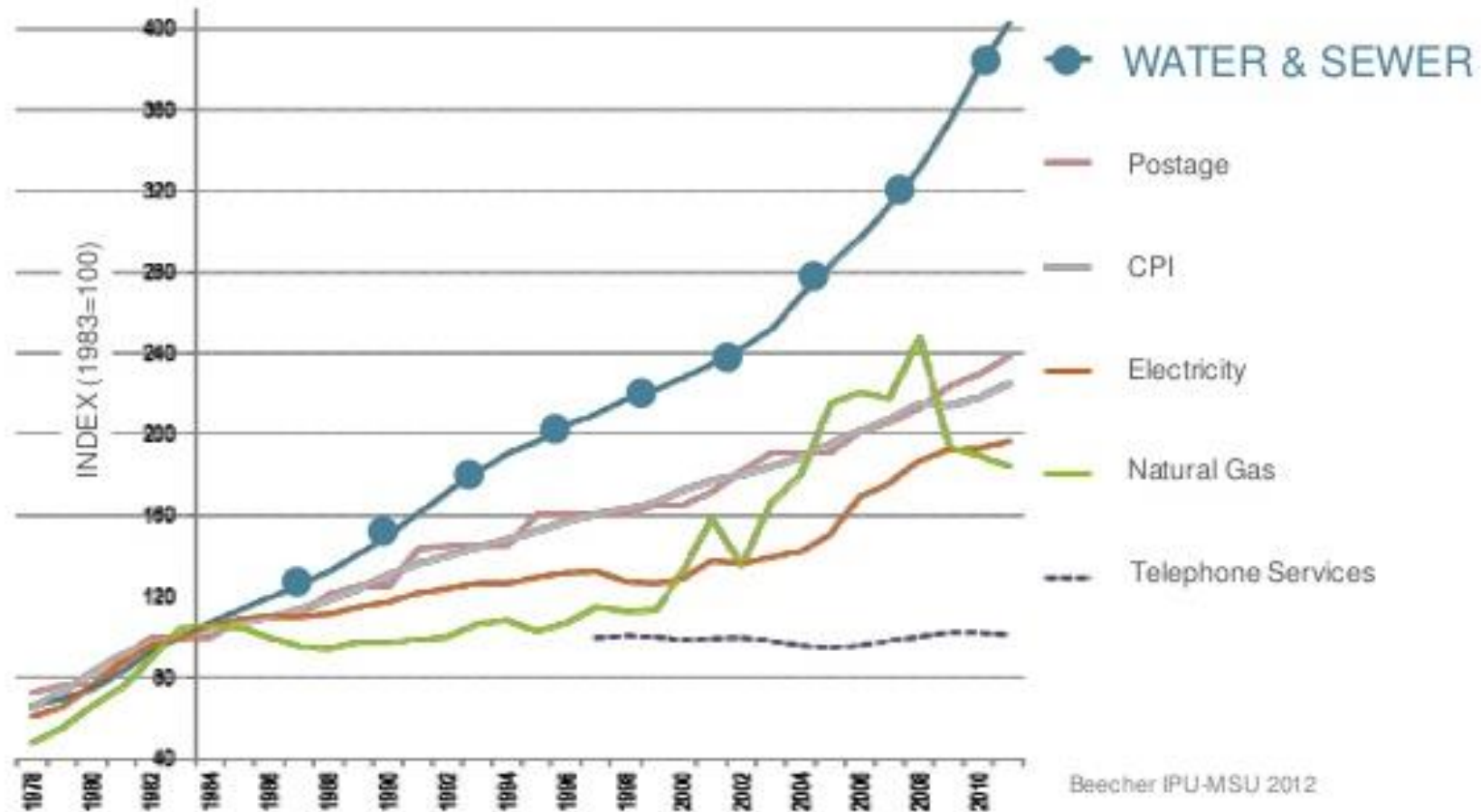
