Do-It-Yourself Geo Apps MOOC

Exercise

Gather and Share Smart Community Feedback

Section 3 Exercise 1

April 2, 2021

esri
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Gather and Share Smart Community Feedback

Instructions

Use this guide and ArcGIS Online to reproduce the results of the exercise on your own.

Note: ArcGIS Online is a dynamic mapping system. The version that you will be using for this course may be slightly different from the screen shots you see in the course materials.

Time to complete

Approximately 50-60 minutes

Technical note

To take advantage of the web-based technologies available in ArcGIS Online, use the latest version of Google Chrome, Mozilla Firefox, Apple Safari, or Microsoft Edge. Other browsers may not display your maps and apps correctly.

Introduction

You heard about smart communities and crowdsourcing to learn from citizens in an area. Now you will learn how to gather and share community feedback yourself. You will create two items:

1. A web data collection form, using ArcGIS Survey123
2. A viewer app to display the crowdsourced data, using ArcGIS Dashboards

ArcGIS Survey123 (https://bit.ly/2bLewJ1) allows users to enter data into a smart form, which adds locations and information to a hosted feature layer. This layer can be displayed in a web map for analysis and further editing. Smart forms are a great way to crowdsource data; they are intuitive and you can display the results in a web app.
ArcGIS Field Maps (https://bit.ly/3tpvMc2) provides field data capture, location tracking and the ability to find and update assets and locations within areas of interest using online or offline workflows. ArcGIS QuickCapture (https://bit.ly/3eGwi19) also provides a simple solution to capturing data while in a moving vehicle.

ArcGIS Dashboards (https://bit.ly/37CoOq7) is a good app for displaying and sharing crowdsourced or other field data, especially more dynamic data, complex data, or real-time data. Dashboards are customizable, with options for elements such as charts and graphs.

Remember the basic workflow: Start with a web layer, make a web map, and then make a web app.

In this exercise, you will gather the data for your web layer by crowdsourcing data from other students.

Part I - Guided

The exercises in Sections 2 through 6 are split into two parts: Guided, which provides step-by-step instructions; and Do-It-Yourself, which allows you to explore further and build your own geo apps.

Step 1: Explore a crowdsourcing survey

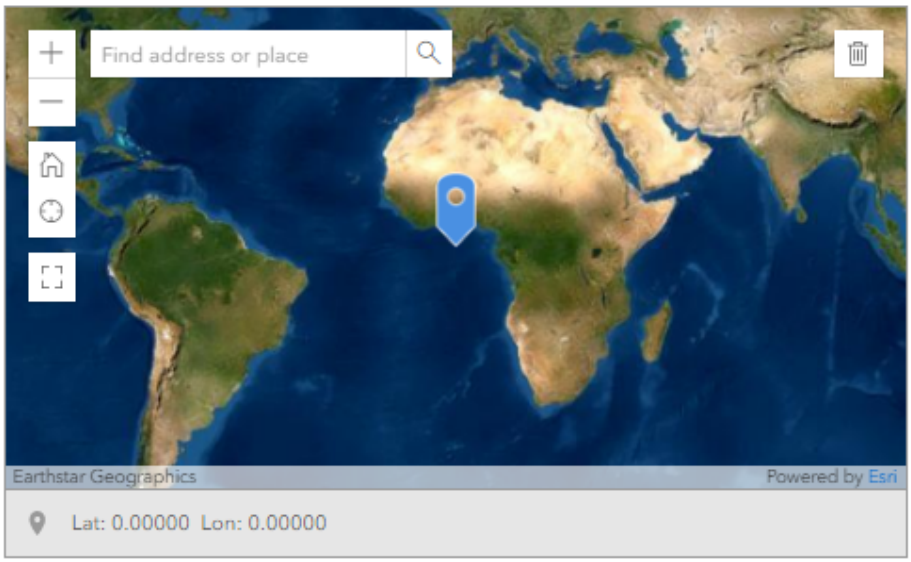
First, you will examine a simple survey that uses ArcGIS Survey123 to collect crowdsourced data.

Survey123 is a survey tool embedded in ArcGIS Online and ArcGIS Enterprise. It is easy to create a survey to collect data, including location, using a desktop app or a web app. Users can take surveys in a web browser or on their mobile devices with the Survey123 app. Because Survey123 automatically creates the web layer for you, it is easy to analyze the results in a map and create a web app from the map. First, you will look at an example of a survey. Later, you will create your own.

a. In your favorite web browser, go to https://arcg.is/0qqzXj to view the example survey.

Set your community location*

Pan and zoom the map as needed to show the location of your community.



Would you describe your community as smart?*

Rate your community on how well you think it is taking advantage of technology to poll or inform its citizens.

Strongly disagree | Disagree | Neutral | Agree | Strongly agree

Do you feel well-informed by your community?

Good communication helps you feel informed on issues, rules, and questions, via any media including websites or web apps.

-Please Select-

How likely would you be to use a web or mobile app to give feedback to your community government?

Very likely | Somewhat likely | Neutral | Somewhat unlikely | Very unlikely

Submit

b Fill out the survey about your community.

