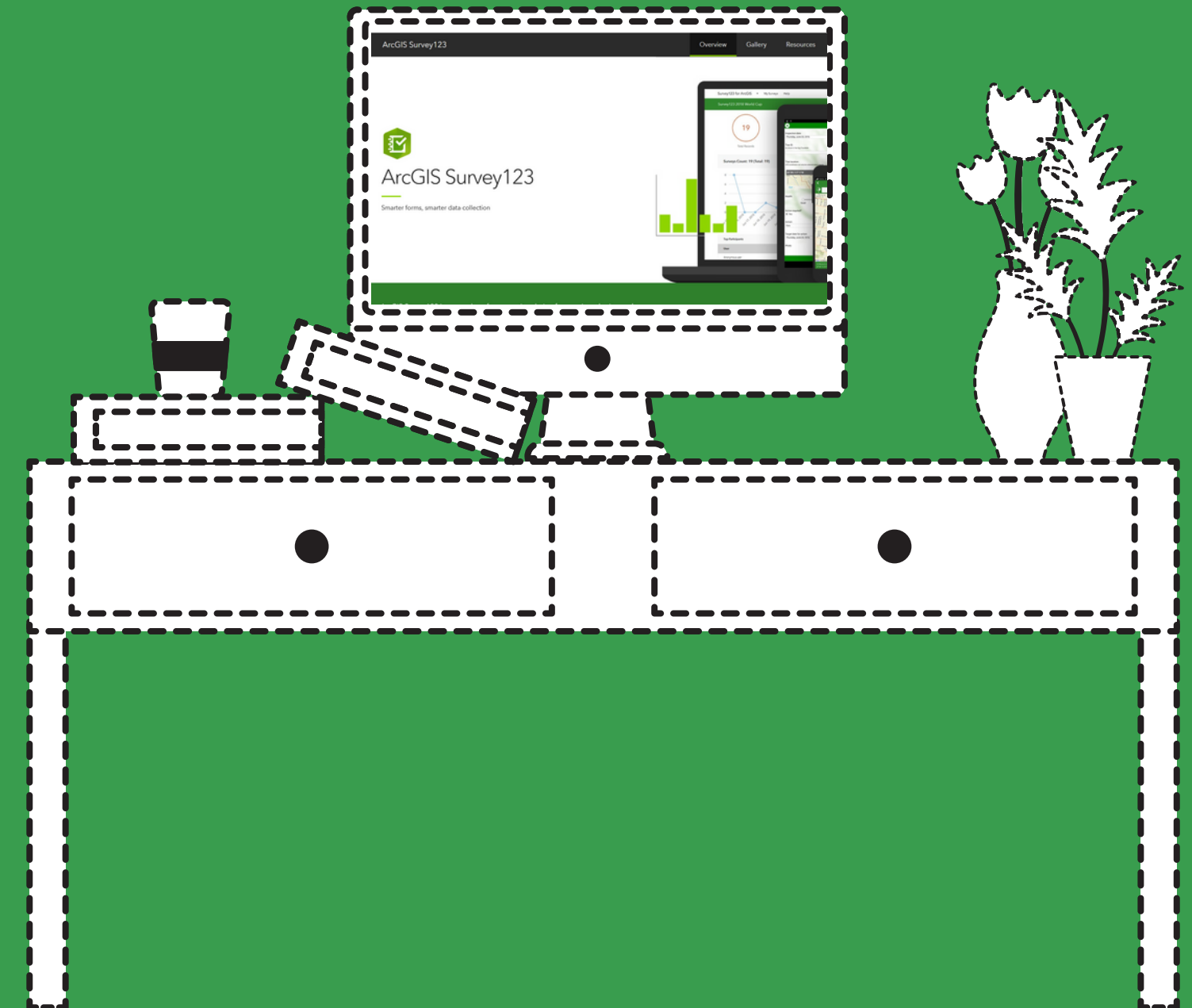


2022 Water Quality Symposium

An Introduction to ArcGIS Online and Survey123

Presented by:
Warren County Soil and Water Conservation District and
Warren County GIS



Course Outline



Partnership between County GIS and SWCD

ArcGIS Online: [License Types](#)

Survey123: [Creating a Survey](#)

Survey123: [Sharing a Survey](#)

Survey123: [Collecting Field Data](#)

Survey123: [Viewing Field Collected Data](#)

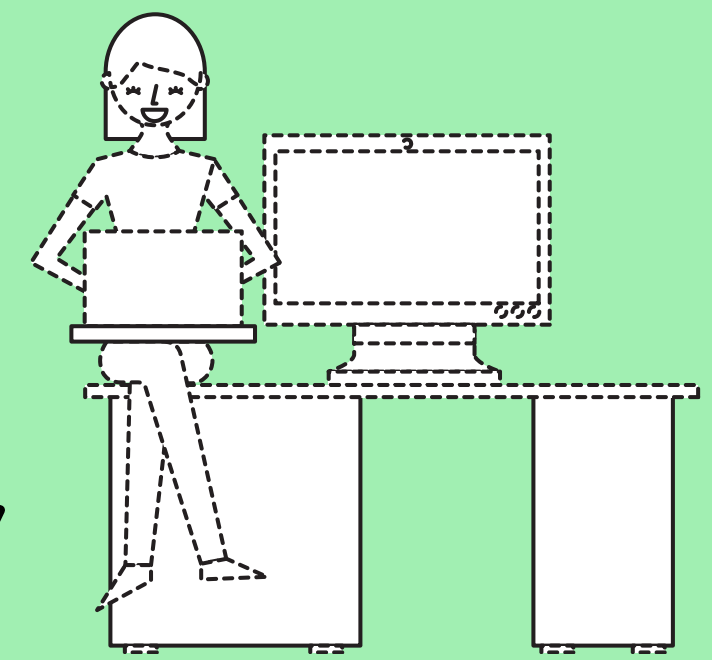
ArcGIS Online: [Basics](#)

ArcGIS Online: [Creating a Map with field collected data and data from other sources](#)

Survey123 + ArcGIS Online: [Project Examples](#)

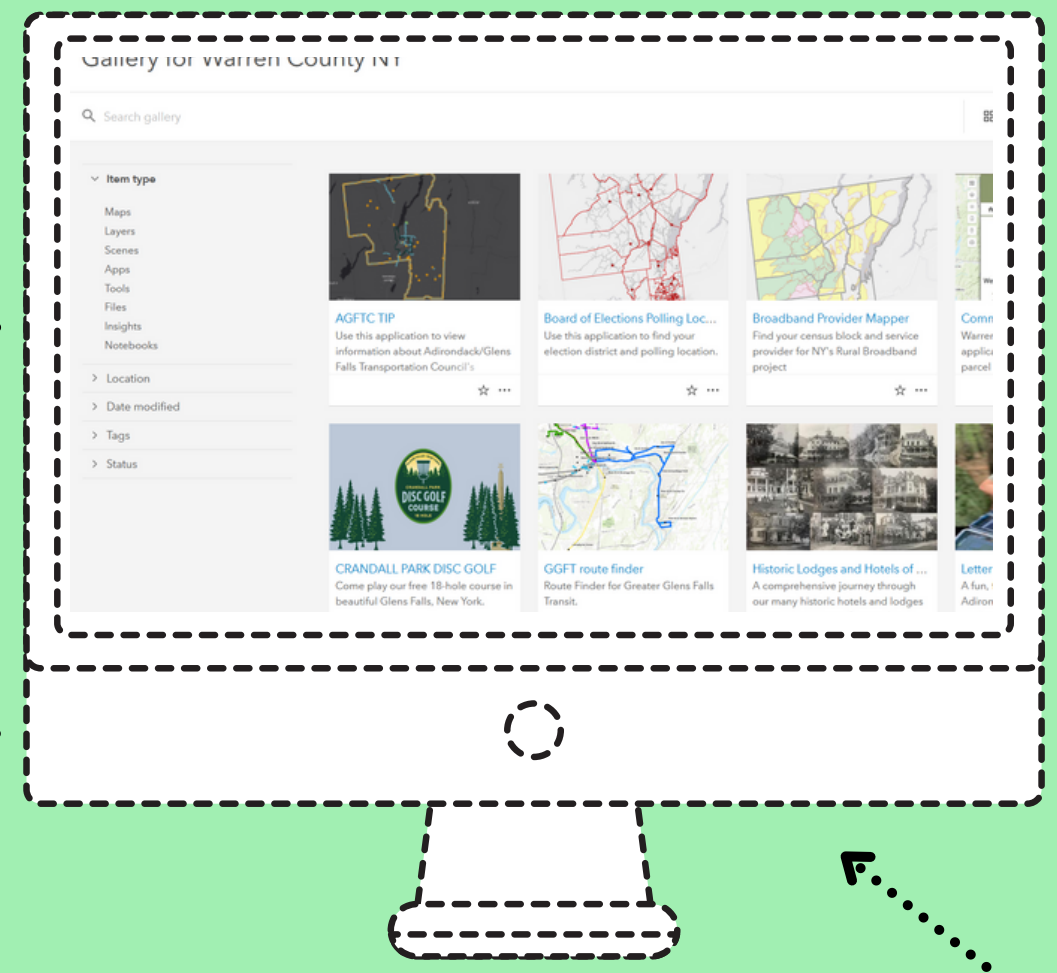
WCGIS/WCSWCD Partnership:

ArcGIS Online allows Warren County GIS to provide services for multiple agencies cost and time efficiently



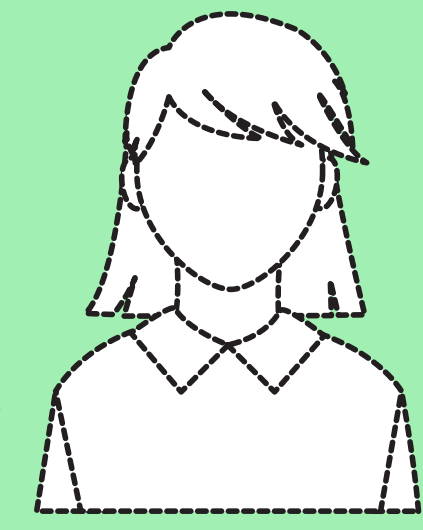
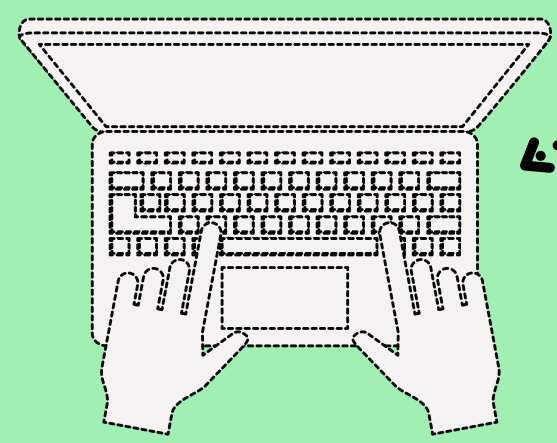
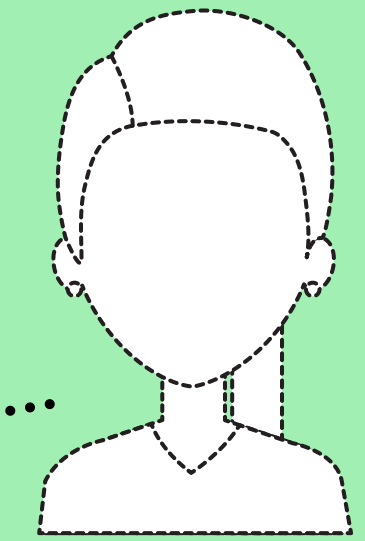
two full time staff provide services for:

- county departments
- municipalities
- general public
- partner agencies (regional planning board, MPO, park commission, SWCD)



county GIS provides:

- centralized licenses
- app/map development
- data management
- technical support



ArcGIS Online User Types

Foundational

GIS Professional

One license comes with
ArcGIS Pro (desktop)
\$700 - \$3800

Creator

ArcGIS Online only
**Minimum needed license type to create
surveys in Survey123**
\$489 state contract

Dependent

Viewer

Securely view
maps and apps
\$98 state contract

Field Worker

Securely edit existing data and
add new data in field and online
**License type needed to collect
data securely in app**
\$342 state contract

Editor

View and edit online
content
\$196
**Can add Survey123
as a \$60 add-on**

**note: users can use
Survey123 to collect
data at no charge if
survey is shared
publicly. Collected
data does not have
to be shared publicly.**

