Utilizing ESRI Solutions for Planned Shutdowns

Connecting with Stakeholders

February 5, 2019
29 square miles  •  Population 64,000  •  Replacement value: $1 Billion

Water connections: 18,000  •  Sewer connections: 12,000
Our Mission

*Sammamish Plateau Water will provide safe, efficient, and reliable water and sewer services by being a leader in the planning and the practice of fiscal and environmental stewardship.*
Our Story

› ESRI Solutions
› Current Workflow
› GIS Solutions
› Benefits
› Improvements
ArcGIS Enterprise Configuration

› ArcGIS Enterprise 10.6

› ArcGIS Online & Portal for ArcGIS Hybrid
  • ArcGIS Online
    › External (Public)
  • Portal for ArcGIS
    › Internal
  • Why use Hybrid Approach?
    › Security
    › Eliminate IT
ESRI Solutions

› ESRI Enterprise Advantage Program
  • Jumpstart ArcGIS Enterprise 10.6
  • ESRI Professional and Technical Resources

› ArcGIS Solutions for Water
  • Utility Isolation Trace

› ArcGIS for Developers
  • Web AppBuilder for ArcGIS
  • Web AppBuilder for ArcGIS Online

› ArcGIS Solutions Deployment Tool for ArcGIS Pro
  • Outage Viewer
Current Planned Shutdown Workflow

- Creation of paper map and form
- Shutdown Meeting
- Map revised
- Shutdown Construction
- Confirmation and Information
Who are our Stakeholders?

› Sammamish Plateau Water®
  • Management
  • Engineering
  • Operations
  • Field Services
  • Customer Service

› Water Customers

› Fire Services
Connecting with Stakeholders
## WATER SERVICE INTERRUPTIONS

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<th>Time</th>
<th>Service Area</th>
<th>Address</th>
<th>Account #</th>
<th>Meter #</th>
<th>Customer Name</th>
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<th>MTR</th>
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**Advance Notice:** No

**Estimated Duration:** 6 hours

**Violation:** No

**Fire Department:** Yes

**# of Customers:** 15

**Project Manager:** Jackson Dean

**Inspector:** Paul Bush / End of Hydrant

**Field Supervisor:** Chad Williams

**Zack Proctor**
GIS Solutions

› Water Valve Isolation Trace
› Public Outage Viewer
› Internal Outage Viewer
› Outage Editor
› Hydrant Outage Viewer
Water Valve Isolation Trace

› Provides engineers the ability to better plan for their meetings and reduce the need for post-meeting research.

› Generates information necessary for planning and field verification of valves, meters, hydrants, and customers.
ArcGIS Solutions for Water
  - Get Started guide for implementing Utility Isolation Trace

Web Appbuilder for ArcGIS
  - Configure Utility Isolation Trace widget

Geometric network, outage layers, widget, web application
Select a main and the isolation trace tools generates outage information used by all applications.

Outage area; layers for meters, hydrants, valves, mains; exports tabular information.
Public Outage Viewer

› The Public Outage Viewer informs our customers of outage areas, approximate number of customers out of service, and the estimated length of shutdowns.
› ArcGIS Solutions Deployment Tool for ArcGIS Pro
› Outage area polygon, web application
› Time enable viewer with search capability
› Dynamic pop-up
Internal Outage Viewer

› Operations and field services use the Internal Outage Viewer to field verify the valves and meters. Customer service uses the customer list to send out shutdown notifications.
› Web AppBuilder for ArcGIS Online

› Geometric network, outage area & layers, web application

› Viewer accessible from desktop and mobile devices
Hydrant Outage Viewer

› The Hydrant Outage map informs the local fire departments of out-of-service hydrants.
› Web AppBuilder for ArcGIS Online

› Hydrants from geometric network, hydrant outage layer, web application

› Time enabled viewer accessible from desktop and mobile devices
Outage Editor

› The Outage Editor is used by engineers to update the outage information, eliminating the need for help from GIS.

› Copied Internal Outage Viewer and added Editor widget
GIS Workflow

1. Shutdown Meeting
2. Shutdown Construction
3. Confirmation and Information

The process flows from Shutdown Meeting to Shutdown Construction to Confirmation and Information, and then back to Shutdown Meeting.
Connecting with Stakeholders using GIS

Water Valve Isolation Trace

Shutdown Meeting

Confirmation and Information

Shutdown Construction

Customer Service Information

Outage Editor

Public Outage Viewer

Hydrant Outage Viewer

Internal Outage Viewer
Benefits

› Efficient Planning
› Collaborative Coordination
› Comprehensive Communication
› Standardize Documentation
Plans for the Future

› Educate staff on the applications
› Finalize the process and formatting
› Public Outreach
› GO LIVE!
Thank You!