

# More Than the Sum of the Parts:

Web-Based Data Sharing to Improve Emergency Response,  
Decision Making, and Documentation



**FACERS Annual Meeting**

**June 13, 2019**

**JonesEdmunds** 

- **~20 years with Jones Edmunds**
- **Water resources**
- **GIS**
- **Asset Management**



**Alan Foley, PE**  
Sr. Project Manager



- **Agency challenges**
- **Evolutions in digital data creation and use**
- **Implications for public works**
- **Public works examples**



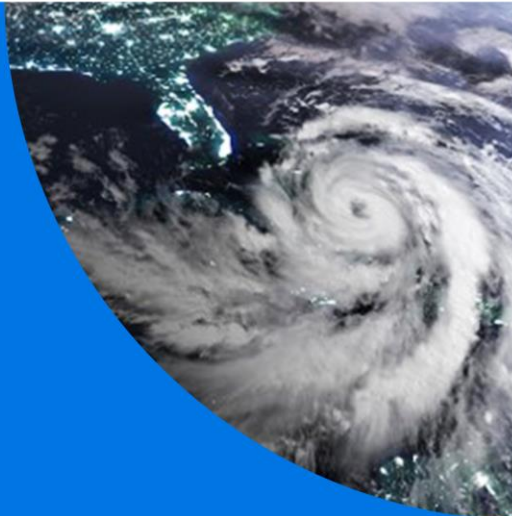
## Infrastructure Maintenance



## Public Outreach

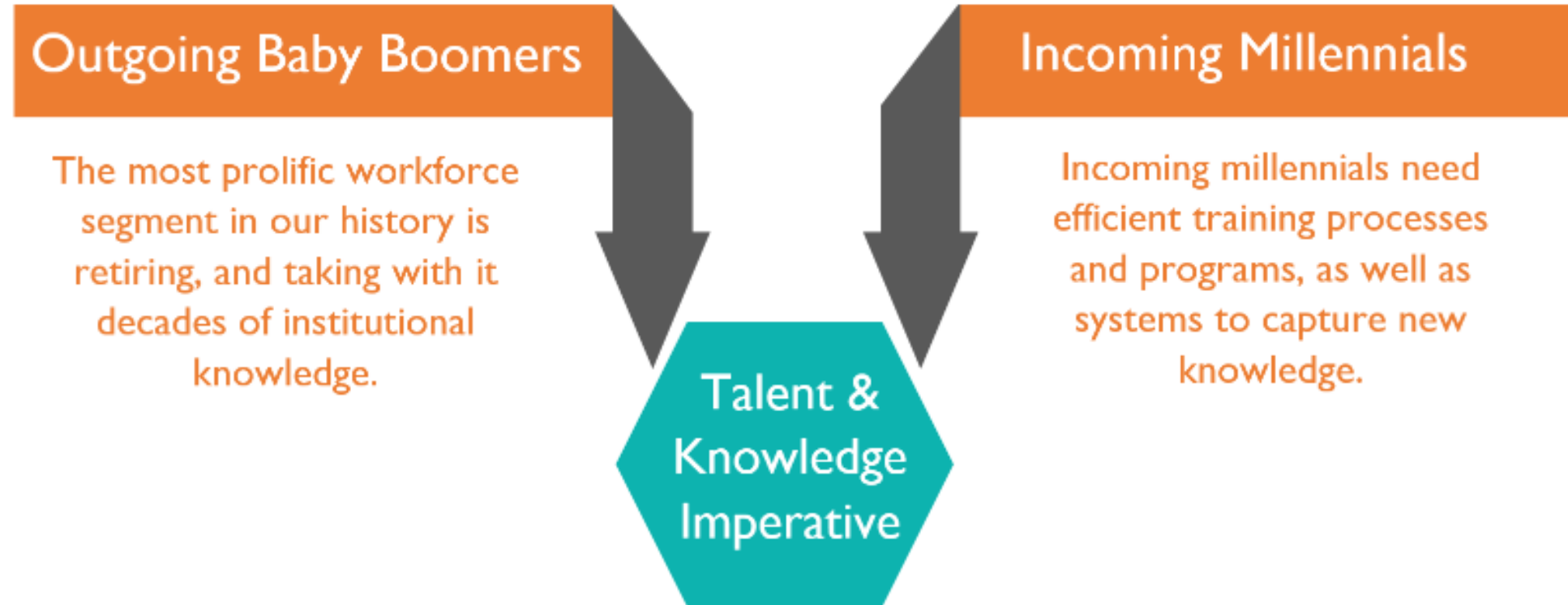


## Emergency Response



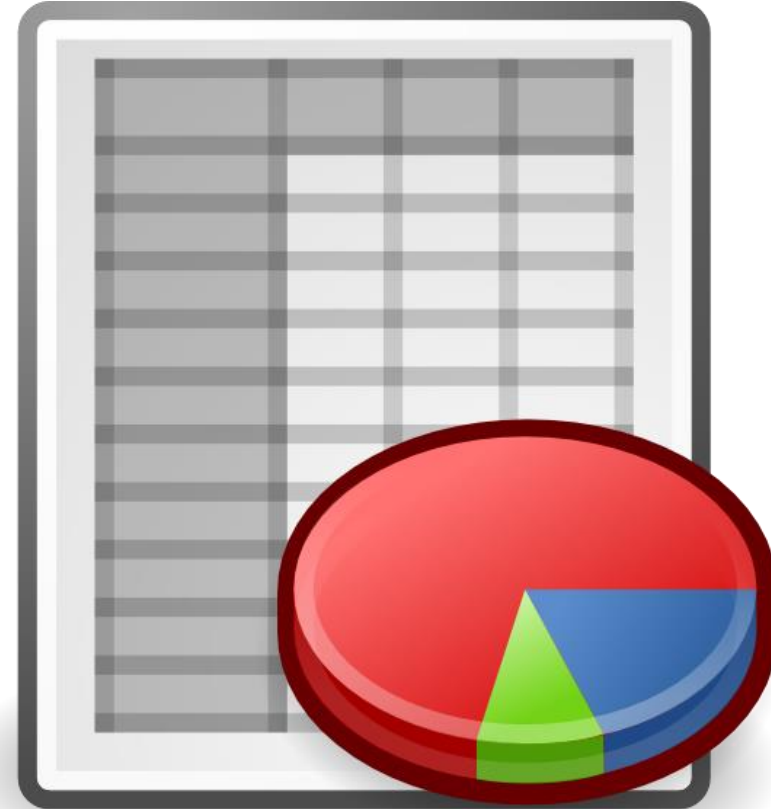
## Operational Assessment & Risk Analysis







- **Data analysis commonly done with spreadsheets as discreet snapshots (e.g. annual budgeting)**
- **Public works data availability – historically limited.**



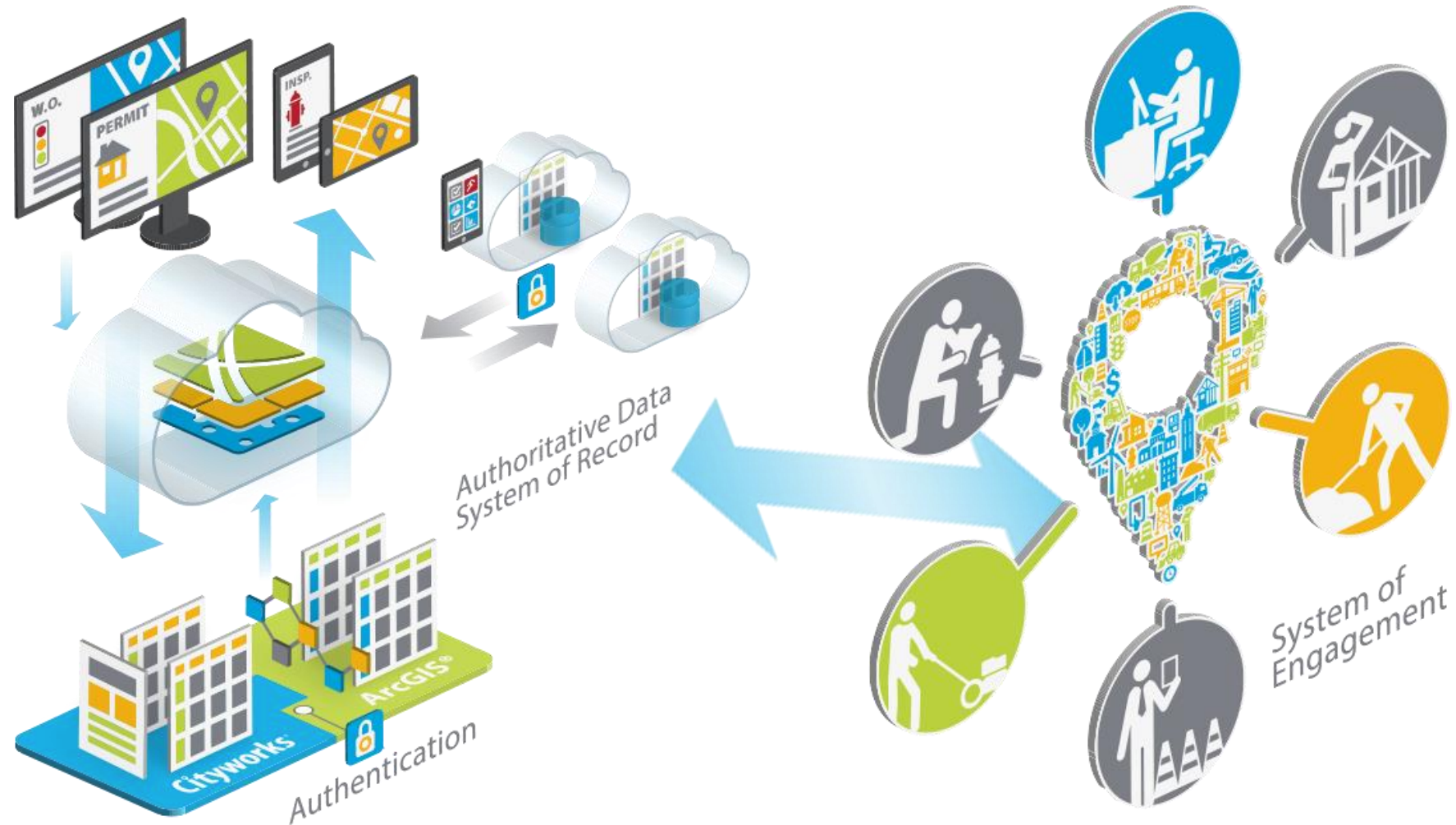


- **Mobile devices**
- **Web applications**
- **Location-based data  
(spatial data)**

