



AMERICAN WATER

**Military Services**

## ***Distribution Optimization – Achieving Professional Operations***

**Jeff Maccarella & Aaron Balliet**

**American Water – Military Services Group**

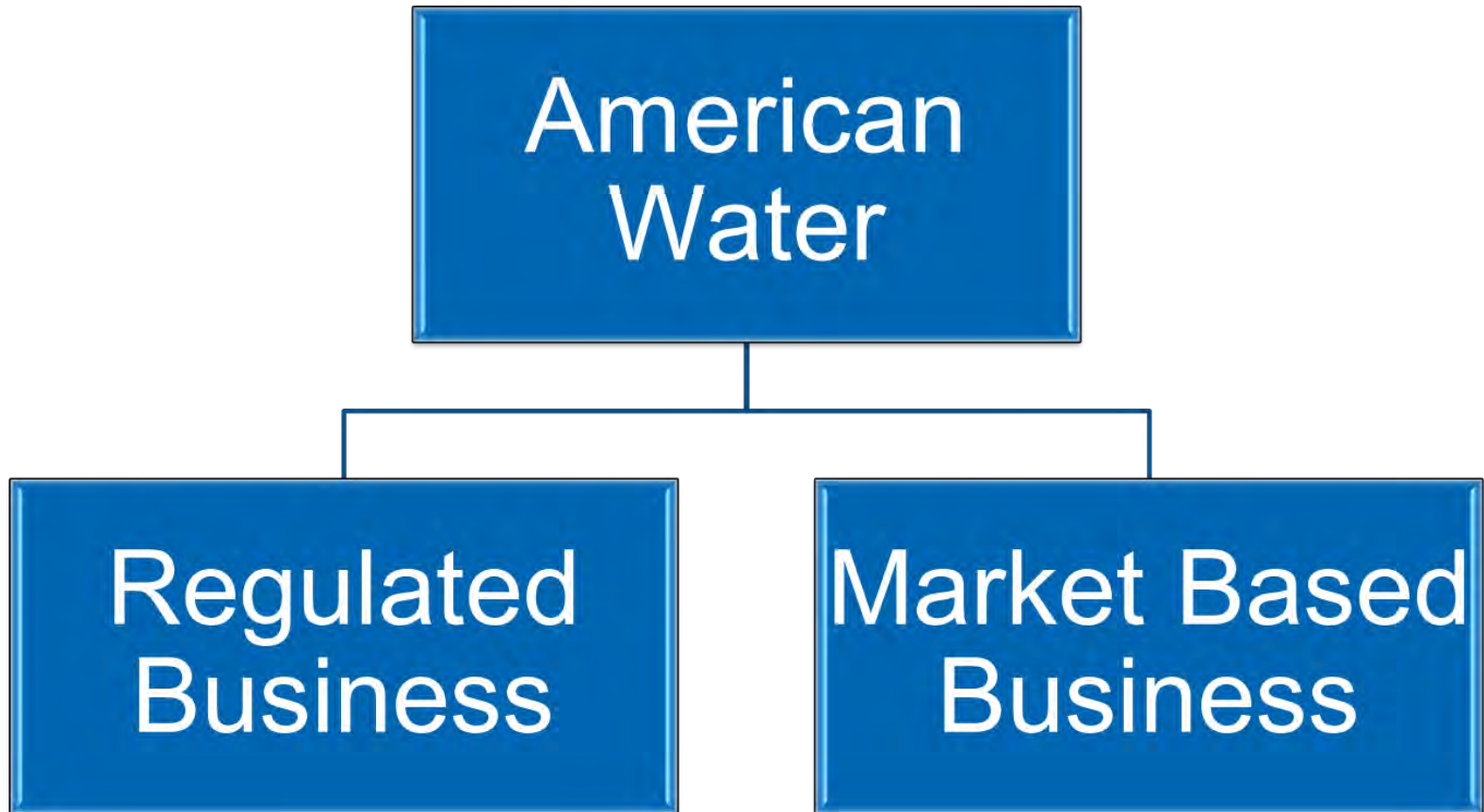
***2015 Water System Optimization Conference***

***29 October 2015***

## Who We Are

We are the largest and most geographically diverse publicly traded water and wastewater service provider in the United States.





