

Improving Workflows using
ArcGIS Online
WHITE HOUSE UTILITY
DISTRICT, TENNESSEE

Agenda

- Introduction
- Approach / Philosophy
- AGO Site
- Water Outage Process
- Data Collection
- Dispatching / Workload Balancing
- Questions



Introduction

- Carl Alexander, GIS Director
- Staff
- Software
- Hardware / Devices
- Esri Solutions
- Apps
- Dashboards



Approach

- GIS Centric Organization
- ArcGIS Platform
- LGIM (Local Government Information Model)
- COTS (Commercial of the Shelf)
- 100% of staff access to GIS and be able to create, update, and maintain GIS data and maps



Philosophy

- Little to No integration
- Quickly create Apps, Dashboard, Web Maps
 - Evolve with upgrades or new technology
- Communicate with staff for changes
- Meets business needs
- Real time data is best for decision making
- Specific app for specific need





Customer Service Outage Viewer



Water Distribution Network Application



DMA Zones



Isolation Trace Application



Basemaps

Standard basemaps for the organization.

created by WHUD_TN on April 15, 2014

[Details](#)



Crews

Group for the Backhoe Crews.

created by WHUD_TN on April 15, 2014

[Details](#)



Cross Connection

created by WHUD_TN on June 6, 2014

[Details](#)



Customer Service

The Water & Sewer Billing and Collection Division manage the water and sewer accounts for residents.

created by WHUD_TN on April 2, 2014

[Details](#)



Dashboards

Group of All Dashboards

created by WHUD_TN on September 8, 2014

[Details](#)



Engineering

created by WHUD_TN on September 12, 2012

[Details](#)



EOP

WHUD Emergency Operations Preparedness Group

created by WHUD_TN on April 17, 2014

[Details](#)



Executive

created by WHUD_TN on August 1, 2013

[Details](#)



Facility Maintenance

created by WHUD_TN on June 6, 2014

[National Maps for USA](#)

[Esri Maps and Data](#)

[Community Basemaps](#)

[Landsat Community](#)

[Web Application Templates](#)

[ArcGIS for Local Government](#)

General

Home Page

Gallery

Map

Item Details

Groups

Utility Services

Roles

Security

Open Data

Security

Configure the security settings for your organization.

Policies



- Allow access to the organization through [SSL](#) only.
- Allow [anonymous access](#) to your organization's website. (WHUD.maps.arcgis.com)
[What does this mean?](#)
- Allow only standard SQL queries.

Sharing and Searching



- Members can share content outside the organization.
- Members can search for content outside the organization.

Enterprise Logins



You can set up your Organization so that your users will be able to sign in to ArcGIS using the same username and password that they use on your existing on-premises systems.

[The key to this is through a technology known as identity federation that this section will help you set up through two actions.](#)

[EDIT IDENTITY PROVIDER](#)[REMOVE IDENTITY PROVIDER](#)[GET SERVICE PROVIDER](#)

