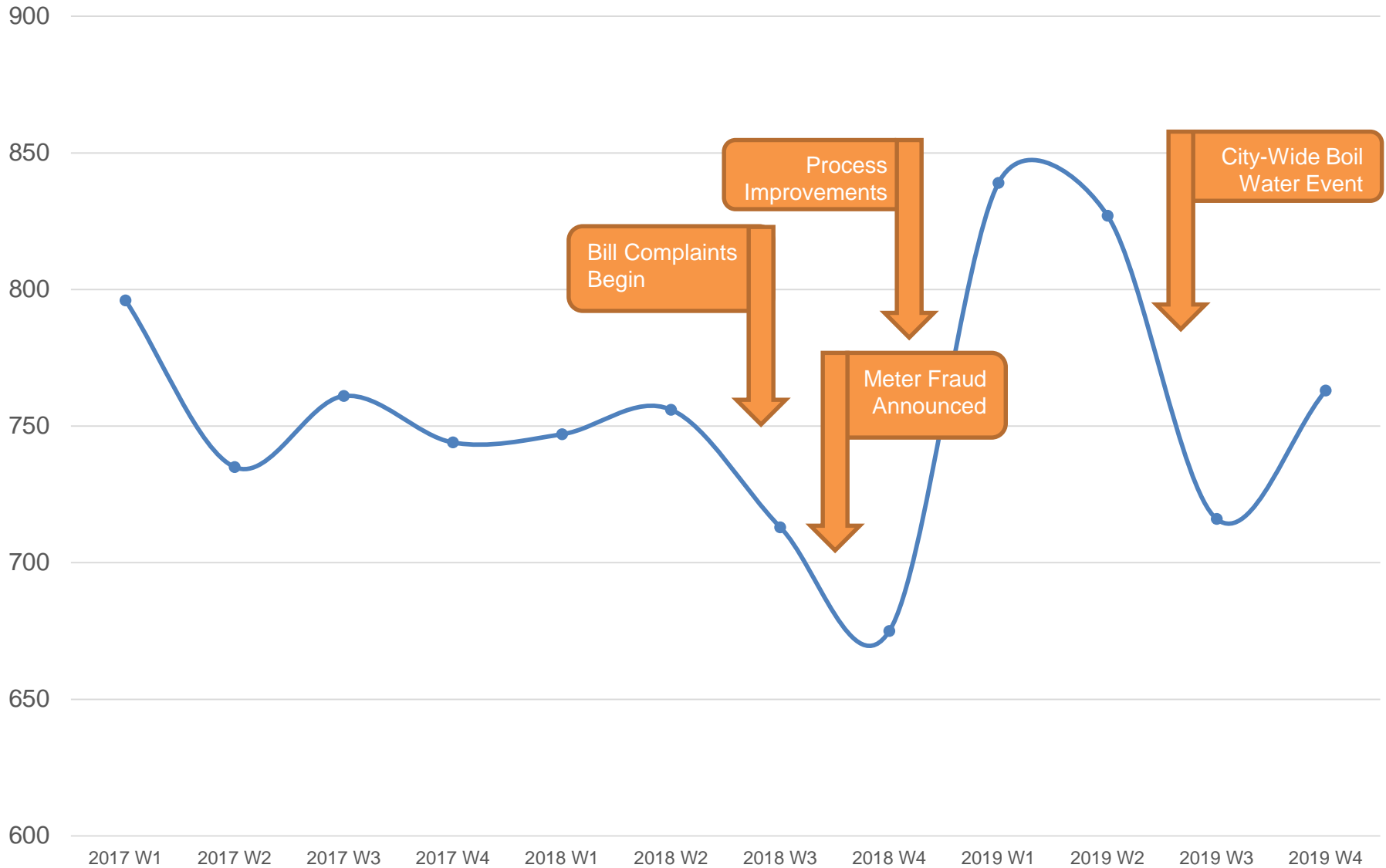


Overall JD Power satisfaction
scores improving...



... but regaining trust is a long
process, with many influences.

JD Power Customer Service Trends



- Processes are stronger and more customer-friendly after this experience, with additional dedicated resources
- Customers continue to underestimate typical summer use
- Overall utility trust is key to successful conservation education
- ... and AMI will need this level of trust to facilitate customer adoption.
- Good news: 2019 was our hottest September and our lowest GPCD!