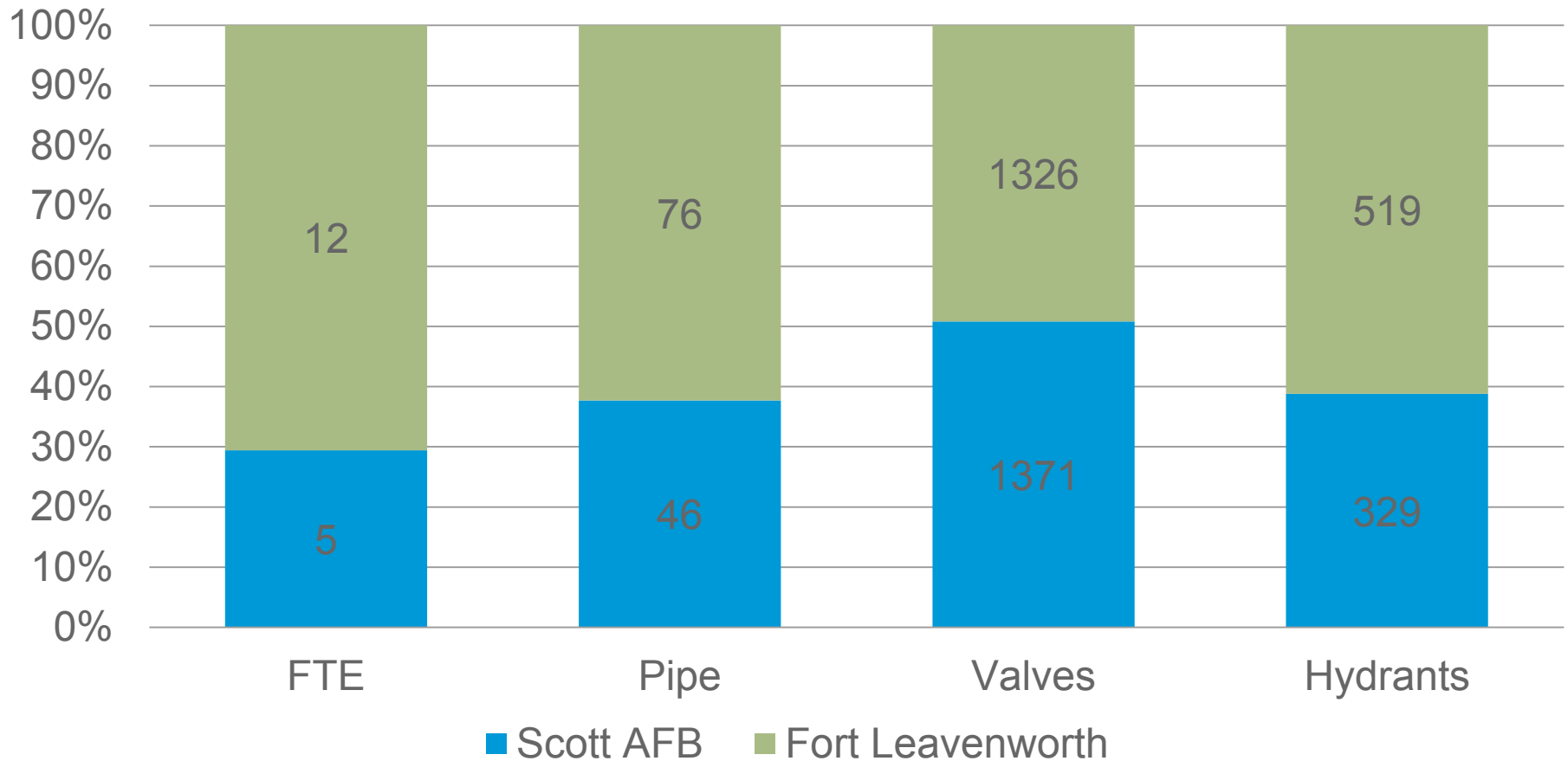
# American Water - Military Services Group