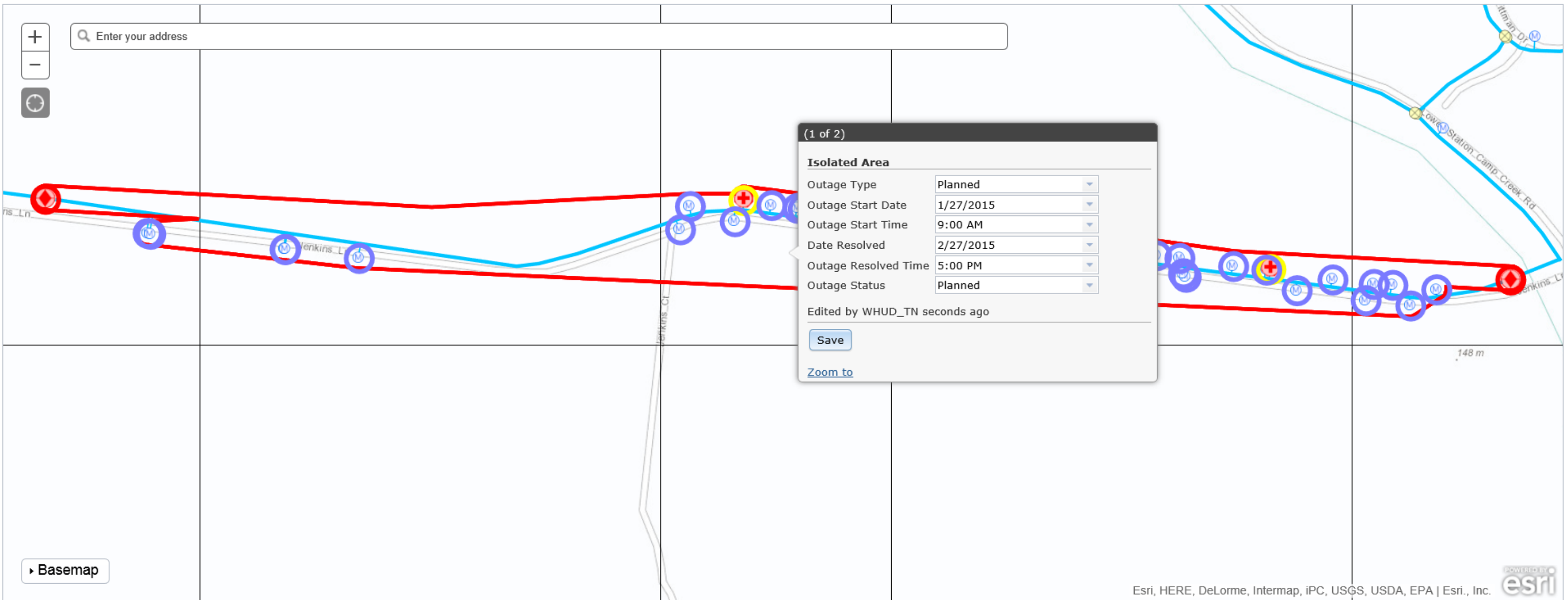
Planned Water Outages

- In desktop took about took about 40 min
- Included pdf maps, emails, and table exports for notifications
- Still now way to show customers
- Through AGO and trace app takes about 5 min
- Email and export notifications are done as part of process
- Now have customer facing map





Enter your address



(1 of 2)

Isolated Area

Outage Type	Planned
Outage Start Date	1/27/2015
Outage Start Time	9:00 AM
Date Resolved	2/27/2015
Outage Resolved Time	5:00 PM
Outage Status	Planned

Edited by WHUD_TN seconds ago

[Save](#)

[Zoom to](#)

