

This presentation premiered at WaterSmart Innovations

watersmartinnovations.com





Tapping into a new conservation technique: automated leak alerting and resolution solutions

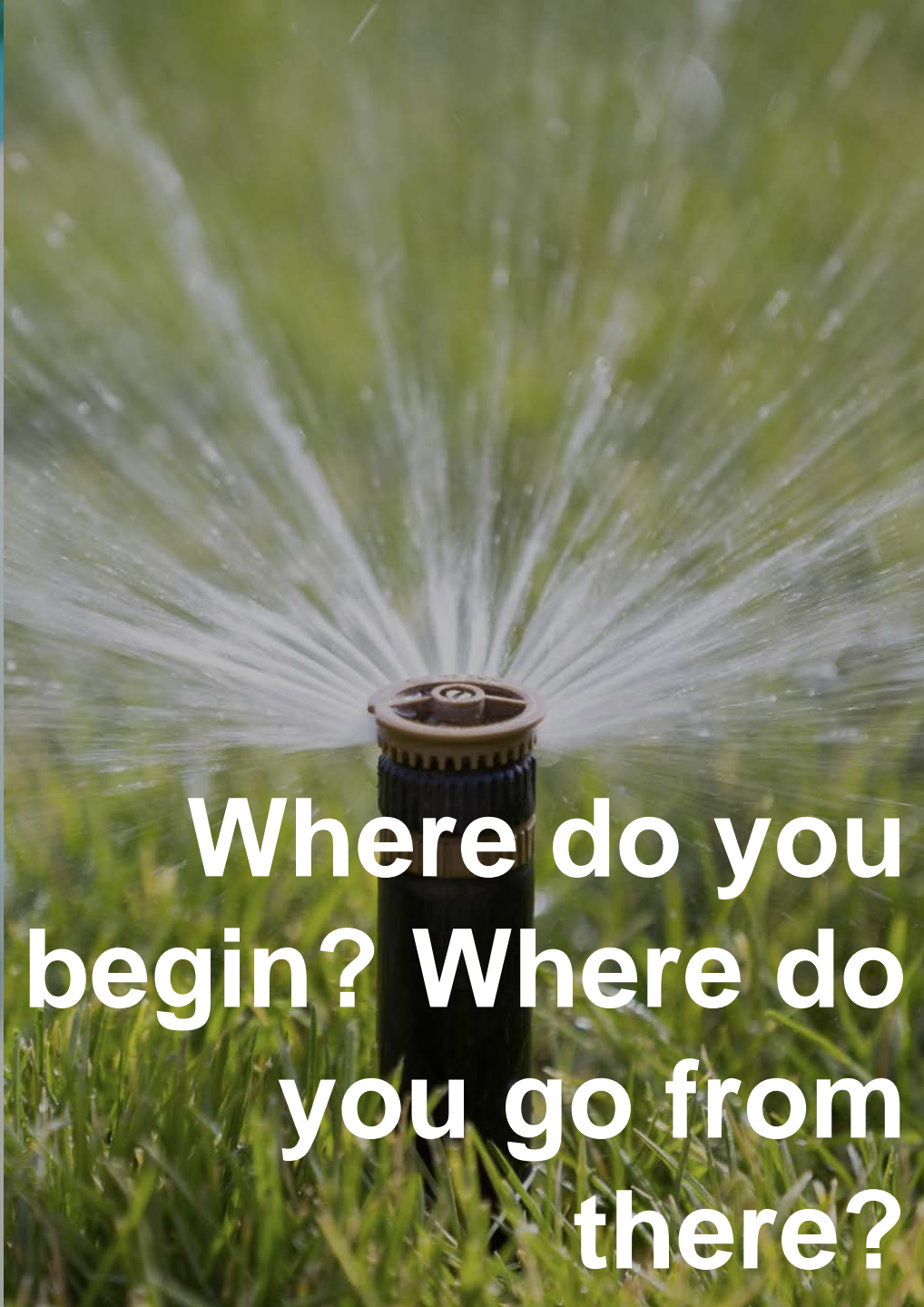
Watersmart Innovations Conference & Exposition
October 5, 2017

Kelly Coplin, Senior Product Manager
kcoplin@watersmart.com

Learning Objectives:

- Why focus on leaks?
- Brief overview of our leak alerting and resolution platform
- Case study of Glendale Water and Power leak alerting implementation
 - GWP Leak alerting by the numbers
 - Example customer experience
 - Estimating the conservation impact of leak alerting

**If you want to
conserve...**



**Where do you
begin? Where do
you go from
there?**

The reach of leaks is very large

According to the EPA:

- On any given day, 10% of homes have leaks that waste 90 gallons or more per day

Based on WaterSmart Analysis:

- Over the course of one year, about half of homes have leaks that are detectable through AMI metering data.