Own and operate water and wastewater utilities on military installations



## Bases at a Glance

### Water Asset Comparison



## Professional Operations

💧 Safe

**CUSTOMERS**

Very satisfied customers

Know our customers'  
needs and deliver value

💧 Reliable



💧 Compliant





## Partnership for Safe Water – Data Driven

💧 The data tells a story...**Listen**

- 💧 Chlorine Residuals
- 💧 Pressure
- 💧 Main Breaks and Leaks



VE NODE1  
**American Water - Fort Hood Texas**

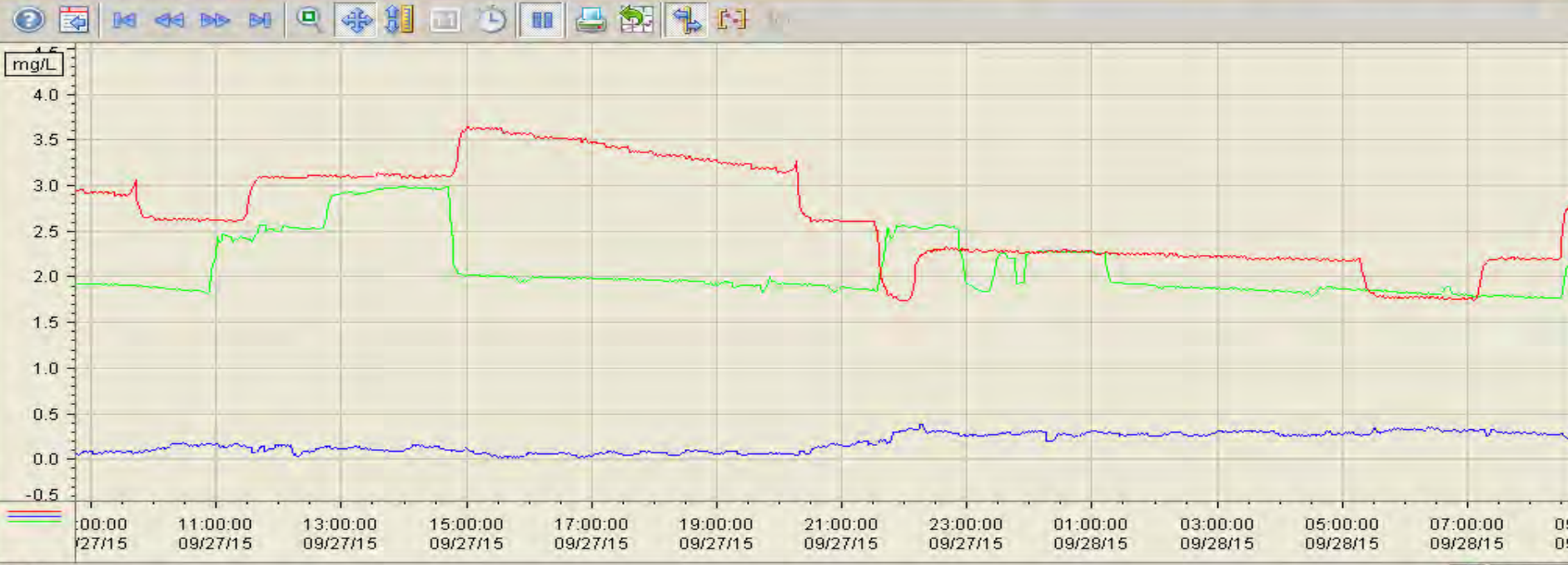
Back Forward Overview Network Alarms Trend Reports Security About... Option Print (F8) Screen Ack (F4) All Alms



Screen: Trends **Alarm** Operator: jdesormeaux Node: NODE1 09/30/15 11:31:04

Main Cantonment Level Main Cantonment Flow Main Cantonment Chemical Main Cantonment Pressure West Cantonment Level West Cantonment Flow West Cantonment Chemical West Cantonment Pressure BLORA WWTP Level BLORA PS Level / Flow North Fort Hood Guard Blue 6898 Guard Blue 57130

