

This presentation premiered at WaterSmart Innovations

watersmartinnovations.com





Do More with Less Using GIS

Suzanne Timani

ArcGIS to Share information and Increase Collaboration

Esri

Providing water, wastewater & stormwater solutions for over 42 years

- **GIS market leader for water, wastewater & stormwater**
- **Industry focused Water Utility Practice**
- **Experienced water industry partner channel**
- **Large & helpful water utility user community**
- **Privately held American company**
- **Financially strong with steady continued growth**
- **Billion \$ yearly revenue**

Agenda

- **Introductions**
- **State of the Industry**
- **ArcGIS for Water Utilities**
- **Examples**
- **Deployment Approach**

Water Utilities are Facing an Unprecedented Combination of Issues

- Aging Infrastructure
- Regulatory Compliance
- Climate Change
- Operational Cost Fluctuations
- Aging Workforce
- Transparency Demands
- Public Anxiety



And Fast Moving Technology Trends

- Consumerization of IT
- The App Explosion
- Extended Workplaces
- Pervasive Mobility
- Sensors
- Cloud computing

ArcGIS for Water Utilities

Enables you to be more informed and collectively act faster.

You will save money, capture more revenue and enhance your level of service.



ArcGIS is a Platform

Making mapping and GIS available
across an organization

Esri Water Utility User Community

data

best practices

Business Partners

open code

developer community

Esri Professional Services

events

integrations

training

3rd party apps

Extended Support

ArcGIS for Water Utility Configurations

ArcGIS is More than Software

It includes the entire Esri ecosystem



ArcGIS Spatially Enables Water Utility Workflows

Infusing mapping, analysis, data management, and collaboration

Asset Management

Maintain Asset Data
Request Data Updates
Quality Control Spatial Data
Manage CCTV Data

Planning & Analysis

Proposed Network Design
Capital Improvement Planning
Paving Coordination
Main Isolation
Illicit Discharge Identification

Field Mobility

Leak Investigation
Valve Exercising
Fire Flow Capture
Hydrant Inspection
Manhole Inspection
Backflow Preventer Inspection
Storm Inlet Inspection
Construction Sites Inspection
Watering Violation Investigation
Stormwater Inventory
Green Infrastructure Verification

Operational Awareness

Monitor Conservation Efforts
Visualize Utility Networks
Visualize SCADA Data
Visualize Customer Requests
Asset Locator
Capture Map Notes
Main Break Notification

Stakeholder Engagement

Service Outage Viewer
Drinking Water Alert
Drinking Water Advisory
Sewer Overflow Alert
Customer Service Request
Watering Restrictions
Planned Capital Projects
Utility Service Lookup
Social Media Sentiment

Configurable Water Utility Workflows in ArcGIS

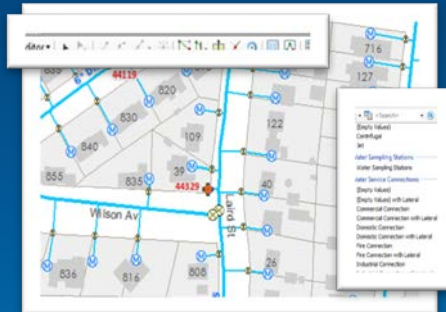
In addition to the core mapping, analysis, data management, and collaboration capabilities of ArcGIS

Deploy Apps Together as Solution Suites to Solve Major Challenges

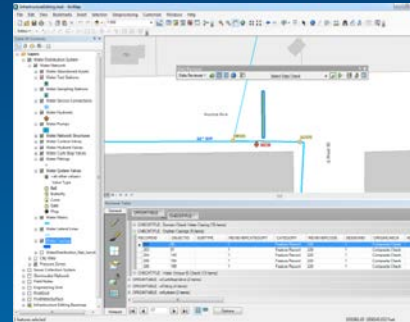
- **Keep Asset Information Up to Date**
- **Reduce Water Loss**
- **Comply with Regulations**
- **Better Communicate with Stakeholders**
- **Get Information into and Out of the Field**
- **Optimal Capital Planning**

...And many others

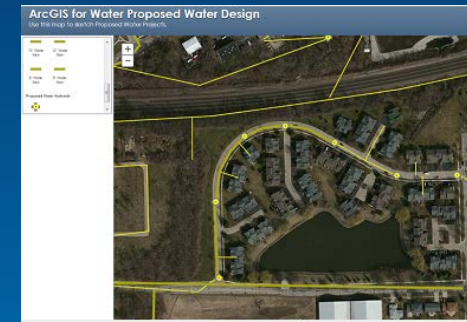
Asset Information Management Solution Suite Example



