

LOCAL GOVERNMENT SOLUTIONS SHOWCASE

Rock Falls, Illinois



Rock Falls Water Department: **From Paper to Digital**

Matt Junker
Cloudpoint Geographics

Rock Falls Water Department: **From Paper to Digital**

Overview

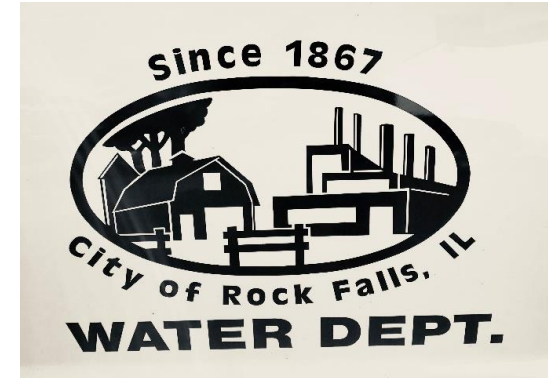
- History of GIS in Rock Falls
- City of Rock Falls Water Department
- Cross Connection Surveys: Data Collection Methods
- What is Survey123 for ArcGIS?
- A Tour of Survey123 for ArcGIS

History of Rock Falls GIS



- Rock Falls Electric + Cloudpoint in **2012**-CAD Conversion to GIS
- Growth from 1 PC/GDB to **ArcGIS Server/SQL** and **ArcGIS Online**
- Growth from Electric to Water/Sewer/Building & Zoning
- Share Utility Data with City Staff on **Internal Map Viewer**
- **Mobile** and **Desktop** GIS Deployment

Rock Falls Water Department



- Employees are licensed IEPA Water Operators
- Provide Annual Water Quality Report to the Public
- Education Center
 - ❖ *High Water Usage*
 - ❖ *Get to Know Your Water Meter*
 - ❖ *Water Conservation*
 - ❖ *Rusty Water*

Awards

Illinois Water Operator of Year:

- Ted Padilla 2006-2007
- Tony Posi 2009-2010

Groundwater Guardian Award – 1997-2014

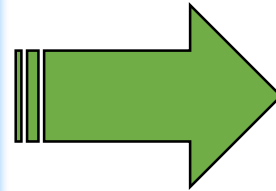
Fluoridation yearly award

Rock Falls Water System

- ~68 Miles of Mains
- ~53 Miles of Service Lines
- ~430 Hydrants
- ~1250 System Valves
- ~4000 Meters
- 3 Production Wells
- 3 Iron Removal Tanks
- 2 Water Towers



Rock Falls Water Department: **From Paper to Digital**



ArcGIS Desktop

The screenshot displays the ArcGIS Desktop interface with a water system map. The map shows a network of pipes and valves. Key features include:

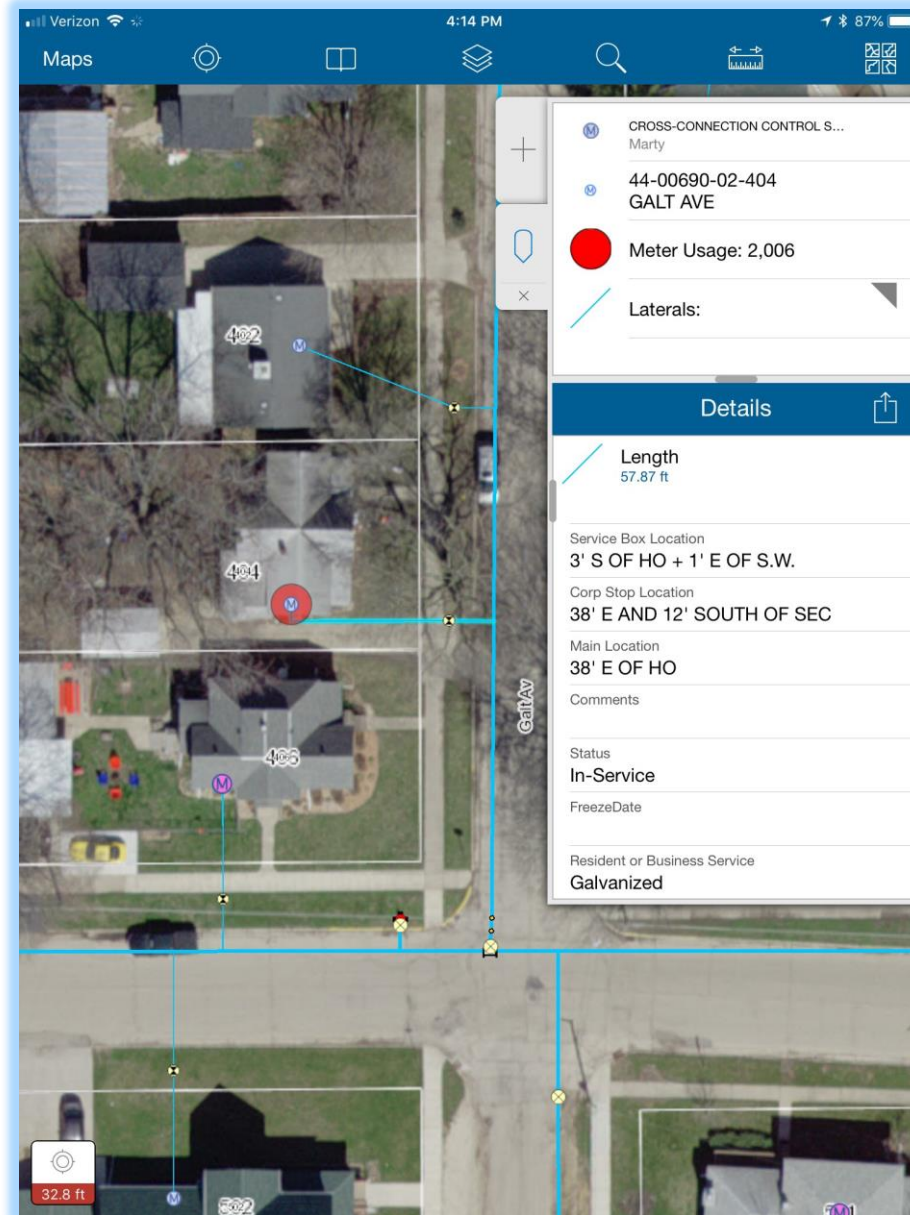
- Pipes:** 6" CAS, 6" DIP, 8" C900, and 3" in Copper.
- Valves:** MV-591, MV-446, MV-445, MV-444, MV-938, MV-944, HV-A074, HV-A087, and HV-087.
- Hydrants:** HA015, HA074, and HA087.
- Buildings:** FARM CREDIT SERVICES (207), CANDEL LIGHT INN (2200), and several residential lots (2100, 2106).
- Street:** 1st Av.