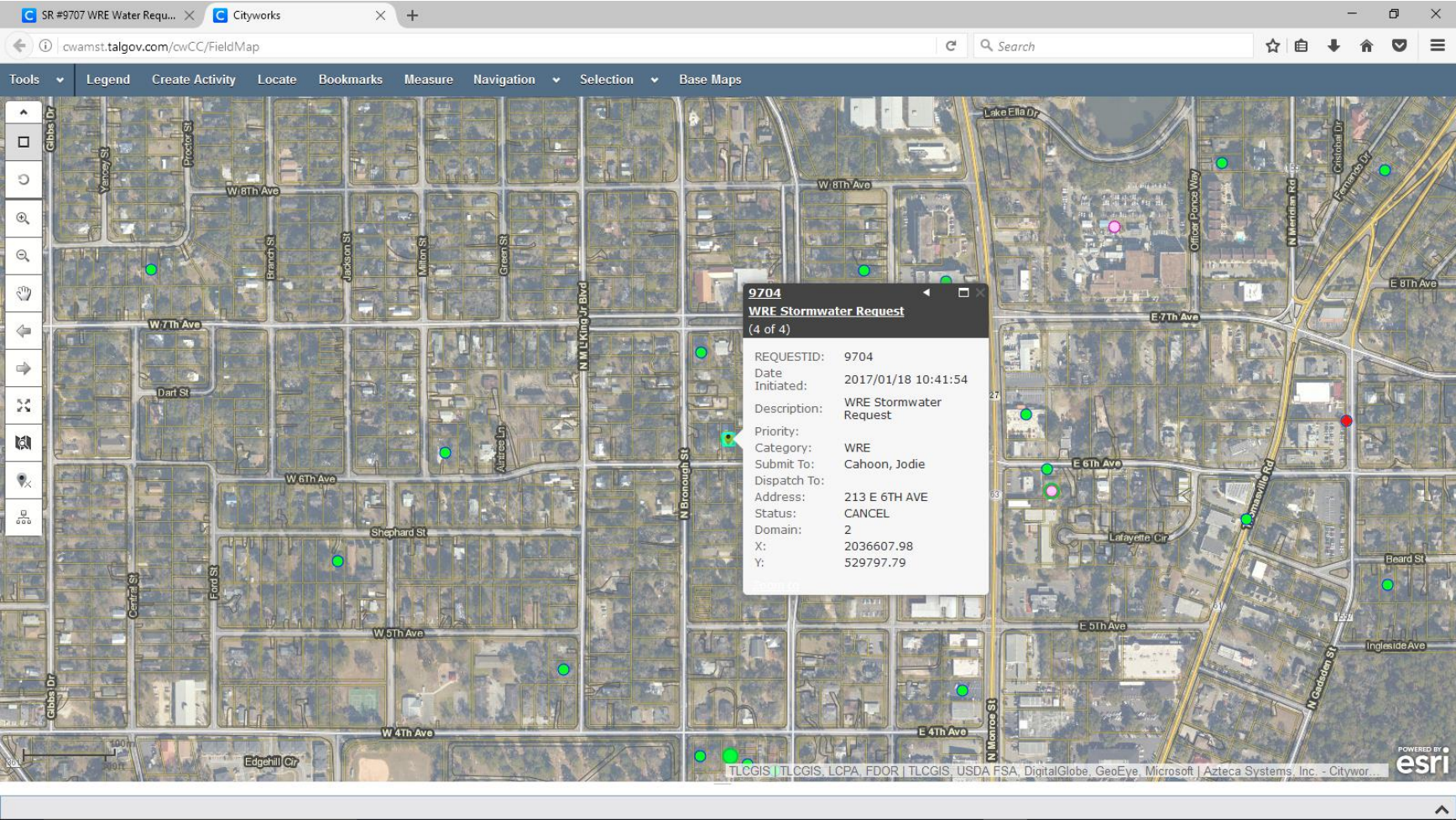
- **Finer level of data gathering and sharing**
- **Increased collaboration**
- **Timely data-driven decisions**





