

2013 Esri International User Conference

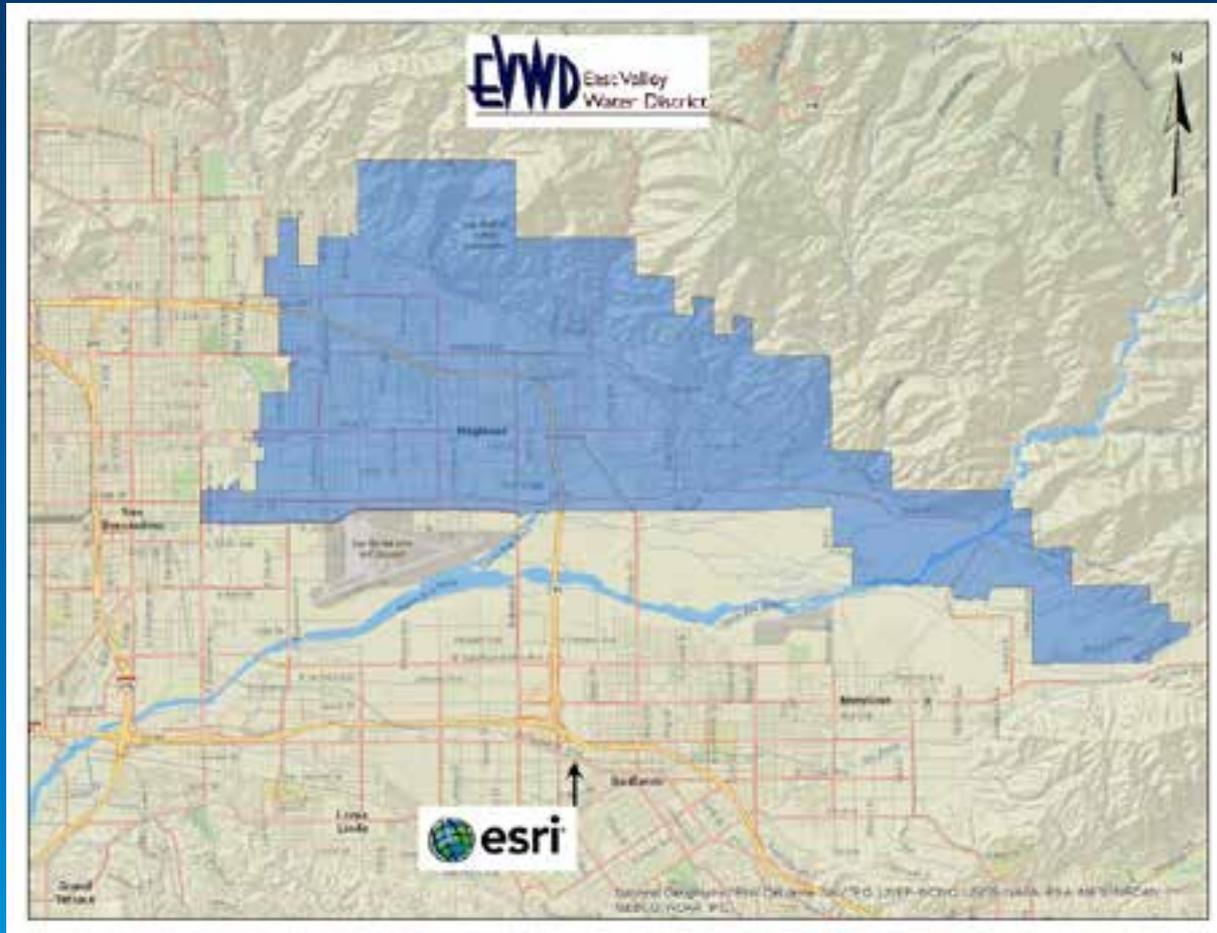
July 8–12, 2013 | San Diego, California

