Asset Management System
Works for Portland Water District

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Portland, Maine
Asset Management System
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1. PWD Introduction
2. Work Order Management
3. Project Planning
4. ArcIMS in the Field
PWD serves 200,000 people in the Greater Portland area. Every day over 25 million gallons of water flow through 975 miles of pipe, and over 21 million gallons of sewage is processed at PWD’s five sewage treatment plants.
PWD’s GIS is “attribute light”. Only the data to create the linkages between GIS and the asset management system (Hansen) is maintained.
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*Work Order Management*

1. Visualize Work Order History
   a. Flushing Program
   b. Permalog Leak Detector Placement

2. Manage Work Flow
   a. Valve Turning Program
Visualize Work Order History

Flushing Program
Any work order associated to an asset can be displayed within GIS. This allows PWD employees to quickly view work history.
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Visualize Work Order History

Permalog Leak Detector Placement

Detected leaks pinpoint damaged infrastructure
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Manage Work Flow

Valve Turning Program

Maps for field crews showing the location of scheduled work can be created quickly and easily.
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Project Planning

Using disconnected editing to expedite the addition of new data and to create as builts
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Project Planning

Spatial Updating - Projects

- Project Initiated
  - Generate checked out GIS database w/project area data
  - Update GIS/Hansen information
    - GIS (Checkout Database)
    - GIS (Default Database)
    - Field points

- Final Project Review
- Build & Inspect project
- GIS based project design plans
- Check in checked-out GIS database
  - GIS (Default Database)
  - Hansen Database
  - Updated Hansen database
- Generate GIS based record drawing
  - PDF Format Record Drawing

- Generate GIS based design plan w/approximate asset location
- Existing AutoCAD Design?
  - Yes
    - GIS (Checkout Database)
    - GIS (Proposed Database)
  - No
    - ACAD Plan
    - GIS (Checkout Database)
    - GIS (Default Database)

- Insert digital plan into GIS

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Project Planning

GIS
As Built.

PORTLAND WATER DISTRICT
225 Douglass Street
Portland, ME 04104

Asset Management and Planning Dept.
Mackworth Lane
Cumberland

RECORD DRAWING

Field Book: 23 Mackworth Ln 03
Cad Plan: 23 Rockwood-Condo-Yes
Sheet No. 1 of 1

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ArcIMS in the Field

PWD field crews access live information from Hansen and GIS by connecting to an ArcIMS website using Citrix.
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Questions?

Thank you for your attention.