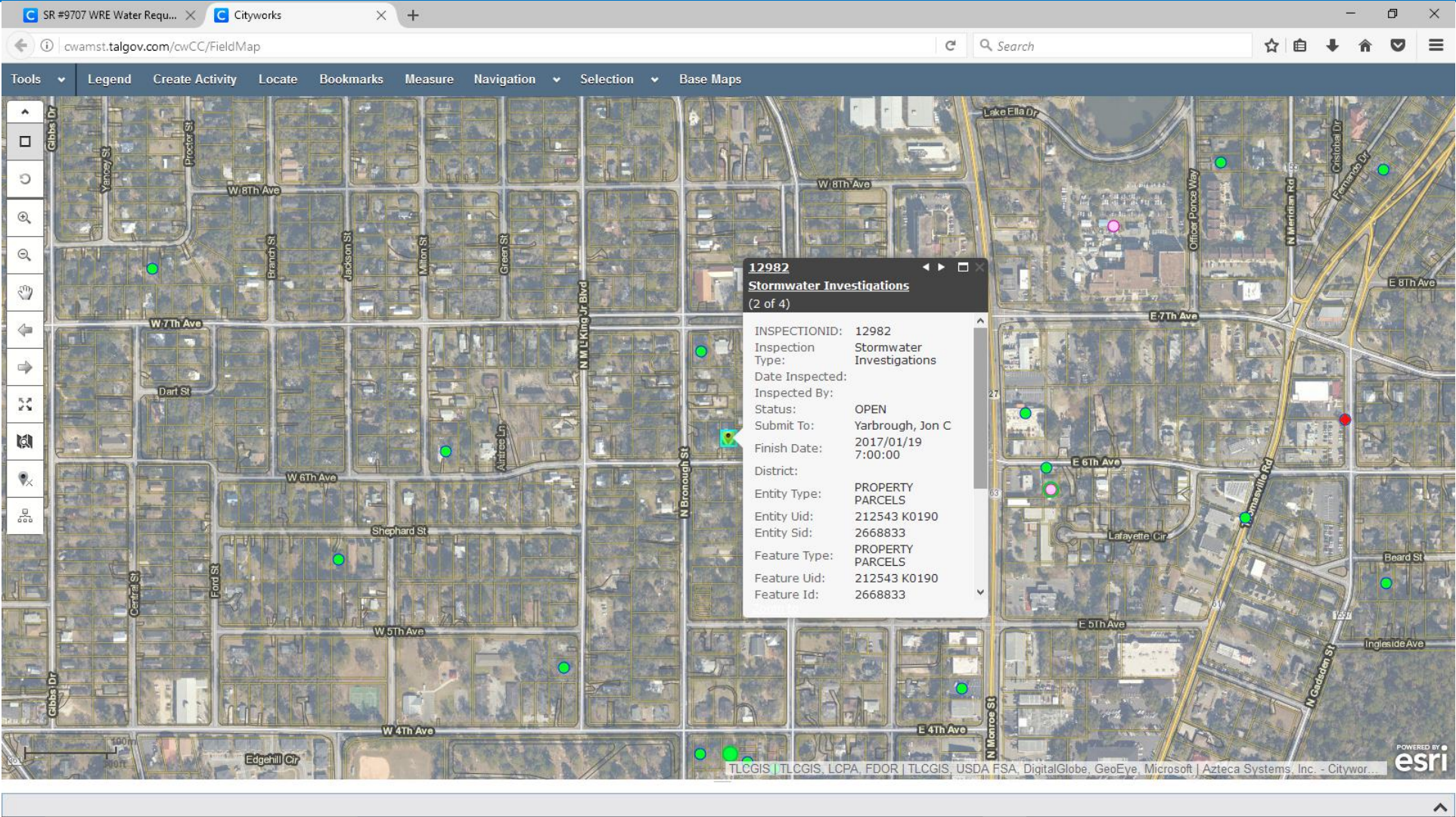


# Example: City of Tallahassee



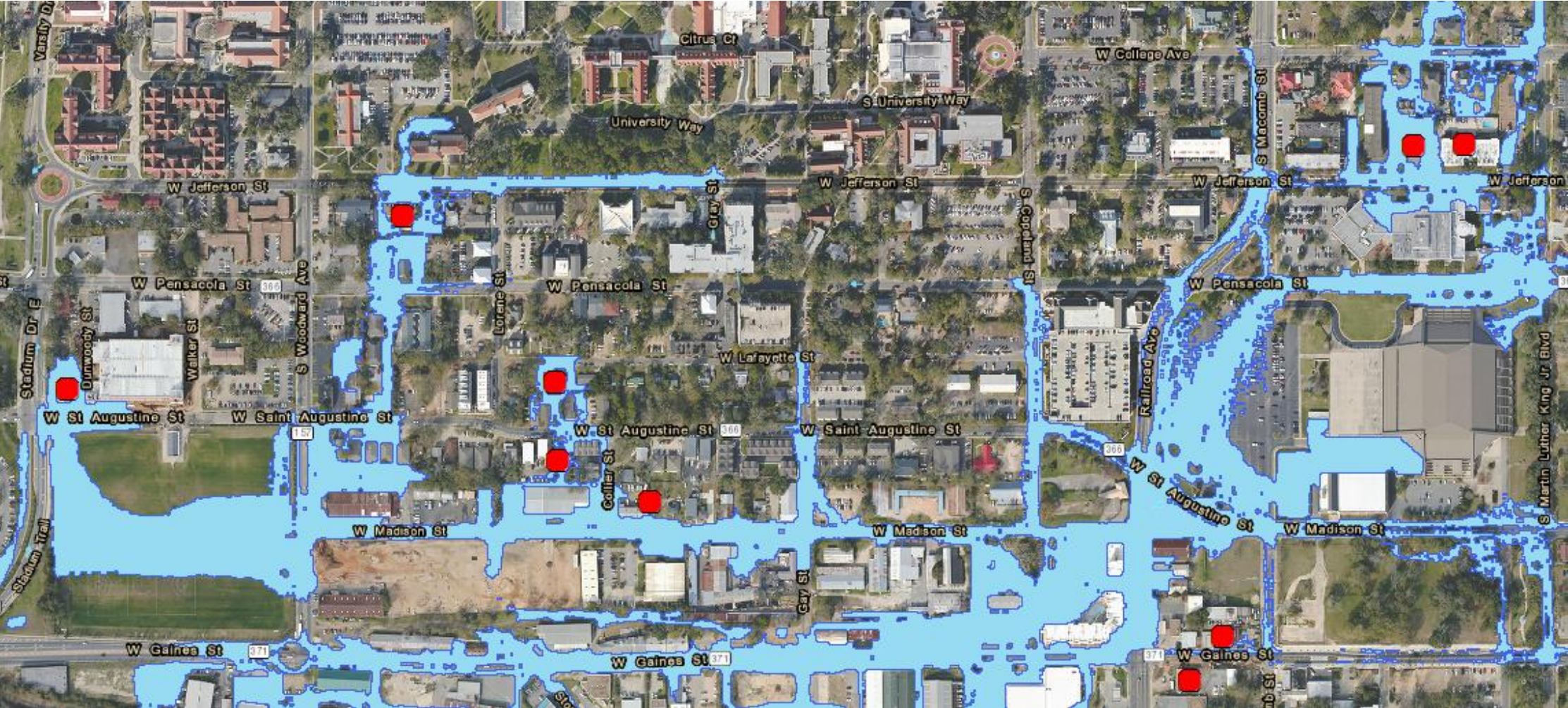


# Example: City of Tallahassee



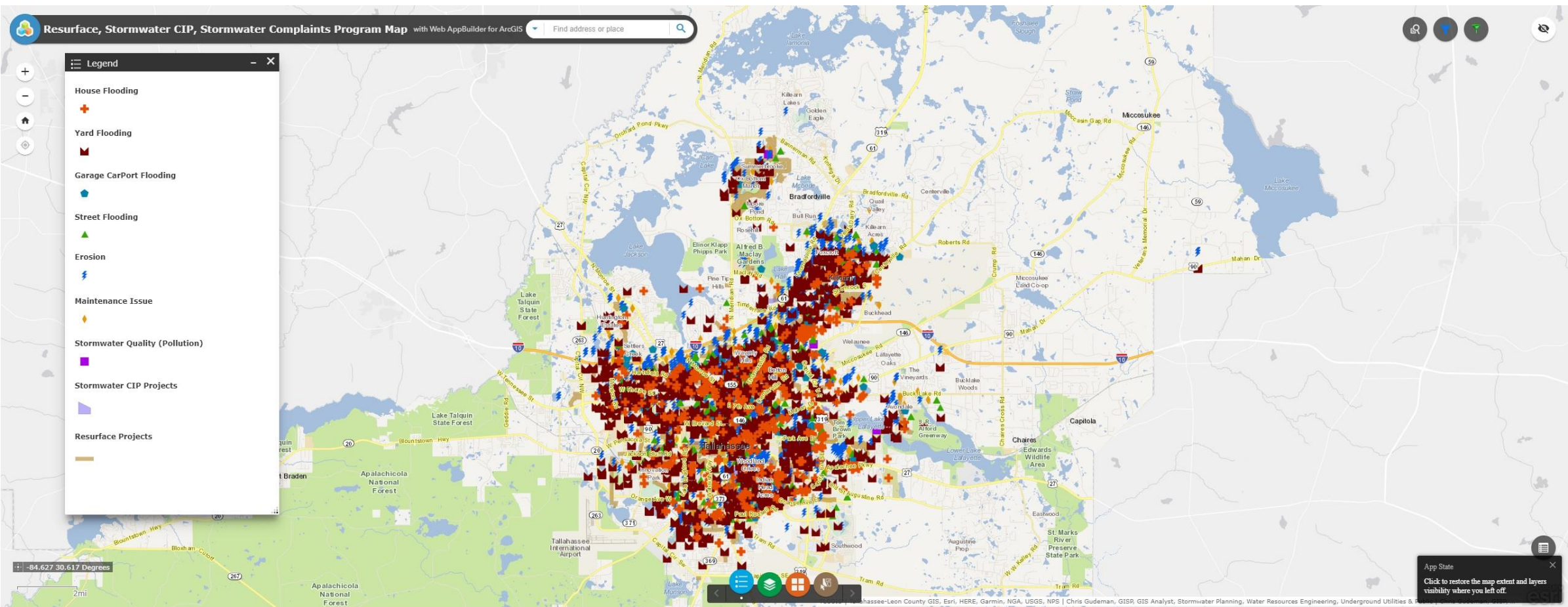


# Example: City of Tallahassee



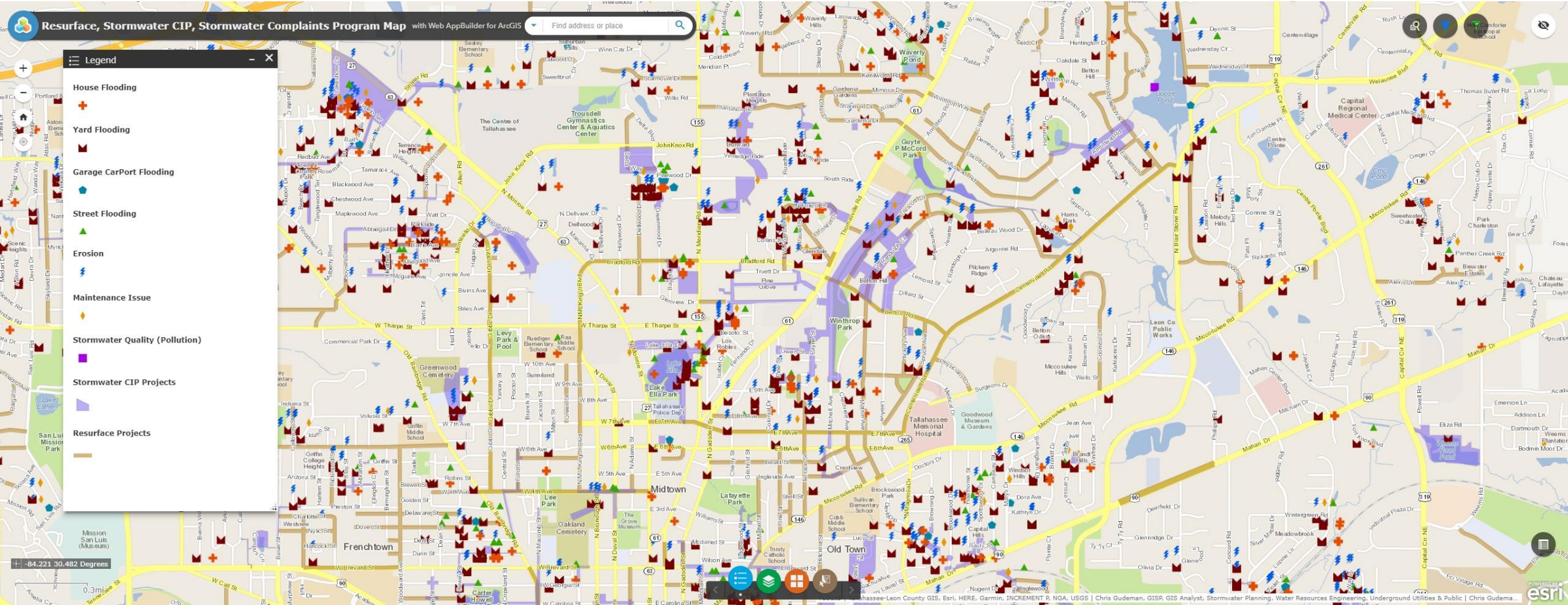


# Example: City of Tallahassee





# Example: City of Tallahassee





# Example: St. Johns County Utilities Department



# Example: St. Johns County Utilities Department

*JonesEdmunds*





# Example: St. Johns County Utilities Department

*JonesEdmunds*



# Example: St. Johns County Utilities Department





# Example: St. Johns County Utilities Department

Cityworks												
Inbox Calendar Recent ▾ Requests ▾ Work Order ▾ Inspections ▾ Reports Storeroom LS Pump Readings As-Built GIS Search Help >> Search...												
Work Order Open Selected Open In ELM Calendar Map View WO Frequency Data ▾ Map ▾ Refresh												
Drag a column header and drop it here to group by that column												
<input type="checkbox"/>	WorkOrderId	Entity Type	Description	Priority	Submit To	Actual Start	Actual Finish	Entity Group	Supervisor	Total Cost	Material Cost	WOXCool
<input type="checkbox"/>	92512	PLELECTRICAL	Electrical Instrumentation	2	HOCKETT, HOWARD J	10/8/2016 9:00 AM	10/8/2016 11:00 AM	Utility Facility	HARRIS, RANDY L	141.62	19.96	465669.59
<input type="checkbox"/>	92517	SSNETWORKSTRUCTURE	MISC	3	GUZMAN, LYLE H	10/5/2016 7:30 AM	10/5/2016 4:00 PM	Sewer Systems	CIARDIELLO, DAVID	554.71	0.00	529295.59
<input type="checkbox"/>	92531	SSNETWORKSTRUCTURE	Power Fail - Phase Fail	3	PIERCE, ALLAN S	10/5/2016 8:00 PM	10/5/2016 11:00 PM	Sewer Systems	CIARDIELLO, DAVID	117.17	0.00	512096.72
<input type="checkbox"/>	92532	SSNETWORKSTRUCTURE	MISC	3	CIARDIELLO, DAVID	10/6/2016 7:00 AM	10/6/2016 1:00 PM	Sewer Systems	CIARDIELLO, DAVID	759.72	0.00	
<input type="checkbox"/>	92533	SSNETWORKSTRUCTURE	MISC	3	PIERCE, ALLAN S	10/6/2016 8:00 AM	10/6/2016 12:00 PM	Sewer Systems	CIARDIELLO, DAVID	290.51	0.00	538794.17
<input type="checkbox"/>	92534	SSNSPUMP	Pump Fail	3	GUZMAN, LYLE H	10/6/2016 8:00 AM	10/6/2016 12:00 PM	Sewer Systems	CIARDIELLO, DAVID	478.72	0.00	512096.72
<input type="checkbox"/>	92535	SSNSCONTROLPANEL	Power Fail - Phase Fail	3	GUZMAN, LYLE H	10/6/2016 6:15 PM	10/6/2016 8:15 PM	Sewer Systems	CIARDIELLO, DAVID	114.56	0.00	505943.05
<input type="checkbox"/>	92536	SSNSPUMP	R & R Install Pump	3	BAILEY, BRANDON	10/6/2016 7:00 AM	10/7/2016 12:30 PM	Sewer Systems	CIARDIELLO, DAVID	3654.66	3195.70	538794.17
<input type="checkbox"/>	92537	SSPRESSURIZEDMAIN	Unclog Sewer Line	3	SIMMS, STACEY	10/9/2016 8:00 AM	10/9/2016 9:00 AM	Sewer Systems	TEDDER, DARREN	102.57	0.00	552215.06
<input type="checkbox"/>	92538	WPRESSURIZEDMAIN	Repair Water Main	1	ENGEL, KENNETH W	10/8/2016 6:00 PM	10/9/2016 12:00 AM	Water Systems	TEDDER, DARREN	3249.74	575.79	551450.48
<input type="checkbox"/>	92539	WMETER	Turn off Water Service	3	PAMIES, GARY J	10/8/2016 2:00 PM	10/8/2016 3:00 PM	Water Systems	BROWN, DAVID S	119.51	0.00	530315.70
<input type="checkbox"/>	92540	WMETER	Meter Leak	3	PAMIES, GARY J	10/9/2016 9:00 PM	10/9/2016 9:30 PM	Water Systems	BROWN, DAVID S	59.76	0.00	532695.92
<input type="checkbox"/>	92541	WMETER	Meter Leak	3	PAMIES, GARY J	10/9/2016 8:30 PM	10/10/2016 9:00 PM	Water Systems	BROWN, DAVID S	59.76	0.00	530317.48
<input type="checkbox"/>	92542	WMETER	Meter Leak	3	PAMIES, GARY J	10/9/2016 4:00 PM	10/9/2016 5:30 PM	Water Systems	BROWN, DAVID S	654.41	255.80	527576.92
<input type="checkbox"/>	92543	WMETER	Turn off Water Service	3	TRANHAM, DANIEL B	10/9/2016 5:00 PM	10/9/2016 5:30 PM	Water Systems	TEDDER, DARREN	54.09	0.00	527577.96
<input type="checkbox"/>	92544	WMETER	Turn off Water Service	3	BROWN, ERECKSON C	10/9/2016 6:45 PM	10/9/2016 7:00 PM	Water Systems	TEDDER, DARREN	1990.38	0.00	584624.92
<input type="checkbox"/>	92545	WMETER	Turn off Water Service	3	PAMIES, GARY J	10/8/2016 12:00 PM	10/8/2016 12:30 PM	Water Systems	BROWN, DAVID S	51.61	0.00	535951.70
<input type="checkbox"/>	92547	WMETER	Turn off Water Service	3	BROWN, ERECKSON C	10/9/2016 9:00 AM	10/9/2016 11:00 AM	Water Systems	TEDDER, DARREN	244.73	0.00	585303.42
<input type="checkbox"/>	92548	WPRESSURIZEDMAIN	Repair Water Main	1	HARRISON, DAVID	10/9/2016 9:00 AM	10/9/2016 12:00 PM	Water Systems	TEDDER, DARREN	724.28	162.20	585303.42
1 2 3 4												

# Example: St. Johns County Utilities Department

Cityworks

Inbox Calendar Recent Requests Work Order Inspections Reports Storeroom LS Pump Readings As-Built