THE BENEFITS OF A STRATEGIC PLAN

Leida Thomas

Bruce Miller, GISP

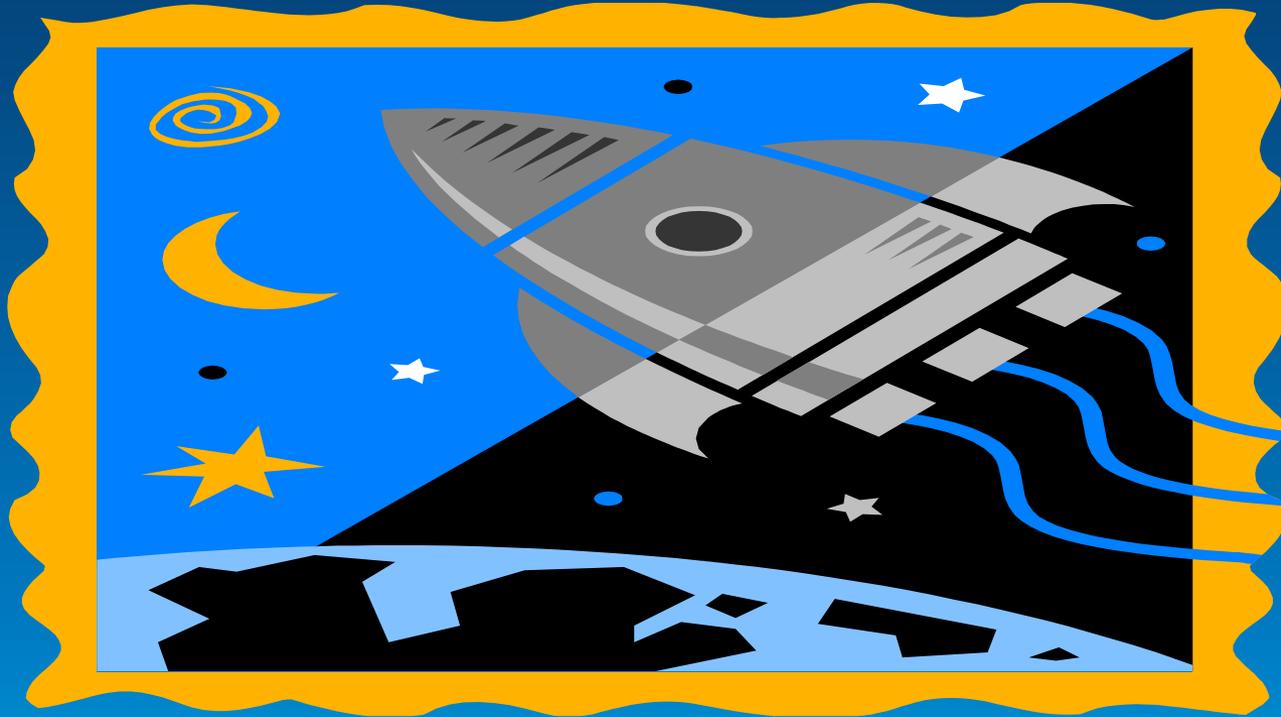
WHERE ARE WE?