An **Editor** toolbar is visible at the top left. On the right, the **Attributes** window is open, showing the following table for valve MV-591:

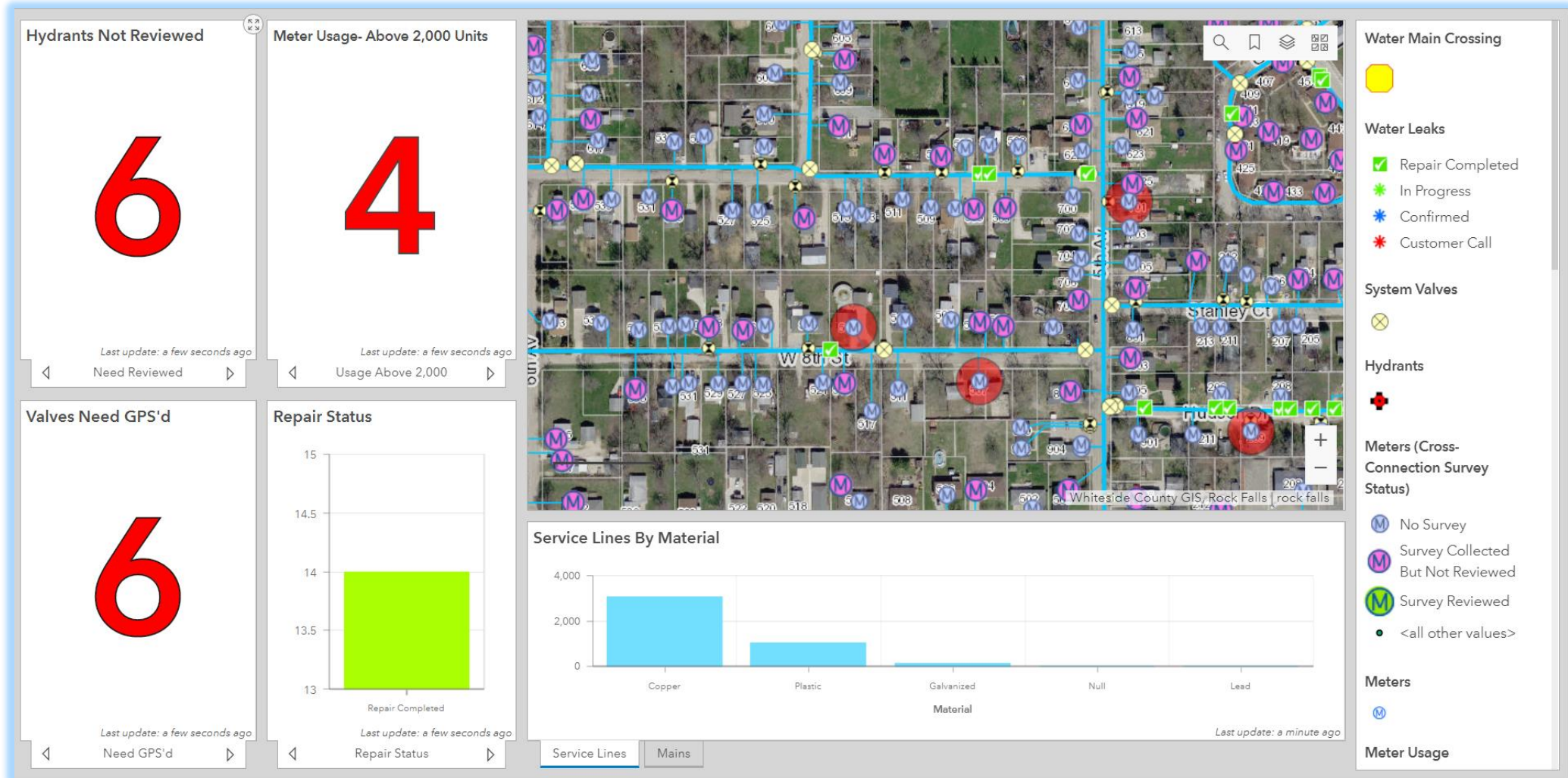
OBJECTID	4661
Facility Identifier	MV-591
Status	In-Service
Install Date	<Null>
Comments	<Null>
GPS'd	Proposed
Reviewed	Abandoned
Location Description	Off
Rotation	On
Diameter	8"
Valve Type	Gate-Resilient Wedge
Manufacturer	MUELLER RESILIENT
Bypass Valve	False
Clockwise To Close	True
Normally Open	True
Turns To Close	19
Operable	True
Hydrant Valve	False
Currently Open	True
Enabled	True
Active Flag	True
Owned By	<Null>
Managed By	<Null>
Max_PDOP	<Null>
Max_HDOP	<Null>
Corr_Type	<Null>
Rcvr_Type	<Null>
GPS_Date	<Null>
GPS_Time	<Null>
Update_Sta	<Null>
Feat_Name	<Null>