ArcGIS Online User Types and Survey123

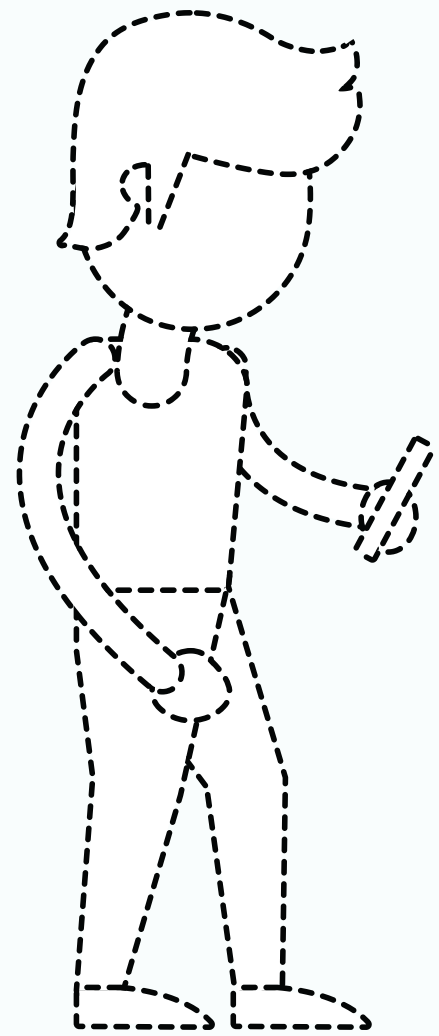
User type	Fill in surveys in Survey123 web app	Fill in surveys in Survey123 field app	Analyze results in Survey123 website	Create surveys in Survey123 website	Create surveys in Survey123 Connect
Creator	Yes	Yes	Yes	Yes	Yes
Editor	Yes	Yes*	Yes	No	No
Field Worker	Yes	Yes	Yes	No	No
GIS Professional (Basic, Standard, and Advanced)	Yes	Yes	Yes	Yes	Yes
Viewer	No	No	Yes	No	No
None (anonymous)	Yes ²	Yes ²	Yes ³	No	No

***with add on survey123 license**

Survey123

VS

ArcGIS Collector



	Survey123	ArcGIS Collector
Collection style	form centric	map centric
Supports editing existing data	Yes (but)	Yes
Supports deleting existing data	No	Yes
Smart forms	Yes	No
Supports anonymous access	Yes	No
Works offline	Yes	Yes

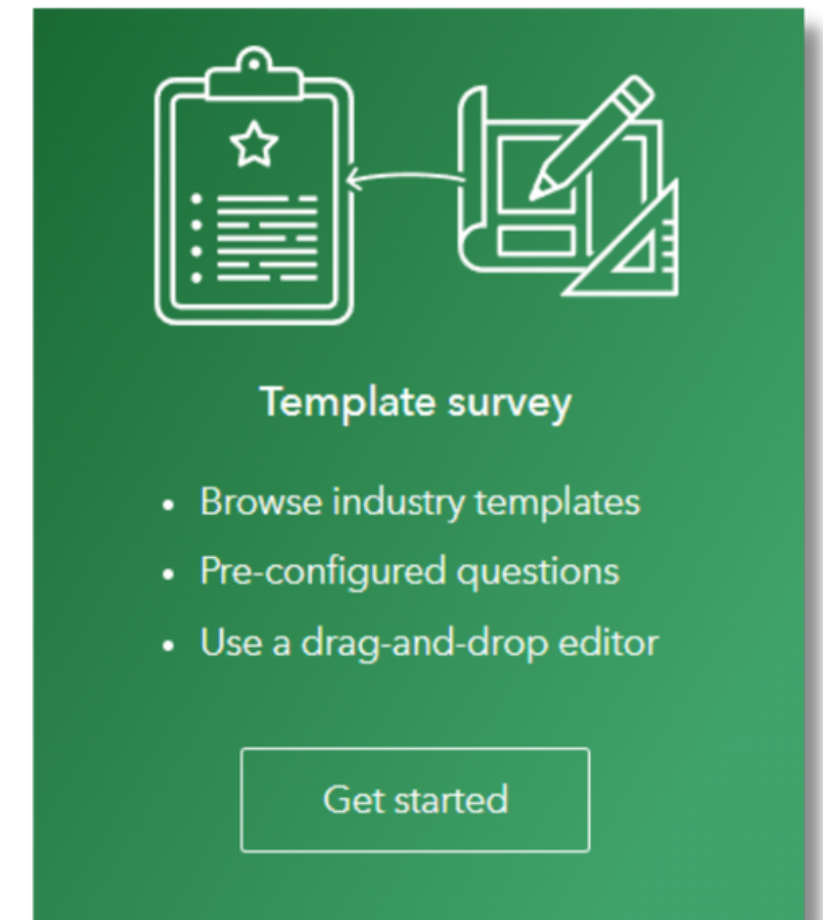
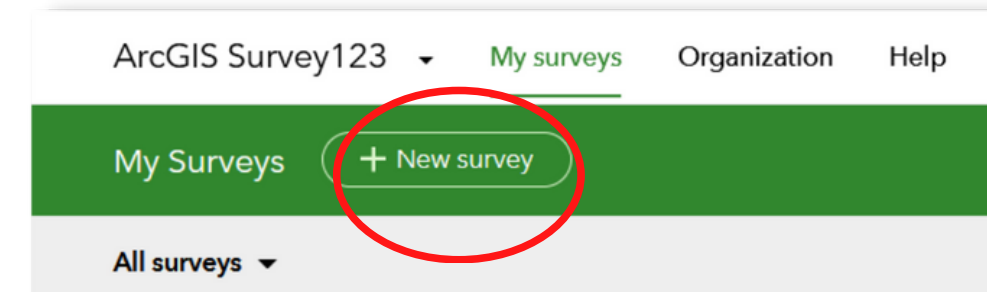
Survey123: Creating a Survey

Three ways to make a survey:

- Using a template in web designer
- From scratch in web designer
- In Survey123 Connect desktop application

Create a Survey using a template

1. Go to: survey123.arcgis.com and login
2. Click on **New survey**
3. Click on **Get started** under **Template Survey**
4. Browse through surveys to find one that looks like it will fit your needs and click on it. If you like the looks
5. Click **Use This Template**
6. **Save, Preview, Publish**



DEMO

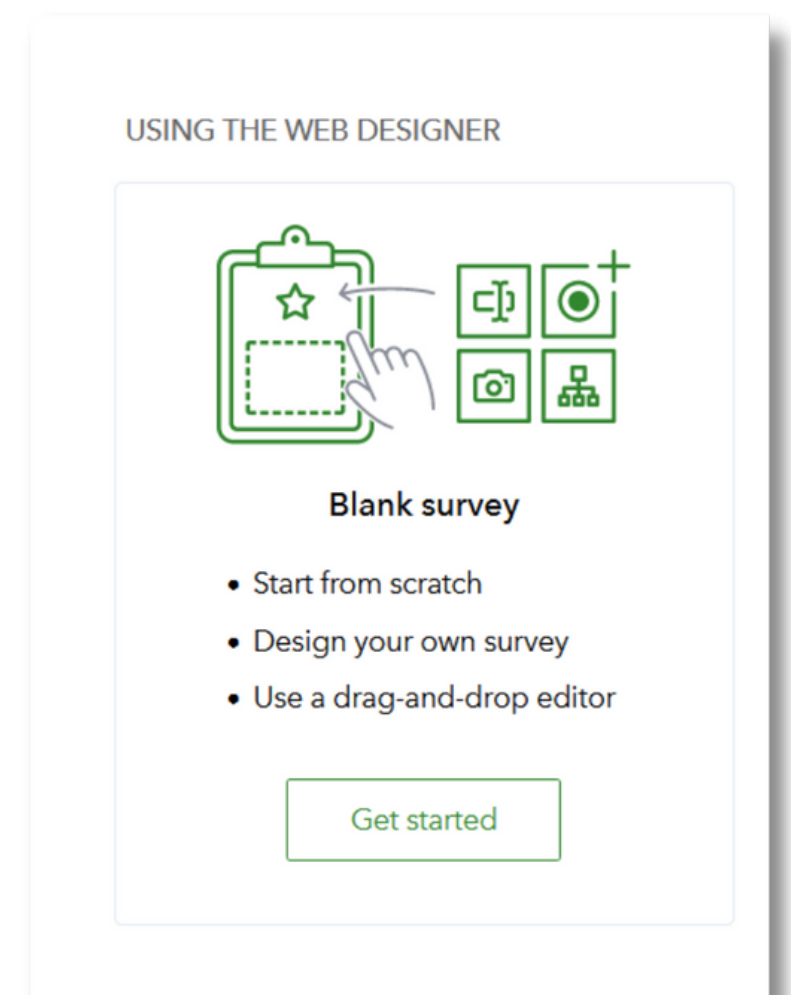
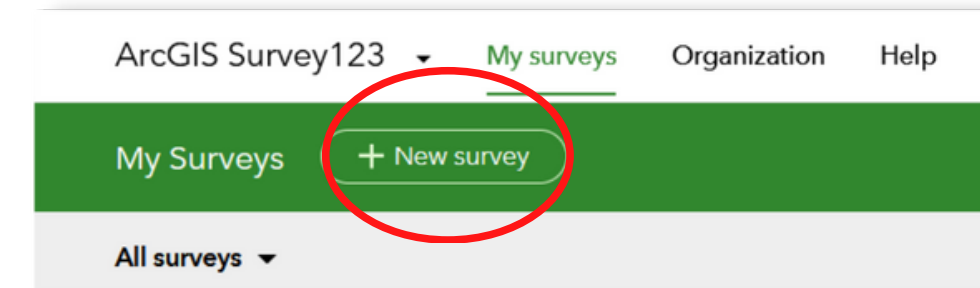
Survey123: Creating a Survey

Three ways to make a survey:

- Using a template in web designer
- **From scratch in web designer**
- In Survey123 Connect desktop application

Create a Survey from scratch in web designer

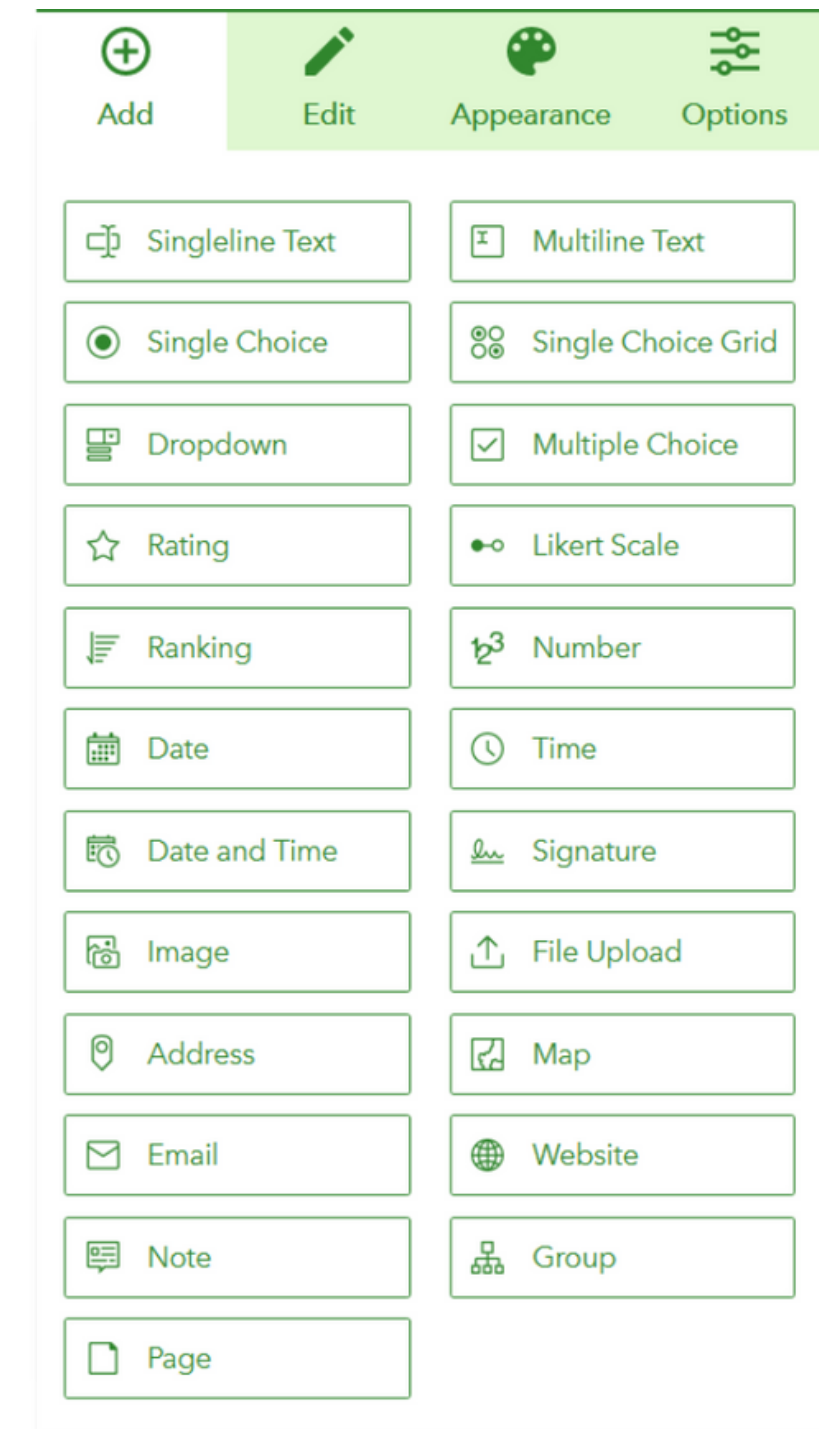
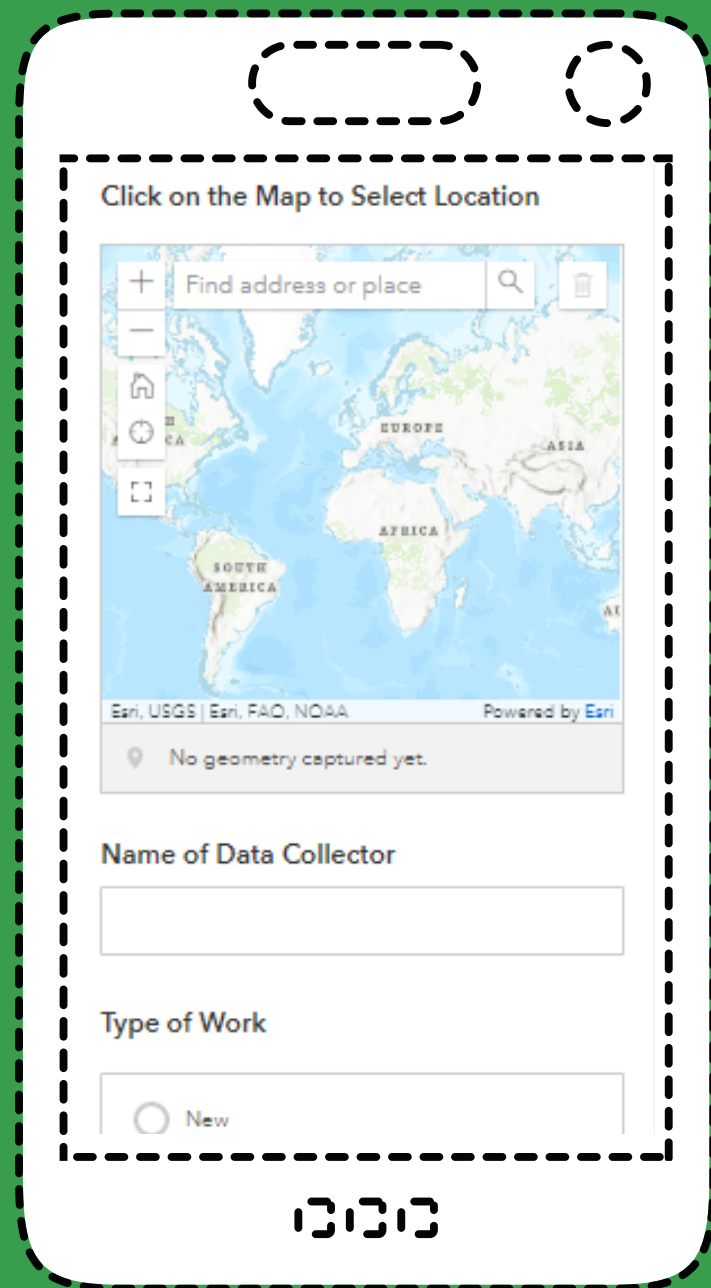
1. Go to: survey123.arcgis.com and login
2. Click on **New survey**
3. Click on **Blank survey**
4. The survey designer opens - 4 tabs
 - a. **Add**—Select the type of question you want to add to the survey.
 - b. **Edit**—Edit the content and properties of a survey question.
 - c. **Appearance**—Define the appearance of your survey.
 - d. **Options**—Configure a thank you message that appears after the survey is submitted.
5. Survey creation is Drag and drop