Leaks cost everybody:

- **Customers** – higher water bills, possible water damage
- **Utilities** – effects on customer satisfaction, field and customer service time and labor, and chargebacks if maintain a leak forgiveness policy

What do leaks look like?

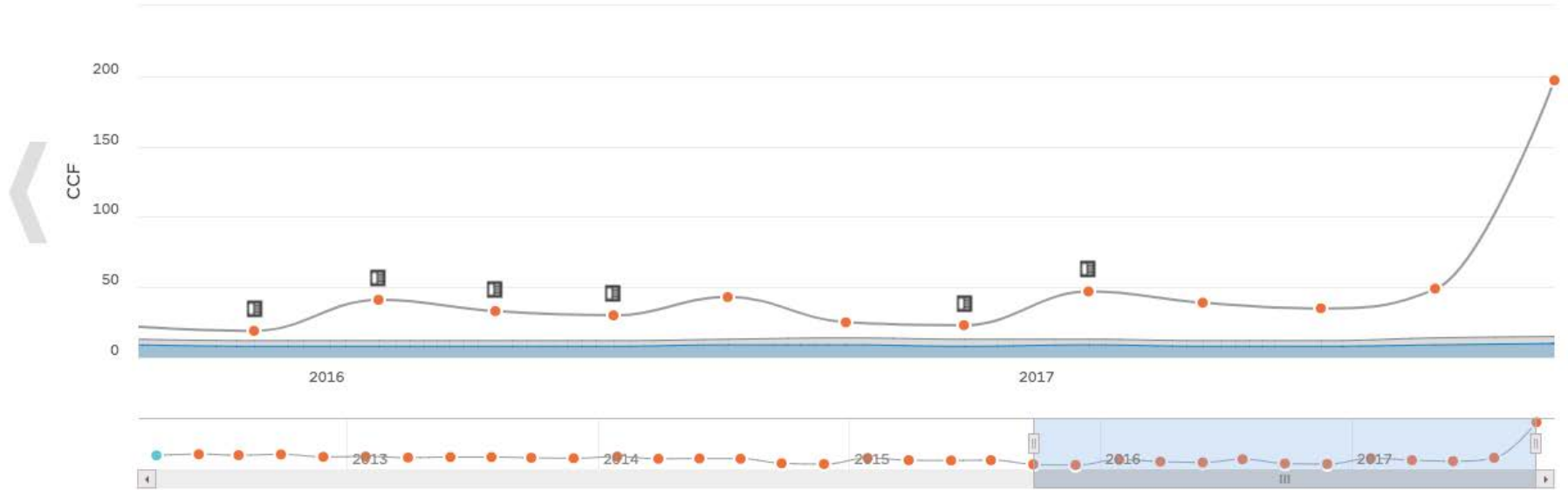
History

BILLING LEAKS

Sep 25, 2015 — Sep 24, 2017

CCF GALLONS PER DAY

Average Households Most Efficient Water Report



Once you have the data... what's next?

- Time and cost associated with communicating leaks is high (phone calls, site visits, door hangers)
- Tracking leak and alert statuses in spreadsheets is not ideal
- Customers don't *just* want to know that they have a leak, they want to know how to fix it