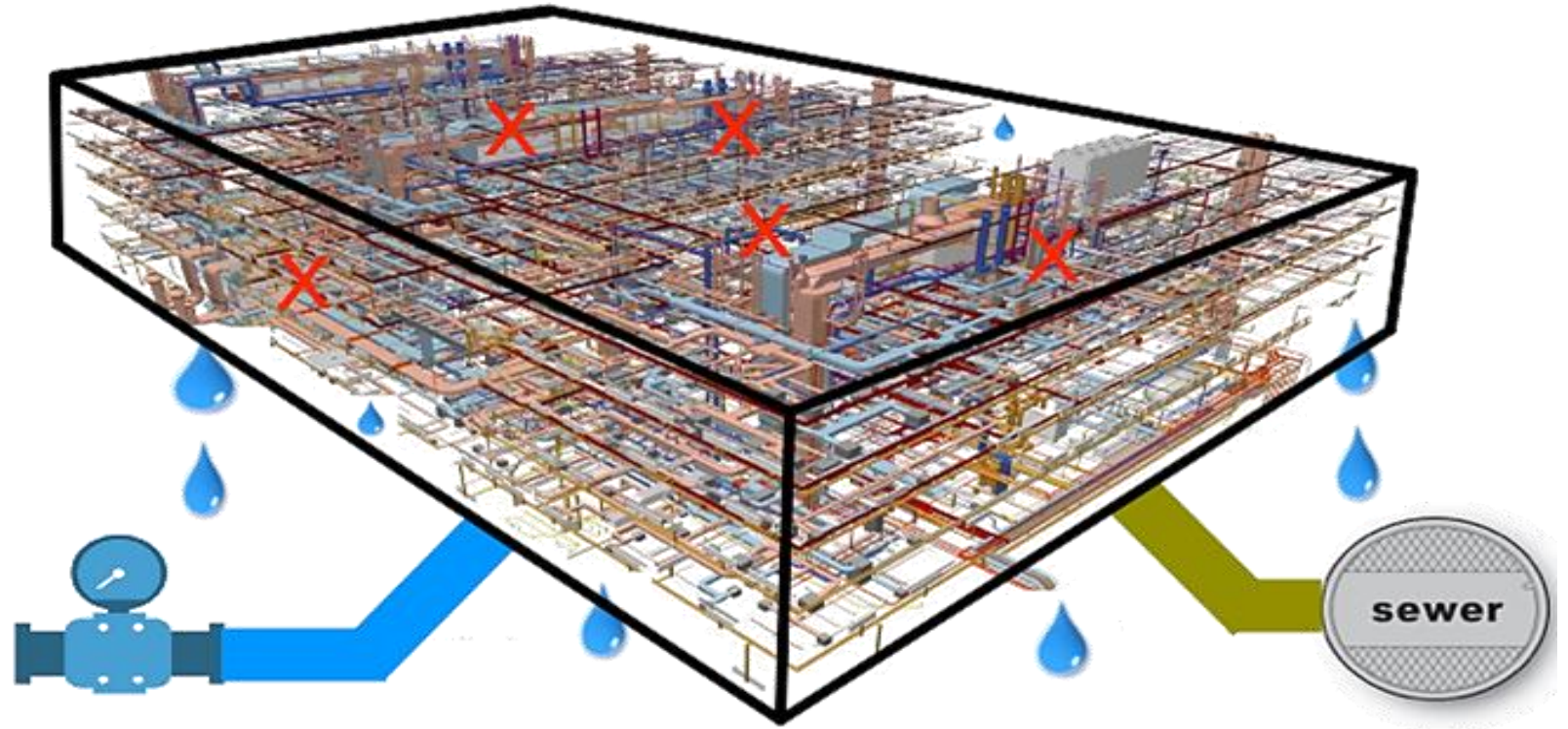