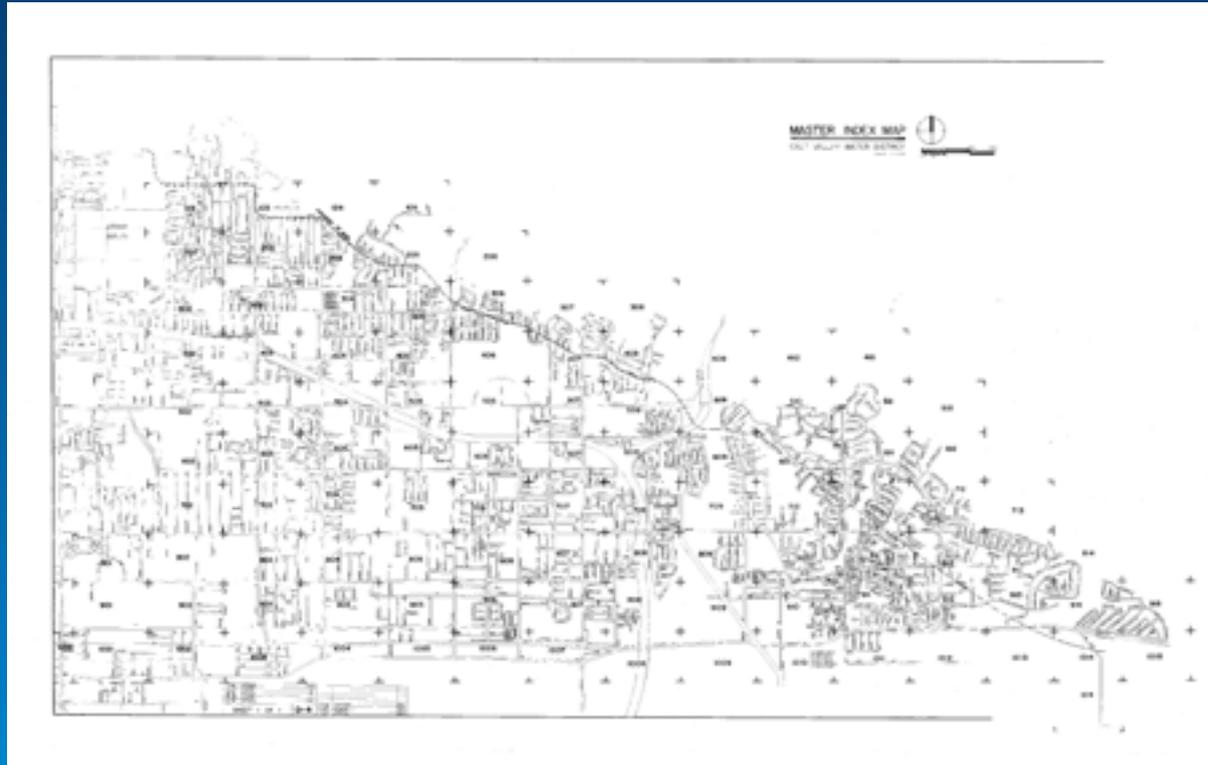
EAST VALLEY WATER DISTRICT

- 32 square mile service area
- 90,000 customers
- 295 miles of water mains
- 203 miles of sewer mains
- 30 well, booster, reservoir, treatment plants

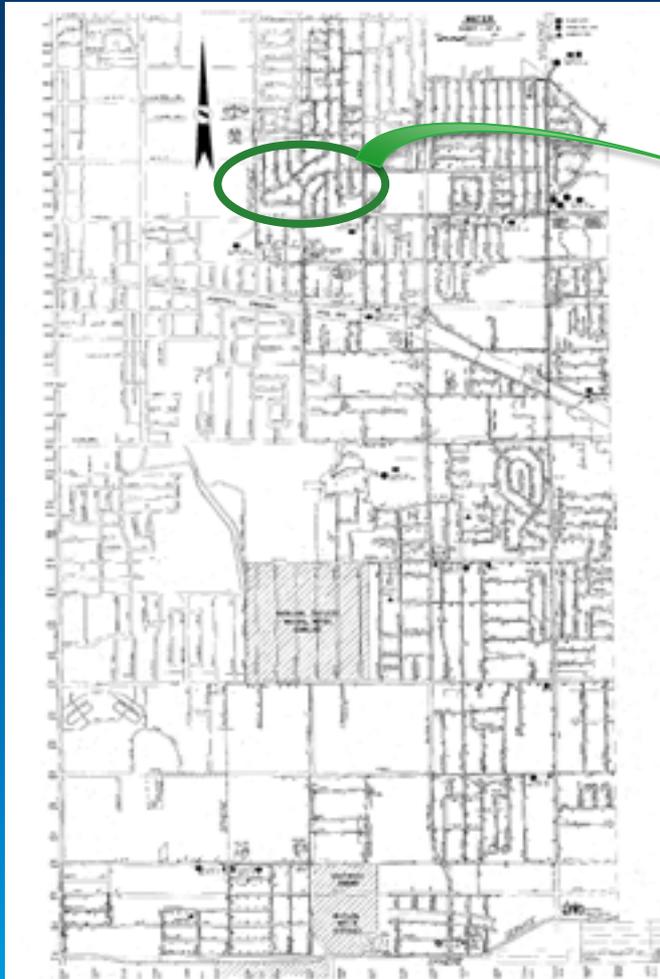
IN THE BEGINNING – 2001 A SPATIAL ODYSSEY