The solution – an alerting platform designed to drive scalable behavior change

Automated

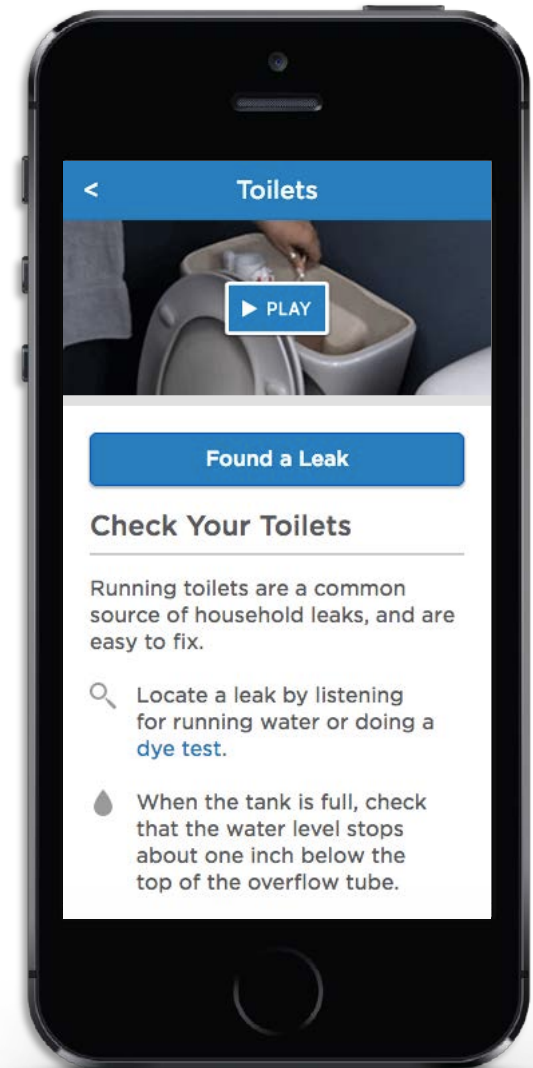
- Recognizes and alerts both AMI and non-AMI leaks

Accessible

- No login or registration required
- Leak alerts are sent by email, text, voice, or print letter, depending on channel availability
- Help customers investigate leaks, and report resolution back to the utility

Smart

- Algorithm adjusts to customers' unique attributes, reducing false positives



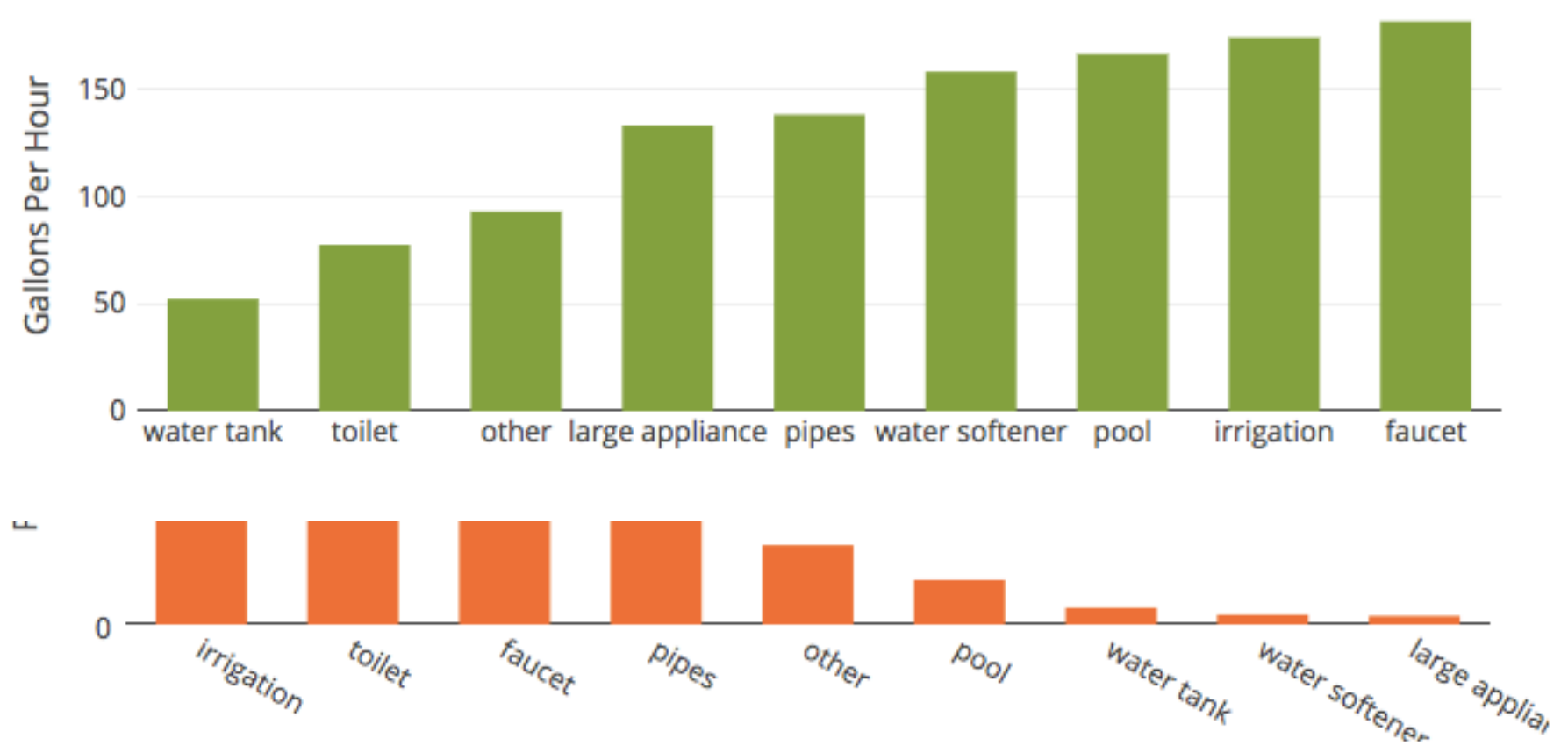
WaterSmart manages leak alerting for 29 AMI and non-AMI utilities