Increases of 10% or more every year since 2012



Common Areas plus Tenants - Your Plumbing Asset is Complex!

- ✓ Water is generally Invisible
- ✓ Hundreds of failure points
- ✓ Mechanical and Operational Influences



Some water waste does eventually become obvious ...



It's the *not so obvious* that can add up



The APANA commitment

Instant, actionable insight to
eliminate water waste

WE DON'T JUST GIVE YOU DATA WE GIVE YOU ACTIONS

Our system provides increased visibility and increased protection from water waste and compliance issues.

SCAN

Nothing is hidden:

- ▶ High resolution data down to the second
- ▶ 24/7 coverage throughout the infrastructure

PINPOINT

Sources Are Revealed:

- ▶ Find hidden mechanical failures
- ▶ Discover operational breakdowns

GUIDE

How to Fix It:

- ▶ Real-time alerts sent to your device of choice
- ▶ Step-by-step instructions to fix the problem

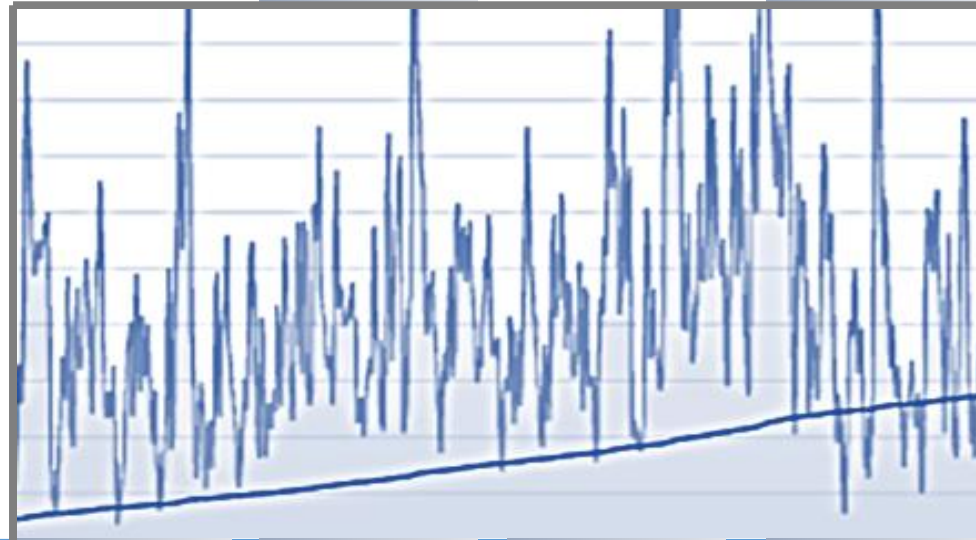


APANA™ Smart Water Analytics

automated
real-time
high-resolution
analytics

Volume

Flow Rate



Time



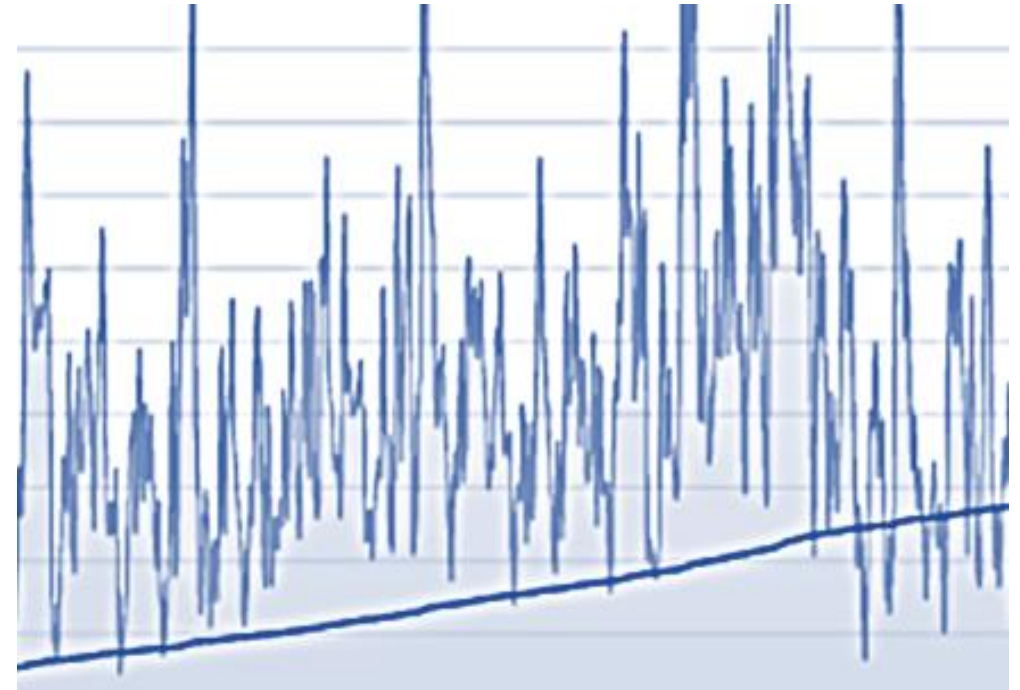
APANA™ Smart Water Analytics

Every device/process that uses water creates its own “fingerprint”