Status
Short Integer
Coded value domain: piActiveStatus
Null values allowed

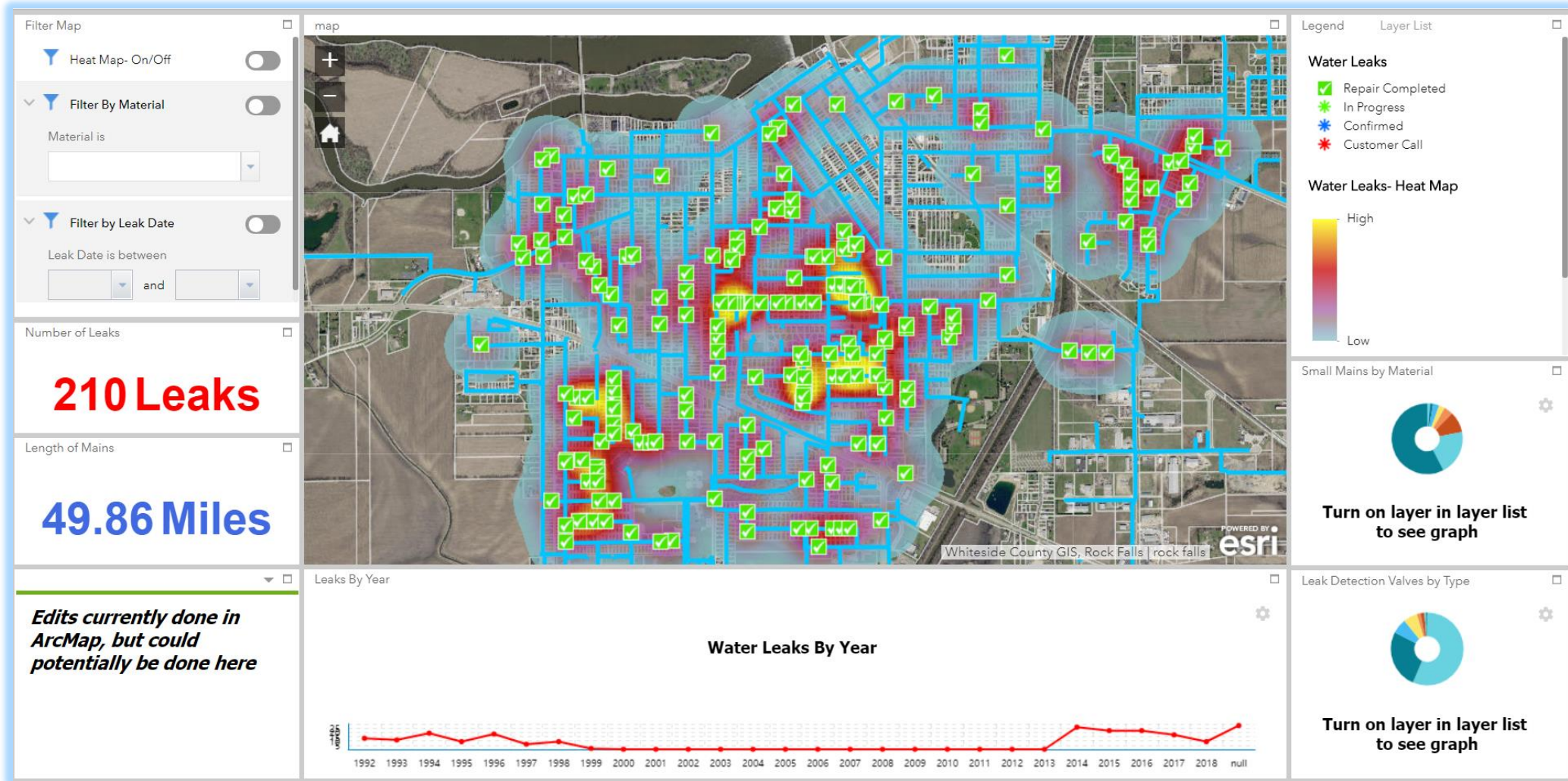
Collector for ArcGIS



Operations Dashboard



Operations Dashboard



Cross-Connection and Backflow

- Cross-Connection: occurs when **potable** water lines connect to fixtures or equipment that carry a **non-potable** source
- Backflow: occurs when **contaminants reverse flow** into the **potable** water supply

Cross-Connection Control Program

- Cross-Connection Control Ordinance
- **Survey of Water Distribution System Service Connections**
- ID At-Risk Service Connections
- Mitigation of Risks
- Documentation

Old Method of Survey Collection

- Surveys Mailed/Door-to-Door Collection
- Individually Scanned to PDF
- Added PDF Attachments to GIS Layer



Paper Forms

CROSS-CONNECTION CONTROL SURVEY

The following form is to be used by water department personnel and/or by customers of the _____
Public Water Supply. Data from this form may be used to determine if the property should be inspected by Public Use
personnel with CCOB certification to detect and correct any cross-connections found on the property.

Date survey conducted: 4/17/17
Name Title of person conducting survey: [REDACTED]
Name of water user: _____ Address: 1007 10th AVE
Cust. Number: 7-01220

Residential: (Check all that apply)

Kitchen: Sink Faucet Sink Faucet w/Sprayer _____ Ice Maker _____ Garbage Disposal _____
Other: _____ Other: _____ Other: _____

Comments: _____

Bath: Lavatory Toilet Bathtub _____ Hot Tub _____ Bidet _____
Other: Shower Other: _____ Other: _____

Comments: _____

Other: Boilers? _____ How Many Boilers? _____

Exterior: Outside faucets How Many? 1 Non-Freezing Type: _____ How Many? _____

Lawn Irrigation System (Portable) N Lawn Irrigation System (Permanent) N

Lawn Fertilizer System N Portable High-Pressure Washer N Private Well(s) N

Is/Are private well(s) physically connected to the water system? Yes _____ No _____

Other: COPPER

Other: _____

Other: NO SUMP PUMP

Comments: _____

(Please complete other side, if applicable.)