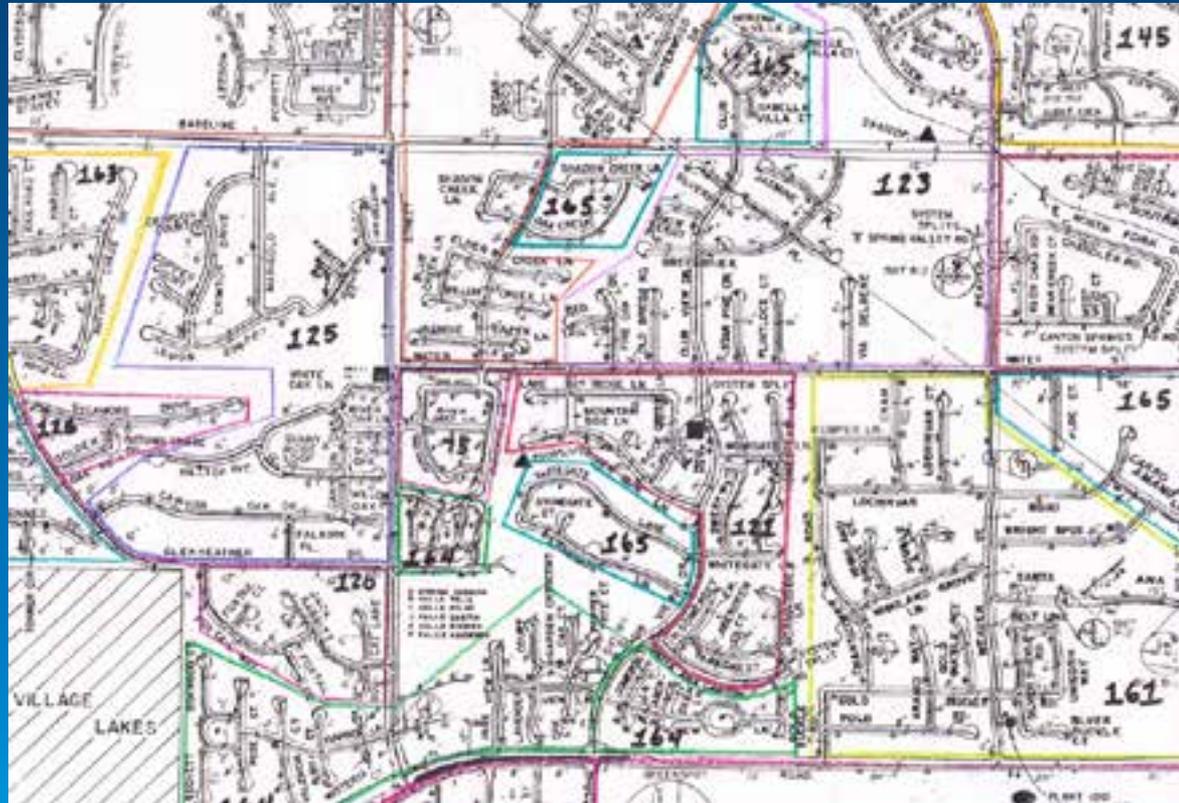
MASTER INDEX MAP



WATER DISTRIBUTION SYSTEM



HAND COLORED METER ROUTES



300' SCALE VALVE MAPS

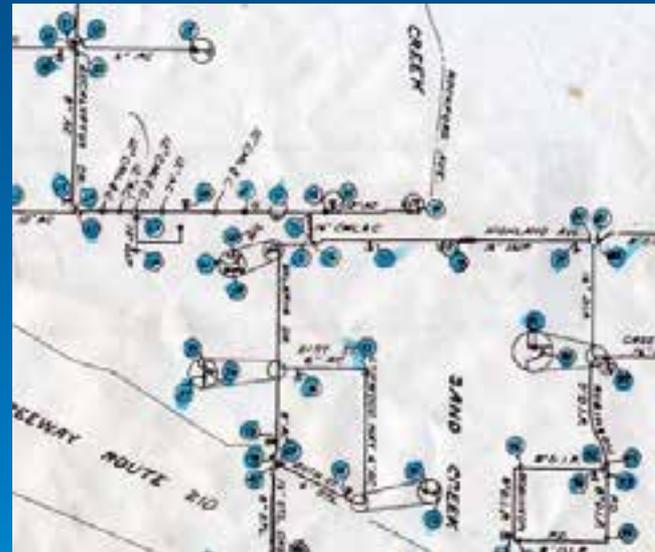
USED FOR FYRE HYDRANT FLUSHING AND VALVE EXERCISING

DATA TO BE TYPED

812

VALVE LOG EXERCISE

PAGE	NOTES	DEPTH TO NUT	# TURNS	MAKE
74		18"	21/2	
75	TH	22"	21/2	
84	TH V114	35"	19/2	DM
45		22"	22/2	
44		41"	26/2	
43		36"	26/2	
74	✓ 40	24"	✓	
73	1/2	24"	✓	
72	1/6	24"	20/2	
71		26"	20/2	
76	TH	24"	24/2	PL
47	TH new Road 56	25"	25/2	PL
111		22"	37/2	
129	DO on East side of side	23"	24/2	DM
75		22"	27/2	
76	DO 76x114, 77x114 D.O.	24"	17/2	DM
79	DO TH	32"	20/2	DM
64	TH	27"	20/2	DM
57	CHL			
53	CHL			
48		45"	37/2	
49		42"	27/2	
50		25"	19/2	
76		22"	27/2	DM
1	TH	21"	22/2	DM
3		36"	20/2	
2	DO	24"	11/2	DM



KEEPING TRACK OF WHERE THEY HAVE BEEN

ATLAS SHEETS



100 WATER SHEETS
100 SEWER SHEETS

GERRY DRAWS HIS LAST LINE



GIS OR AUTOCAD ? THAT IS THE QUESTION

- Either way - entire district sewer and water distribution systems created from scratch
- I am the GIS
- Conversion Contract to digitize atlas maps and add data
- Enterprise is the way to go
- Now what?