Work Order Open Selected Open In ELM Calendar Map View 359 WO Frequency

Data Map Refresh

<input type="checkbox"/>	WorkOrderId	Description	Priority	Status	Submit To	Proj Start Date
<input type="checkbox"/>	<a href="#">92512</a>	Electrical Instrumentation	2	CLOSED	HOCKETT, HOWARD J	10/5/2016 12:00
<input type="checkbox"/>	<a href="#">92517</a>	MISC	3	CLOSED	GUZMAN, LYLE H	10/5/2016 1:20
<input type="checkbox"/>	<a href="#">92531</a>	Power Fail - Phase Fail	3	CLOSED	PIERCE, ALLAN S	10/7/2016 6:50
<input type="checkbox"/>	<a href="#">92532</a>	MISC	3	CLOSED	CIARDIELLO, DAVID	10/6/2016 7:00
<input type="checkbox"/>	<a href="#">92533</a>	MISC	3	CLOSED	PIERCE, ALLAN S	10/6/2016 8:00
<input type="checkbox"/>	<a href="#">92534</a>	Pump Fail	3	CLOSED	GUZMAN, LYLE H	10/6/2016 8:00
<input type="checkbox"/>	<a href="#">92535</a>	Power Fail - Phase Fail	3	CLOSED	GUZMAN, LYLE H	10/6/2016 6:10
<input type="checkbox"/>	<a href="#">92536</a>	R & R Install Pump	3	CLOSED	BAILEY, BRANDON	10/6/2016 7:00
<input type="checkbox"/>	<a href="#">92537</a>	Unclog Sewer Line	3	CLOSED	SIMMS, STACEY	10/10/2016 7:00
<input type="checkbox"/>	<a href="#">92538</a>	Repair Water Main	1	CLOSED	ENGEL, KENNETH W	10/10/2016 8:00
<input type="checkbox"/>	<a href="#">92539</a>	Turn off Water Service	3	CLOSED	PAMIES, GARY J	10/10/2016 8:00
<input type="checkbox"/>	<a href="#">92540</a>	Meter Leak	3	CLOSED	PAMIES, GARY J	10/10/2016 8:00
<input type="checkbox"/>	<a href="#">92541</a>	Meter Leak	3	CLOSED	PAMIES, GARY J	10/10/2016 8:00
<input type="checkbox"/>	<a href="#">92542</a>	Meter Leak	3	CLOSED	PAMIES, GARY J	10/10/2016 8:00
<input type="checkbox"/>	<a href="#">92543</a>	Turn off Water Service	3	CLOSED	TRANHAM, DANIEL B	10/10/2016 8:00
<input type="checkbox"/>	<a href="#">92544</a>	Turn off Water Service	3	CLOSED	BROWN, ERECKSON C	10/10/2016 8:00
<input type="checkbox"/>	<a href="#">92545</a>	Turn off Water Service	3	CLOSED	PAMIES, GARY J	10/10/2016 8:00
<input type="checkbox"/>	<a href="#">92547</a>	Turn off Water Service	3	CLOSED	BROWN, ERECKSON C	10/10/2016 8:00
<input type="checkbox"/>	<a href="#">92548</a>	Repair Water Main	1	CLOSED	HARRISON, DAVID	10/10/2016 8:00

1 2 3 4 Page 1 of 4, items 1 to 100 of 386.

Tools Legend Locate Bookmarks Attribute Search Condition

X: 542497.04002 Y: 2117882.44973

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<http://utilgisweb1/pumpreadings/default.aspx>



# Example: St. Johns County Utilities Department

Cityworks

Inbox

Calendar

Recent

Requests

Work Order

Inspections

Reports

Storeroom

LS Pump Readings

As-Built

>>

Search...

Work Order

Email

Print

Save

Close

Delete

Work Order

Description: Manhole Overflowing

Number: 92702

Entity Type: SSMANHOLE

Change

Category: FEMA Related Work

Initiated By: THOMAS, KARRI A

Date: 10/11/2016 7:23 AM

Status: Closed

Priority: Medium

Requested By: HERSEY, TROY

Supervisor: HERSEY, TROY

Submit To: HERSEY, TROY

Date: 10/11/2016 7:23 AM

Projected Start: 10/9/2016 12:00 AM

Projected Finish: 10/9/2016 12:00 AM

Opened By: HERSEY, TROY

Date: 10/19/2016 10:54:45 AM

Closed By: HERSEY, TROY

Date: 10/19/2016 10:55:03 AM

Completed By: HERSEY, TROY

Actual Start: 10/9/2016 5:30 PM

Actual Finish: 10/9/2016 6:00 PM

Stage: Actual

Expense Type: Maintenance

Add Comments:

Select

Existing Comments:

By THOMAS, KARRI A: 10/11/2016 7:24:30 AM  
Manhole overflowing

By HERSEY, TROY: 10/19/2016 10:53:05 AM  
reset pump station at woodland estates

Tools

Legend

Locate

Bookmarks

Attribute Search

Condition

X: 566817.80813 Y: 2009438.30407

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http://utilgisweb1/pumpreadings/default.aspx

# Example: St. Johns County Utilities Department

- Initial Damage Assessment required at hour 72 to support statewide coordinated effort and resource allocation.
- Cityworks stored work activity, including costs for labor, equipment and material.
- Further reports required during following two weeks.
- Formal submittal required in December and January for FEMA and St. Johns County application process.



## St Johns County Utility Department Work Order Summary

St. Johns County Utility Department  
P.O. Drawer 3006  
St. Augustine, FL 32085-3006  
(904) 209-2700

Project  
Hurricane Matthew

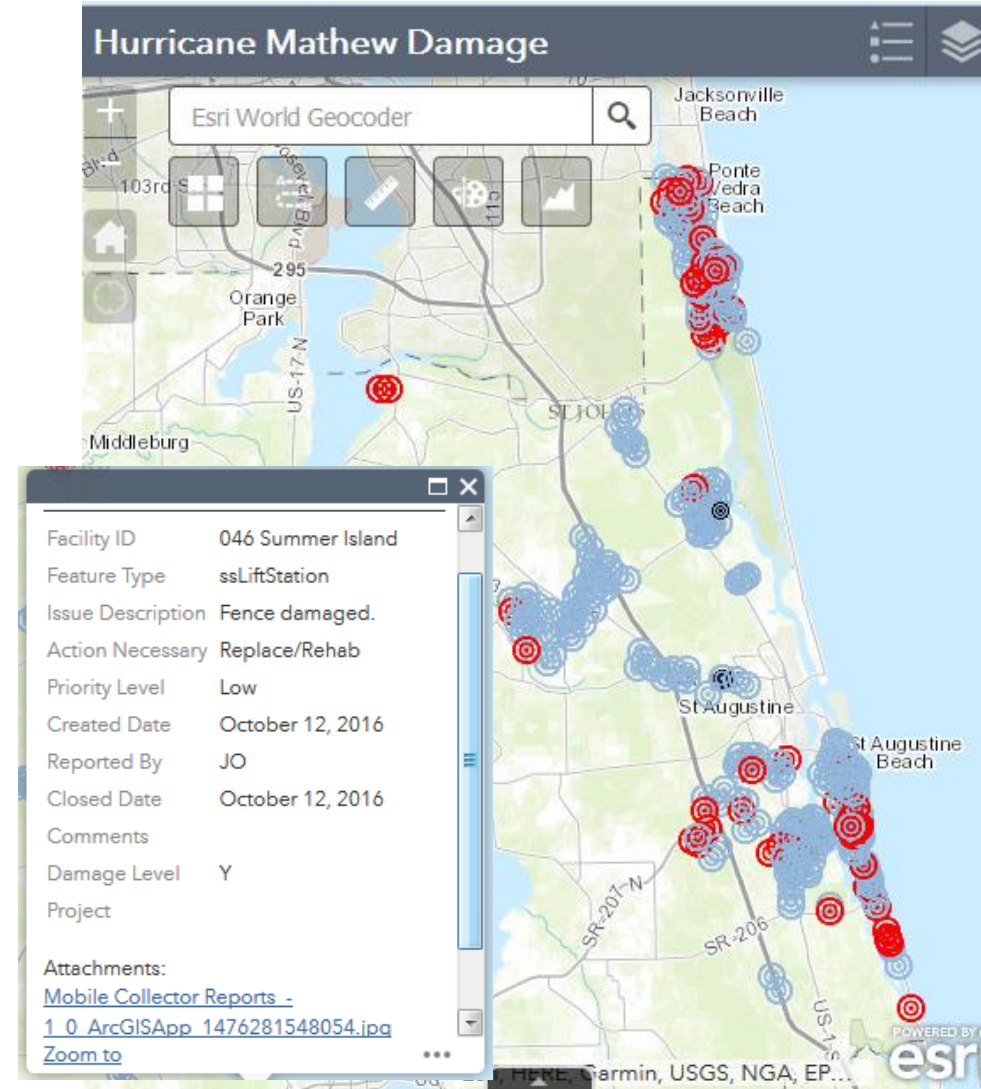
Project Name	# Work Orders	Labor Hours	Material Cost	Equipment Cost	Material & Equipment Cost
Hurricane Matthew	386	1176.21	\$51,209.53	\$29,896.50	\$81,106.03
GRAND TOTAL	386	1176.21	\$51,209.53	\$29,896.50	\$81,106.03

Work Order #92512		Labor: 2.00 hours		Materials: \$19.96		Equipment: \$32.00		Total: \$51.96	
Work Order ID	Work Order Type	Start Date	Finish Date	Work Order Location					
92512	Electrical Instrumentation	10/08/2016	10/08/2016	Bartram Oaks					
Work Order Comments									
By KRONZ, THOMAS M: 10/5/2016 12:41:32 PM - Spoke to Jay about checking breaker for blowers									
By HOCKETT, HOWARD J: 10/11/2016 9:05:21 AM - Trouble shoot and repair. Replaced two (2) In-line .5 amp fuses.									
Labor			Regular Hours		Overtime Hours		Total Hours		
ELECTRICIAN III			0.00		2.00		2.00		
Total Labor			0.00		2.00		2.00		
Materials			Quantity		Cost Per Unit		Total Cost		
fuses			1.00		\$19.96		\$19.96		
Total Materials			1.00				\$19.96		
Equipment		Equipment ID	Manufacturer	Model	Hours	Cost Per Hr	Total Cost		
VIN#1FT7X2A66GEC17025		CV#1743	Ford	F-250	2.00	\$16.00	\$32.00		
Total Equipment					2.00		\$32.00		
Work Order #92512				TOTAL MATERIAL & EQUIPMENT COST				\$51.96	

Work Order #92517		Labor: 17.00 hours		Materials: \$0.00		Equipment: \$304.98		Total: \$304.98		
Work Order ID	Work Order Type	Start Date	Finish Date	Work Order Location						
92517	MISC	10/05/2016	10/05/2016	Mathew						
Work Order Comments										
Misc Liftstation Work										
By GUZMAN, LYLE H: 10/5/2016 1:26:09 PM - Preparing for hurricane Mathew with filling generators up and back up pumps. Checking stations and making sure we are ready for the storm.										
Labor				Regular Hours	Overtime Hours	Total Hours				
Lead Utility Maintenance Technician				8.50	0.00	8.50				
UTILITY MAINTENANCE TECH				8.50	0.00	8.50				
Total Labor				17.00	0.00	17.00				
Equipment		Equipment ID	Manufacturer	Model	Hours	Cost Per Hr	Total Cost			
VIN#1FDDX4GYXFED69454		CV#1696	Ford	F450	8.50	\$35.88	\$304.98			
Total Equipment					8.50		\$304.98			
Work Order #92517				TOTAL MATERIAL & EQUIPMENT COST						\$304.98

# Example: St. Johns County Utilities Department

- Severity of impact required a countywide comprehensive damage assessment.
- Monday – damage assessment directed mid-day.
- Tuesday – utility teams went out with tablets and Collector app.
- Utility Damage Assessment of 400 Lift Stations, and major facility sites.
- Friday – insurance Adjustor used app to view sites, review damage and summarize.