3 Hydrants would be affected by a shutdown in this area.

40 Customers would be affected by a shutdown in this area.

2 Valves Returned in Trace, 0 were bypassed.

Summary Valves Hydrants Customers

Isolated Customers																				
Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	A
Updated	Comment	Rotation	Elevation	Last Consumption Date	Last Consumption Date	Customer	Meter Make	Meter Size	Serial Number	Sequence	Water Ser	Sewer Ser	Customer	Service Address	Unit Num	Meter Loc	Phone	Work Phone	Mail Address 1	Mail Address 2
alexandre	NA	null	484.6666	4250	11/6/2014	R1	Master	0.75	3949071	5139	101	null	RICHARD F	1015 JENKINS LN	LT4	R OF HSE L	615-206-9	615-268-0972	1015 JENKINS LN	
alexandre	NA	null	490.5374	9010	11/6/2014	R1	Master	0.75	3949070	5142	101	null	STEPHANI	1029 JENKINS LN	LT17	LEFT OF DI	615-604-8	615-604-8753	1029 JENKINS LN	
alexandre	NA	null	500.3898	2970	11/6/2014	R1	Master	0.75	3949072	5144	101	null	LIZ POTO	1039 JENKINS LN		LEFT OF DI	615-230-8	615-579-2948	1039 JENKINS LN	
alexandre	NA	null	507.1891	4370	11/6/2014	R1	null	0.75	null	5147	101	null	JOHN COM	1049 JENKINS LN	LT20	R OF HSE L	615-451-9	N/A	1049 JENKINS LN	
alexandre	NA	null	507.1891	6020	11/6/2014	R1	Master	0.75	3949169	5148	101	null	TERRY HUF	1053 JENKINS LN	LT21	LEFT OF DI	615-452-8	615-230-9894	1053 JENKINS LN	
alexandre	NA	null	516.3697	3910	11/6/2014	R1	Master	0.75	3949073	5153	101	null	MARIUS S	1063 JENKINS LN	LT22	R OF HSE L	615-206-8	615-390-1826	1063 JENKINS LN	
alexandre	NA	null	516.3697	2730	11/6/2014	R1	Master	0.75	9211196	5154	101	null	ARDEN FC	1079 JENKINS LN	LT23	L OF HSE R	615-749-1	615-230-6217	1079 JENKINS LN	
inorton	NA	null	521.2361	2400	11/6/2014	R1	null	0.75	null	5158	101	null	CALVIN EL	1085 JENKINS LN	LT24	R OF HSE L	615-451-3	N/A	1085 JENKINS LN	
alexandre	NA	null	520.7211	7380	11/6/2014	R1	Master	0.75	7377215	5164	101	null	GERALD K	1111 JENKINS LN		R OF HSE L	615-452-5	615-943-9861	1111 JENKINS LN	
alexandre	NA	null	520.7211	3900	11/6/2014	R1	Master	0.75	8007792	5165	101	null	TERRY FAI	1115 JENKINS LN	LT27	LOD R-TAF	615-642-9	N/A	1115 JENKINS LN	
inorton	NA	null	536.7944	4810	11/6/2014	R1	Master	0.75	3949277	5172	101	null	JOSH LEM	1279 JENKINS LN		FAR RO DF	615-822-8	N/A	1279 JENKINS LN	
alexandre	NA	null	522.4121	6210	11/6/2014	R1	Master	0.75	3679028	5166	101	null	THERESA F	1118 JENKINS LN	LT19	LEFT OF DI	615-537-1	615-972-1285	1118 JENKINS LN	
alexandre	NA	null	521.1603	3220	11/6/2014	R1	Master	0.75	7748325	5163	101	null	MARK SNE	1114 JENKINS LN	LT18	RIGHT EDC	615-974-6	615-206-0627	1114 JENKINS LN	
alexandre	NA	null	521.6515	2920	11/6/2014	R1	Master	0.75	3625522	5162	101	null	ROGER CR	1110 JENKINS LN	LT17	LEFT UP DI	615-451-5	615-714-4546	1110 JENKINS LN	
alexandre	NA	null	522.0446	1810	11/6/2014	R1	Master	0.75	9218945	5161	101	null	LARRY LED	1096 JENKINS LN	LT16	LEFT OF DI	217-264-2	N/A	1096 JENKINS LN	
alexandre	NA	null	522.0446	5050	11/6/2014	R1	Master	0.75	3967548	5160	101	null	DEBORAH	1090 JENKINS LN	LT15	EVN L CRM	845-542-3	845-629-5239	1090 JENKINS LN	