2009 - The Year We Make Contact

Phase 1: Framework
Phase 2: Data Collection
Phase 3: Integration
5 year Implementation Plan

GIS STRATEGIC PLAN

Prepared for:

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Date: January 12, 2009

Phase 1 (Data Conversion)

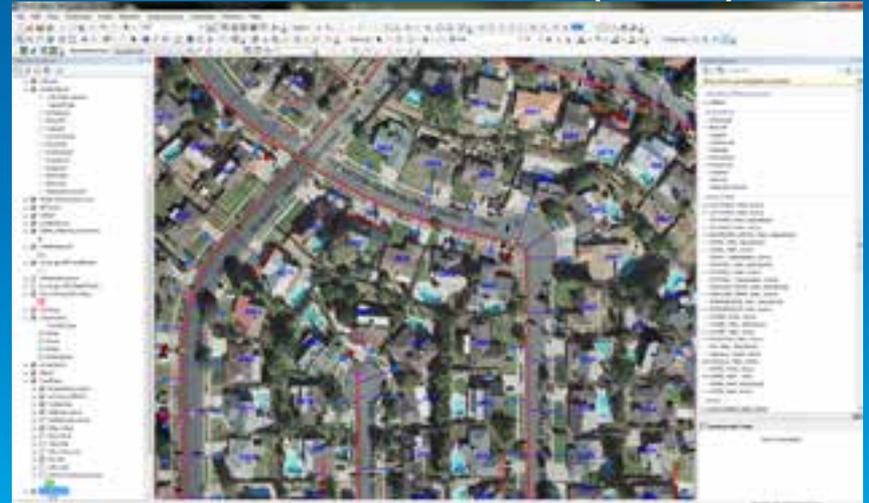
- Replace paper atlas sheets
- Develop Basemap for GIS
- Convert Drawings to Digital Database
- Develop Maintenance Plan/QC Workflows
- Develop GIS Personnel

Convert Drawings to Digital Data

- Pilot (Esri and AIS)
- Data Conversion completed by Nobel Systems
- EVWD Quality Control (Office and Field)
- Completed in 1 year

Software

- Esri ELA licensing
- ArcGIS Desktop/Server
- PLTS for Atlas Sheet creation
- Infrastructure tools for data maintenance (free)
- Data Reviewer (QC)



Replace Paper Atlas Sheets

- Atlas Books hardcopy and PDF

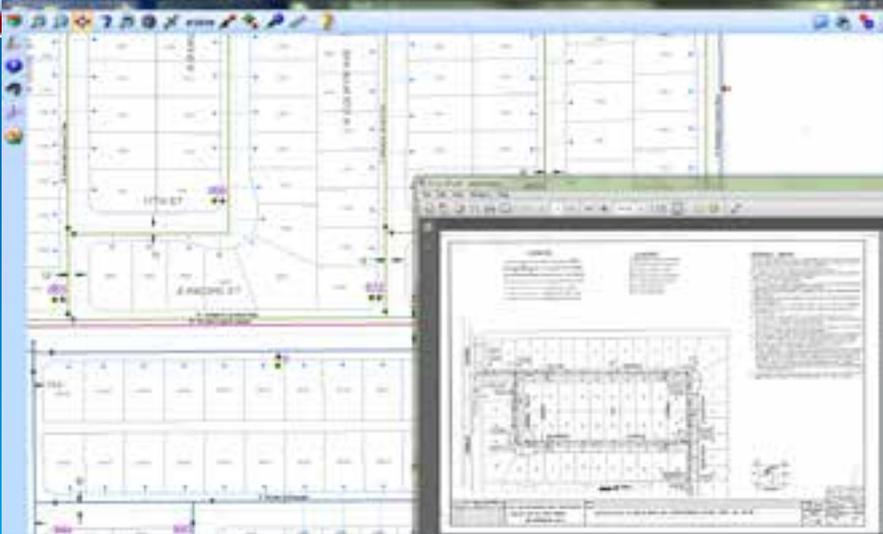
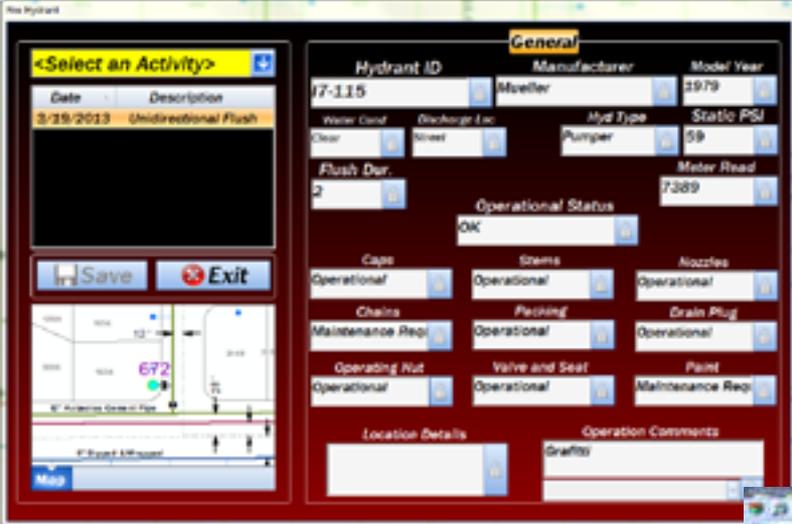