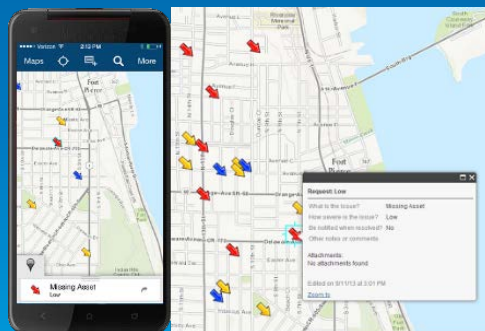
Water Utility Network Editing



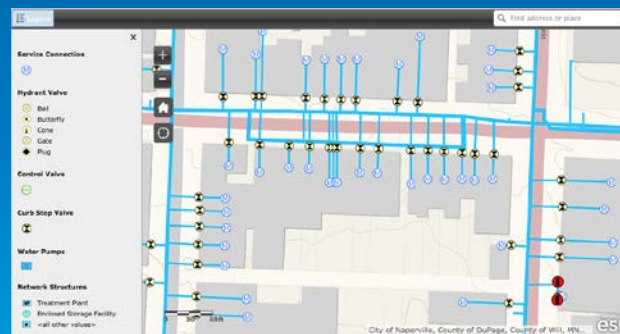
Data Reviewer for Water Utilities



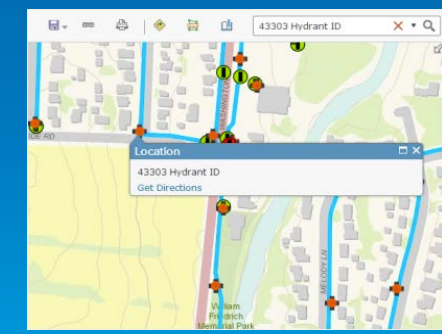
Proposed Water Design



Map Change Request

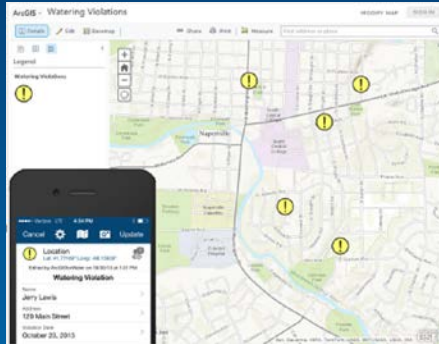


Water Network Viewer

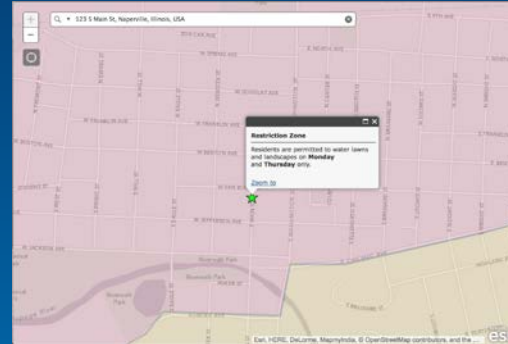


Water Asset Locator

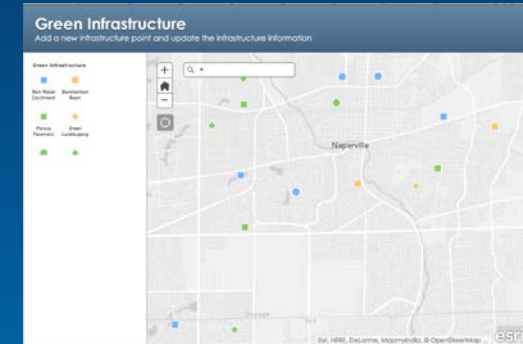
Water Conservation Solution Suite Example