Of the more than 61,000 email leak alerts our utility partners have sent since April 2016, the email open rate has averaged 61%.

57% of customers that click through these emails to our leak resolution tool “resolve” the leak themselves, indicating the source of the unusual use.

Where are the most common sources of leaks?

Average Leak Rates



Partner Story

Glendale Water & Power



Powering Leak Alerts with AMI

Glendale Water & Power partnered with WaterSmart Software to increase customer engagement by providing leak alerts and an interactive Customer Portal. This helps residents save money and better understand their water usage.

“The water alert was invaluable. Our sprinkler system did not shut off completely and we were not aware that it was continuously seeping into the ground. We would not have resolved this without the alert, wasting water and money!”

ANONYMOUS GLENDALE
RESIDENT



ACCOUNTS:
30,000

LEAKS DETECTED:
51,361

In the past year at GWP:

51,361 SFR leaks have been detected

18,048 leak alerts have been sent

55% of email leak alerts were opened

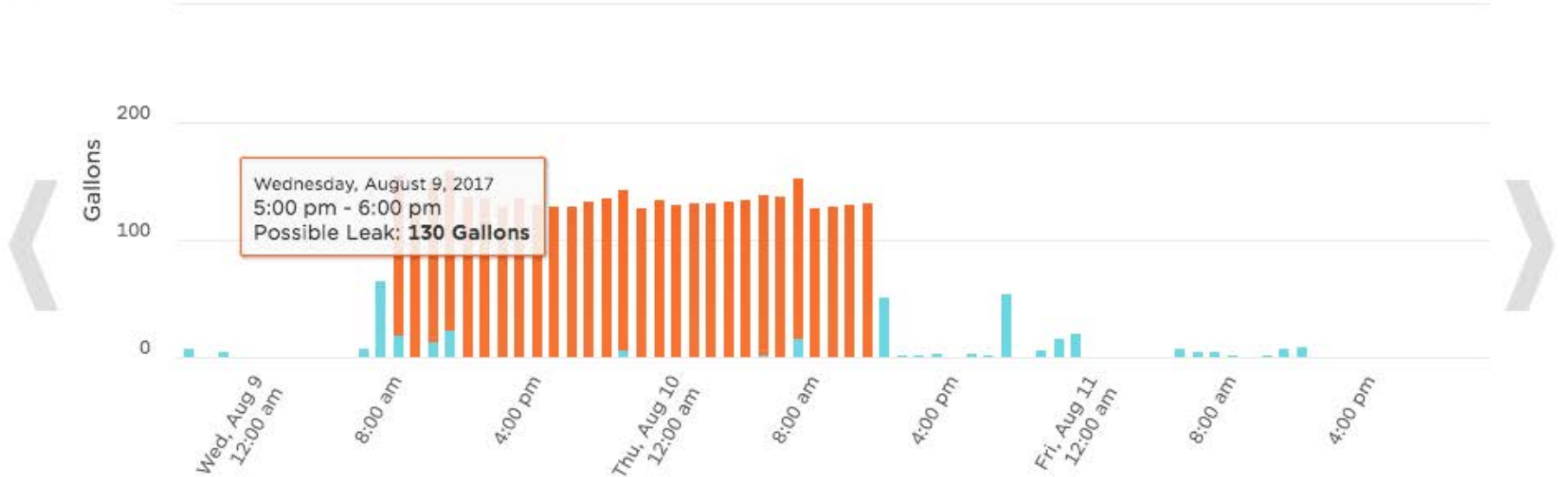
25% of SFR accounts received one or more leak alert