**Main Cantonment Chemicals**

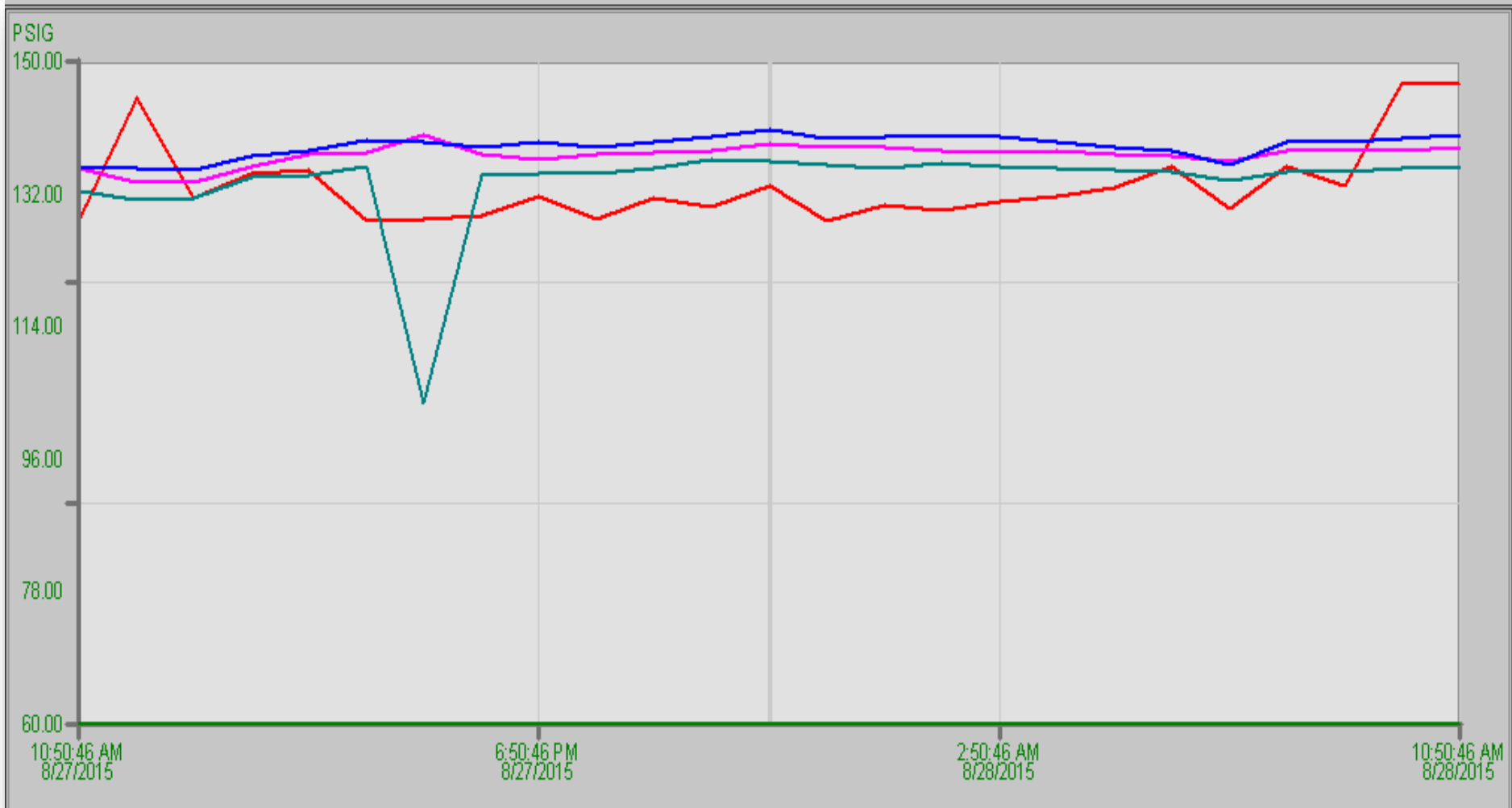


Ready 11:31:04

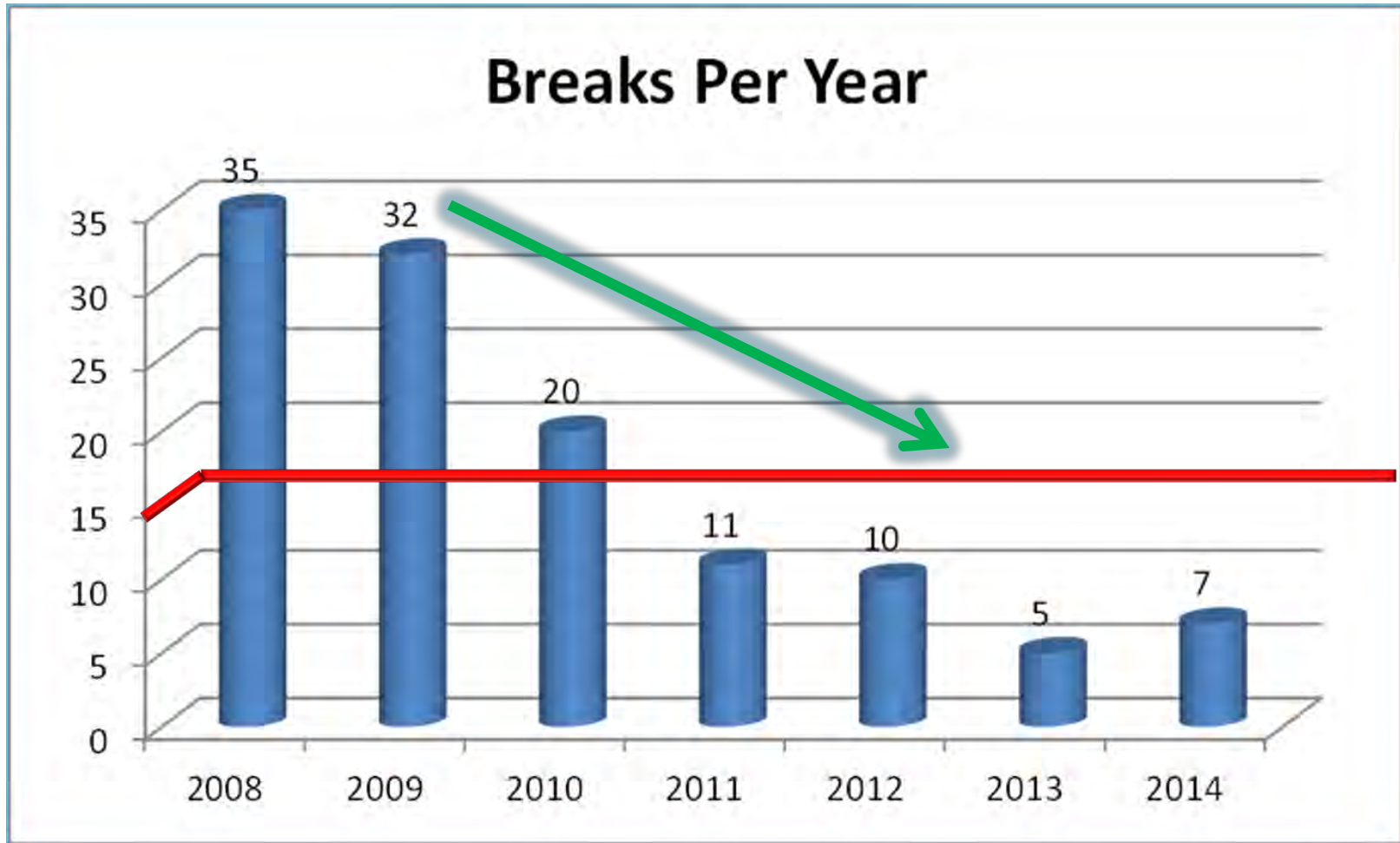
	Name	Y value	X value/time stamp
1	6898 Chlorine Residual	2.81	09/28/15 08:43:15
2	6898 Ammonia Residual	0.23	09/28/15 08:43:00
3	4655 Chlorine Residual	2.20	09/28/15 08:43:45
4			