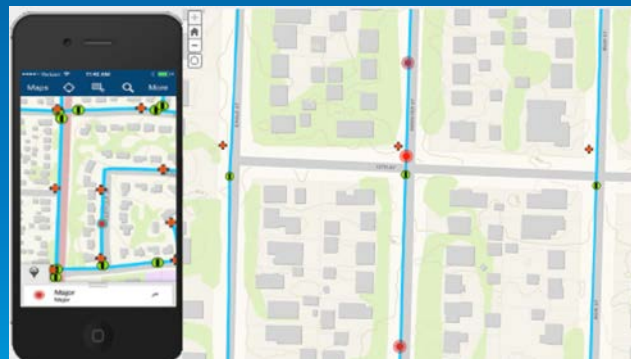
Watering Violations



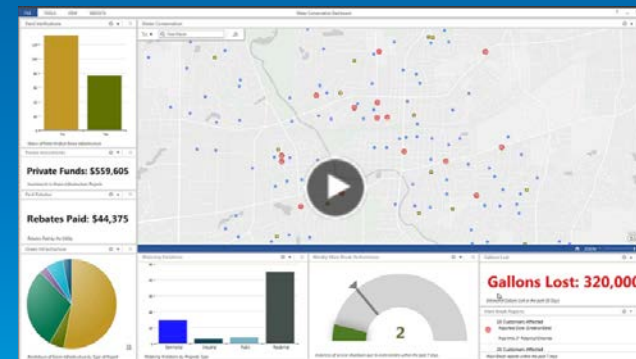
Water Restrictions



Manage Green Infrastructure

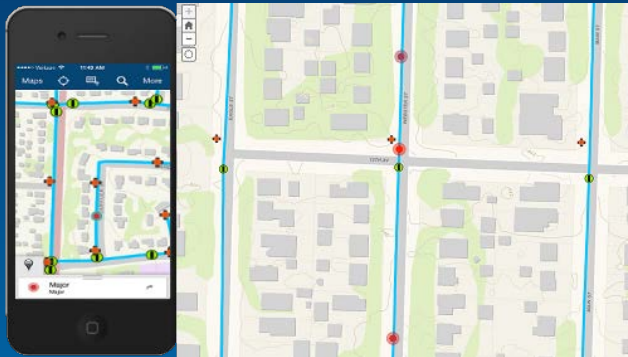


Respond to Leaks

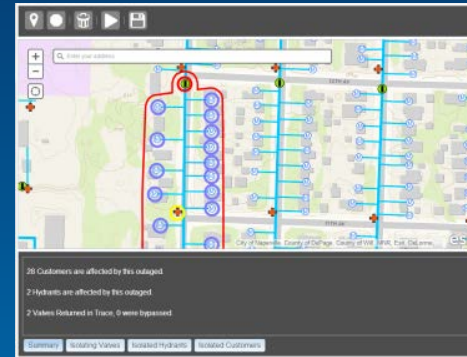


Manage Water Conservation

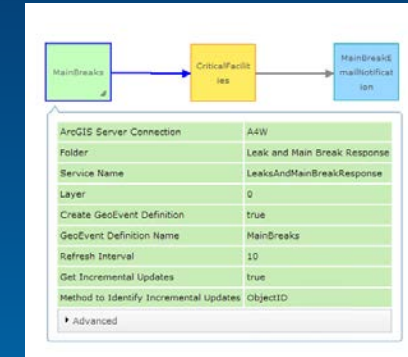
Main Break Response Solution Suite Example



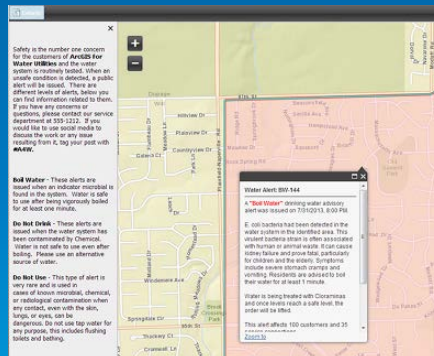
Leak Investigator, Service Shutdown, Leak Resolution