alexandre	NA	null	522.065	3200	11/6/2014	R1	Master	0.75	3967547	5159	101	null	NICOLE BF	1086 JENKINS LN	LT14	RIGHT OF	615-618-7	615-451-1912	1086 JENKINS LN	
alexandre	NA	null	520.1953	3810	11/6/2014	R1	Master	0.75	712443	5157	101	null	MICHAEL S	1080 JENKINS LN	LT13	LEFT UP DI	615-452-5	615-218-1815	1080 JENKINS LN	
alexandre	NA	null	520.1953	60	11/6/2014	R1	Master	0.75	3967563	5156	101	null	JAMES FO	1074 JENKINS LN	LT12	L O LT-R	615-452-0	N/A	1074 JENKINS LN	
alexandre	NA	null	518.7123	4780	11/6/2014	R1	Master	0.75	3967550	5155	101	null	LINDA SPI	1068 JENKINS LN	LT11	EVEN BAY	615-452-6	615-309-5500	1068 JENKINS LN	
alexandre	NA	null	513.8137	4690	11/6/2014	R1	Master	0.75	3967549	5152	101	null	ALECIA ME	1064 JENKINS LN	LT10	EVEN WIT	615-451-4	615-868-5692	1064 JENKINS LN	
alexandre	NA	null	509.3854	3410	11/6/2014	R1	Master	0.75	3967560	5150	101	null	WILLIAM F	1054 JENKINS LN	LT9	EVEN WIT	615-452-4	702-400-7548	1054 JENKINS LN	
alexandre	NA	null	507.432	2810	11/6/2014	R1	Master	0.75	3967542	5149	101	null	DANA WR	1050 JENKINS LN	LT8	LEFT OF DI	615-206-0	615-948-8419	1050 JENKINS LN	
alexandre	NA	null	504.0541	6250	11/6/2014	R1	Master	0.75	3967540	5146	101	null	BRENDA B	1048 JENKINS LN	LT7	MIDDLE O	615-452-4	407-288-3179	1048 JENKINS LN	
inorton	NA	null	502.3902	18450	11/6/2014	R1	null	0.75	null	5145	101	null	JEFFREY K	1022 JENKINS LN		L OF DR R	615-451-4	615-330-5360	1022 JENKINS LN	
alexandre	NA	null	493.3337	4470	11/6/2014	R1	Master	0.75	7748201	5143	101	null	EARL/PAM	1018 JENKINS LN	LT4	LEFT OF DI	615-230-9	N/A	1018 JENKINS LN	
alexandre	NA	null	488.5084	4090	11/6/2014	R1	Master	0.75	3967545	5141	101	null	TRACEY W	1014 JENKINS LN	LT3	RIGHT OF	615-206-1	N/A	1014 JENKINS LN	
alexandre	NA	null	478.6776	2300	11/6/2014	R1	Master	0.75	3967544	5138	101	null	JAMES BU	1004 JENKINS LN	LT1	EVEN WIT	615-452-0	615-479-0642	1004 JENKINS LN	
alexandre	NA	null	483.3101	5130	11/6/2014	R1	Master	0.75	3614192	5140	101	null	WINDY RC	1010 JENKINS LN		CENTER O	615-335-0	615-336-9025	1010 JENKINS LN	
alexandre	null	null	525.0162	9620	11/6/2014	R1	Master	0.75	3800366	5168	101	null	MEGHAN I	1126 JENKINS LN		RT OF PRC	818-421-0	615-348-6651	1126 JENKINS LN	
alexandre	null	null	526.4238	4930	11/6/2014	R1	Master	0.75	3714111	5170	101	null	CHRISTOP	1130 JENKINS LN		RIGHT OF	615-500-7	615-431-0904	1130 JENKINS LN	
alexandre	null	null	523.4984	2080	11/6/2014	R1	Master	0.75	9211197	5167	101	null	ERNEST DE	1122 JENKINS LN		RT CORNE	615-206-9	N/A	1122 JENKINS LN	
alexandre	null	null	522.1566	4350	11/6/2014	R1	Master	0.75	3889203	5171	101	null	WILLIAM F	1129A JENKINS LN		RIGHT OF	615-452-8	N/A	1129A JENKINS LN	
alexandre	null	null	523.836	2540	11/6/2014	R1	Master	0.75	3498180	5169	101	null	DAVID BLA	1129B JENKINS LN	LT28	FAR L DR M	615-452-9	615-594-0709	1129B JENKINS LN	
ull	null	null	511.4609	0	11/6/2014	R1	Master	0.75	8712316	5151	101	null	BRUCE RA	1062 JENKINS LN		LEFT OF DI	615-822-0	N/A	116 MAPLE ROW BLVD	
ull	null	null	521.2361	8400	11/6/2014	R1	Master	0.75	9364537	5160.5	101	null	BRIAN BRO	1095 JENKINS LN		right of pc	615-337-7	615-594-9986	1095 JENKINS LANE	



