UTILIZING GIS TO ITS FULL POTENTIAL IN LOCAL GOVERNMENT

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• Introduction for presenters and organizations
• Problems solved with GIS
  – Asset locations
  – Asset information updates
  – Vehicle tracking
  – Access to GIS data by non-users
• Conclusion
• Questions?
GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

REGIONAL AUTHORITY CREATED IN 2005
SERVING FOUR MEMBER COMMUNITIES

555 MILES OF SEWERS
• INCLUDING 70 MILES OF COMBINED SEWERS IN NEW HAVEN (12.5%)

30 PUMP STATIONS

5 MILLION GALLON CSO STORAGE TANK

EAST SHORE TREATMENT PLANT
• 29 MGD - AVERAGE DAILY FLOW
• 60 MGD - SECONDARY DESIGN FLOW
• 110 MGD - WET WEATHER FLOW RECEIVING PRIMARY TREATMENT AND DISINFECTION

TOTAL COST OF SERVICE
$36M / YEAR
SOUTH WHITEHALL TOWNSHIP

- Township utility department
- 1 daily GIS user, ~15 data users
- Used with PA One Call System
- Streets, Traffic, Water, Sewer, Storm Sewer, Parks, Community Development, Police and Fire
LANGAN ENGINEERING & ENVIRONMENTAL CONSULTANTS

- Multi-disciplinary engineering firm
- GIS and mobile scanning
- Esri Business Partner
- 23 offices world-wide
- Over 1,000 employees
TYPICAL LOCAL GOVERNMENT “PROBLEMS”

• Where are my assets located?
• What do I know about these assets?
• How can everyone see this data?
• How can GIS make me more efficient?
• How do I centralize all my information?
GIS SOLUTIONS – COLLECTING ASSET LOCATIONS

• As-built scans
  – Digitize paper documents
• Esri ArcPad GPS
  – Attach photos to assets
  – Check-in/check-out from SDE
• Esri Collector app
  – Attach photos to assets
  – Download deployable
GIS SOLUTIONS – COLLECTING ASSET LOCATIONS (cont’d)

• Mobile LiDAR scanner
  – Survey grade accuracy
  – High-collection rate
  – Feature extraction with Leica’s MapFactory ArcGIS extension
  – Process features as needed
GIS SOLUTIONS – UPDATING ASSET INFORMATION

• Esri Collector app
  – Ability to edit existing features attributes

• Custom web-applications
  – Automatically calculate information such as GPM
• Custom field forms
  – Live connection to SDE database
  – Pre-populated information
  – Required fields
GIS SOLUTIONS – VEHICLE TRACKING

• Snow plow tracking
  – Truck location
  – Plow status
  – Salt spreading statistics
• Vehicle diagnostics
• Dispatch potentials
• Reduced liability
GIS SOLUTIONS – NON-GIS USER ACCESS TO DATA

• ArcGIS online map
  – Accessible from desktop or mobile device
  – Data hosted on ArcGIS online or internal server
  – Secure connection

• Custom web-viewer
  – Custom functionality / interface
  – Public vs. Private
CONCLUSION

• More efficient procedures = cost savings
• Multi-department data integration
• Increased analysis / modeling capabilities
• Increased communication with public / stakeholders
• Single point system for all your needs
QUESTIONS?

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