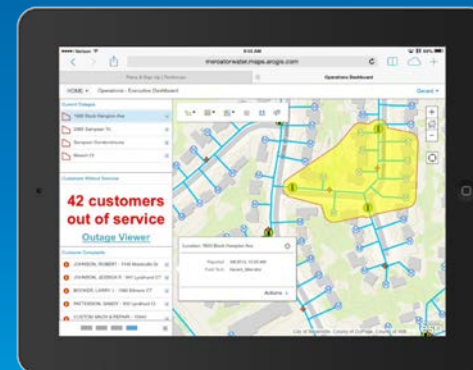
Water Network Isolation



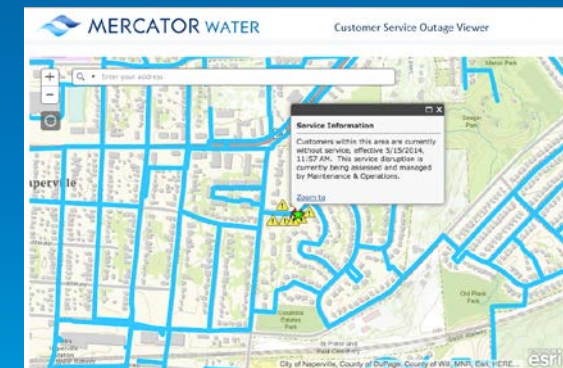
Main Break Notification



Water Alerts and Advisories



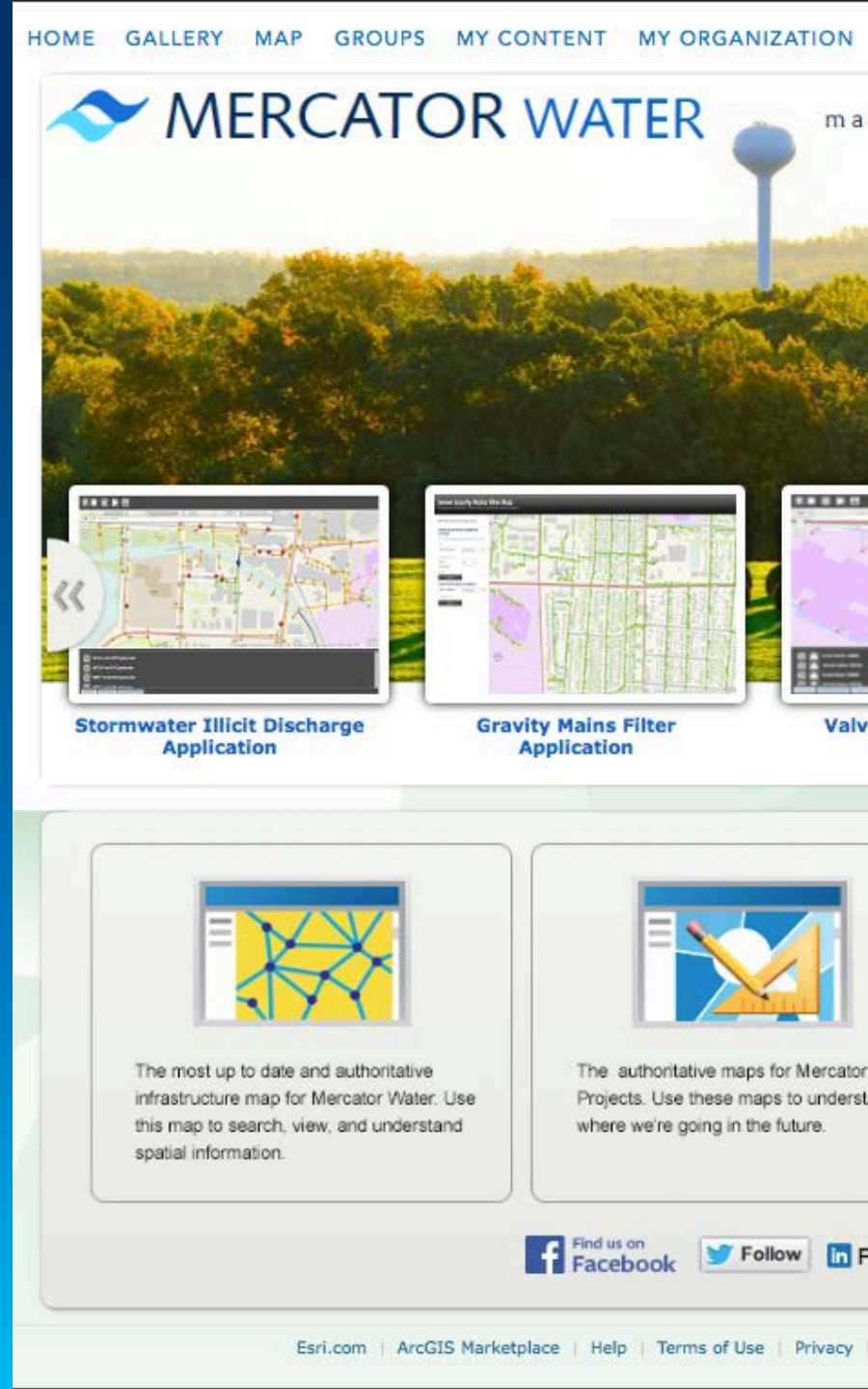
Outage Dashboard



Customer Service Outage Map

Implementing ArcGIS for Water Utilities

1. Map Needs to ArcGIS Capabilities
2. Deploy the ArcGIS Platform
3. Configure Your Mapping Portal
4. Configure Initial Apps
5. Iterate



Our Suggested Next Step is a ArcGIS Roadmap

- What are your top 3 challenges?
- What are the most important maps you use today?
- How many staff do you have at your utility?
- Do you use smartphones or computers in the field?

Resources

<http://solutions.arcgis.com/utilities/>



Understanding our world.

Suzanne Timani – stimani@esri.com