Pay Your Bill



Service Areas



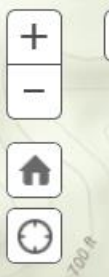
Water Outages

For Customer Service
(615) 672-4110

Welcome to WHUD

White House Utility District is one of the largest water and sewer utilities in the state of Tennessee, serving a population of just over 90,000 with 30,000 connections in Robertson, Sumner and Davidson counties.





Service Information

This address is within the WHUD Service Area.

There is currently a **Planned** outage in this area affecting **41** customers. The outage is **Planned** for **January 27, 2015** at approximately: **9A**. The outage is expected to be resolved by: **5P** on **January 27, 2015**.

The expected high pressure for this location is: **147 PSI**.

The expected low pressure for this location is: **117 PSI**.

[Zoom to](#)

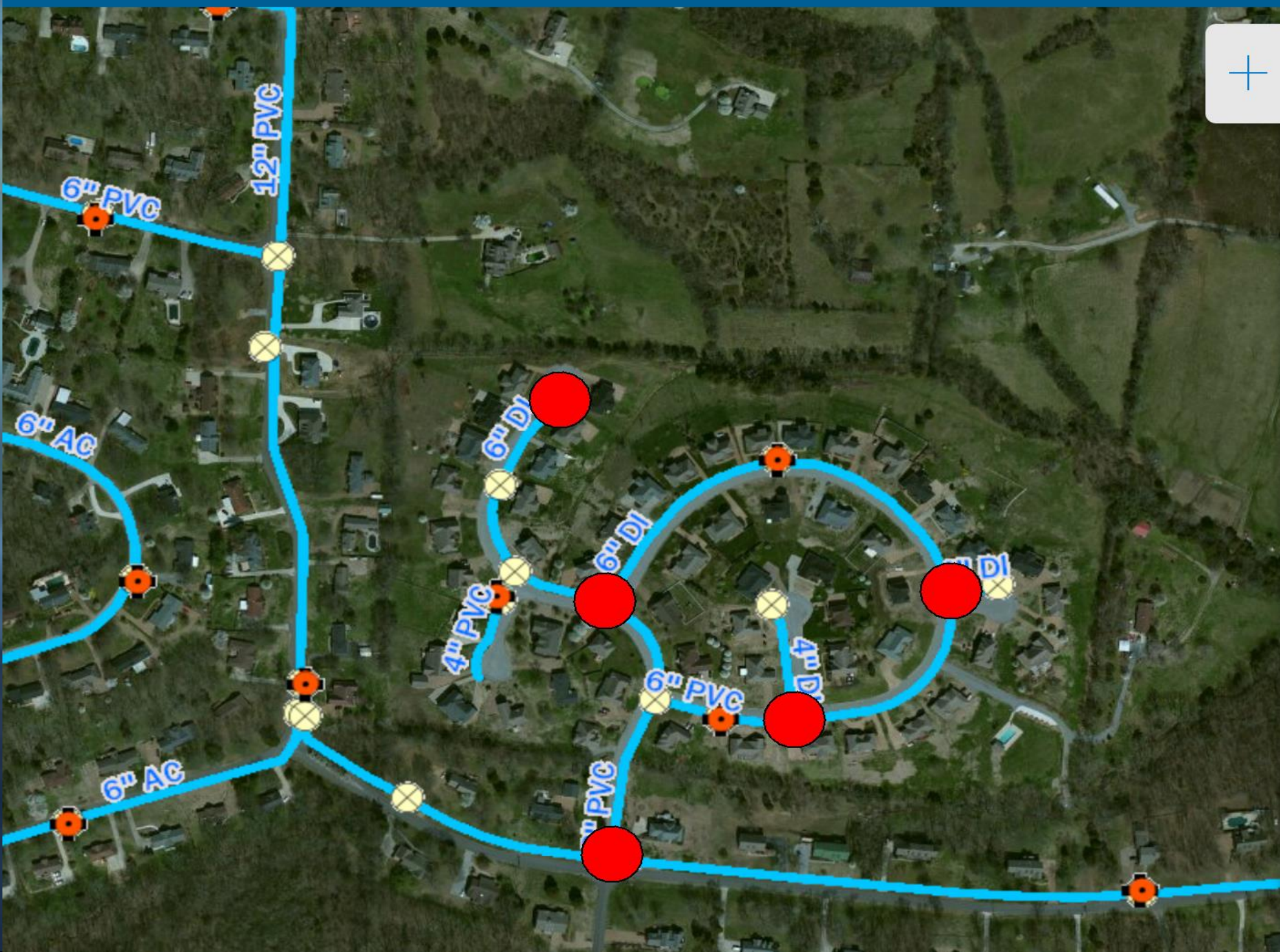


Basemap

Data Collection / Leak logger

- Wanted Printed maps to show where to put loggers
- Input that data into software and download to laptop
- Read loggers and download at office
- Need process to put into GIS
- Currently done in AGO
- Data is collected in collector
- Do not have to go do office twice a day