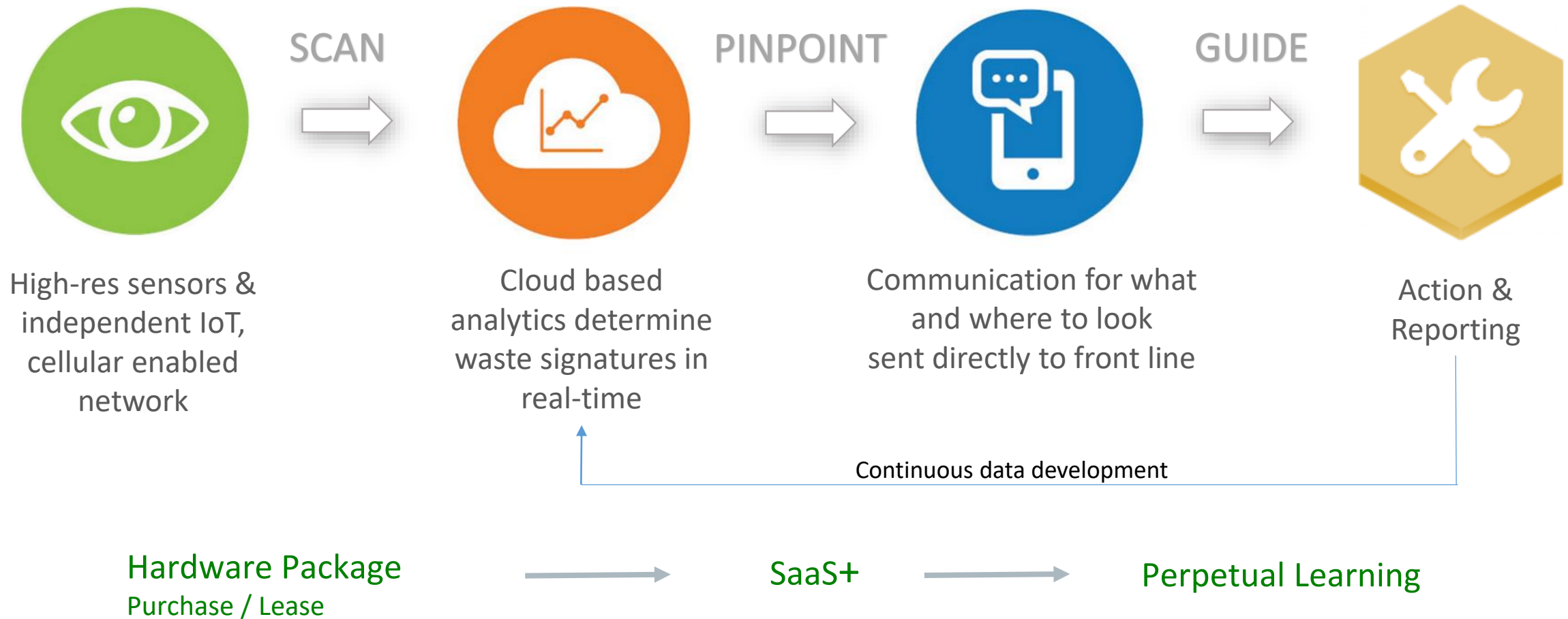
- Faucets
- Hoses
- Water softeners
- Cooling towers
- Sprinklers
- Dishwashers
- Toilets