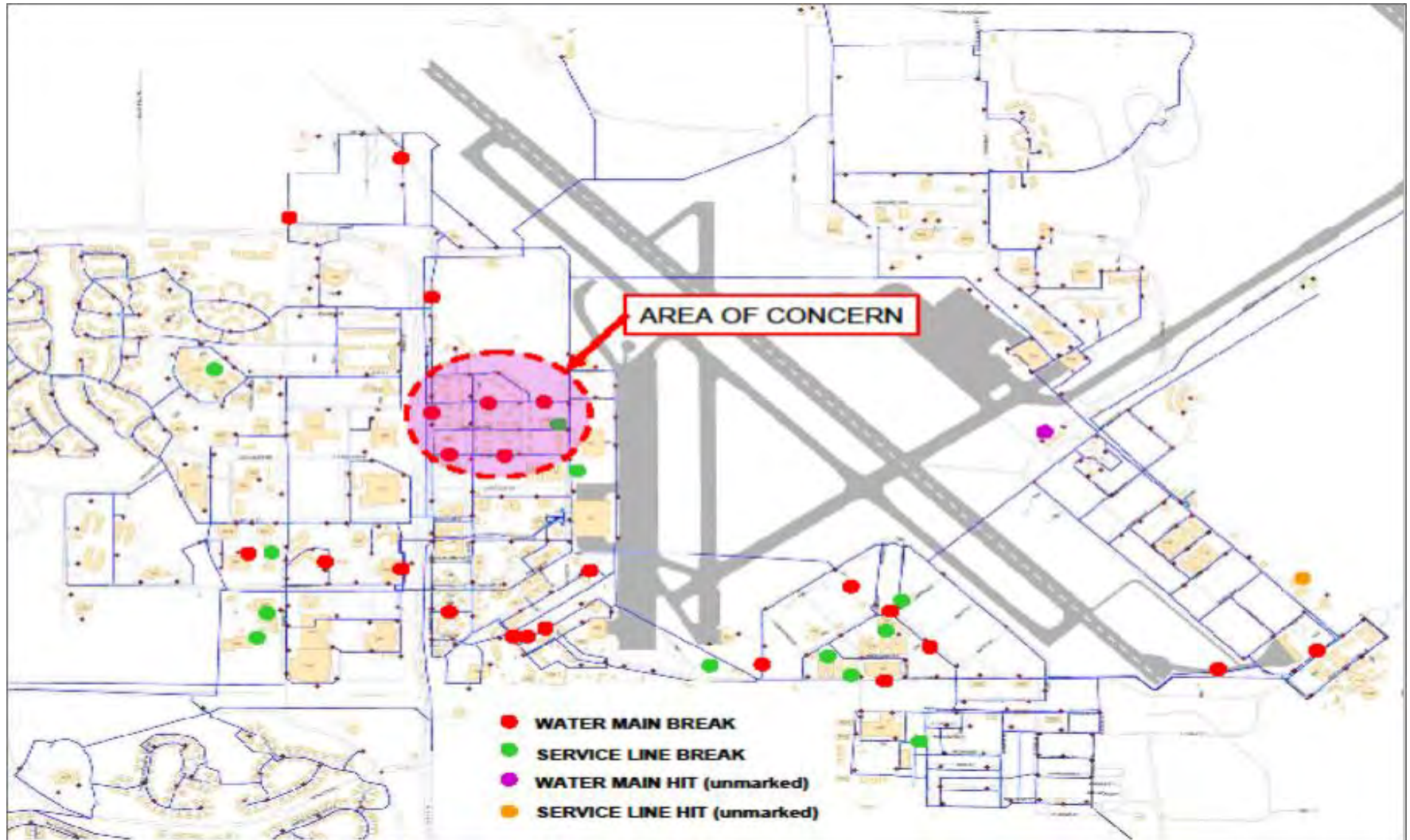
# Pressure Variations



## Breaks and Leaks



## Breaks & Leaks



## The Road Map

- 💧 19 Performance Variables
- 💧 Honest Assessment
- 💧 Reviewed by Industry Experts