The results of the survey will be used to create a web app that will show citizen perceptions of smart communities around the world.

c At the bottom of the survey, click Submit.

Along with your scores, you have just added a location point to a feature layer. If you were to use that layer to make a web map, you would be able to view all the data that had been submitted.

Now that you have seen how a Survey123 form can be used to collect data, you will build your own Survey123 form.

Step 2: Create a Survey123 form to collect data

Ready to take the next step?

Make sure that you have completed step 1 of *Section 1 Exercise 1: Find Amenities in Denver, CO*. You'll need to use your provided course ArcGIS credentials to complete all of the exercises in this course.

The Survey123 form will create the hosted feature layer that you need to show the results in a web map. Feature layers can be added to a map in ArcGIS Online, so you can symbolize, analyze, and combine the layers with basemaps and other feature layers to create great-looking web maps. It is a best practice to create geo apps from your web map because geo apps are better for sharing geographic data with or collecting data from the general public.

The following table describes how layers, web maps, and web apps can be shared in ArcGIS Online.

Groups you belong to	Sharing with specific groups restricts access to a smaller, more focused set of people. Members of the group can be from the same organization or different organizations.
Your organization	Sharing with your organization means only members of your organization can access your item.
Everyone (public)	Sharing with everyone makes your item public; anyone who has access to ArcGIS Online, including anonymous users, can find and use your item.

After creating a simple survey and a web map to display the feature layer, you will create a web app to share the survey results.

a. Open a new private (or incognito) web browser tab or window.

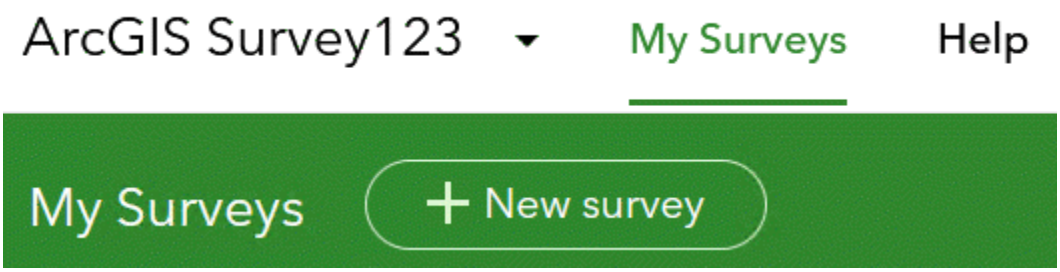
We recommend that you open a private or incognito browser window whenever you need to work in ArcGIS Online to help prevent conflicts with your accounts.

b. In the browser, go to survey123.arcgis.com.

c. Click Sign In, and enter your course ArcGIS credentials to sign in to Survey123.

Note: Step 1 of the Section 1 Exercise 1 PDF explains how to determine your ArcGIS credentials (user name and password) for this course. If you have trouble signing in, please go to the Help tab in the MOOC platform.

d. If necessary, at the top, click My Surveys.



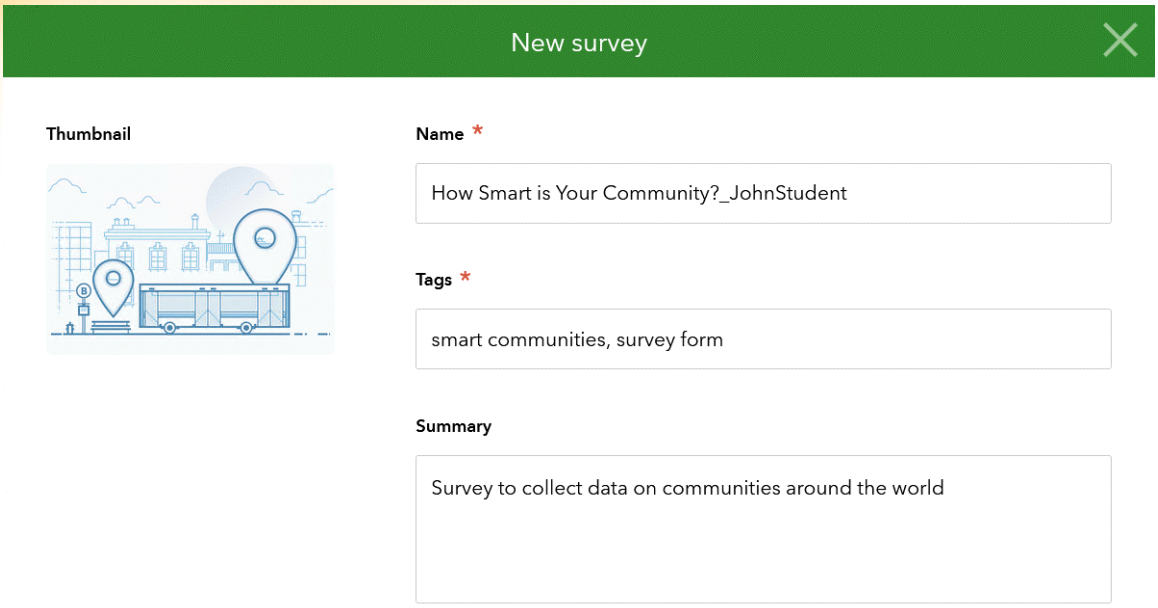
e. Click New Survey.

f. In the New Survey dialog box, under Using The Web Designer, for Blank Survey, click Get Started.

