MAPPING CLUSTERED ASSETS WITH GIS

Darryn Flexman - Applications Specialist
Elsinore Valley Municipal Water District
EVMWD Background

The District is located along the I-15 corridor in Southwest Riverside County in the State of California. California Special District formed in 1954
96 Sq. mile Service Area
~40,000 Connections
Population Served – 133,000
160 Employees
Potable, recycled, and wastewater collection and treatment
Groundwater basin management, recharge, arsenic removal
Facilities

2 Water Treatment Plants
55 Pump Stations
77 Reservoirs
12 Wells
46 Pressure Reducing Stations
1,982 Air Vacs
7,642 Fire Hydrants
18,434 Valves
780 miles of Pipeline
3 Wastewater Treatment Plants
36 Sewer Lift Stations
8,516 Sewer Manholes
386 miles of Sewer Mains
ArcGIS 10.2 Enterprise GIS backbone

Field Mapplet mobile work order system used to create & complete work orders in the field

GIS or map centric approach in selecting features to create work orders.

Work order data stored in Mobile Work Order System database and can be pulled into CMMS. (Maximo is the District’s official record of maintenance.)

Reports are written to account for work being done and can also be written to provide maintenance history on a particular feature.
Mobile Work Order System
Water System Air Vac

- Name: 20131024_1NAZXVCO
- Completed: 0 / 2

Assets | Tasks & Resources
--- | ---
1. VA-676 | 2. AR-20

Operational Status:
- Operational

Date Serviced: 10/24/2013

Service Type:
- Routine

Can Material Type:
- Graffiti Removed: NA

Attributes - Air Release Valve
- Name: Diameter 1
- Maximo ID: AR-20
- Drawing Number: 2316
- Pressure Zone: 1601
- Manufacturer: Apco

Navigation
- e-Compass: 0°
- Bearing: 0°
- Distance: 0 ft
The Challenge

Field Maintenance Supervisor:

“This works great for system valves and air vacs, but what about valves and air vacs at facilities such as pump stations or reservoirs?”

How do we create or model yard piping drawings for a clustered asset in GIS and create work orders spatially in Field Mapplet?
Yard Piping Feature Dataset
Creating Features in ArcGIS
Attributes For Feature Dataset
Pump Station Location in Field Mapplet
Pump Station Yard Piping Layout
Yard Piping Facility Valve
Yard Piping Facility Air Vac

VT_AV: 20131021_002GAERF
Name: 20131021_002GAERF
Completed: 0 / 2

Assets | Tasks & Resources
---|---
1. FAV-67 | 2. FVA-365

Operational Status
- Operational

Can Replaced
- Yes

Body Replaced
- Yes

Above Ground
- Yes

Flushed
- Yes

Service Type
- Routine

Painted
- No

Graffiti Removed
- NA

Can Material Type

Vent Screen Inspected/Replaced
- Yes

Additional Work is Needed?

Attributes - Facility Air Release Valve

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<th>Name</th>
<th>Value</th>
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Navigation
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- Bearing: 0°
- Distance: 0 ft
QUESTIONS?

Darryn Flexman - dflexman@evmwd.net
(951)894-8713