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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
ArcGIS is More than Software

It includes the entire Esri ecosystem
ArcGIS Spatially Enables Water Utility Workflows

- Asset Management: Collect, Organize, & Manage Data
- Planning & Analysis: Transform Data Into Actionable Information
- Field Mobility: Get Information Into and Out of the Field
- Operational Awareness: Disseminate Information Where and When it is Needed
- Stakeholder Engagement: Get Feedback and Make Informed Decisions

ArcGIS -- Integrated Web GIS Platform

Infusing mapping, analysis, data management, and collaboration
Configurable Water Utility Workflows in ArcGIS

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

### 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
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?
http://solutions.arcgis.com/utilities/
Understanding our world.

Suzanne Timani – stimani@esri.com