Survey123: Creating a Survey

Creating a Survey in web designer - Cont'd

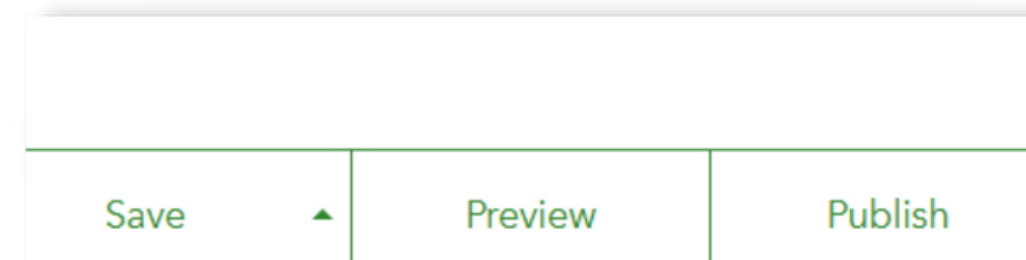
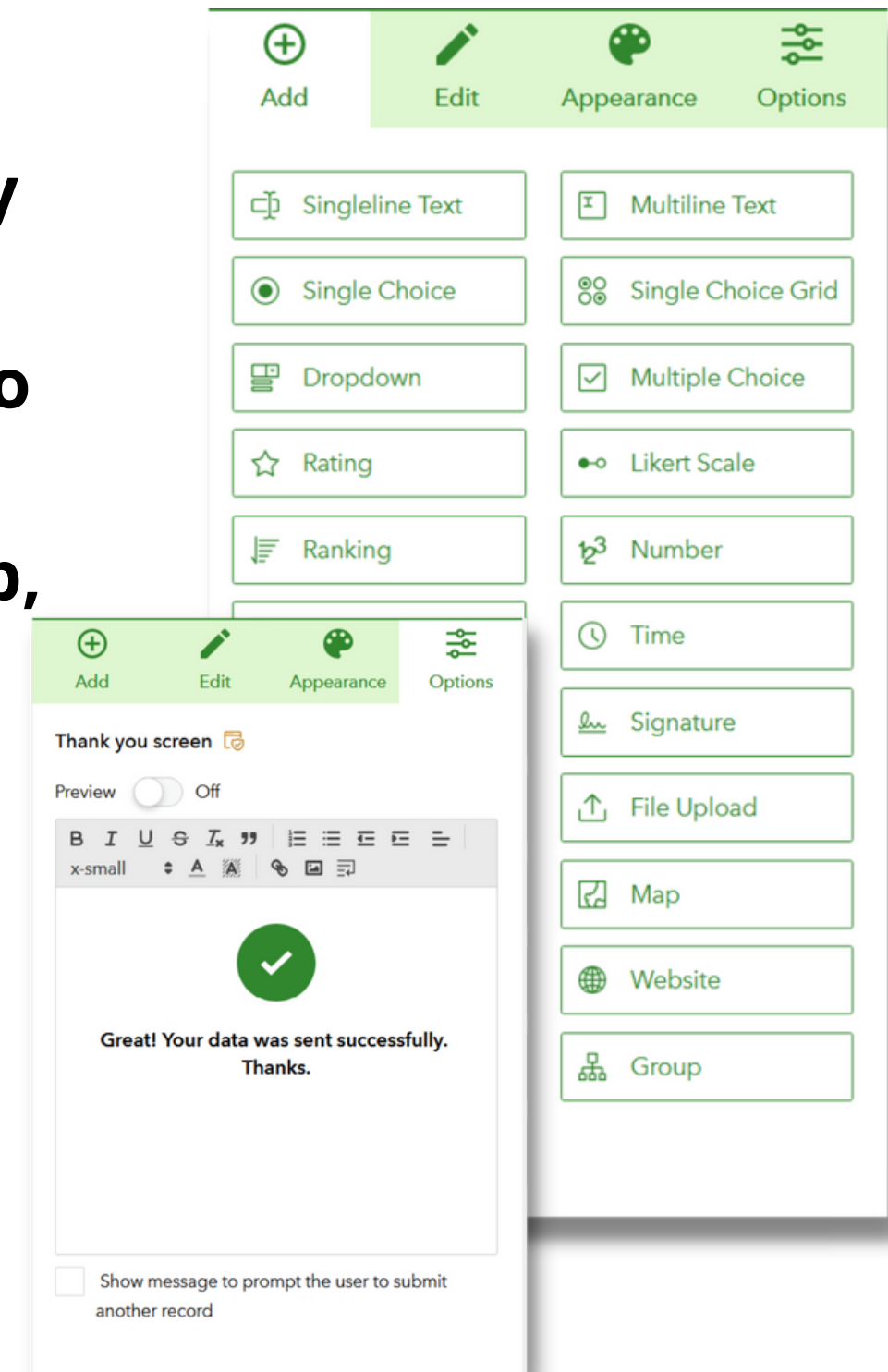
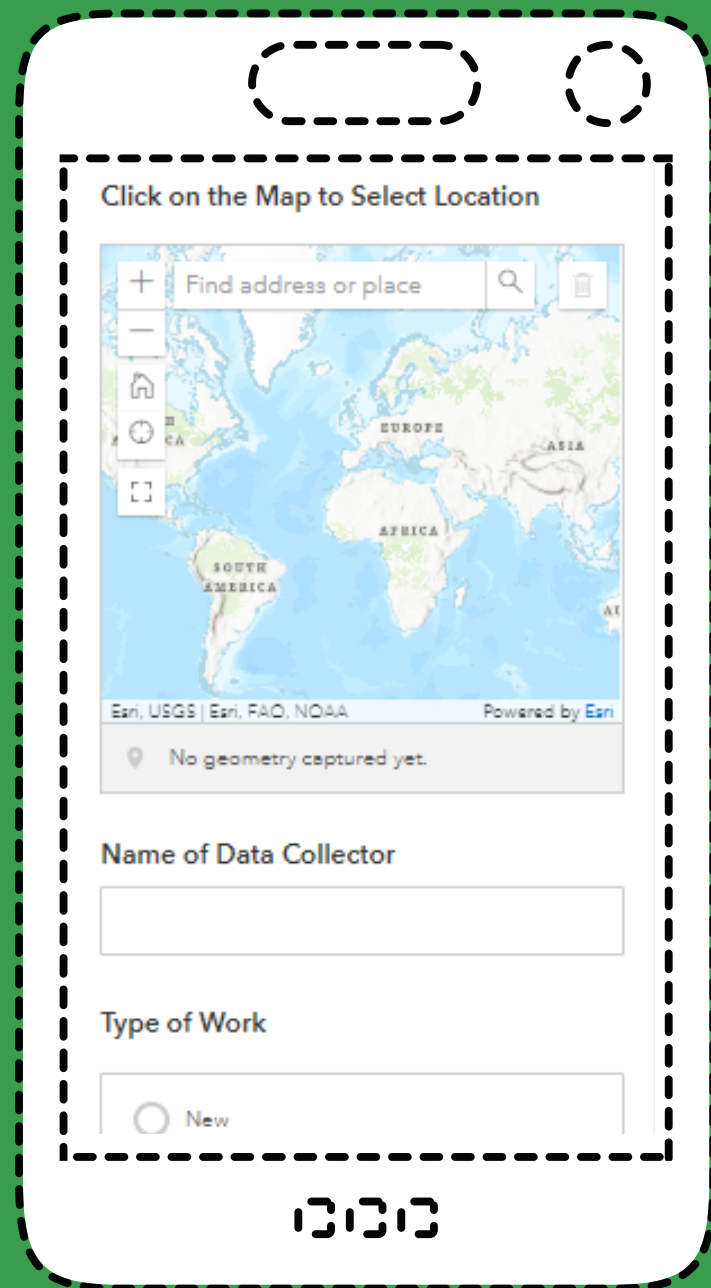
1. Drag elements from the **Add** tab on the right to the survey on the left to build the survey
2. Give some thought to the type of question that will collect data the most accurately and quickest for your respondents
3. Question types include:
 - a. single choice and multiple choice
 - b. dropdown
 - c. text
 - d. photo
 - e. rating
 - f. location
 - g. lots more!
4. The **Smart Form** feature allows questions to appear based on previous answers
5. Questions can be grouped