=



Data Drives Behavior





Hardware

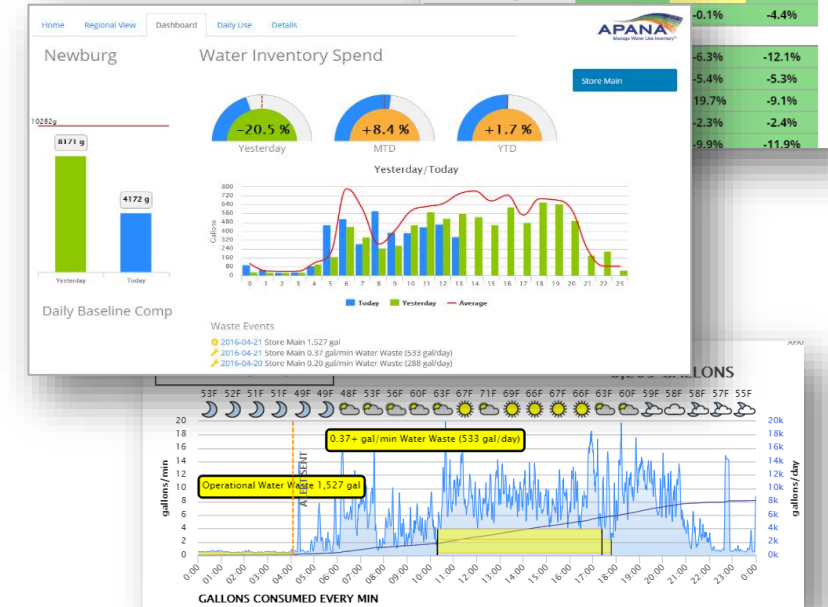


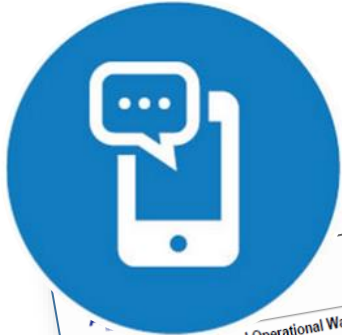
Software

Water Consumption

April 21, 2016

Store#	Store Name	Yesterday (gal)	MTD	YTD
Region 1				
District 1				
1008	Centerville	9,757	-3.7%	-7.2%
1005	Clinton	11,831	4.2%	-3.7%
1009	Kingston	6,077	-12.7%	-11.1%
1013	Newburg	8,171	8.4%	1.7%
1006	Washington	6,775	6.0%	0.6%
			-0.1%	-4.4%





Real-time notification

Your location is experiencing a 11 GPM leak beginning at 7:05 lasting for 200 min.

Check connections to 1.5 hoses outside the building

Check cooling tower for excessive discharge in outflow drain

Contact APANA if above are not the source

Water Softener – a 3x failure

Situation

Water softener has three separate problems.

- 1) used 40% more water than required
- 2) end of backwash phase/start of brine phase shows a valve close issue
- 3) final rinse phase does not use enough water – this indicates a valve or programming issue.

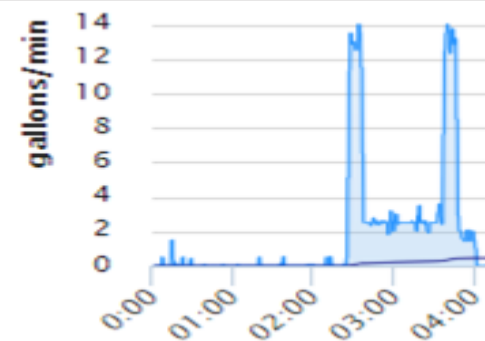
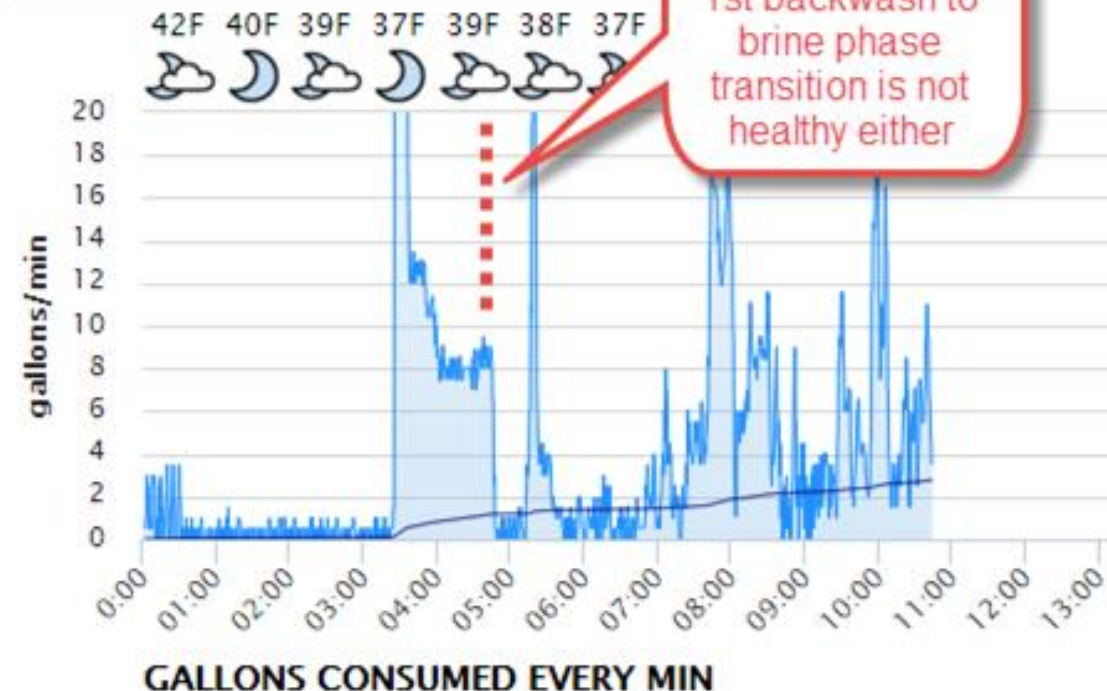
Action

The location was told exactly what was wrong and given detail to show their local service provider.