Paper Forms

City of Rock Falls Water Department

8-00400

Residential Cross Connection Control Survey

In order to protect the City of Rock Falls water system and water users, we are conducting a survey to determine if there are any hazardous conditions that could affect our drinking water.

We appreciate you taking the time to complete the survey.

If you have any questions regarding this survey contact **Ted Padilla** at the Rock Falls Water Department, phone number is 815-622-1120.

*Do you have any other water source of water, such as a private well, pond, lake, tank or reclaimed water that is connected to the public water supply?

yes no

*Are there any backflow prevention devices installed on the premises?

This does not include devices installed on the City water meter or outside/garden hose.

yes no

*If so, has the device been tested? (If yes, please provide a copy of the test result to one of the following: e-mail: tpadilla@rockfalls61071.com, or fax to 815-622-1113.

yes no N/A

*Do you have a permanent in-ground lawn irrigation system installed on the property?

This does not include lawn water devices attached to a garden hose:

yes no

*Is there a swimming pool or hot tub on the property?

yes no

If yes is the pool filled permanently connected to the water system?:

yes no

*Is your building heated by a boiler?:

no

Do you operate a business out of your home?

yes no

If yes, type of business _____

The Illinois Department of Public Health Plumbing Code requires vacuum breakers to be attached to all outdoor faucets. These devices protect the plumbing system from being contaminated by any substance which might enter the water hose (lawn fertilizer, herbicide, soap, etc.) Hose vacuum breakers are available at most hardware stores or through your local plumber contractor.

The information provided in this survey form is an accurate and current description of the water at this address. Please write your name below as confirmation of the person completing the survey.

Name: _____

Address _____

Date _____

*****For Commercial or Residential information

What type of pipe material is before the water meter?

(Circle one) Lead copper plastic galvanized pipe

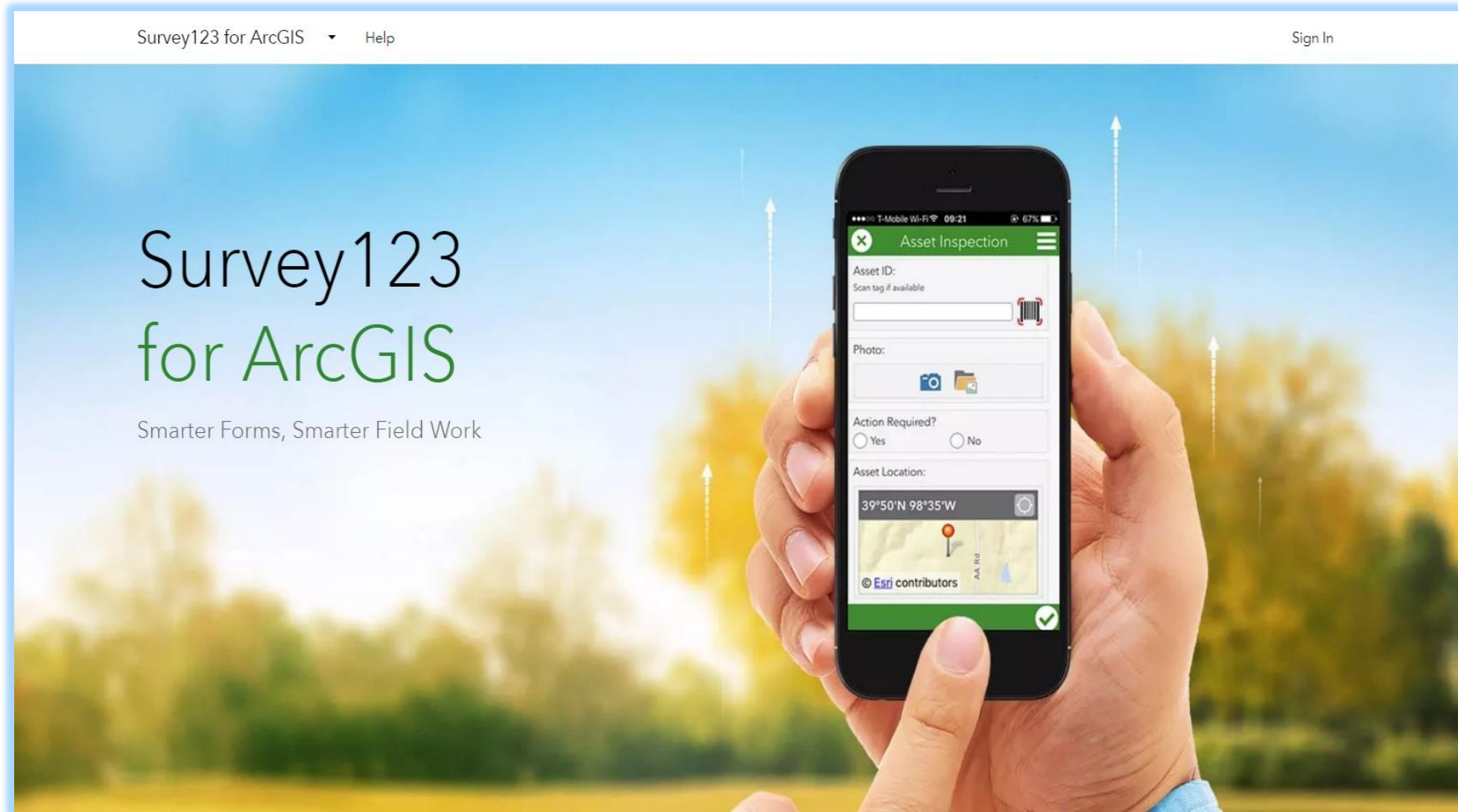
If you have any questions or concerns please contact the City to identify the material.