Phase 2 (Field Maintenance)

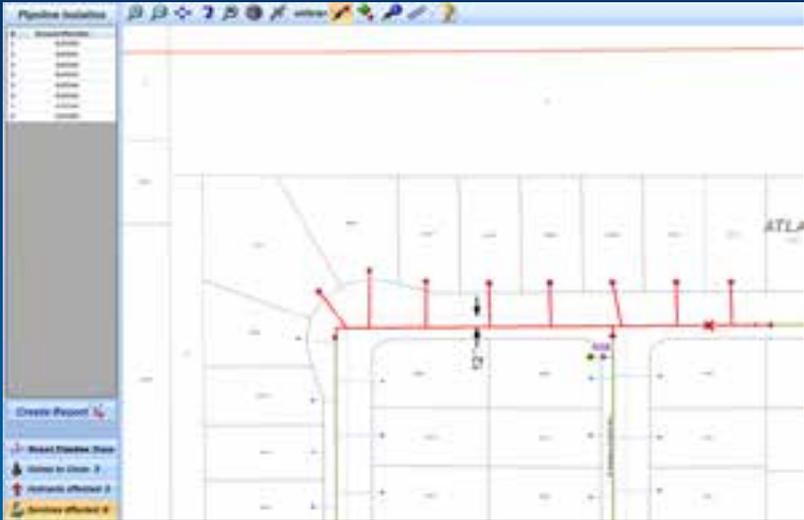
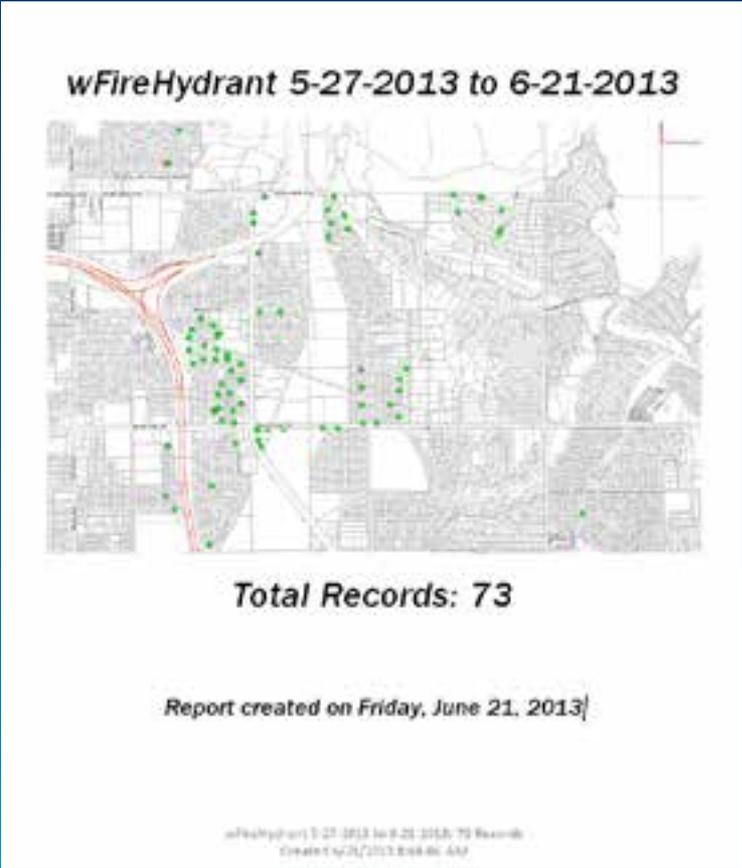
- Collect GIS Data in the Field
- Share GIS Information Across Organization
- Evaluate Integration Opportunities



InfraMAP



InfraMAP



Integration Opportunities



Phase 3 (Work Order Implementation)

