ArcGIS Online Changes Client-Consultant Collaboration in Cleveland

Session – Expanding Data Sharing with ArcGIS Online
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3:15-4:30 Session
Room 28 B

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Conversation Topics

Client Perspective

• Overview
• Current Collaboration Vision
• Benefits to NEORSD
• Challenges for NEORSD
• Lessons Learned for NEORSD
• What’s Next

Consultant Perspective

• Overview
• What we thought of the Vision
• Benefits to Project Team
• Challenges for Project Team
• Lessons Learned for Project Team
• What’s Next
Who We Are:
• Created in 1972 by Court Order
• Servicing all or part of 62 member communities in parts of 4 counties
• ~ 1 million served customers
• 90+ billion gallons wastewater treated each year

What We Do:
• WWTP Operation
  • Easterly, Southerly, Westerly
• Combined and Separate Interceptors
  • Construction, Operation and Maintenance
• Combined Sewer Overflow (CSO) Control
• Regional Stormwater Management
Collection System – By The Numbers

Summary Info:

• Regional vs Local Ownership
• Combined vs. Separate Sewers
• Separate vs. Common Trench
• District Sewers ~ 310 miles
• Local WW Sewers ~ 3461 miles
• Local Storm Sewers ~ 2200 miles
• Manholes
  • District – 5000
  • Local – >130,000

“It’s just a line on the map…”
NEORSD Enterprise GIS Platform Overview

- Intranet Application
  - Geocortex Essentials

- Internet/Web GIS
  - ArcGIS Online
  - Storymaps

- Desktop ArcGIS & Operations Dashboard

- Enterprise GIS
  - ARCGIS Server
  - Oracle DBMS

- Mobile GIS
  - Explorer for ArcGIS
  - Collector for ArcGIS
  - Survey 123
NEORSD – Data Collection Evolution

1998-2015 – Printed map with field notes

1970s thru 2010s – Form & clipboard

2014-Today – GIS Tools
BC – Past data collection efforts...

Key Issues

- Long lag times
- Silos of data
- Laborious data management
- Hand-off Model
  - District provide data to team
  - Team collect/update data
  - District receives data deliverable
Collaboration Vision

Vision Statements:

• Enhanced access to data resources
• Ensure data collection consistency & quality
• Minimize project data admin effort & costs
• Collaborate on map, tool & dataset development
• Build adaptable foundation to support future
What We Thought of the Vision

Mix of Optimism and Trepidation

• Pros
  • Mobile tech is good – we already do this!
  • Streamlined field-to-office workflow

• Worries
  • LOSS OF CONTROL
  • Fear of the Unknown
  • How do we QAQC data that is instantly visible to everyone?
Collaboration Benefits (NEORSD)

Enhancements to:
• Accessing Project Info
• Understanding Project Status
• Decisions (Timing/Knowledge)
• Response (Maintenance Issues)
• Workflows (Internal & Project)
• Future CSI Activities
Benefits Example (Maintenance Issues)
Collaboration Benefits (Consultant)

- Easier data sharing
- Centralized repository
- Real-time access to field data
- Less file transfer chaos
Benefits Example (Standardization)

LOTS of content
Benefits Example (System Investigation Tool)
Challenges (Client Perspective)

Varying degrees:

- Communication
- Change Management
- Administration
- Buy-In
- Roles & Responsibilities

All apply internally & externally
Challenge Example (NEORSD)

Collector App Change

Roles & Responsibilities
• AGO Changes
• Documentation
• Rollout

Communication
• Who communicates the request?
• How is it communicated?

Buy-In
• District Staff
• Project Team
• External Stakeholders

Administration
• Change documentation?
• Training – Internal/External
• Integration into “tool” library?

Change Management
• Who approves the change request?
• How is it prioritized?
• What about domino effect?
Challenges (Consultant Perspective)
Challenge Example (Consultant)

• How to notify people when specific data has been collected

• IT security policies prevent emailing external parties
  • GeoEvent Processor – can only email District staff

• Solution: Python script
  • Run nightly looking for new features
  • Send emails accordingly
Lessons Learned (Client)

Learn to:

• Be Aware of Pitfalls
• Address Challenges
• Communicate – Formal/Informal
• Plan, Review, Revise, Repeat
• Be Flexible (When Needed)
• Allocation of Resources
Lessons Learned (Consultant)

• Test field forms with crews before production starts
• Develop formal “publishing request” specification to eliminate back-and-forth to get things right
• Plan ahead for how you will track work planned vs performed
• Have a back-up plan for tool unavailability
• Fill workflow gaps with scripts
Summary & What’s Next

NEORSD (Client) Perspective

• AGO Site Optimization
• Project – Enterprise Integration
• Project – Program Evolution
• Increase Utilization:
  • AGO Tools & Survey 1-2-3
  • Operations Dashboards

B&C (Consultant) Perspective

• Refine workflow to better support tracking
• Make better use of dashboards for tracking fieldwork
• Streamline report development
• Monitor updates to app functionality
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QUESTIONS???