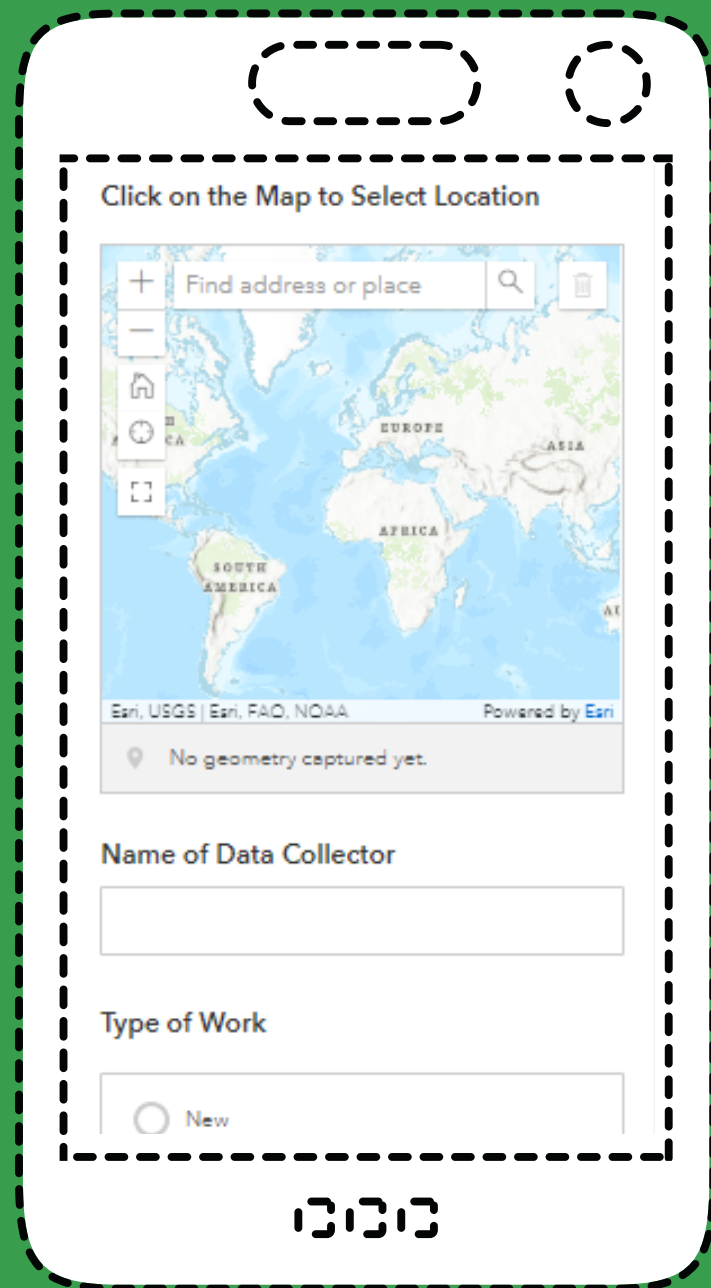
Survey123: Creating a Survey

Creating a Survey in web designer - Cont'd

1. Click on **Appearance** tab to change the theme (colors, background photo, etc)
2. Click on the **Options** tab to set the message responders will see after they submit the survey
3. At the bottom of the page, click **Save** to save the survey, **Preview** to see how your survey will appear on the desktop, phone, and tablet.
4. Click **Publish** when you're finished



Survey123: Smart Forms



Using Smart Form features in the web designer

Validation:

- Can require questions to be answered
- Can require answers fall within a predefined range

Set Rules:

- Certain types of questions can display additional questions based on answer:
 - Single choice, dropdown, rating, likert scale

DEMO

Survey123: Sharing a Survey



Public

- Great for crowd-sourced data and citizen-science initiatives
- Does not require a login
- Survey can be completed in app and/or in browser, depending on sharing configuration
- Collected data can still be private or only shared with organization members

Not Public

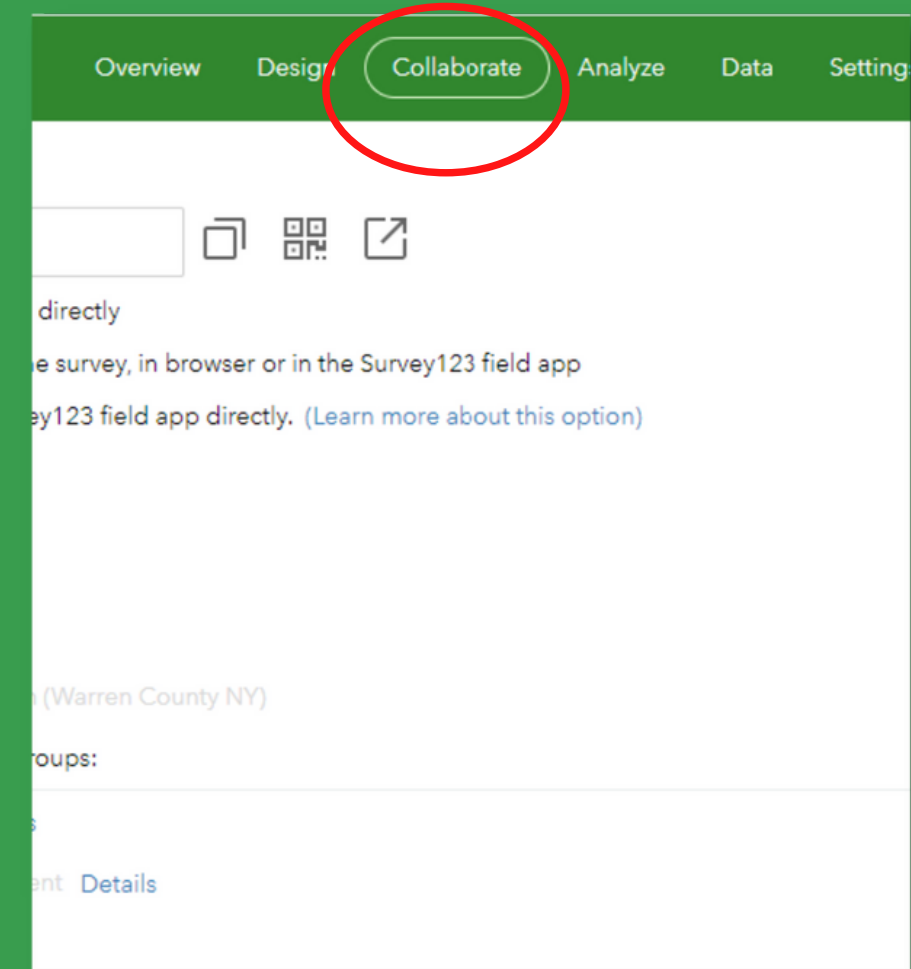
- Requires an ArcGIS account
- Data can be collected in browser with Editor/Creator/Fieldworker license
- Data can be collected in app (needed for offline) with Creator, Fieldworker or Editor+Survey123 license

Survey123: Sharing a Survey



How to Share a Survey in the Web Designer

1. Click on **Collaborate**
2. Decide if you want responders to complete the survey in a browser, in the app, or ask them how they want to open it
3. Decide whether you want to make the survey public or open only to specific group(s) in your organization
4. Decide whether you want responders to only add new records, or be able to add, update or delete existing records
5. Decide if you want to allow a draft to be saved
6. Decide if responders can submit more than one response
7. Set the open/closed status
8. Copy the url and QR code and click Save



Survey123: Sharing a Survey

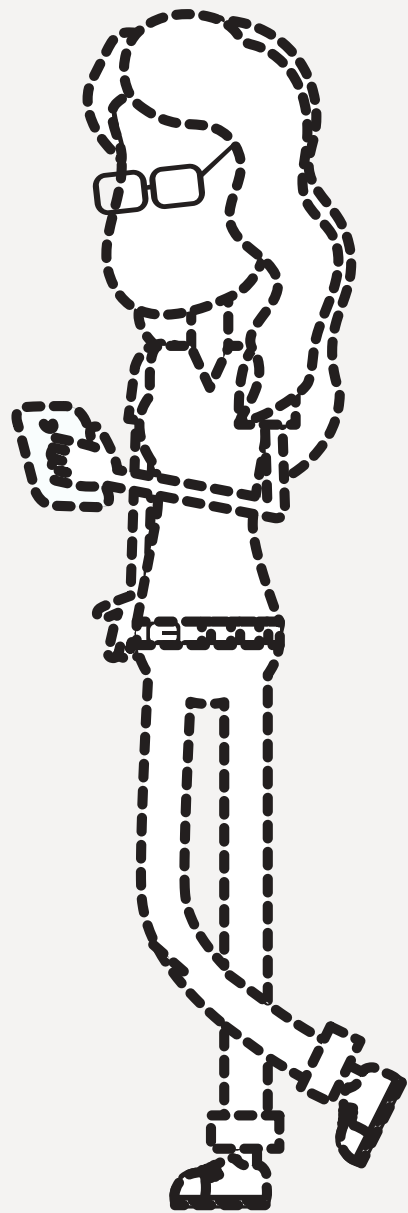
How to Share Survey Results in the Web Designer



A screenshot of the Survey123 Web Designer interface for a survey titled "Report Oiled Wildlife". The interface is divided into a left sidebar and a main content area. The sidebar contains options: "Share survey", "Share results" (highlighted with a red box), "Update survey", and "Group settings". The main content area is titled "Share survey results" and includes a "Link to survey results" field containing the URL "https://arcg.is/1rOP8W0". Below this, there are radio button options for "Who can view results of this survey?": "Everyone (public)", "Members of my organization (ismael Demo Org)", and "Following groups:". The "Members of my organization" option is selected. Below these are radio button options for "What data can viewers see?" and "What can viewers do?". A "Save" button is at the bottom left. Four red callout boxes with white text provide instructions: "1) Open the Share results panel" points to the sidebar; "2) Select who within your organization is granted access to your survey data" points to the "Members of my organization" option; "3) Save" points to the "Save" button; and "4) Share this link with people who need to view and analyze survey results" points to the URL field.

DEMO

Survey123: Collecting Field Data



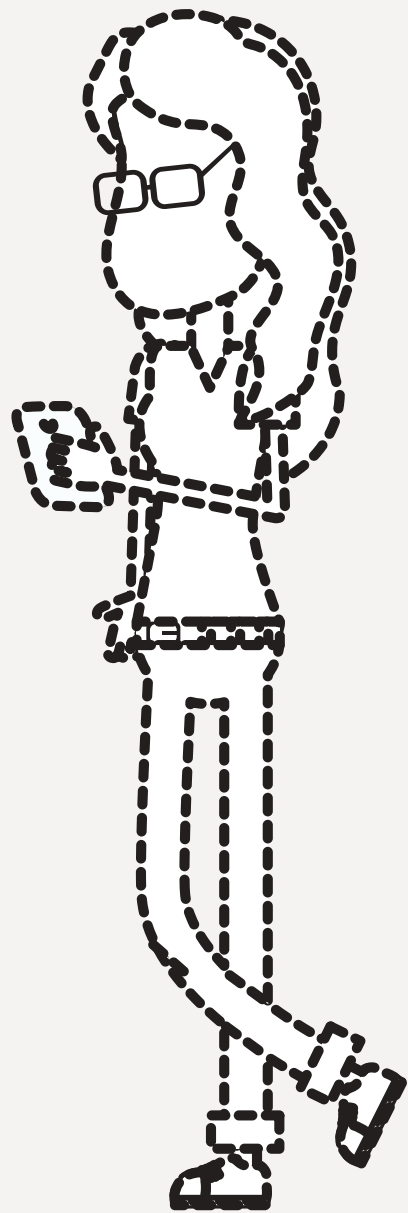
Completing a Survey in a Web Browser

Requires an internet connection. Can be used on desktop computer or mobile device

1. **Open survey by clicking on url or scanning QR code provided by survey creator.**
2. **If survey is not public, login with ArcGIS online username and password**
3. **Complete Survey**
4. **Hit submit**

A screenshot of the ArcGIS login interface for Warren County NY. The page title is "Sign in to Warren County NY" with the Esri logo. Below the title, there is a section for "ArcGIS login" with a username field containing "wc", a password field with masked characters, a "Keep me signed in" checkbox, and "Sign In" and "Cancel" buttons. Below the login section, there is a link for "Forgot username? or Forgot password?". At the bottom, there is a link for "Not a member of this organization? Sign in to your account on ArcGIS Online" and a "Privacy" link.

Survey123: Collecting Field Data

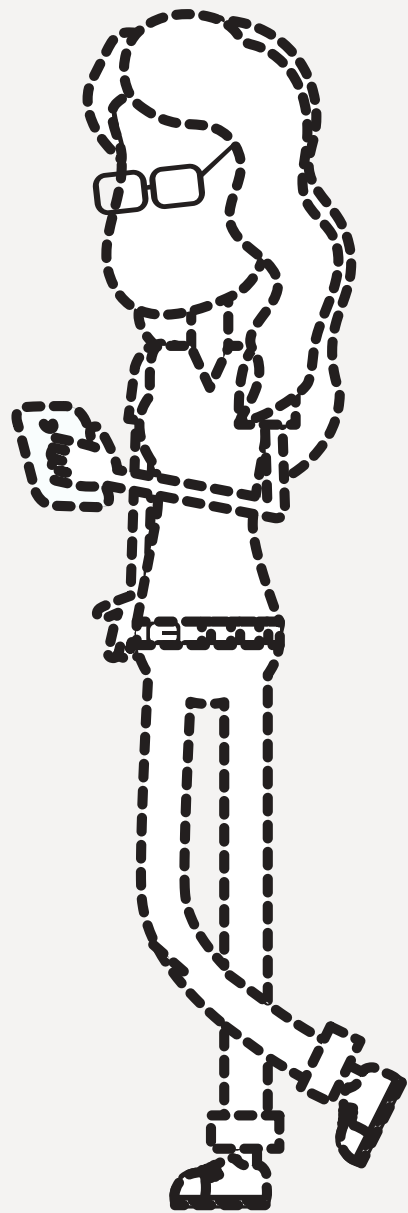


Completing a Public Survey in Survey123 App

1. Install Survey123 App from Google Play or App Store (free)
2. In phone Settings, make sure to enable location when using app and enable camera
3. To open a public survey:
 - a. Click on url provided by survey creator. If the creator has set up the survey to open in Survey123 it will open automatically. If it asks if you'd like to open in browser or app, choose app. OR
 - b. Open app and click "continue without signing in". In search bar, click on QR code symbol and scan QR code for survey provided by survey creator.
4. Complete survey. Click checkmark. Choose to send results now, continue survey, or add to outbox.