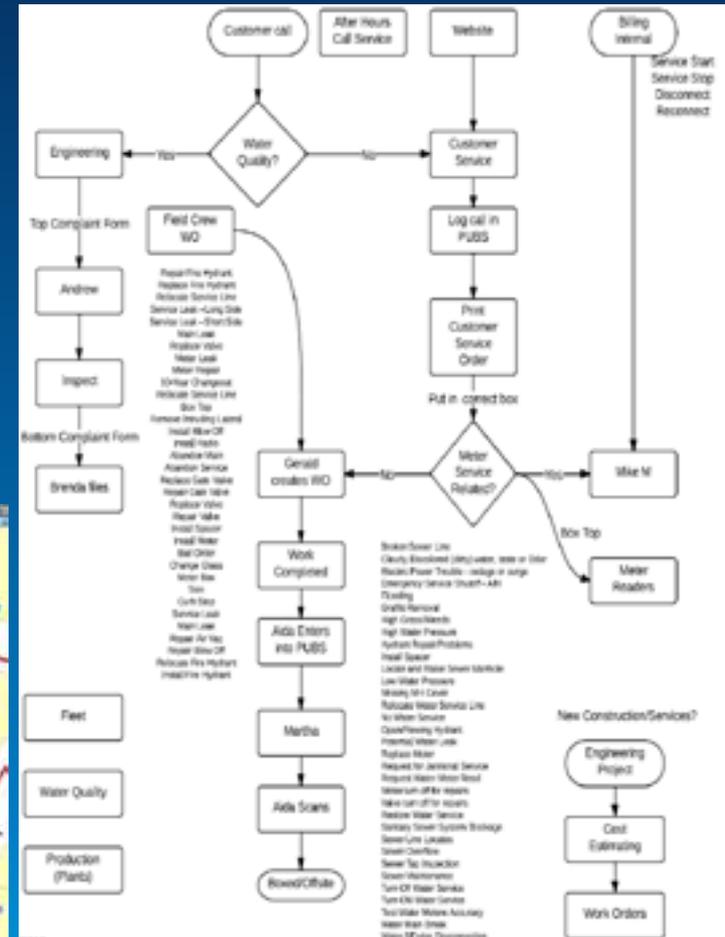
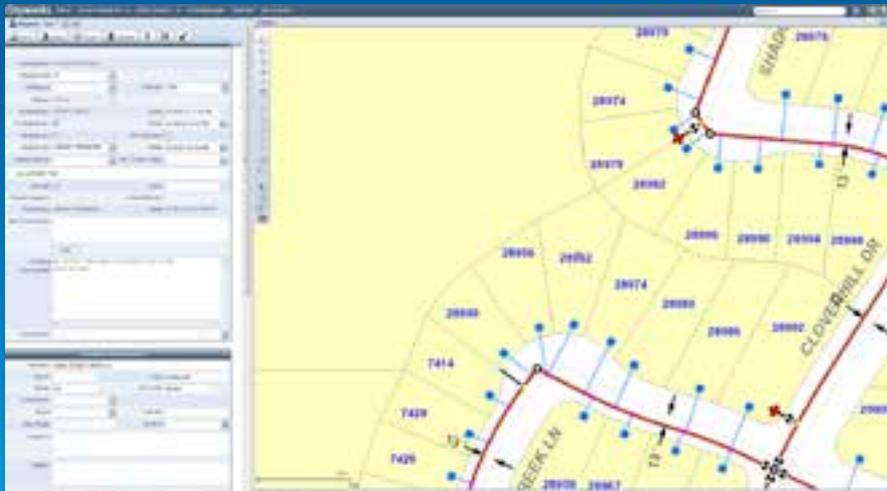
- Integrate GIS into Utility Workflows
- Use GIS to Support Operations
- Integrate Other Business Systems with GIS

Integration Opportunities



Cityworks AMS

- GIS Centric Solution
- GeoEngineers selected
- Quickstart Implementation



Cityworks

- LGT templates simplified setup
- Service Requests
- Work Orders
- Scheduled Preventative Maintenance
- Fleet Maintenance