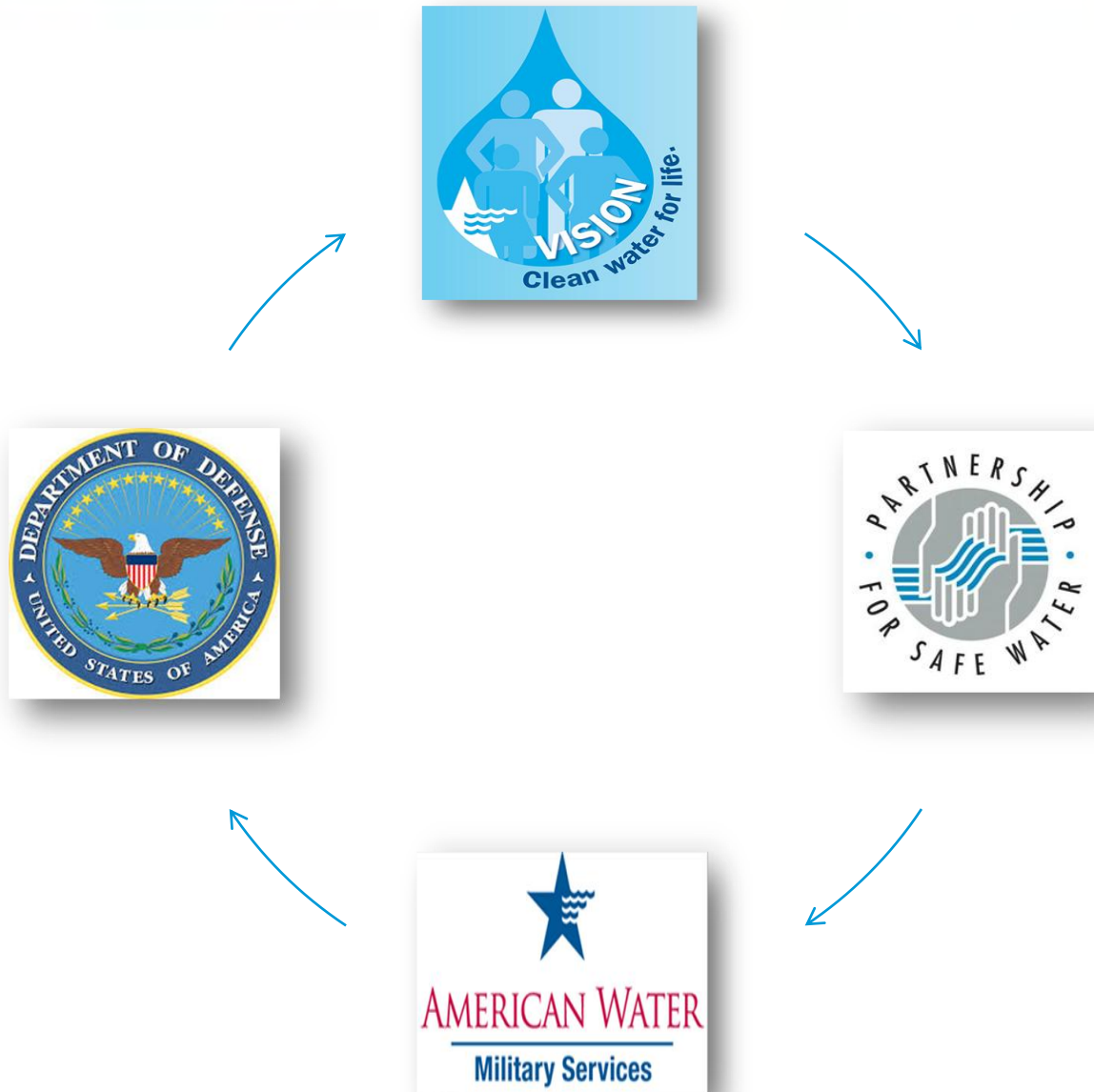
Base	Grade	Percent
Fort Leavenworth	B	82 %
Scott Air Force Base	C	72 %