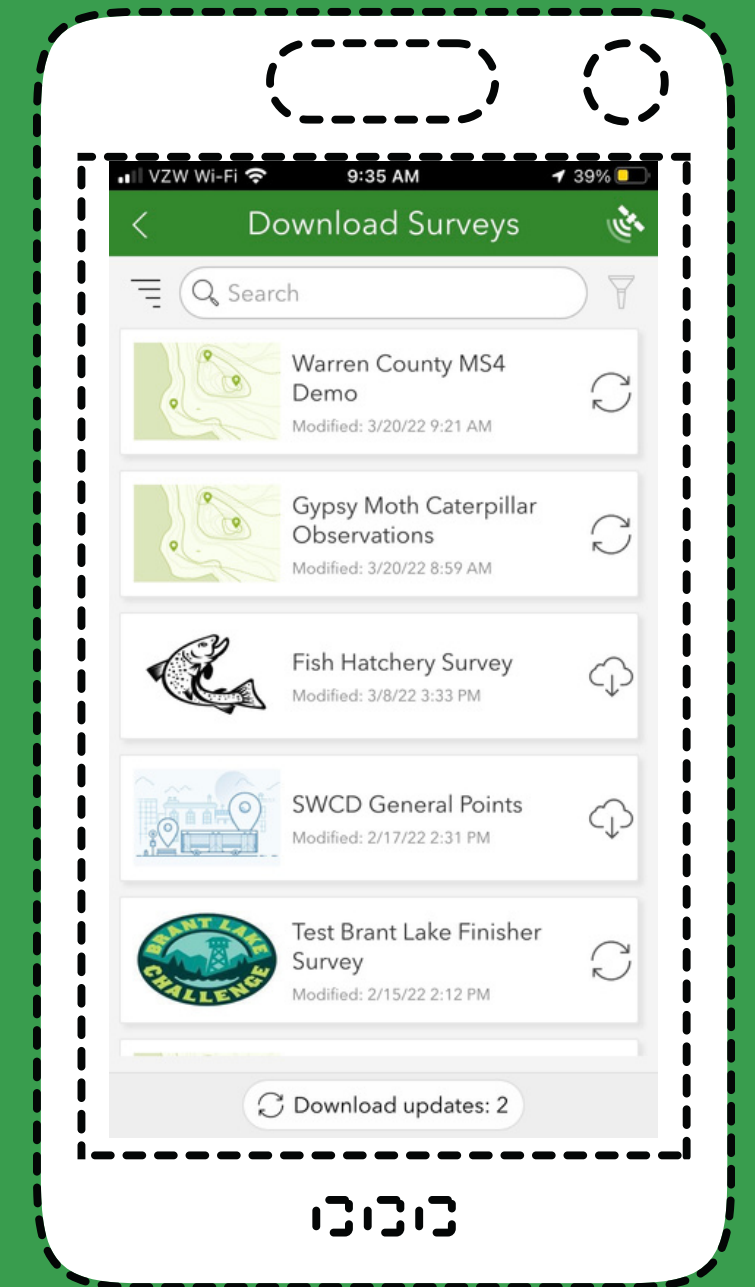


Survey123: Collecting Field Data

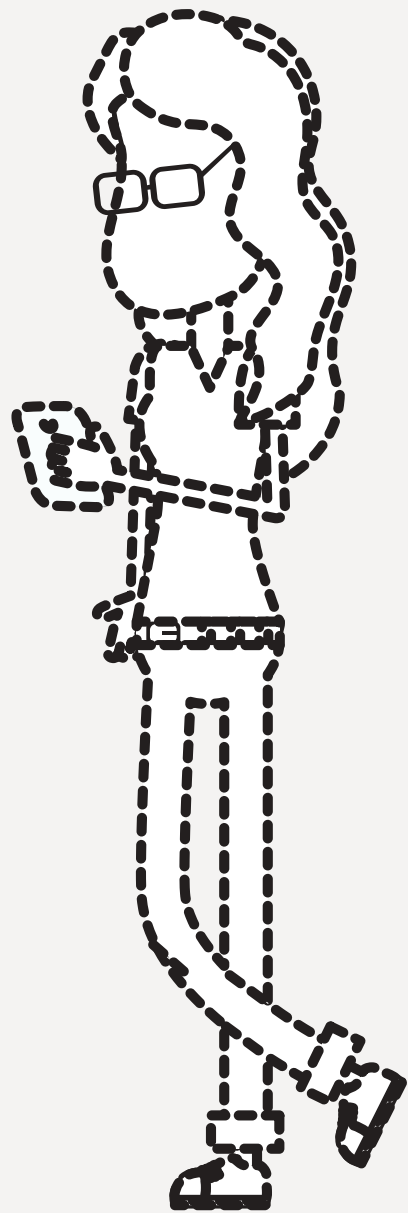


Opening a Non-Public Survey in Survey123 App

1. Install Survey123 App, if not installed, and open
2. Click Sign in with ArcGIS Online and login with your credentials
3. If you have a QR code, you can scan it.
4. If not, click your initials in the upper right hand corner and then click Download Surveys
5. A list of all the surveys you have permission to access will appear.
6. Click the download button on the survey you'd like to download.
7. Click to open the survey

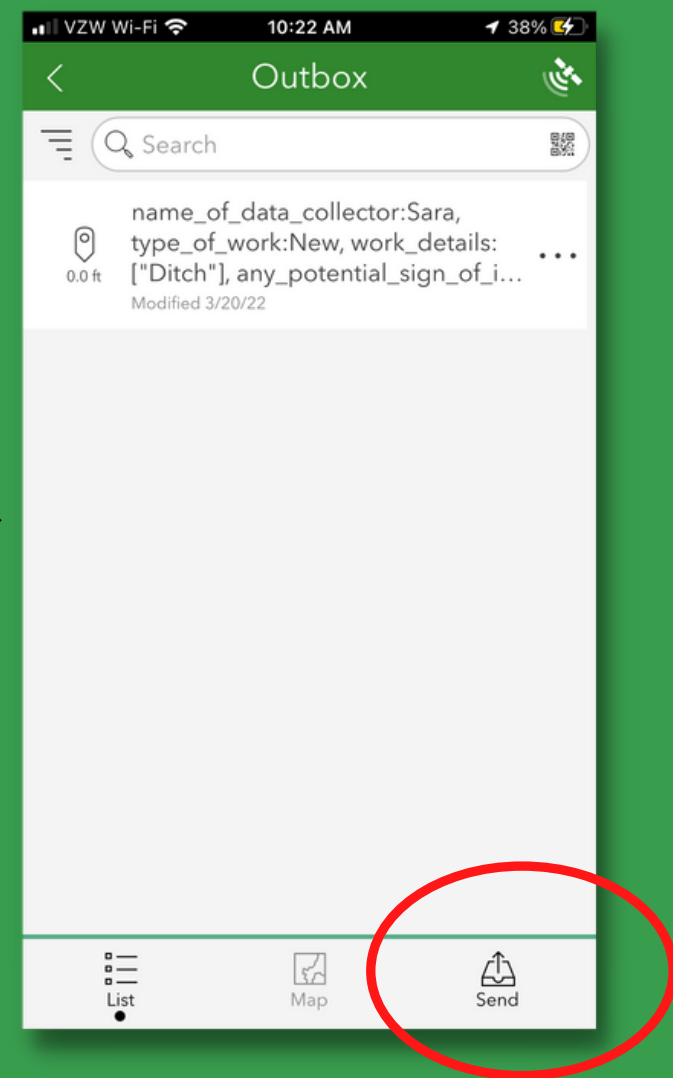
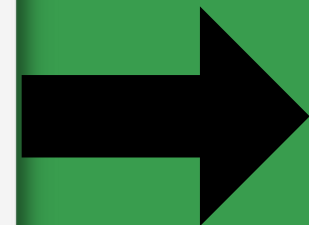
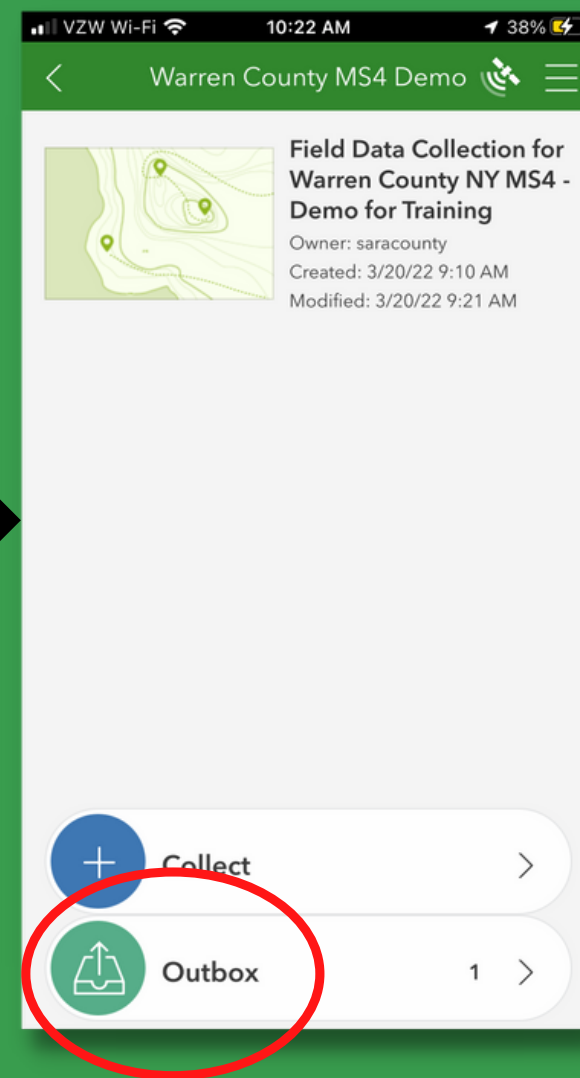
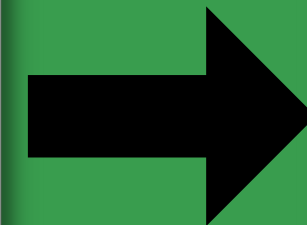
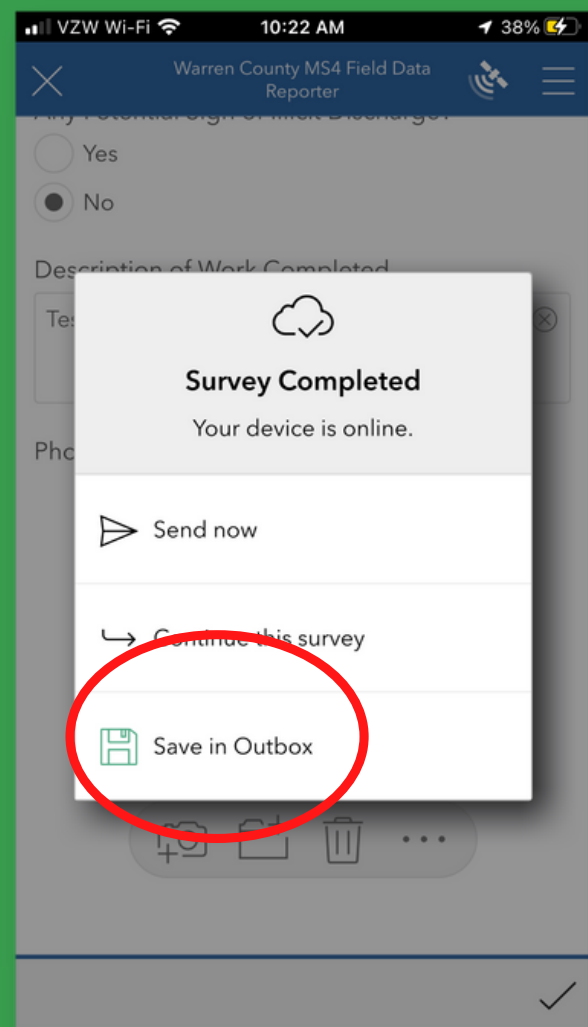


Survey123: Collecting Field Data

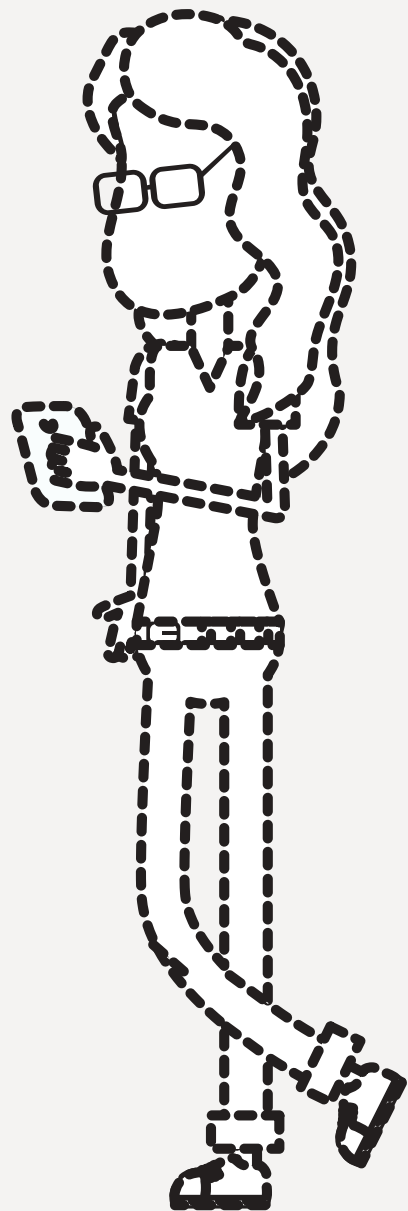


Collecting Data Offline

- Must use Survey123 App
- By default, surveys in app are offline once downloaded
- If survey contains a basemap, download map package with survey
 - instructions: <https://doc.arcgis.com/en/survey123/desktop/get-answers/useofflinebasemaps.htm>