Innovyze for Modeling

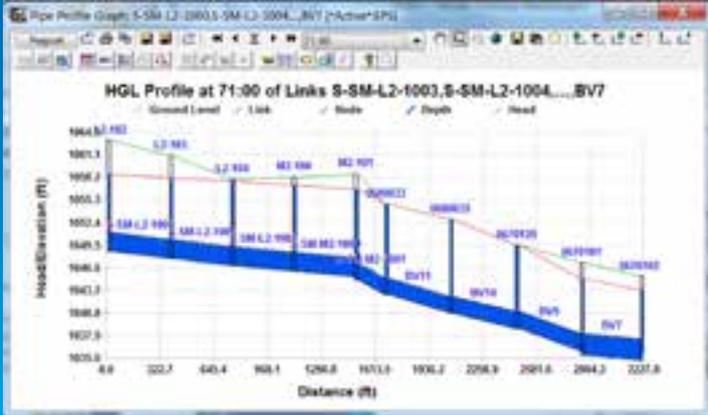


Figure 3-1
Existing Facilities & Water Rights

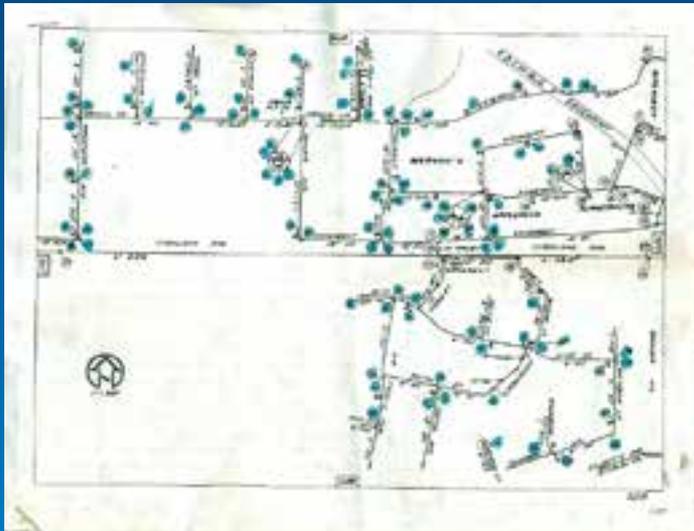
Issues Encountered/Lessons Learned

- Reluctance to change
- Find champions in organization
- Need staff dedicated to maintaining GIS
- Management support needed
- Third party versioning can be difficult to manage

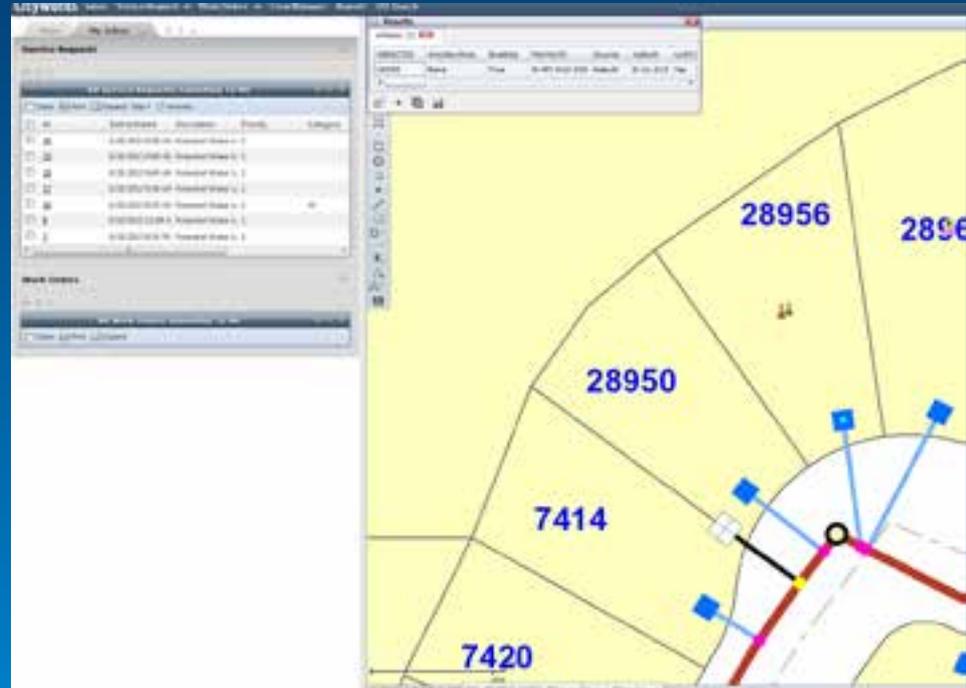
Today...Meter Routes



Today...Hydrant Flushing



Today...Service Requests/Work Orders



The Road Ahead

- Integration of new finance/billing system (Tyler)
- Internal GIS inter-department Round Table
- Continue to Develop GIS and Cityworks
 - Fleet Management
 - Building Management
- Regional Cooperation
 - Data sharing
 - ArcGIS.com



Questions?

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- Bruce Miller (bmiller@eastvalley.org)