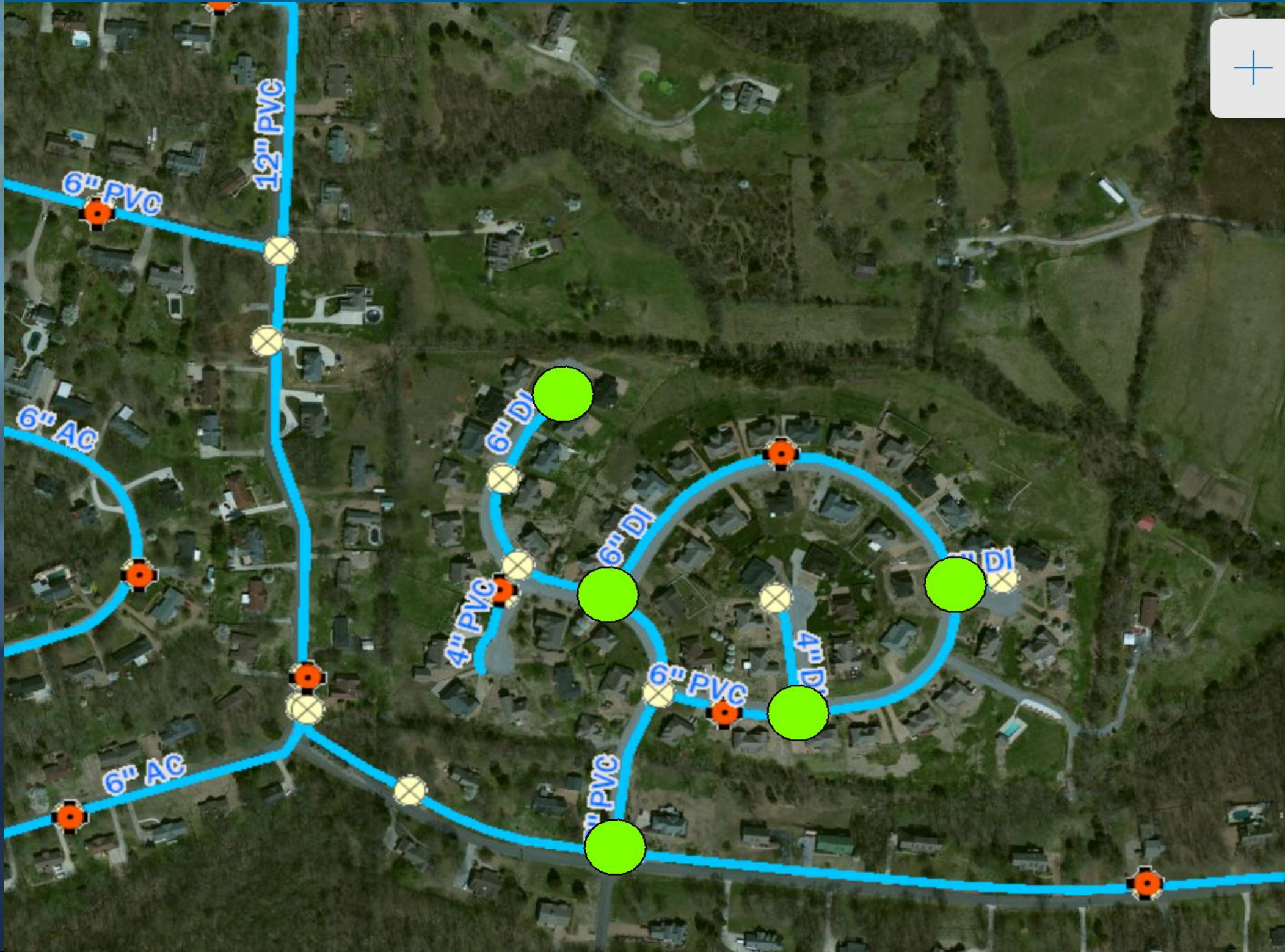




Collect a new feature

LeakLoggerProgress

- Leak Repaired
- No
- Yes
- False Positive
- In Progress
- Need Placement



Collect a new feature

LeakLoggerProgress

- Leak Repaired
- No
- Yes
- False Positive
- In Progress
- Need Placement

Maps



Collect a new feature

LeakLoggerProgress

- Leak Repaired
- No
- Yes
- False Positive
- In Progress
- Need Placement

Dispatching / Work Balancing

- Service Requests are auto dispatched by zone
- If Tech gets done he would just help another tech
- We still auto dispatch by zone
- Managers look at dashboard to see counts
- Even work loads by location
- Do a few times a day based on new SR and AVL



Open SR by Field Tech