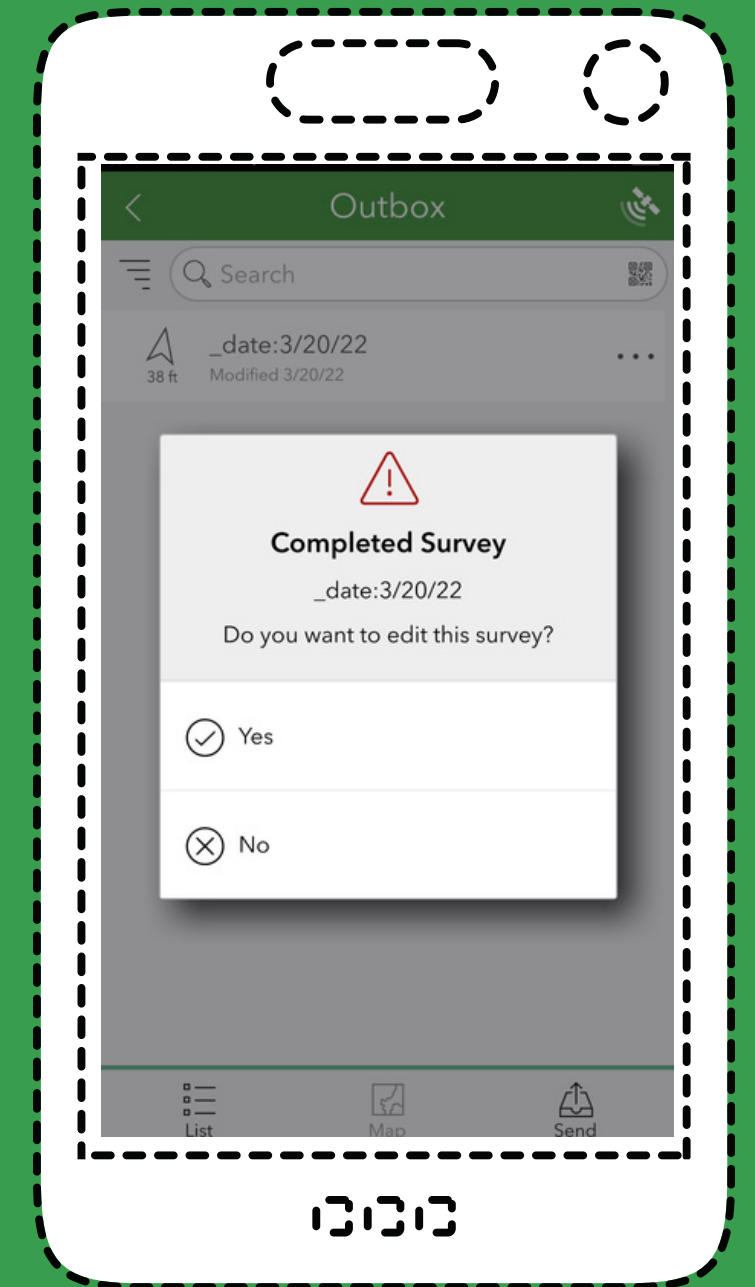


Survey123: Collecting Field Data

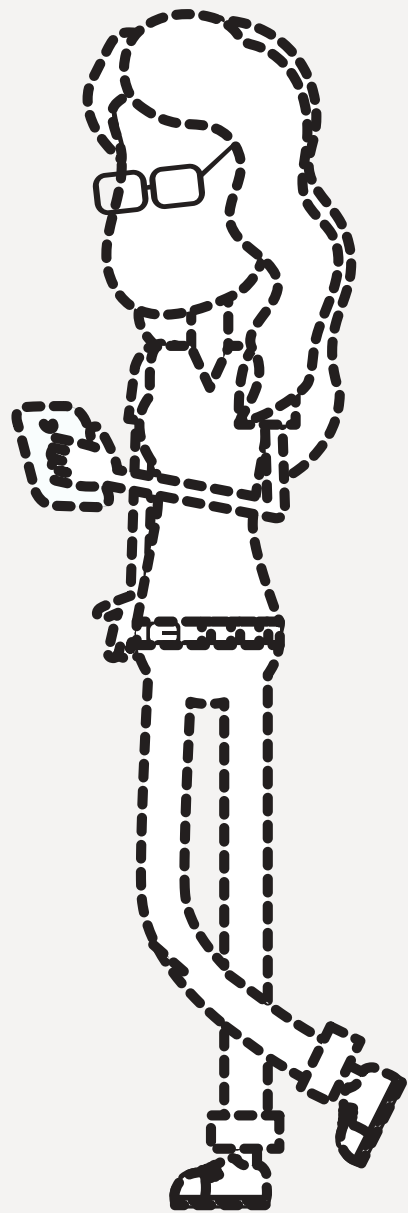


Editing Existing Data in the App

- Data that has been collected but not yet sent and is still in your outbox can be edited
 - Click on outbox
 - Click on record to be edited
 - Confirm Yes you want to edit.
 - Edit and resubmit
- Existing data can also be edited, but the survey must be configured to allow that in Survey123 Connect:
<https://doc.arcgis.com/en/survey123/desktop/create-surveys/prepareforediting.htm>
- Existing editable records will appear in your Inbox. Select them to edit.



Survey123: Collecting Field Data



DEMO



Survey123: Survey Examples

Citizen Science:

Gypsy (Spongy) Moth Observations

<https://arcg.is/11e5DW>

Citizen Traffic Complaints:

Warren County Safe Pace

<https://arcg.is/1XSCzK>

Field Data Collection:

Milfoil Harvest

<https://arcg.is/1WSK4v1>

Field Data Collection:

Long Path Landmarks

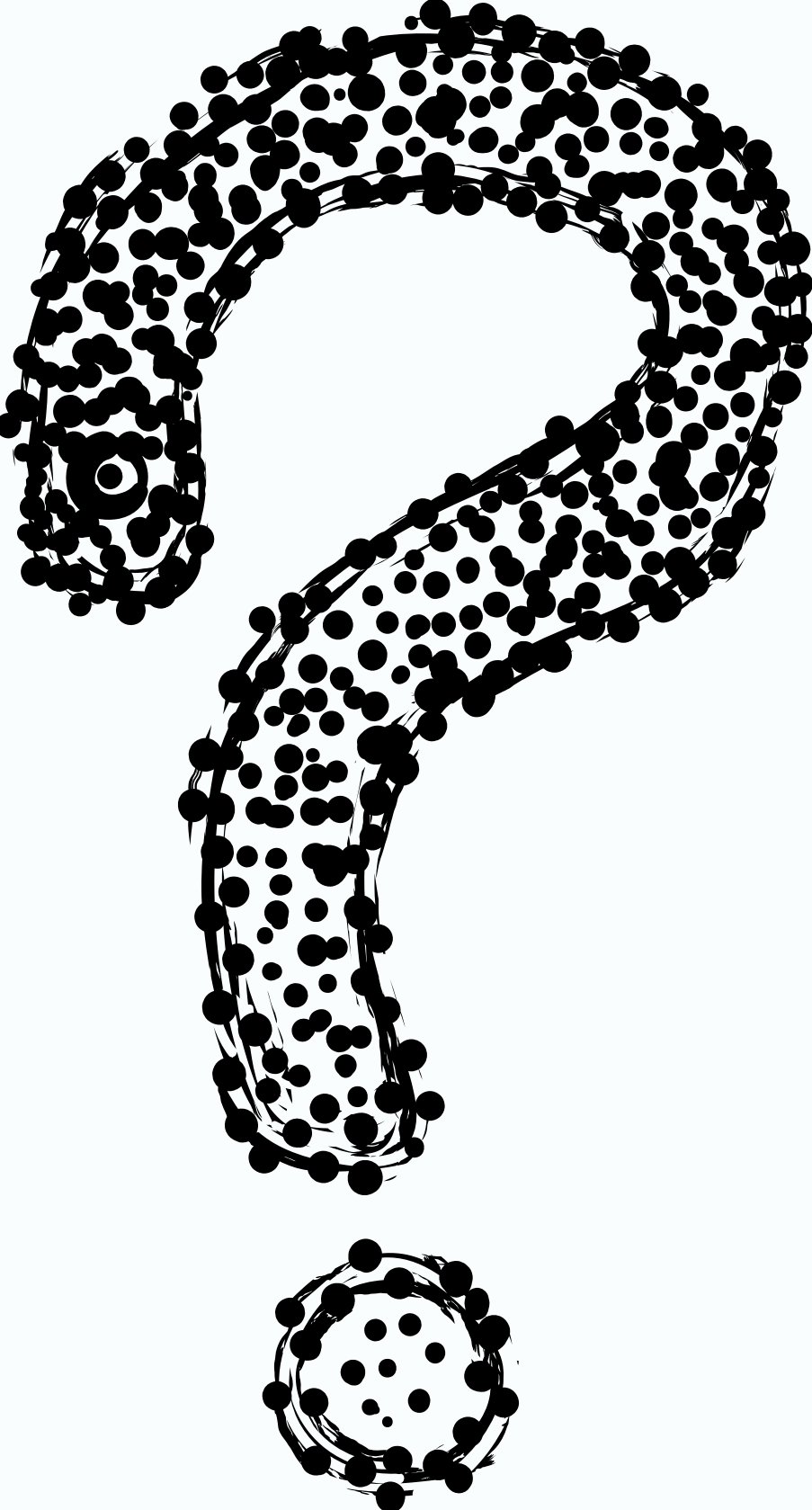
<https://arcg.is/0vafXG0>



**Survey123 at
WC SWCD:**

**Outfall
Inventory.**

Questions so far?



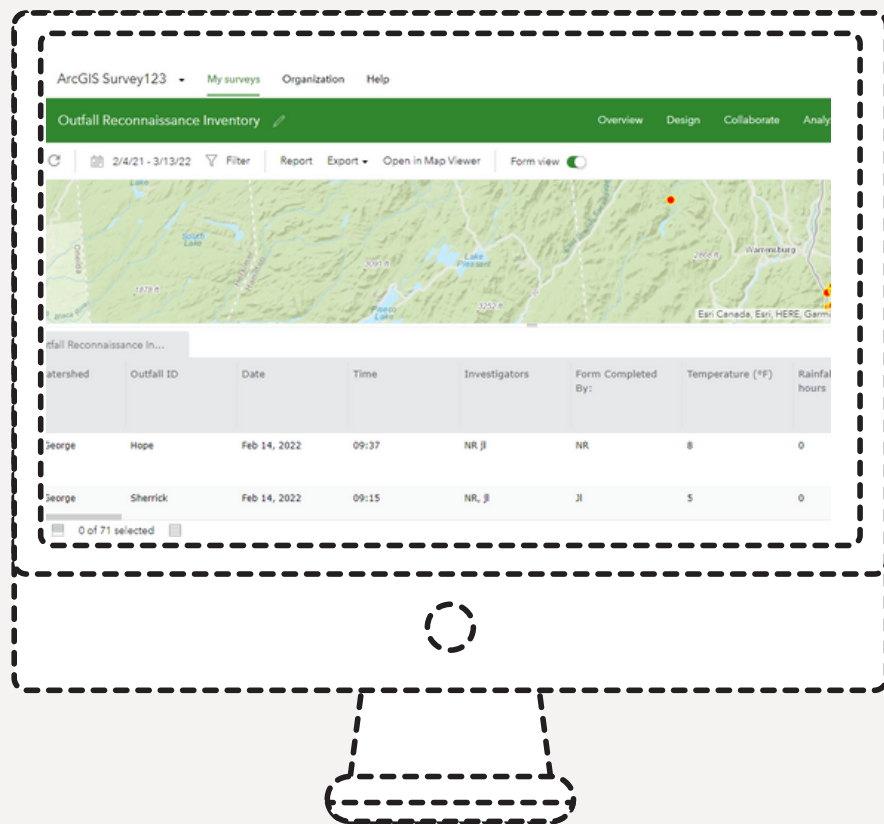
Survey123: Viewing Survey Results

Viewing Collected Data in Survey123

note: you must have the correct ArcGIS Online usertype and be either the survey creator or a member of a group with permission to review the results, or results must be shared publicly