# Example: St. Johns County Utilities Department

Cityworks

Inbox Calendar Recent Requests Work Order Inspections Reports Storeroom LS Pump Readings As-Built GIS Search Help

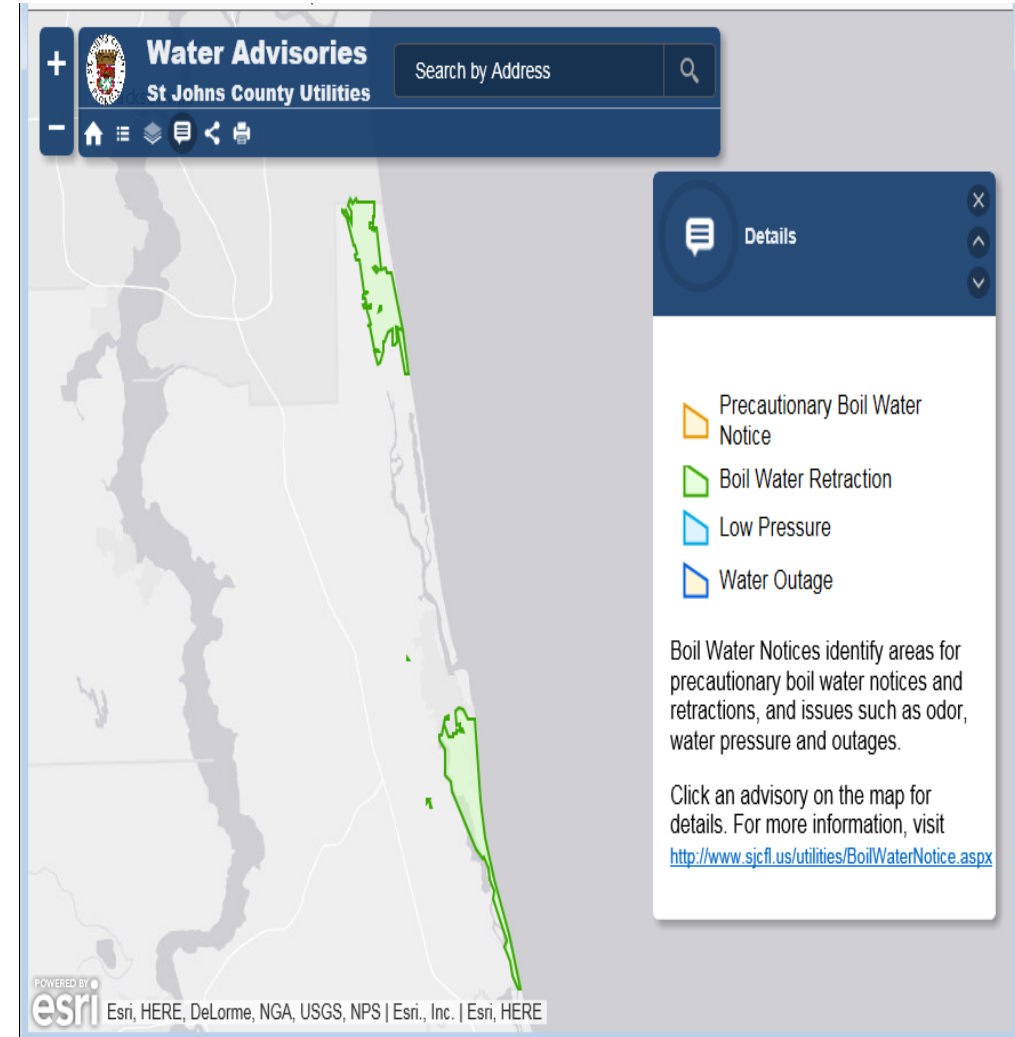
Select Search

View In Grid Delete Selected

<input type="checkbox"/>	Name	Description	Date Created	Created By	Shared By	Edit	Type	Map	Service
<input type="checkbox"/>	HMathew-WO-RepairWMain		10/12/2016 6:44 PM	TIBBITTS, TOM	User	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	HMathew-WO-ManholeOverflow	Search for Overflowing Manhole work orders during Hurricane Mathew	10/12/2016 6:04 PM	TIBBITTS, TOM	User	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Past Due WO - Tibbs	Monthly Summary of Past Due for xls export	8/29/2016 8:09 AM	TIBBITTS, TOM	User	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	WO-KThomas Open		8/17/2016 8:31 AM	TIBBITTS, TOM	User	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Open WO - Tibbits		8/17/2016 8:16 AM	TIBBITTS, TOM	User	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	WO-Open CIP		11/24/2015 8:37 AM	TIBBITTS, TOM	User	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Hurricane Mathew	Hurricane Mathew	11/29/2016 11:47 AM	BOHMEGERSBACH, BRYAN L	Domain	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Open WO NW WWTP	Open WO NW WWTP	11/22/2016 8:18 AM	TAYLOR, JARED A	Domain	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Closed WO D Brown	Closed WO D Brown	11/18/2016 10:01 AM	BROWN, ERECKSON C	Domain	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Closed WO D Tedder	Closed WO D Tedder	11/18/2016 9:59 AM	BROWN, ERECKSON C	Domain	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Closed WO T Mann	Closed WO T Mann	11/18/2016 7:28 AM	BROWN, ERECKSON C	Domain	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Closed WO G Pamies	Closed WO G Pamies	11/18/2016 7:24 AM	BROWN, ERECKSON C	Domain	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Closed WO G Pamies	Closed WO G Pamies	11/18/2016 7:24 AM	BROWN, ERECKSON C	Domain	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Closed WO Jerome Hope	Closed WO Jerome Hope	11/17/2016 1:56 PM	PAMIES, GARY J	Domain	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Closed WO Daniel Trantham	Closed WO Daniel Trantham	11/17/2016 1:55 PM	PAMIES, GARY J	Domain	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Closed WO Brian Coffman	Closed WO Brian Coffman	11/17/2016 1:51 PM	PAMIES, GARY J	Domain	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Closed WO S Simms	Closed WO S Simms	11/17/2016 11:52 AM	BROWN, ERECKSON C	Domain	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Closed WO K Engel	Closed WO K Engel	11/17/2016 11:51 AM	BROWN, ERECKSON C	Domain	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Closed WO J Hope	Closed WO J Hope	11/17/2016 11:49 AM	BROWN, ERECKSON C	Domain	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Closed WO D Harrison	Closed WO D Harrison	11/17/2016 11:47 AM	BROWN, ERECKSON C	Domain	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	All WO S Simms	All WO S Simms	11/16/2016 9:40 AM	BROWN, ERECKSON C	Domain	Edit	WorkOrder	Map	Service

javascript:doPostBack('ctl00\$MainSection1\$ctl02\$ctl02\$ctl03','')

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# Example: St. Johns County Utilities Department



Cityworks Inbox Calendar Recent Requests Work Order Inspections Reports Storeroom LS Pump Readings As-Built GIS Search Help >> Search

Select Search

View in Grid

Delete Selected

<input type="checkbox"/>	Name	Description	Date Created	Created By	Shared By	Edit	Type	Map	Service
<input type="checkbox"/>	HiMathew-WO-RepairMain		10/12/2016 6:44 PM	TIBBITTS, TOM	User	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	HiMathew-WO-ManholeOverflow	Search for Overflowing Manhole work orders during Hurricane Mathew	10/12/2016 6:04 PM	TIBBITTS, TOM	User	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Past Due WO - Tibbs	Monthly Summary of Past Due for vls export	8/29/2016 8:09 AM	TIBBITTS, TOM	User	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	WO-KThomas Open		8/17/2016 8:31 AM	TIBBITTS, TOM	User	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Open WO - Tibbits		8/17/2016 8:16 AM	TIBBITTS, TOM	User	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	WO-Open CIP		11/24/2015 8:37 AM	TIBBITTS, TOM	User	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Hurricane Mathew	Hurricane Mathew	11/29/2016 11:47 AM	BOMMERSBACH, BRYAN L	Domain	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Open WO NW WWTP	Open WO NW WWTP	11/22/2016 8:18 AM	TAYLOR, JARED A	Domain	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Closed WO D Brown	Closed WO D Brown	11/18/2016 10:01 AM	BROWN, ERECKSON C	Domain	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Closed WO D Tedder	Closed WO D Tedder	11/18/2016 9:59 AM	BROWN, ERECKSON C	Domain	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Closed WO T Mann	Closed WO T Mann	11/18/2016 7:28 AM	BROWN, ERECKSON C	Domain	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Closed WO G Pamies	Closed WO G Pamies	11/18/2016 7:24 AM	BROWN, ERECKSON C	Domain	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Closed WO G Pamies	Closed WO G Pamies	11/18/2016 7:24 AM	BROWN, ERECKSON C	Domain	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Closed WO Jerome Hope	Closed WO Jerome Hope	11/17/2016 1:56 PM	PAMIES, GARY J	Domain	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Closed WO Daniel Trantham	Closed WO Daniel Trantham	11/17/2016 1:55 PM	PAMIES, GARY J	Domain	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Closed WO S Simms	Closed WO S Simms	11/17/2016 11:52 AM	BROWN, ERECKSON C	Domain	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Closed WO K Engel	Closed WO K Engel	11/17/2016 11:51 AM	BROWN, ERECKSON C	Domain	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Closed WO J Hope	Closed WO J Hope	11/17/2016 11:49 AM	BROWN, ERECKSON C	Domain	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	Closed WO D Harrison	Closed WO D Harrison	11/17/2016 11:47 AM	BROWN, ERECKSON C	Domain	Edit	WorkOrder	Map	Service
<input type="checkbox"/>	All WO S Simms	All WO S Simms	11/16/2016 9:40 AM	BROWN, ERECKSON C	Domain	Edit	WorkOrder	Map	Service

javascript:\_doPostBack('ctl0\$Main\$ctl11\$ctl05\$ctl02\$ctl05\$ctl03','')

Hurricane Mathew SSO St. Johns County Utilities http://sjcfl.us/Utilities

Esri World Geocoder

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1 of 6

SSO Sample Sites: 4-3

Sample Site Name

Cypress Lakes

StationNumber

4-3

Time

Date

October 14, 2016

AmmoniaSample

AmmoniaResult

Fecal Coliform Sample

Yes

Fecal Coliform Result

100

Edited by

sjcjhayes on 10/18/16 at 4:02 PM

Zoom to

...