Result

Problems were resolved. Salty water was eliminated and the total consumption was reduced to the correct amount saving over 300 GPD = 100,000 gal of water a year

Consumed TODAY Dec 08, 20



Typical healthy
“bull horn”
pattern

Cooling tower low flow

Situation

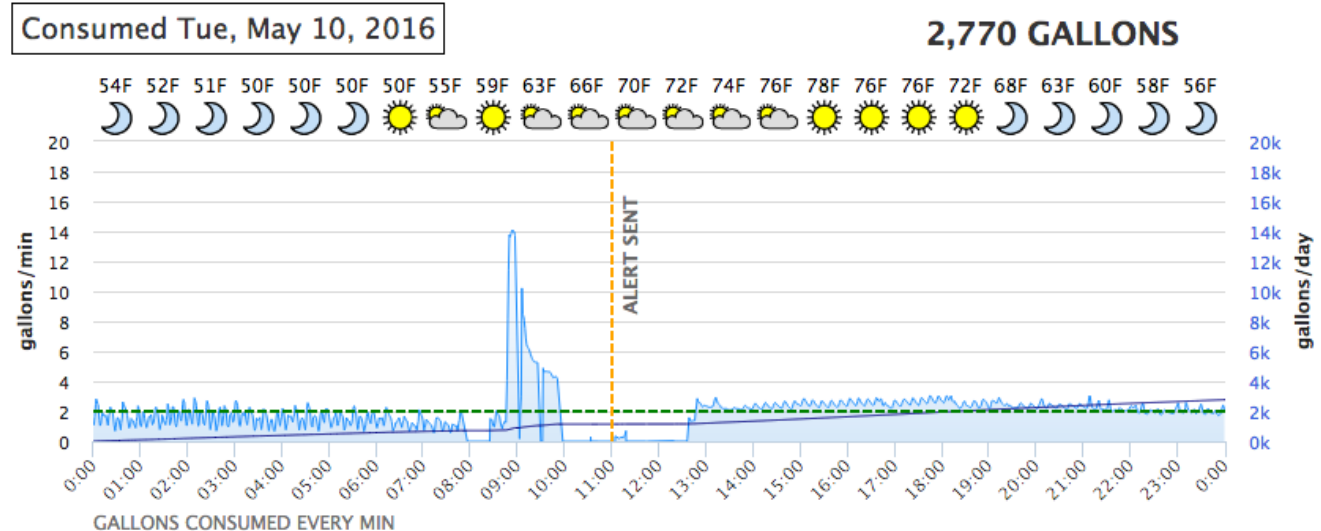
While a construction crew was working they mistakenly shut off water to the cooling tower.

Action

An alert was sent to the customer who did not realize water had been shut off.

Result

Thousands of dollars in product was saved as if the water had not been turned back on immediately the temperatures in the coolers would have dropped and ruined product quickly.



Heat Loss in hot water loop (with addition of temp monitor)