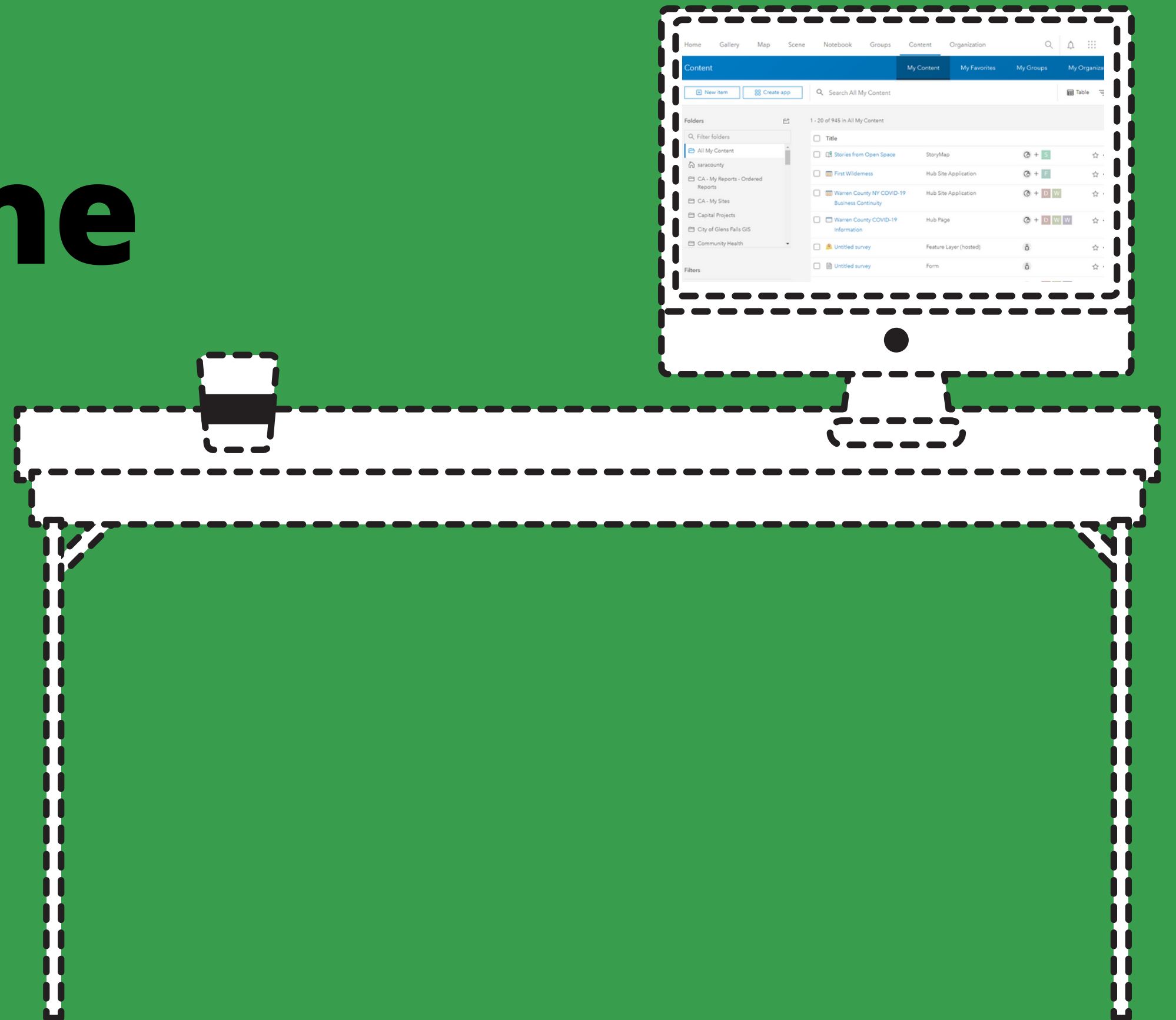
1. **go to survey123.arcgis.com and login**
2. **click on My surveys or Organization. Find the survey you would like to view results for and click on it.**
3. **click on Analyze. Charts and graphs can be viewed and created for various survey questions.**
4. **Click on Data. The data table and map of results can be viewed, exported in a variety of formats, and reports can be created. *Example report:***

https://public.warrencountyny.gov/gis/cip/reports/CIPFunded_WAR182.pdf



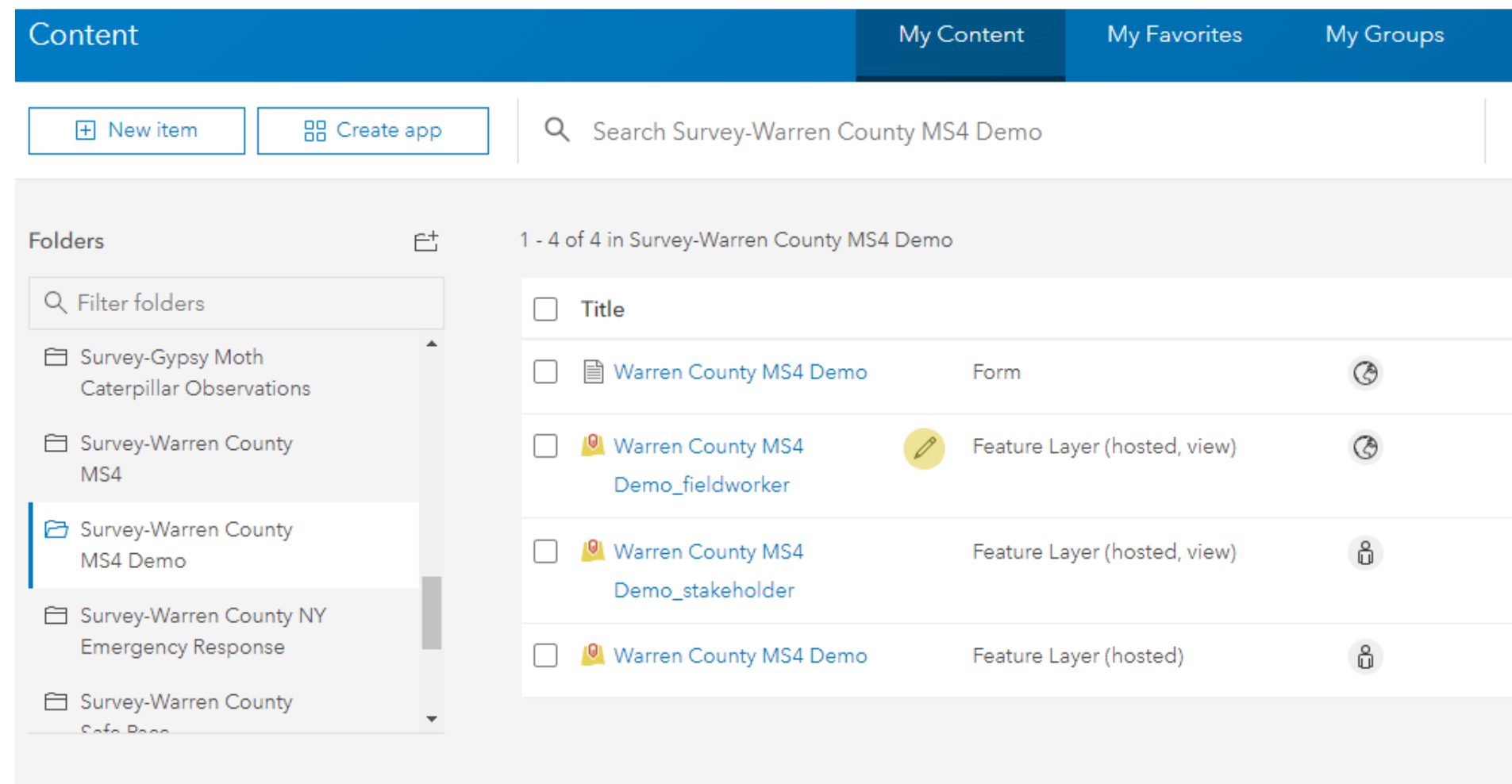
DEMO

ArcGIS Online basics



ArcGIS Online: working with Survey123 data

1. go to arcgis.com and login
2. Click on Content
3. click on My Content (or My Organization if you are working with a survey that has been shared with you. You need to be a Creator level user).
4. In the folders list on the left, find the folder for your survey and click on it to open.



ArcGIS Online: working with Survey123 data

Contents of Survey Folder

1. **A form item:** this is the survey
2. **A hosted feature layer view with a "_fieldworker" suffix** in its name. This item is used by the Survey123 web and field apps to submit data into ArcGIS. Permissions and sharing for this item are controlled via the Share survey panel in the Collaborate tab of the Survey123 website.
3. **A hosted feature layer view with a "_stakeholder" suffix** in its name. This item is created by the Survey123 website when the survey results are shared through the Collaborate tab. This item is used to control access to the survey results through the Survey123 website. If the Share results panel of the Collaborate tab has not been used to share the survey results, this item will be missing.
4. **A hosted feature layer.** This is where the actual data of your survey is stored. This item is created by the Survey123 web designer when the survey is published. **You should never share this item.**

ArcGIS Online: working with Survey123 data

Getting Data Ready to Share in a Map

Do **NOT** use the field worker or stakeholder views to share your survey results in dashboards or web maps.

Do **NOT** use the source survey feature layer either!

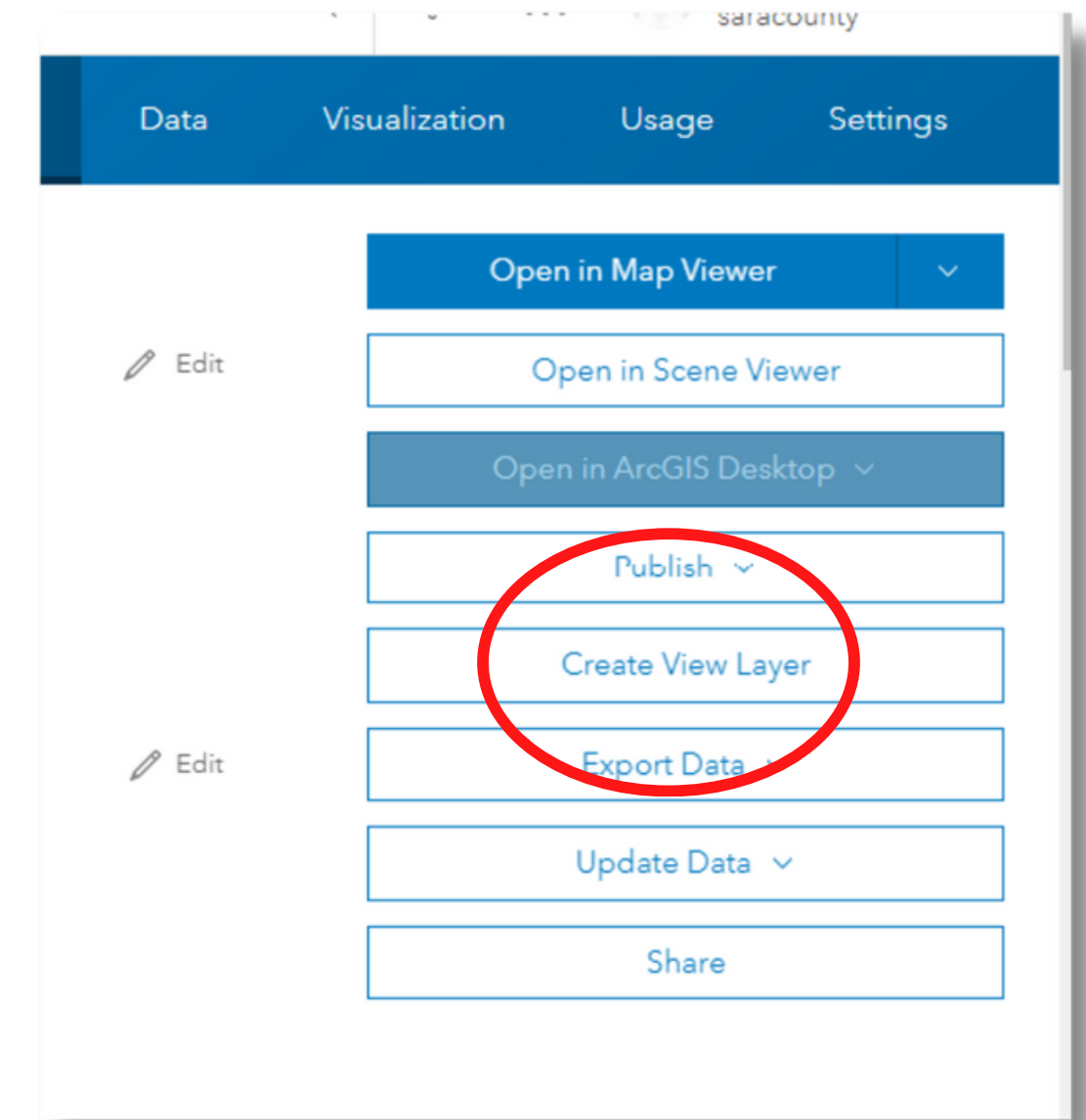
Always **create a NEW feature layer view** on top of the source survey feature layer and configure your view privileges and sharing as appropriate for the needs of your web map, dashboard, etc.