1mi

29.807 -81.376 Degrees

City of Naperville, Illinois | Esri, HERE, DeLorme, IN...

esri

javascript:void(0);



# Example: St. Johns County Utilities Department

+

Q

Home

-

1 of 3

SSO Sample Sites

Sample Site Name	Tradewinds Ln
StationNumber	A
Time	
Date	10/13/2016
AmmoniaSample	
AmmoniaResult	
Fecal Coliform Sample	Yes
Fecal Coliform Result	3800

Edited by sjcjhayes on 10/19/16 at 8:08 AM

Delete

Tradewinds Ln

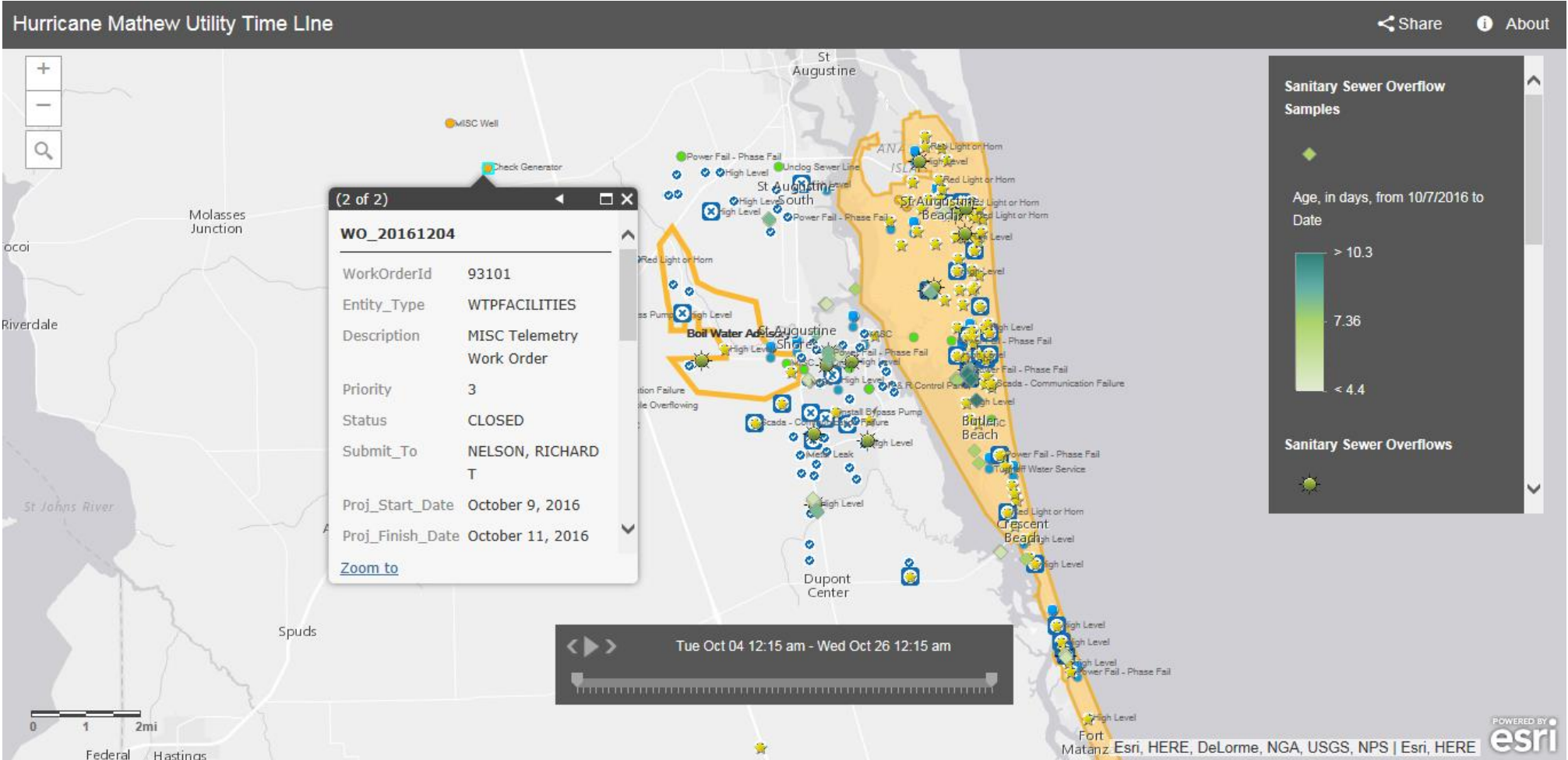
Trade Wind Ln (Tradewinds Ln LS)

Topographic

Esri, Inc., City of Naperville, Illinois | St Johns County, USDA FSA, DigitalGlobe, Geo...

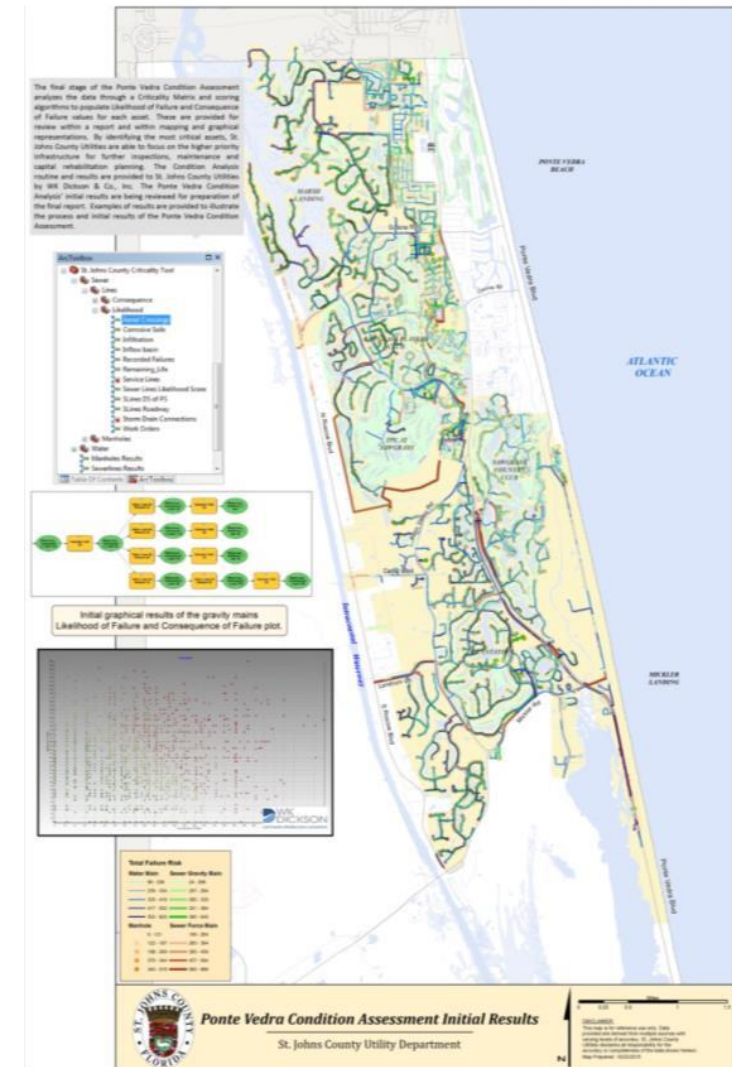


# Example: St. Johns County Utilities Department



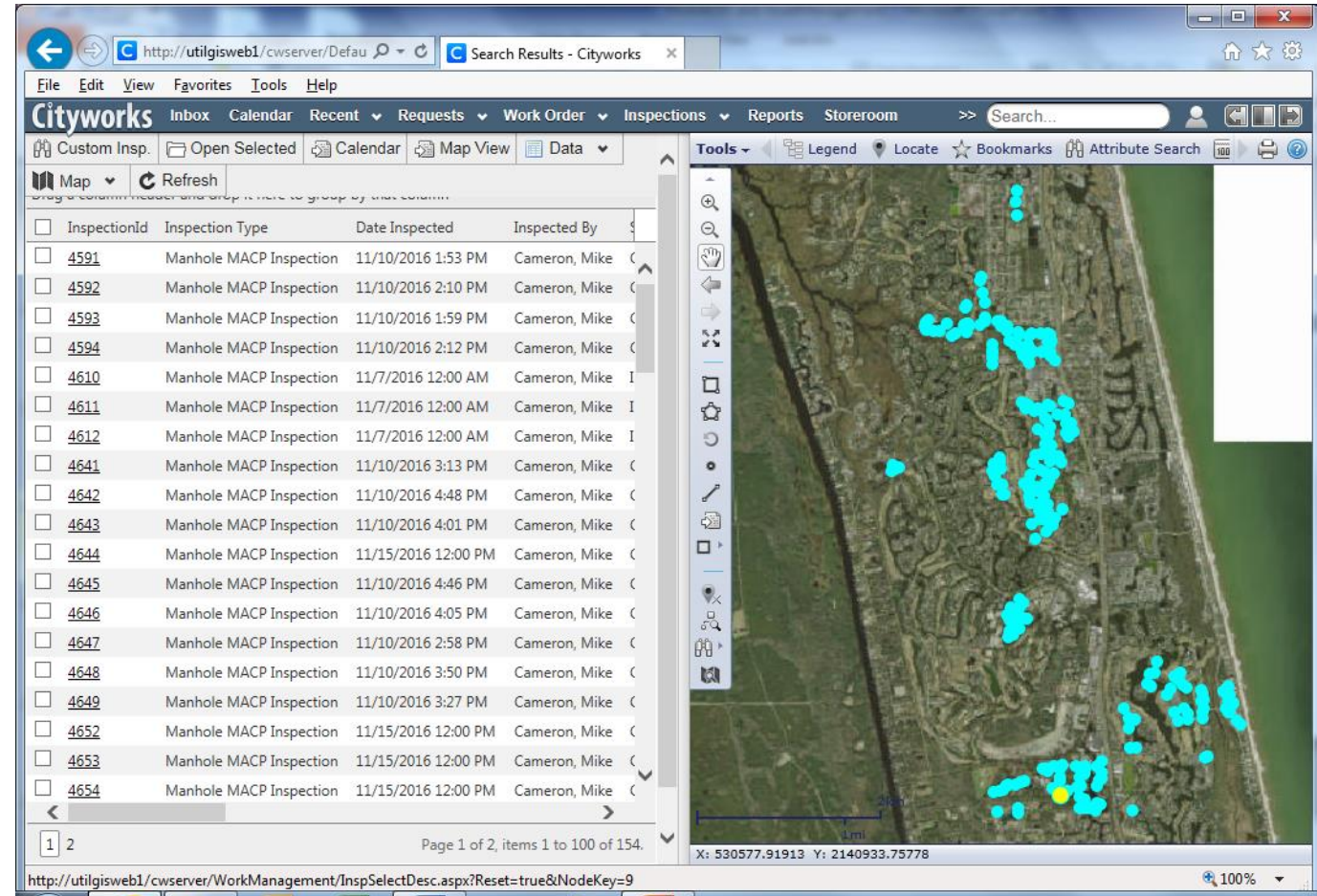
# Example: St. Johns County Utilities Department

- Service Area Assets:
  - 143 miles of water mains
  - 147 miles of sewer mains
  - 2,749 manholes
- Criticality Score = LoF + CoF
  - Likelihood of Failure is impacted by age, material, diameter, maintenance, repairs, rehabilitation, failures, force main impact...
  - Consequence of Failure is impacted by customer density, service network, critical facilities, environmental, surface...
- Uses custom scoring and weighting.