Survey123 for ArcGIS

Survey123 for ArcGIS Help Sign In

Survey123 for ArcGIS

Smarter Forms, Smarter Field Work



The image shows a hand holding a smartphone displaying the Survey123 for ArcGIS mobile application interface. The screen shows a form titled "Asset Inspection" with the following fields and options:

- Asset ID:** A text input field with a "Scan tag if available" label and a barcode icon to the right.
- Photo:** A section with a camera icon and a gallery icon.
- Action Required?:** Two radio button options: "Yes" and "No".
- Asset Location:** A section showing the coordinates "39°50'N 98°35'W" and a map with a red location pin. The map includes the "Esri contributors" logo.

The background of the slide is a blurred outdoor scene with trees and a bright sky, suggesting field work. The overall layout is clean and professional, with a blue header bar containing navigation links.

Survey123 for ArcGIS

Create A Survey

Survey123 Connect

- desktop app
- advanced/complex

Survey123 Web Designer

- website
- simple/quick

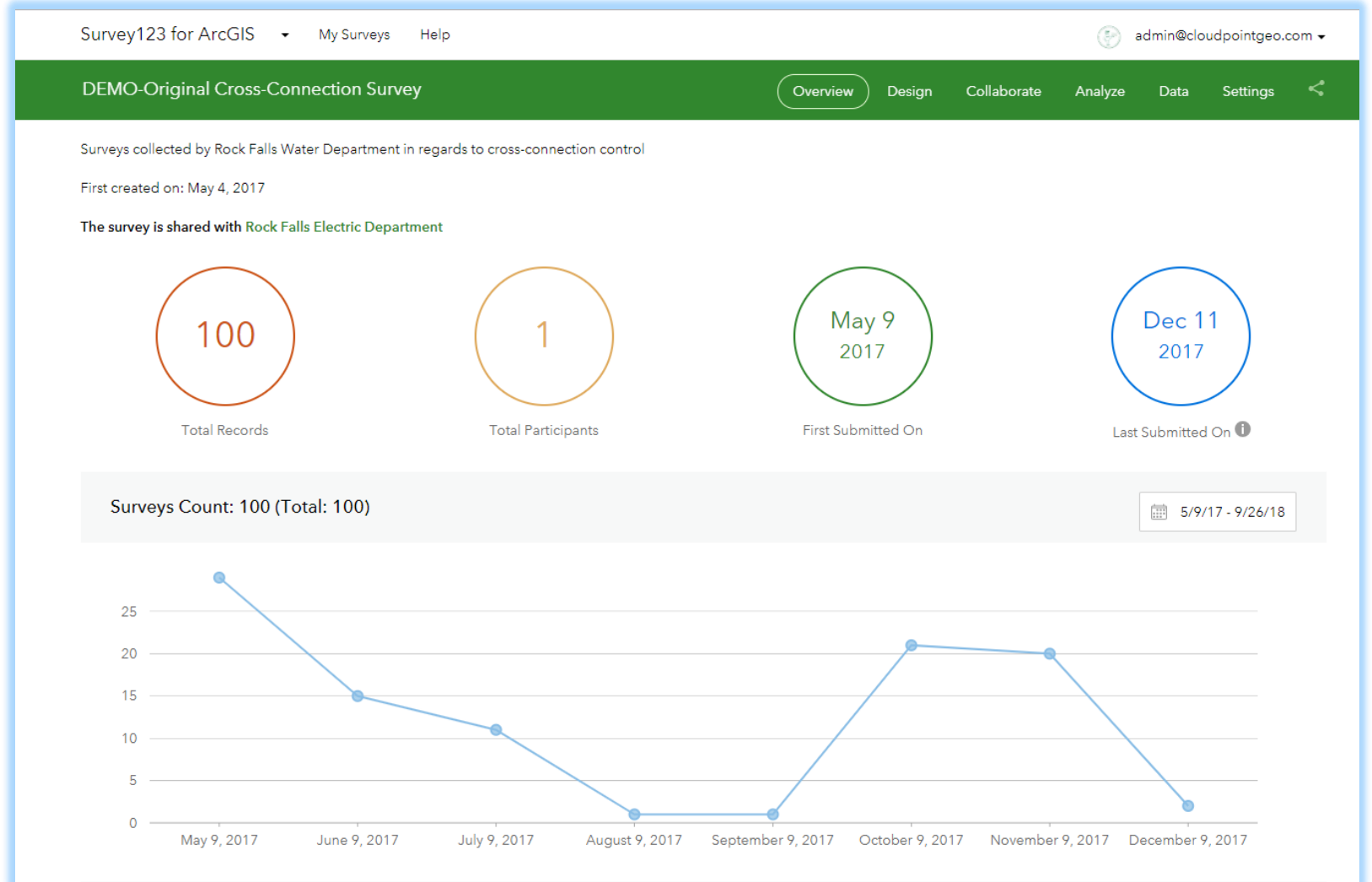
Collect Information

Survey123 Mobile App

survey123.arcgis.com Web App

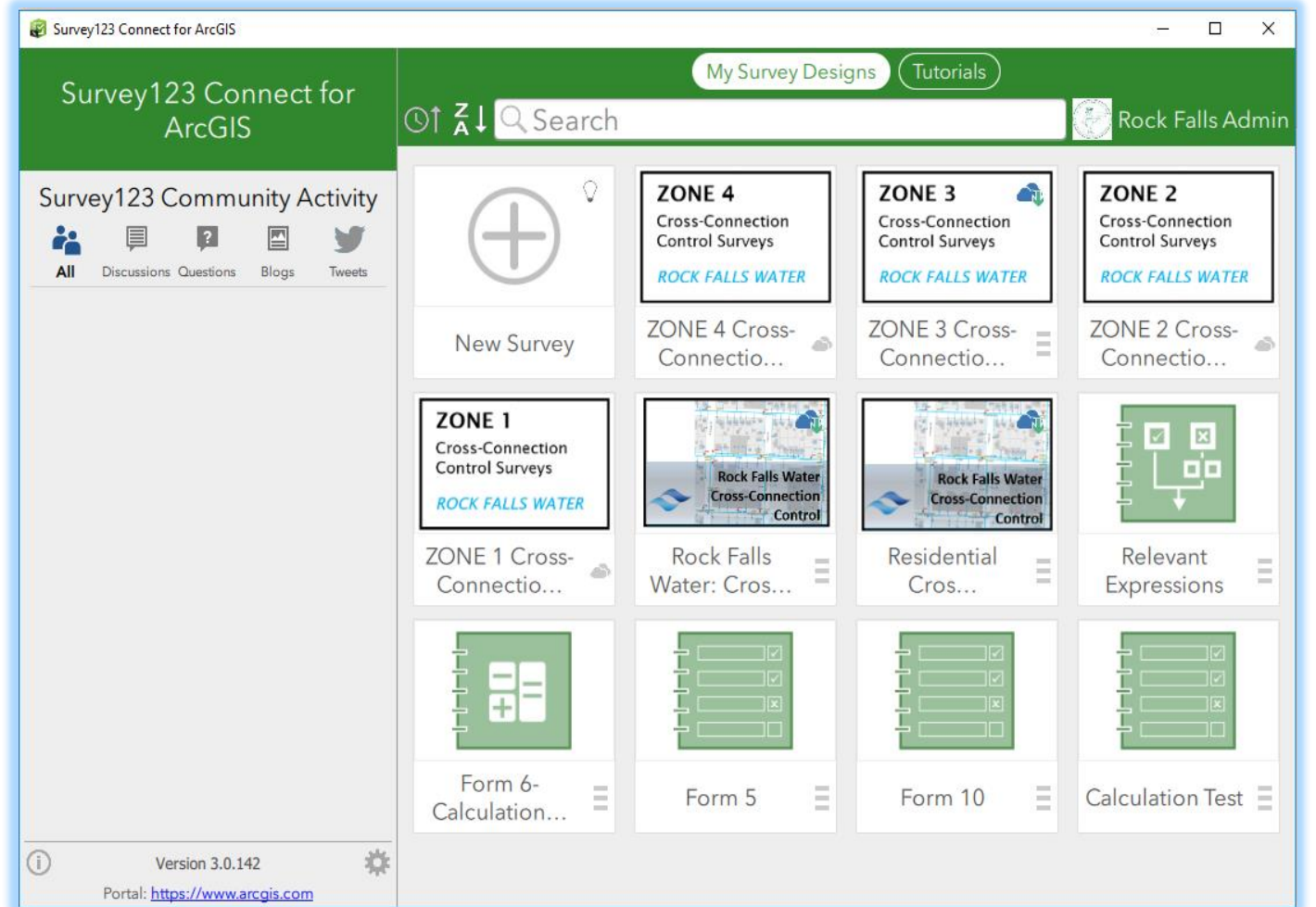
Survey123 Website *survey123.arcgis.com*