Real World GWP Example: Leak began August 9th at 9am

Aug 8, 2017 — Aug 11, 2017

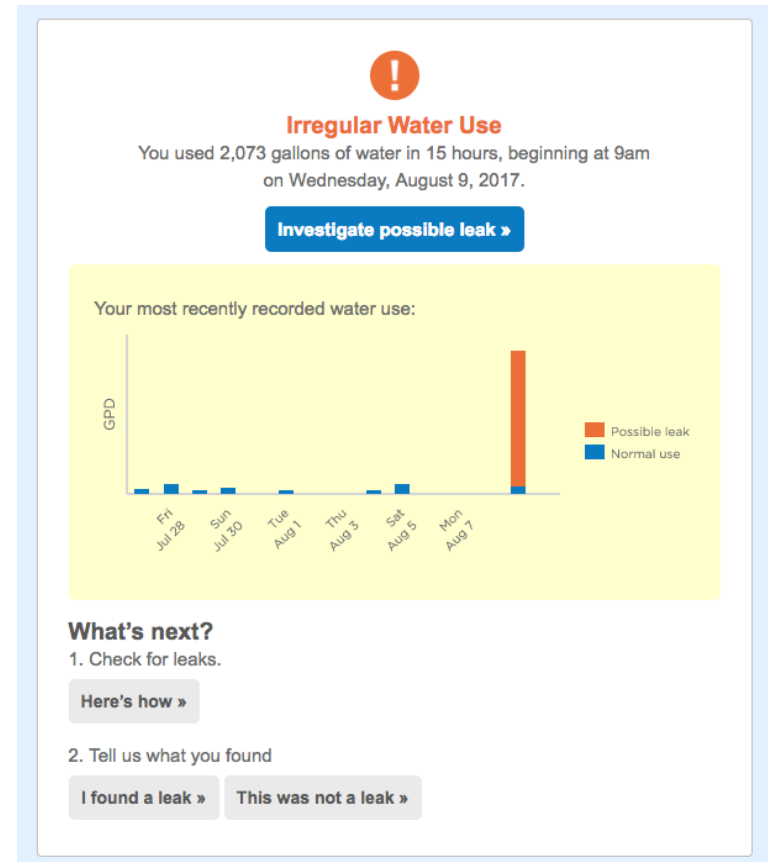
DAY WEEK 2 WEEKS 2 MONTHS YEAR

Normal Use Possible Leak Probable Irrigation Data Unavailable



Customer received an email Leak Alert at midnight

- The next morning, the customer clicked on the email and walked through the resolution flow
- Customer confirmed that the leak was in their Irrigation System; leak ended at noon the next day
- “Very happy to receive your email, leak wouldn't have been visible for a few days!”



If this leak had been ongoing for three additional days at 136 GPH, it would have wasted an extra 9,792 gallons, or \$40 at Tier 2 rates, more than doubling the customer's typical monthly water usage of 6,000 gallons!

How can you quantify utility-wide leak savings at scale?

A natural experiment formed through availability of customer contact information

- “Treatment Group”: customers with emails on file
- “Control Group”: customers without contact information on file

WaterSmart evaluated water consumption following receipt of a leak alert for the Treatment vs. Control groups across all our utility partners

On average, customers save 10% following receipt of an alert

The *average* customer receiving a leak alert for a continuous leak reduces their consumption by 9.85% in the month following receipt of a leak alert, relative to the “control” group*

For GWP, this savings value can be estimated as 16.6 million gallons, or 50.8 Acre Feet in the past year. That’s about 0.6% of total SFR water consumption.

*P value < 0.01

SE: 0.023

In addition to conservation benefits...

95% of customers responded that it was “valuable that Glendale Water & Power continue to provide this leak alerting, detection and resolution service”

57% of alerts were confirmed to be about leaks the customer was not-yet-aware-of

73% of leaks were confirmed to be actual leaks (not false positives)

Automated leak alerting and resolution allows utilities to:

- Improve customer satisfaction
- Quantifiably reduce water waste
- Reduce the cost of managing leaks
- Reduce customer bill shock
- Create the opportunity for a positive customer interaction

Thank you!



Feel free to reach out at:

kcoplin@watersmart.com