# Example: St. Johns County Utilities Department

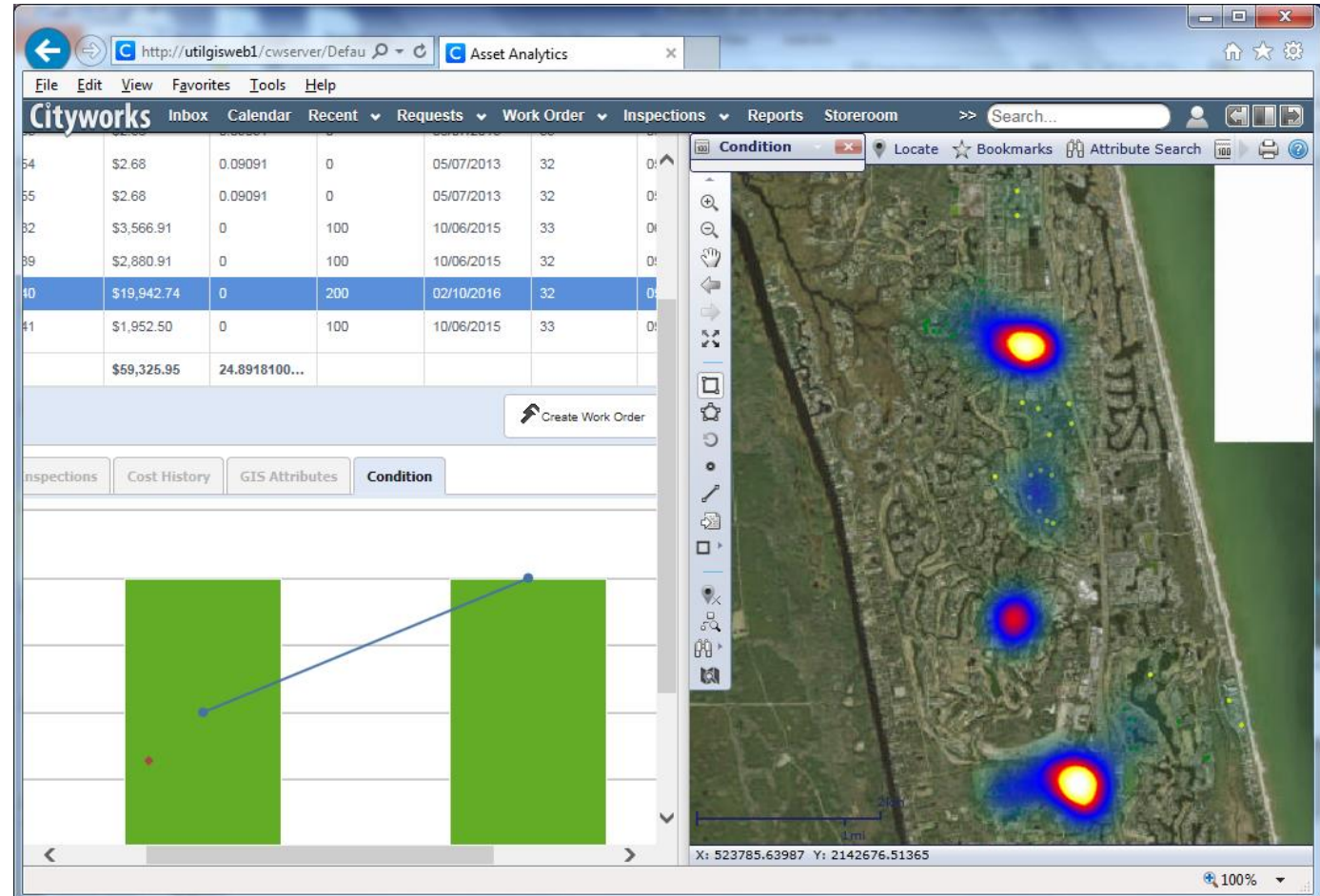
- Identified Revenue for Capital Rehabilitation
- Identified At Risk Manholes for Inspections. Asset's Criticality Scores reviewed and prioritized for Find It – Fix It.
- Developed Manhole Inspection Form and Scoring based on need and Manhole Assessment and Certification Program (MACP)





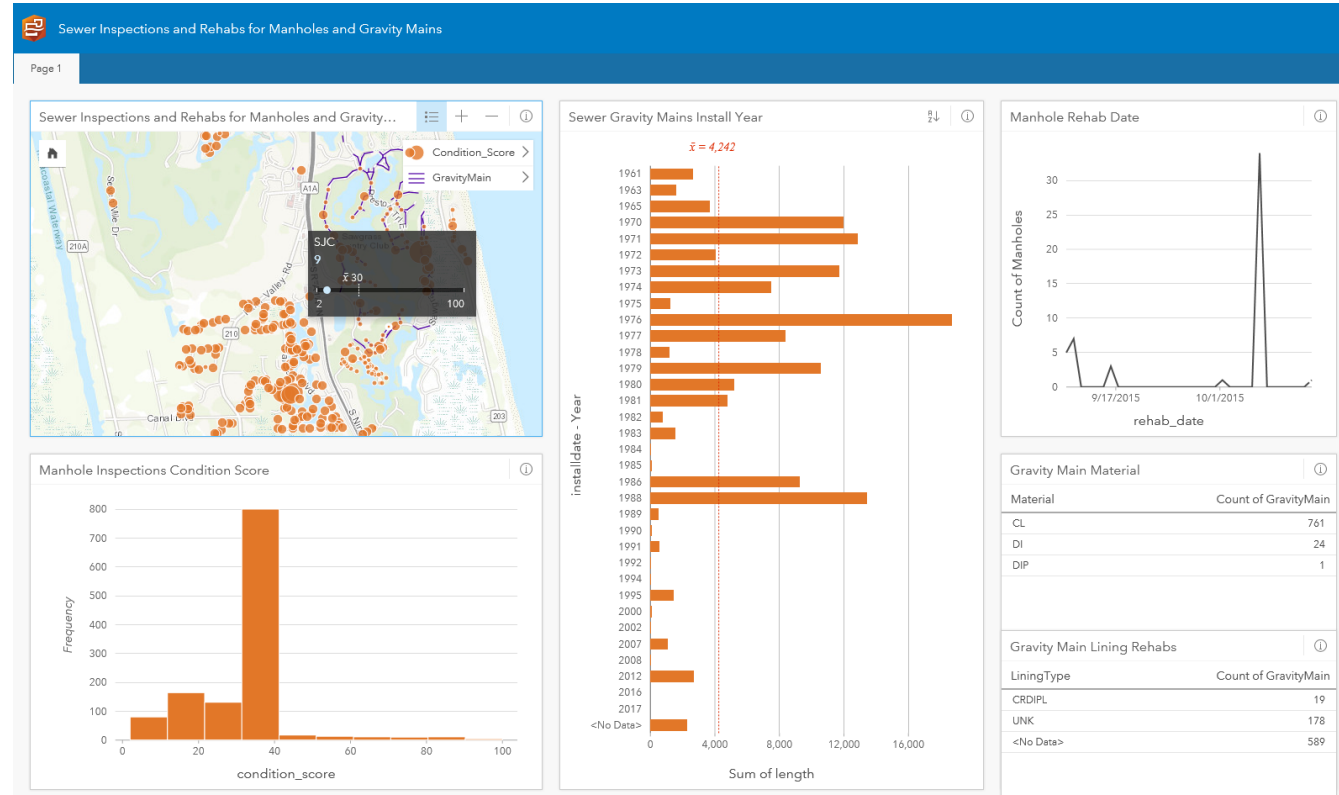
# Example: St. Johns County Utilities Department

- Contractors performed Mobile Inspections using County's web-based system
- County developed a Process for Lines, Engineering, Finance, Asset Management
- Developed 4 Year Program with annual amount objectives
- FY17 400 Inspections 50 Rehabs



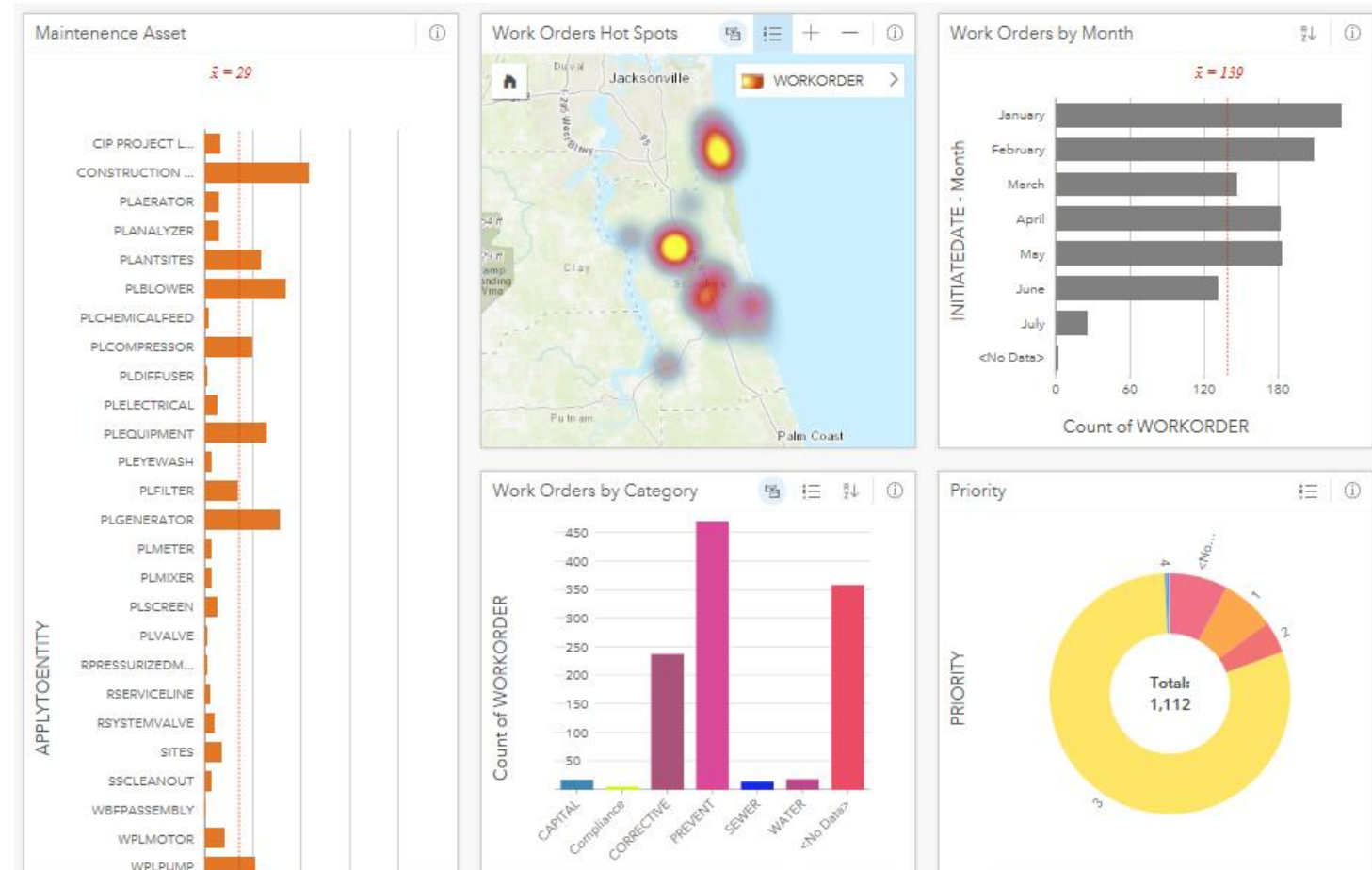
# Example: St. Johns County Utilities

- Manholes Rehabilitations
- Sewer Main Lining Rehabs
- Condition Scores
- Rehab Dates
- Lining Dates
- Material
- Install Date & Age



