The Challenges and Benefits of Implementing the LGIM

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Outline

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Reasons
Asset Management
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Background

City of Westminster, Population ~112k
Mature GIS System >19 years
Using Accela for Asset Management >11 years
Employed by Westminster in 2015
New RFP for AMS May, 2017
Update GIS as a result of looking at new systems
Current Schema

Treated Water

Water Devices

System Valves

Hydrants

Control Valves

Blowoff Assembly

Curb Stops

Cathodic Protection, etc...

Meters was part of WaterDevices until contractor separated.
Schema Issues

- No Turns on Valves
- No Pressures on Hydrants
- No inspection information stored in GIS
- Doesn’t distinguish between force and gravity mains in sewer system
- Customers not linked to Meters
- Meters not linked to backflows
- No service lines existed prior to separating meters from WaterDevices
THE ARCGIS WATER UTILITY DATA MODEL

Why?
New Tools, New Schema

ESRI Water Conference, Austin

Solutions for Water Utilities

First look at LGIM

Demoing new asset management systems

Looking at Industry Standards

Updates to GIS
Standards Based

Utility Model
SDSFIE Experience
Updating Schema based on LGIM
Problems with Current AMS
I Broke the New Permit Tracking System!

State mandated backflow inspections

Had to quickly extract backflows, using LGIM

New permit tracking software was not GIS centric
Taking a Step Back

Formulate a better plan

- Start researching fields
- Migrating all at once or a piece at a time
- What else can I break?
Decisions

Migrate all at once
  If we break it, I’d rather fix it one time
Move to ArcGIS online
  Much of City’s GIS users don’t need ArcMap
  View Only
List programs with dependencies
Find Tools to help migrate
Utility Model Removed

LGIM does not contain utility data as of March

Focus on new Utility Model in ArcPro

Do we still want to migrate, or wait?
Migrating the Data

Automating the Migration

A mixture of python and Gizinta
Map current attribute fields to LGIM fields
Creating new server for just utilities data
Do we fix the current AMS?

Map fields to current AMS
  Time consuming
  Resistance from IT department
Why fix it if we are replacing?
Can we use current solutions to supplement AMS?
Moving Forward

Solutions for ArcGIS

- Tools for Asset Management
- Hydrant Inspections
- View CCTV Observations

Standardized Approach

- New Asset Management System
Expanding the LGIM

Other City Departments

Streets
Storm Water
Code Enforcement
Snow Removal

How can we benefit from the model?
Where do we go from here?

Treatment Facilities

How does the LGIM work for vertical assets?

ArcGIS Online Tools

Collector, Workforce, Insights

Mobile solutions, New AMS

Model solutions should be standard!!
Questions?

Q&A
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