Situation

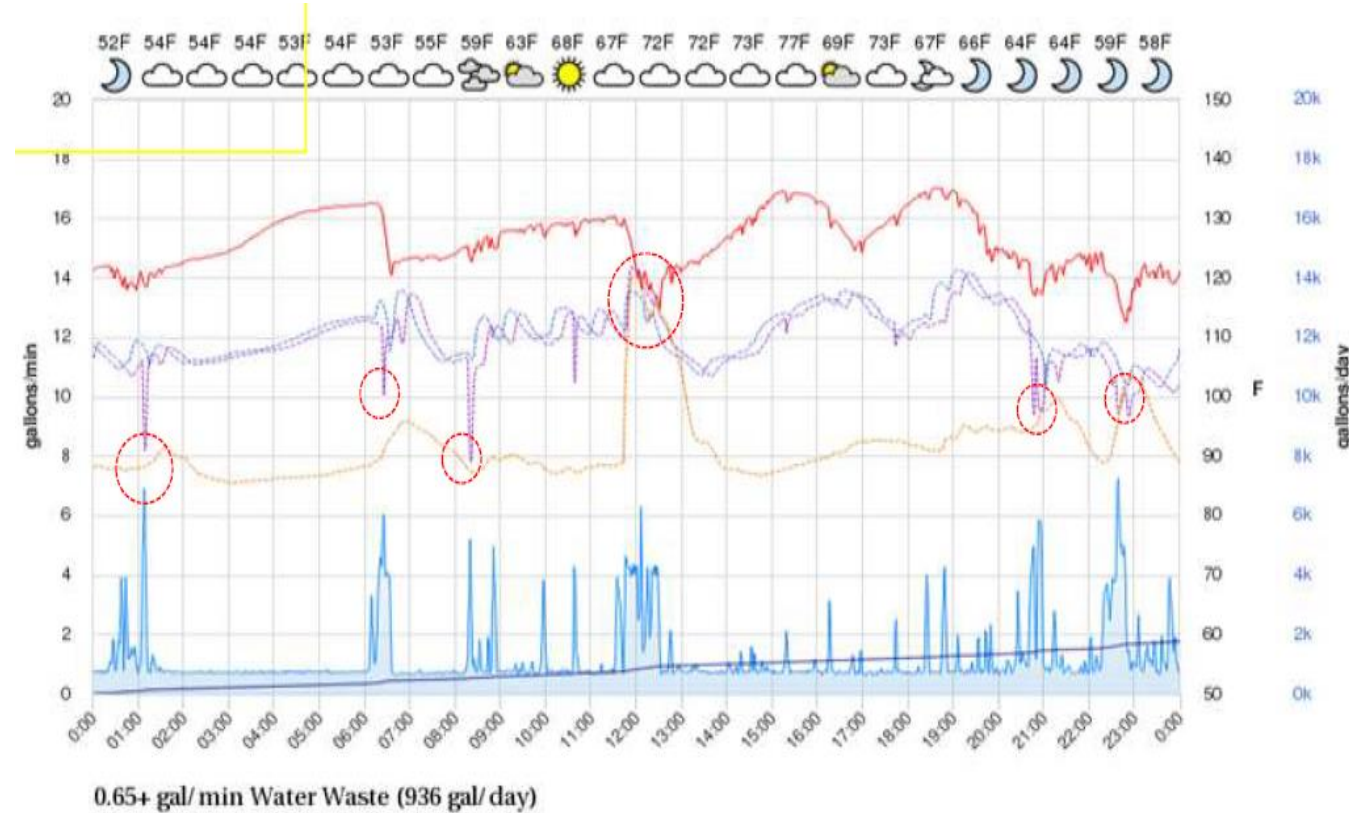
Reduced temperature in return correlating with peak usage suggests the drop in pressure is drawing cold water up return line

Action

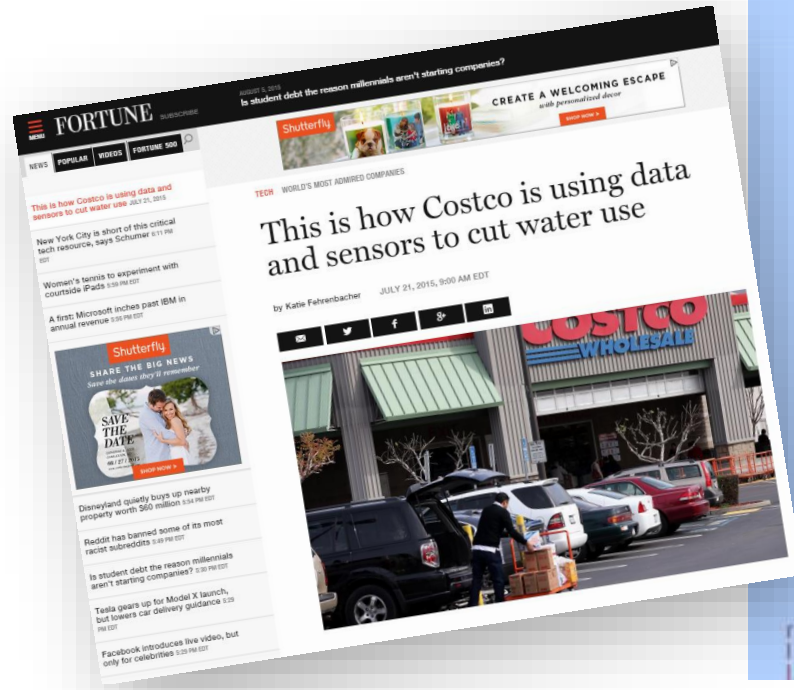
- Check pipe installation
- Check balancing valves
- Check backflow