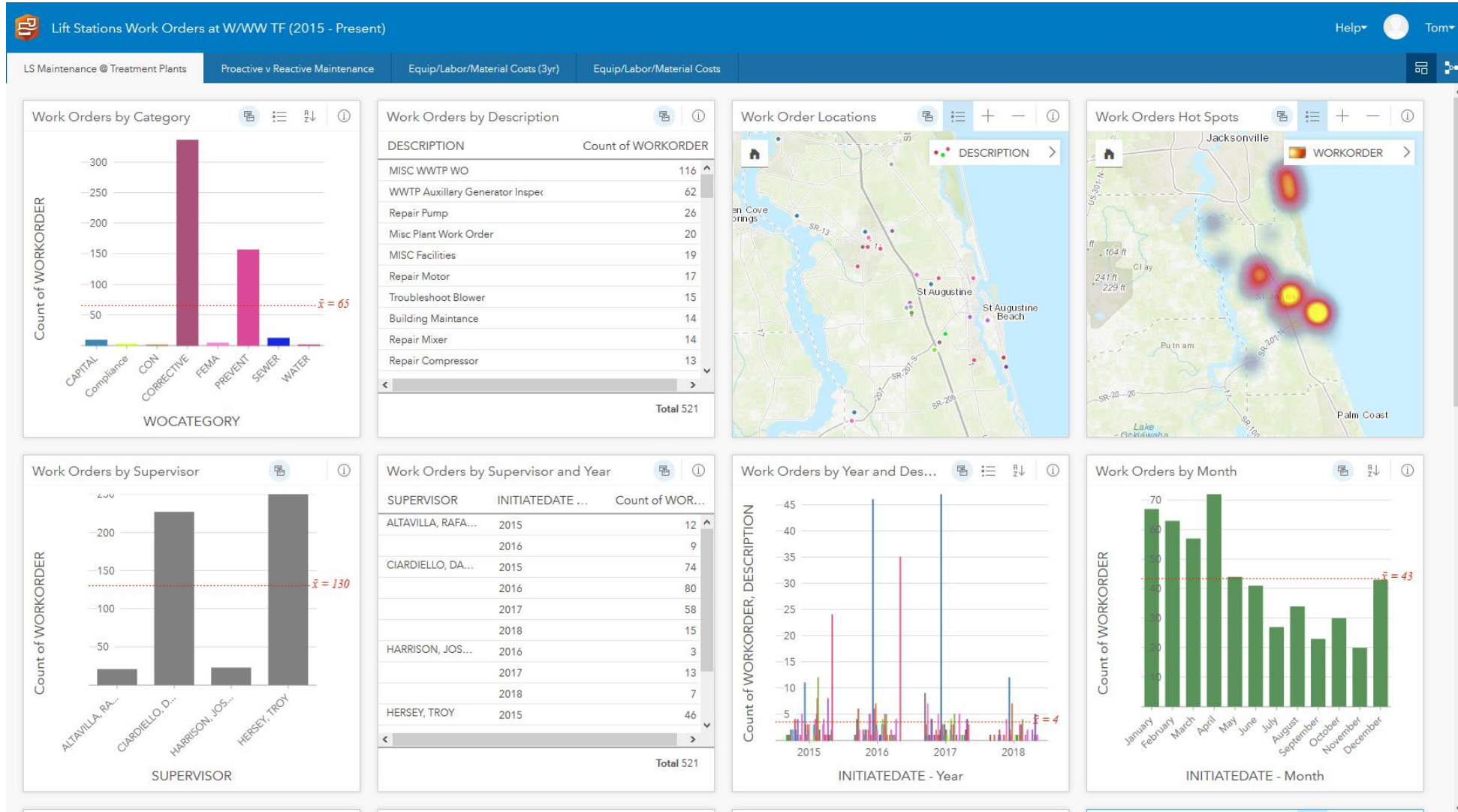
# Example: St. Johns County Utilities Department

- Facility assets impact operations, expertise and scheduling
- Management level review of maintenance, repairs, costs, crews to engage and discover through data

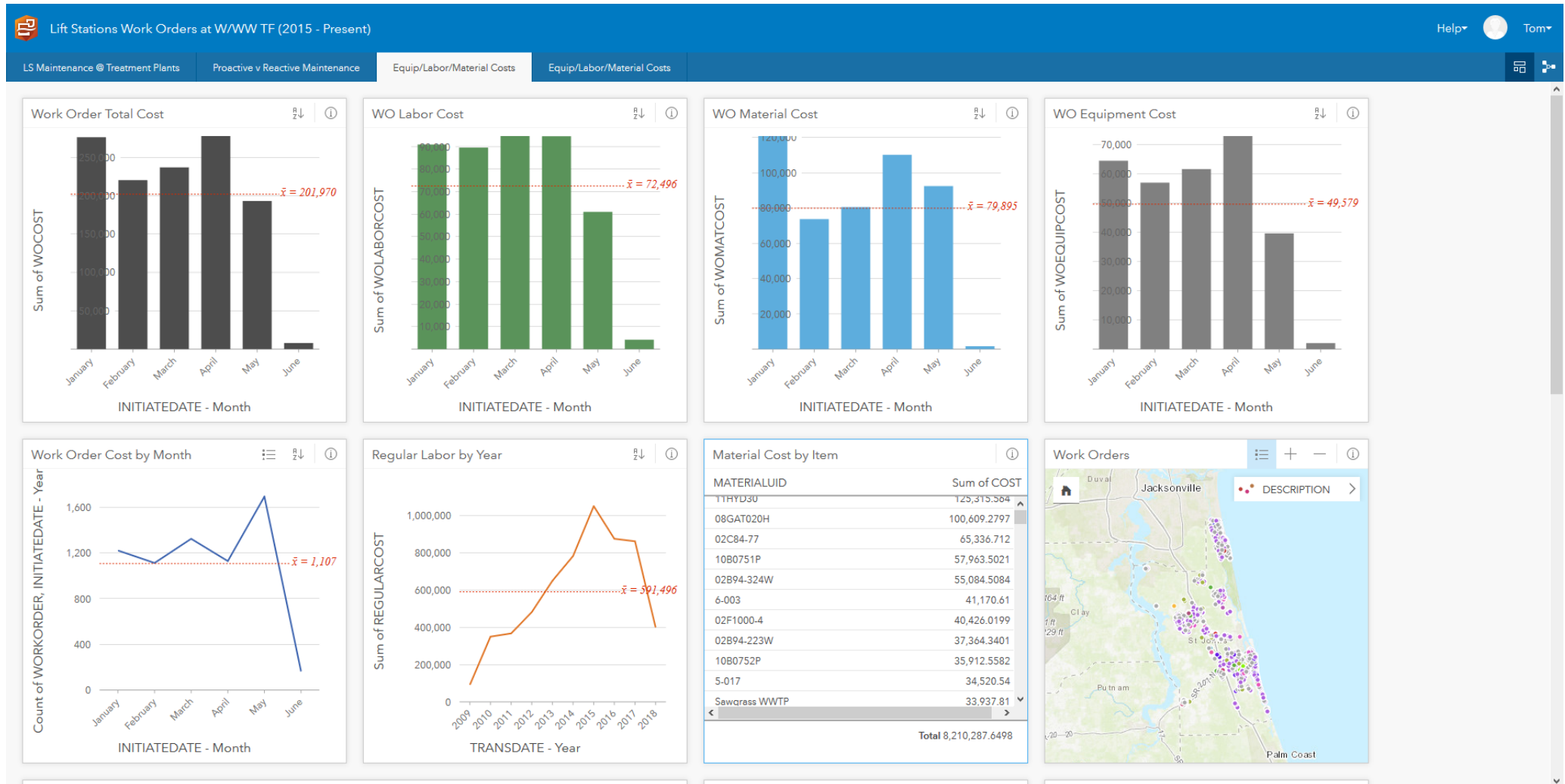


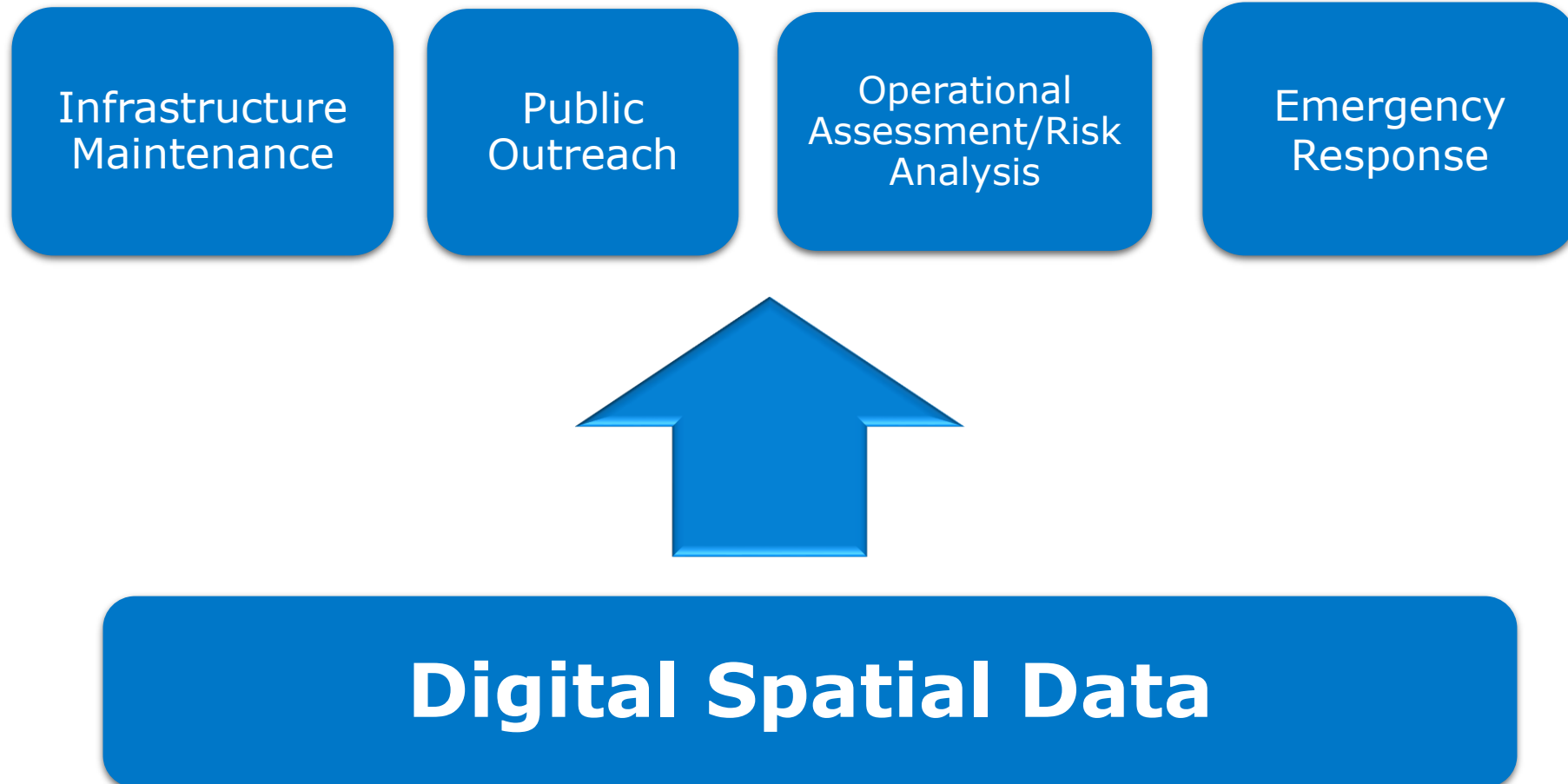


# Example: St. Johns County Utilities Department



# Example: St. Johns County Utilities Department









## Digital Data & Tools

- Highly available
- Less effort – less cost

## Staff

- Train existing
- New types of staff?

Embrace the opportunities  
– and the challenges





# Questions?

**June 13, 2019**

***JonesEdmunds*** 