- Design
- Collaborate
- Analyze

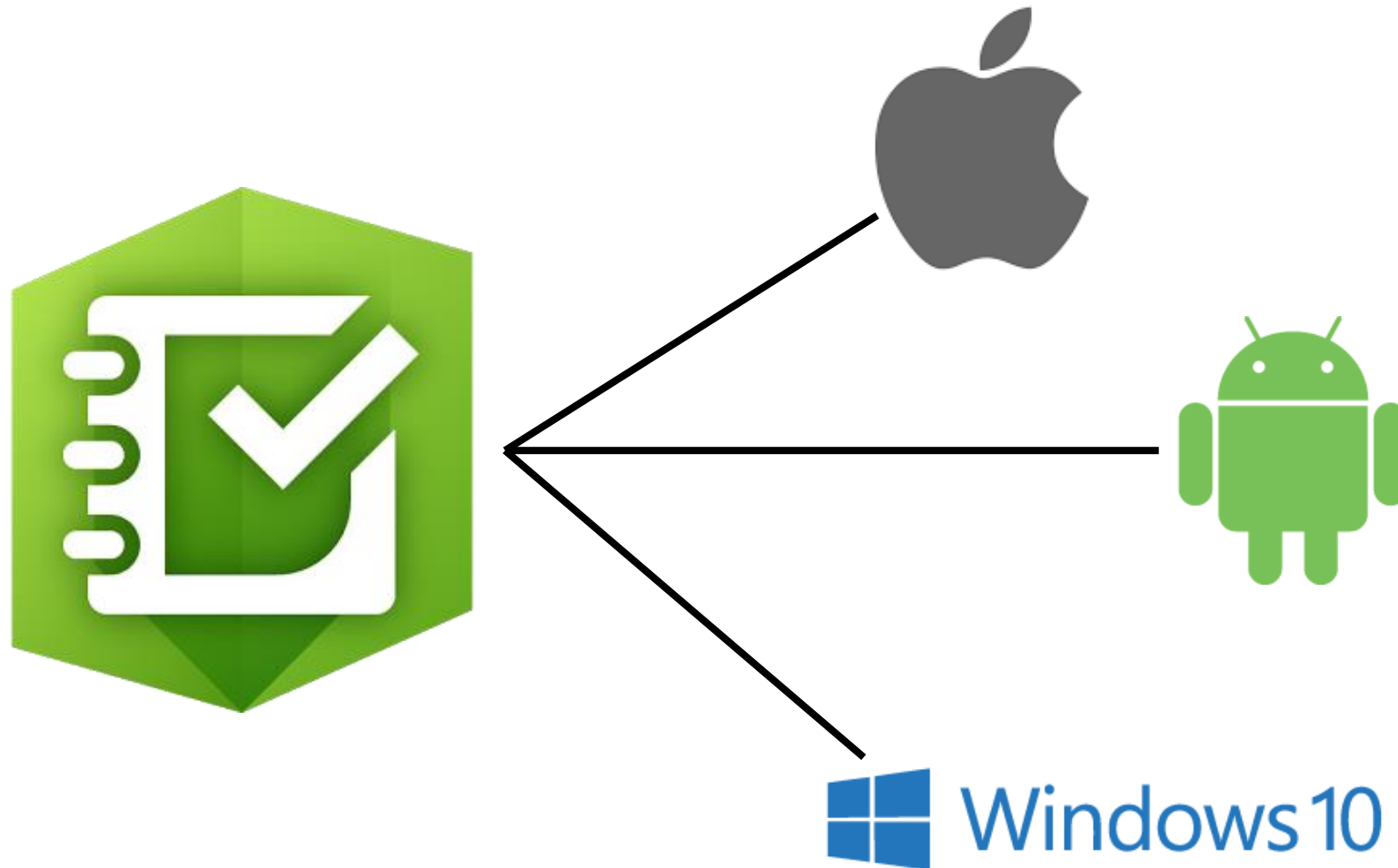


Survey123 Connect

- Uses XLS Form spreadsheets to author surveys
 - ❖ Templates-(Basic or Advanced)
 - ❖ Samples
 - ❖ Community
 - ❖ Feature Services
 - ❖ Your Existing Surveys



Survey123 Mobile App



Survey123 and the ArcGIS Platform



ArcGIS Online

Meters/Cross-Connection Survey Hosted Feature Service



Collector



ArcGIS Pro



Operations Dashboard



Web AppBuilder



ArcGIS Enterprise



Workforce

Applications of Survey123

- CSO Notification
- Damage Assessment
- Manhole Inspection
- Mosquito Spray Notification
- Opioid Awareness Reporting
- Pothole Hazard Report
- Property Tax Assessment Appeal
- Residential Septic Tank Inspection
- Restaurant Inspection
- Roadkill Report
- ROW Permit
- Transmission Tower Inspection
- Tree Inventory
- Water Quality Survey
- Water Violation Report

Registration Form Authored in Survey123

IDOT GIS Day November 14, 2018 Registration Form

Where: Department of Agriculture building in Springfield.
When: Sign in begins at 8:30 and meeting is from 9:00am - 4:00pm.
FREE for everyone! See what's new and exciting in Illinois GIS!
There will be fascinating projects, topics and new ideas!
Contacts for more information:
Chanda Teasley (217) 342-8252 - Chanda.Teasley@illinois.gov
Stephanie Simpko (815) 434-8577 - Stephanie.Simpko@illinois.gov

Name (first and last)*

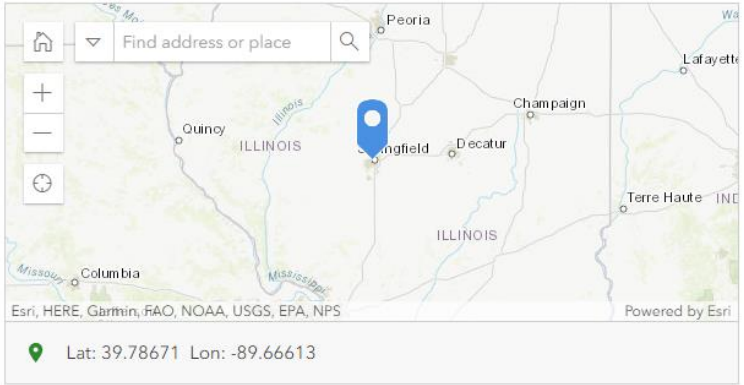
Agency*

Phone Number*

Email Address*

Where are you from?*

Using the map, pinpoint your location so we can see where our attendees are from.



How will you be attending the conference?*
(More information will be sent out about how to video conference)

In Person Video Conference

Are you a presenter?*

Yes No

Would you like to be contacted about becoming a presenter?*

Yes No

[Click here to submit REGISTRATION](#)

Mobile Apps-Which to Use?



Survey123

VS.