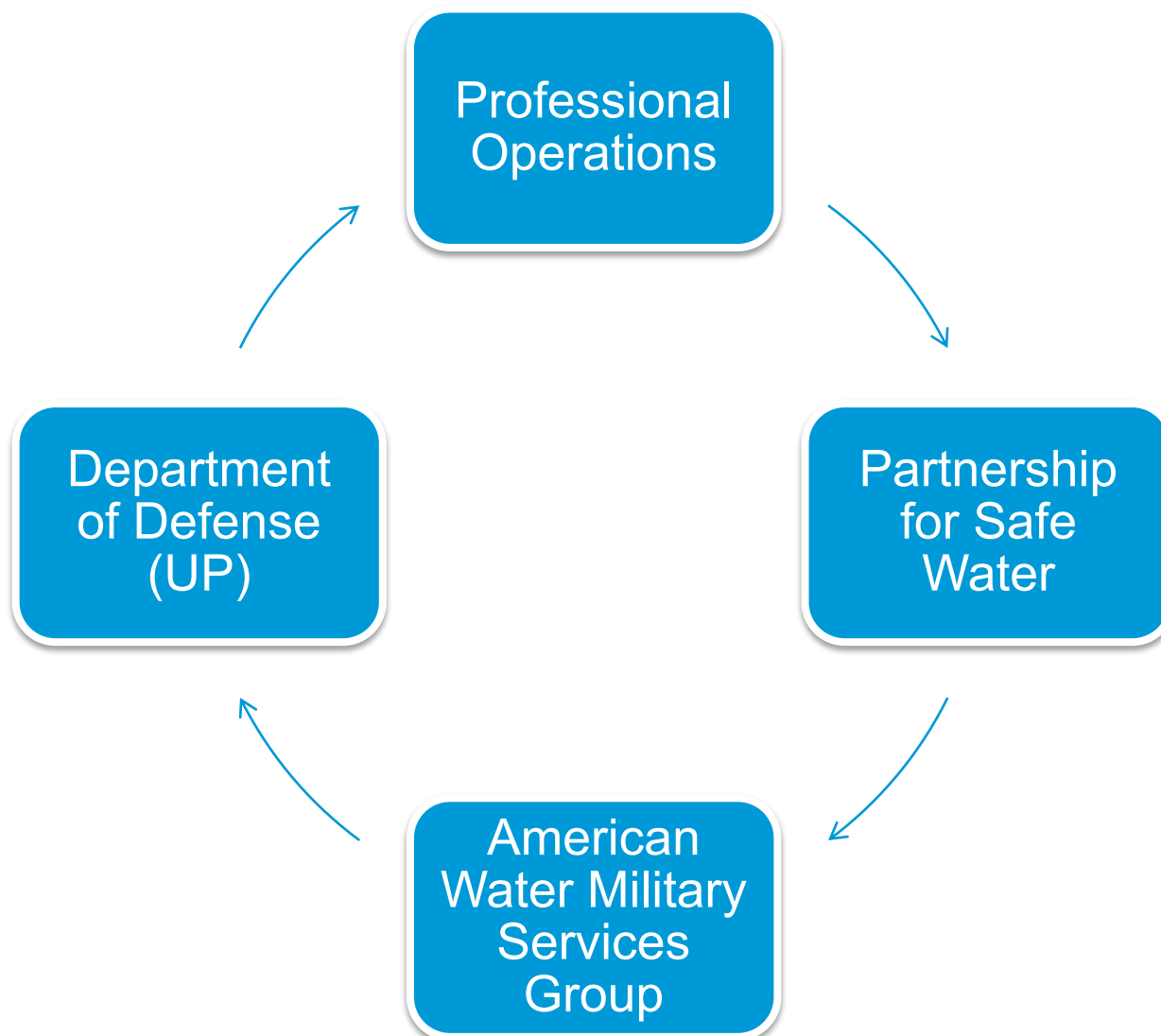
## Keys to Success

- Develop an Action Plan
- Establish a process
- Get everyone involved
- Continuous Improvement















# Before





# After