helpful article: <https://community.esri.com/t5/arcgis-survey123-blog/securing-data-in-public-surveys-survey123-web/ba-p/898102>

ArcGIS Online: working with Survey123 data

Getting Data Ready to Share in a Map Cont'd

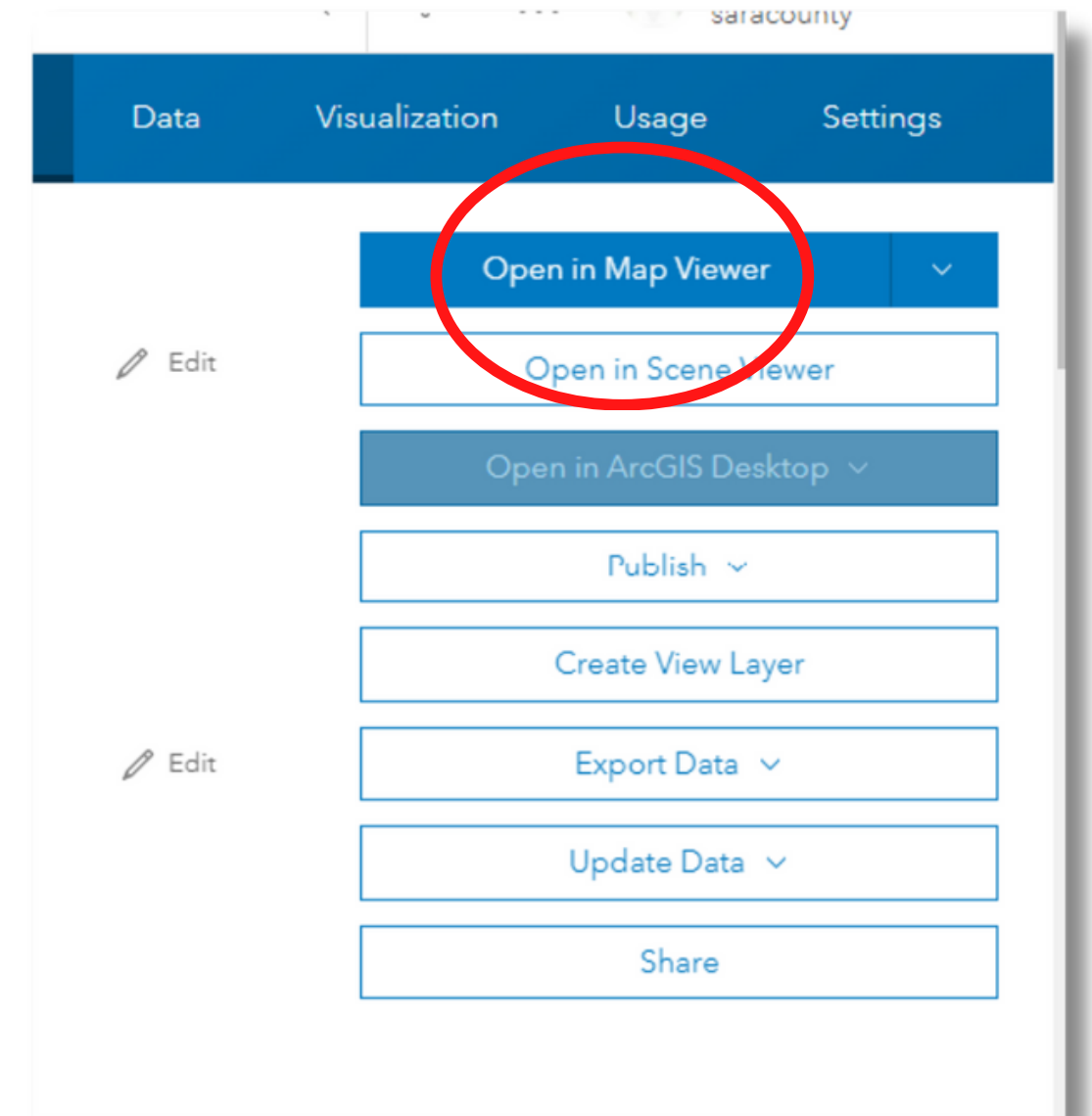
1. Click your survey's feature layer to open the details panel
2. Click Create View Layer
3. Follow the steps to create the layer (filter results if desired, etc)
4. Click on the Share button and set Sharing to whoever you'd like to be able to see the layer



DEMO

ArcGIS Online: making and sharing a map with Survey123 data

1. In Details Panel for newly created survey View layer, click Open Map Viewer
2. Symbolize your data as desired
3. Add additional data and work on map until you're happy with it
4. Save map
5. Click three bars in upper left and go back to Content pane
6. Find new map and click to open Details
7. Save with whoever you would like to have access



DEMO

ArcGIS Online and Survey123: Examples

Simple Map:

Gypsy (Spongy) Moth Observations

<https://arcg.is/890Ln>

Dashboard:

Real-Time Milfoil Harvest Dashboard

<https://www.arcgis.com/apps/dashboards/8802956c84f748eaadc6453e7fc43152>

Hub:

Capital Project Inventory

<https://warren-county-ny-capital-project-planning-warrencountyny.hub.arcgis.com/>

Storymap:

Long Path Landmarks

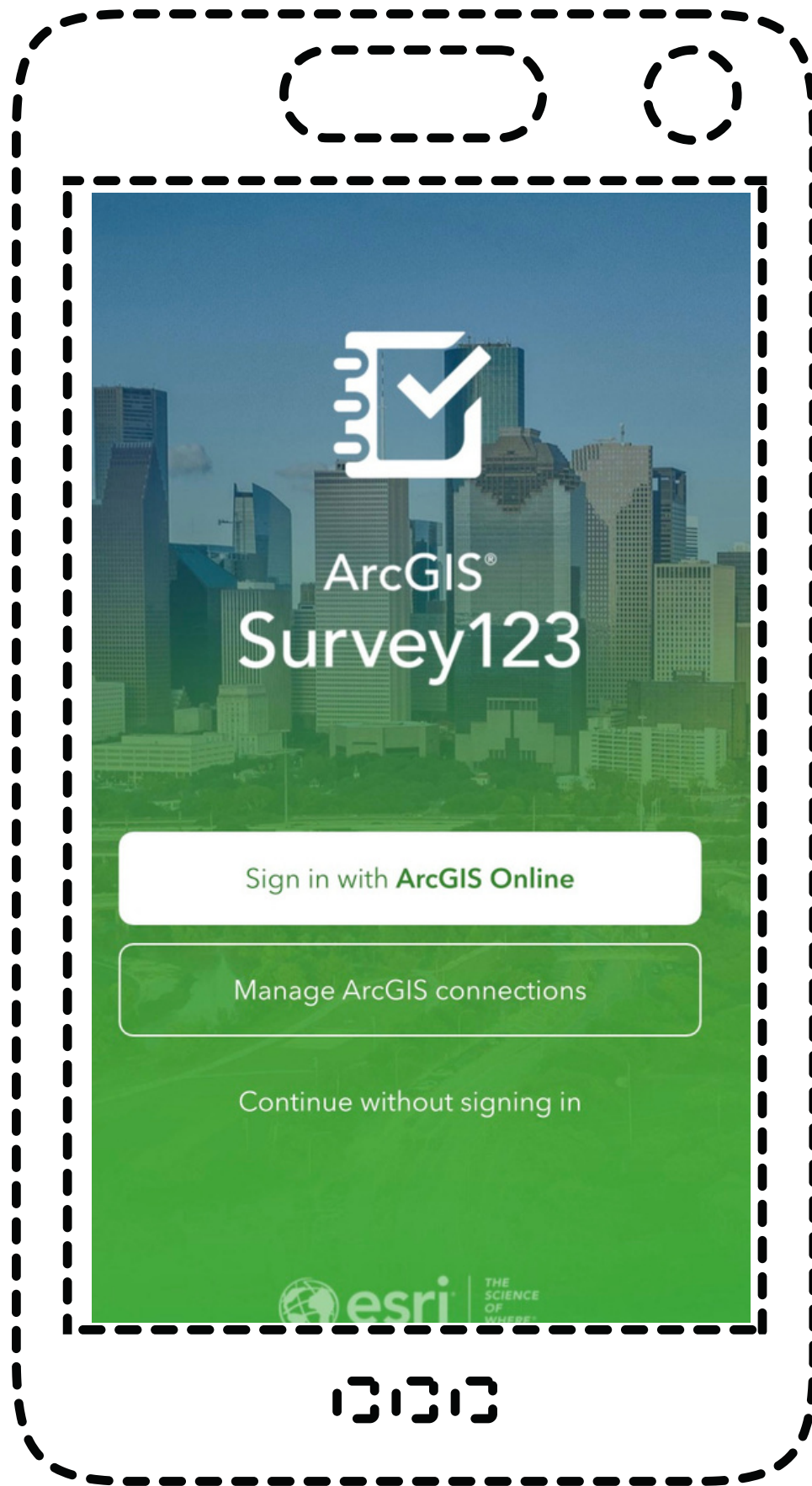
<https://arcg.is/1GyX5q>

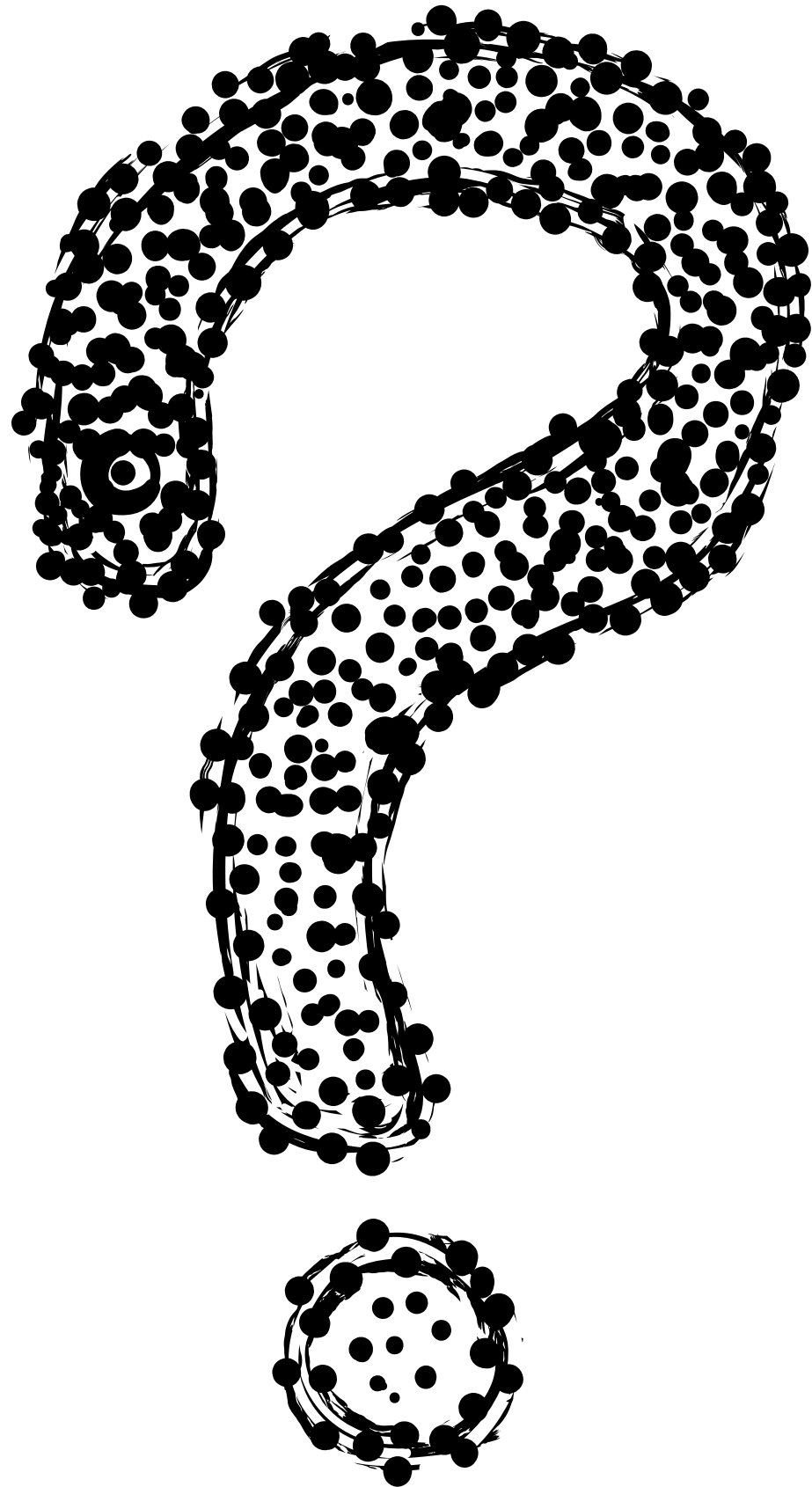


ArcGIS Online at WC SWCD:

Resources

<https://www.esri.com/en-us/arcgis/products/arcgis-survey123/resources>





Questions?

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