Collector

Survey123 Demos

1. Survey123 website
2. Survey123 Connect App
 - ❖ XLS Form
 - ❖ Settings
 - ❖ Tutorials
3. Survey123 Mobile App

Benefits of Data Collection with Survey123

- **Go Digital**

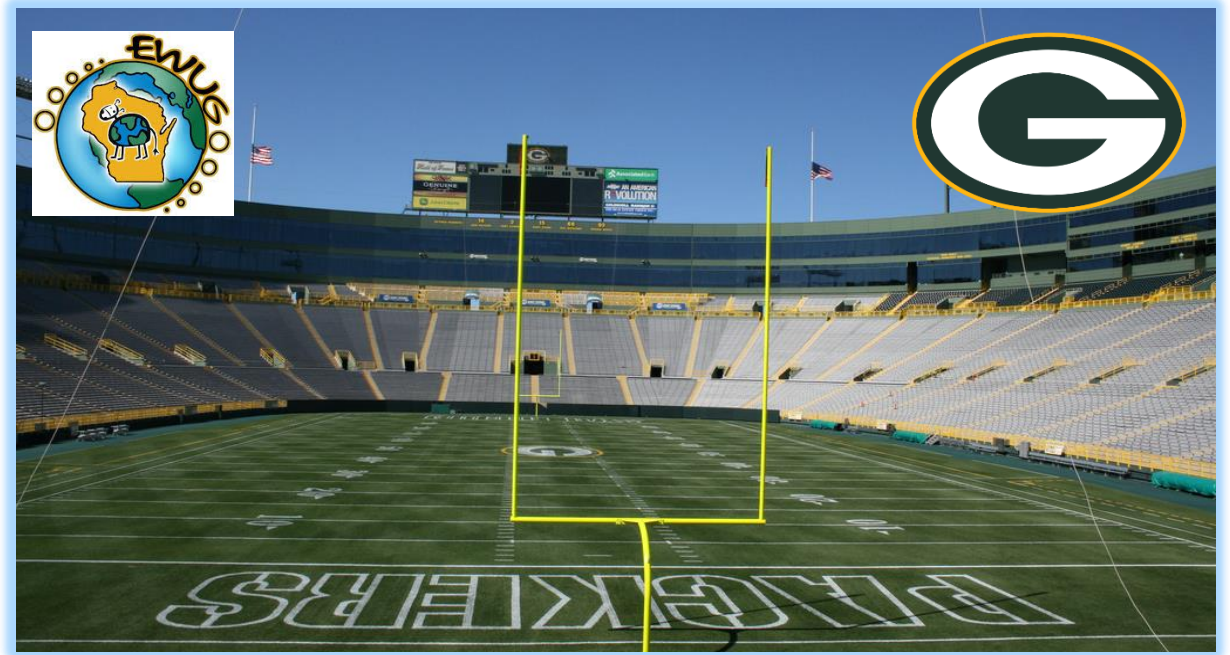
- ❖ Increase Efficiency
- ❖ Environmentally Friendly

- **Extend the use of GIS**

- ❖ Integrate with other Mobile Apps
- ❖ Data shared throughout the ArcGIS Organization

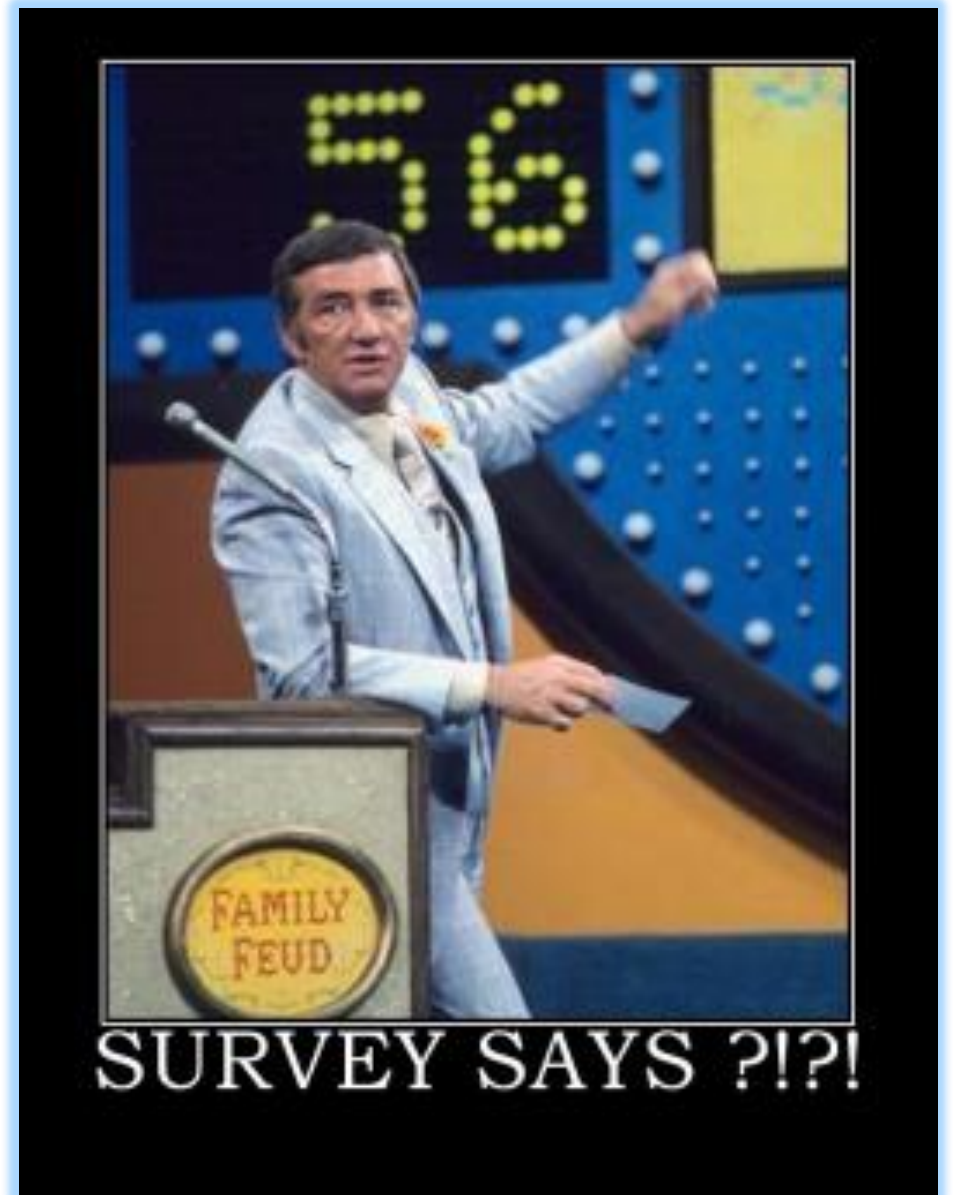
Survey123-Additional Resources

- Get Started with Survey123 for ArcGIS
 - ❖ *learn.arcgis.com/en/projects/get-started-with-survey123*
- GeoNet Survey123 for ArcGIS Group
 - ❖ *community.esri.com/groups/survey123*
- Survey123 for ArcGIS on Twitter
 - ❖ *[@esriSurvey123](https://twitter.com/esriSurvey123)*



Survey Says...

ROCK FALLS!



Questions?

Matt Junker

Cloudpoint Geographics

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