Result

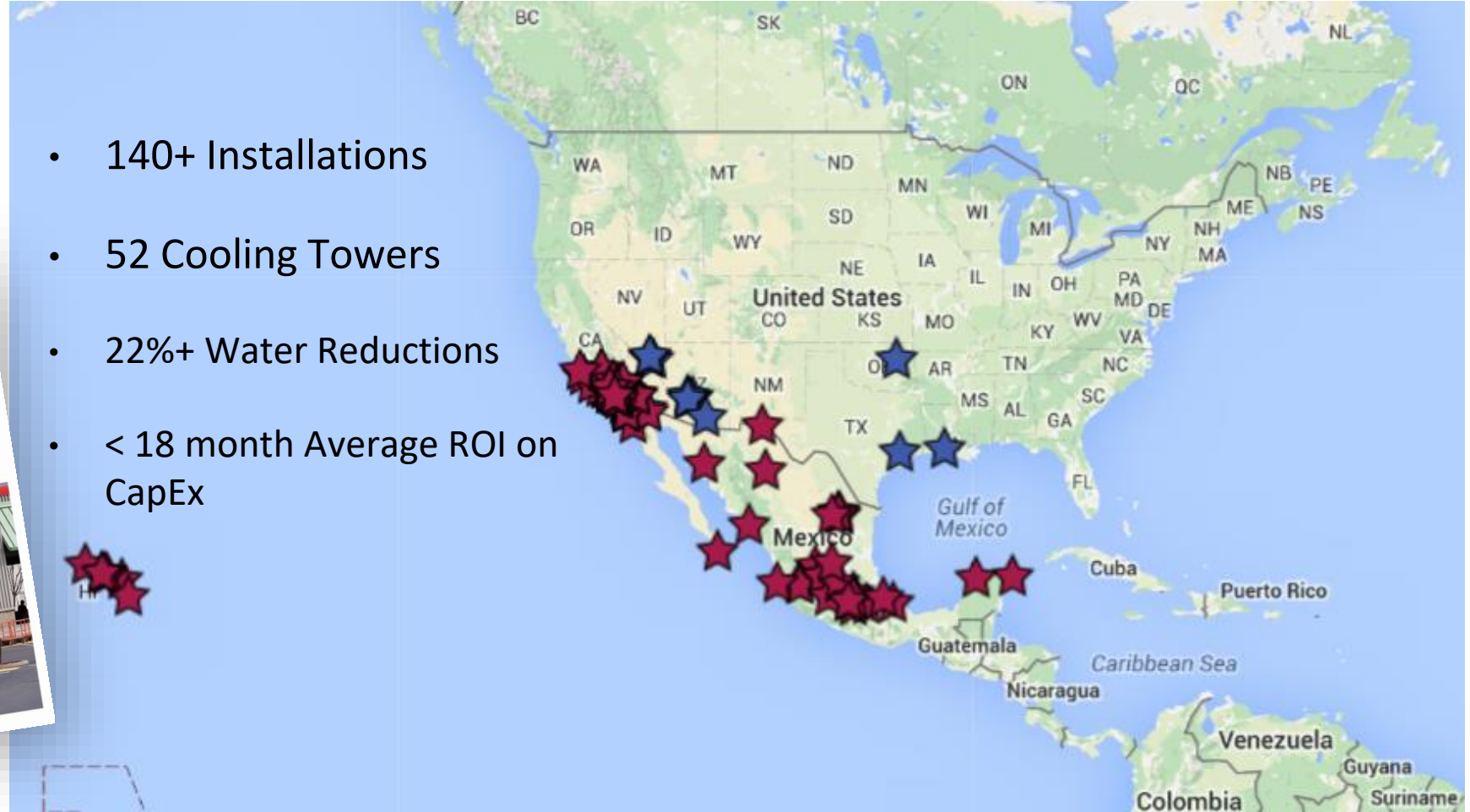
- Reduced risk of health and safety standards
- Lower energy costs (to heat more water)
- Improved operational efficiency



Proving performance at a F50 client



- 140+ Installations
- 52 Cooling Towers
- 22%+ Water Reductions
- < 18 month Average ROI on CapEx



average water reduction

22%

18 – 24 months ROI

Business Case

Water & Sewer reduction / cost savings

Reduce surcharge and legal compliance cost

Negotiate permitting & impact fees for development

Improve operational efficiency

Reduce system maintenance cost

Corporate Good-Will

Commissioning / CapEx planning

Reporting Transparency / use analysis

Environmental Responsibility: Build capacity

Over 130 installations

Recognized by two of the worlds
leading water authorities



Control Water Use | Eliminate Waste

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Thank you!