Note: You will use the web designer for this exercise rather than Survey123 Connect, which is a desktop application that can be used to create survey forms. If you accidentally clicked Survey123 Connect, at the top-left corner of the New Survey page, click New Survey. You can also create a new survey using a template survey that comes with preconfigured questions to satisfy an industry-specific workflow.

g. Fill in the New Survey fields as follows:

- Name: **How Smart is Your Community?_<your name>**
- Tags: **smart communities, survey form**
- Summary: **Survey to collect data on communities around the world**



h Click Create.

You are directed to the survey builder, which will help you configure your app. On the right side of the builder are the question types you can add to your survey and then edit. On the left is the survey form preview, which will show your changes dynamically.

First, you want to add the ability for users to enter their location.

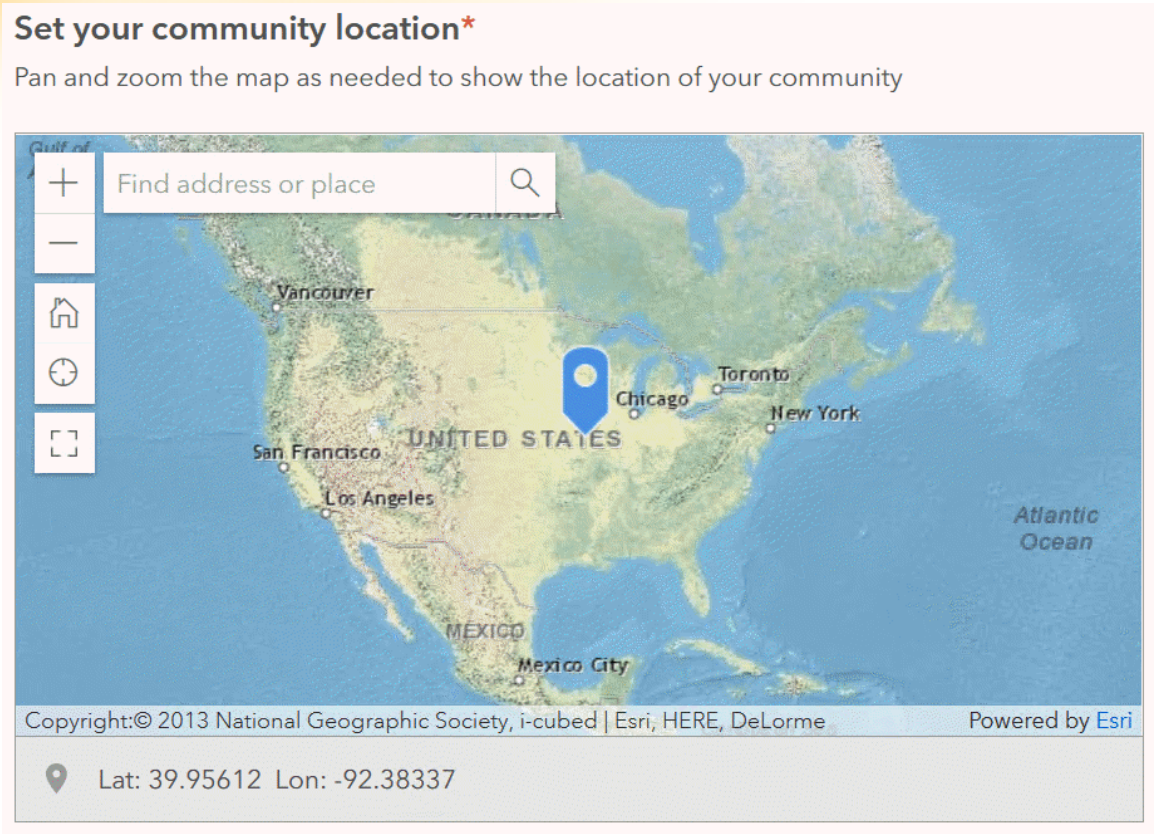
i On the right, verify that the Add tab is selected.

j From the list on the right, click Map to add the first question to the survey.

After adding the question, the Edit tab is activated on the right.

k Fill in the survey fields as follows:

- Label: **Set your community location**
- Hint: **Pan and zoom the map as needed to show the location of your community.**
- For Map and Extent, click the down arrow to choose a basemap of your choice; optionally, pan and zoom on the map to update the default extent.
- For Validation, check the box to make this question required.



l. At the bottom of the Edit tab, click Save.

It is a good idea to save frequently.

m. Next, click the Add tab to add another question.

n. Click Likert.

The Likert question is automatically added below your Map question. You can also add a question by clicking the question type and dragging it onto your form.

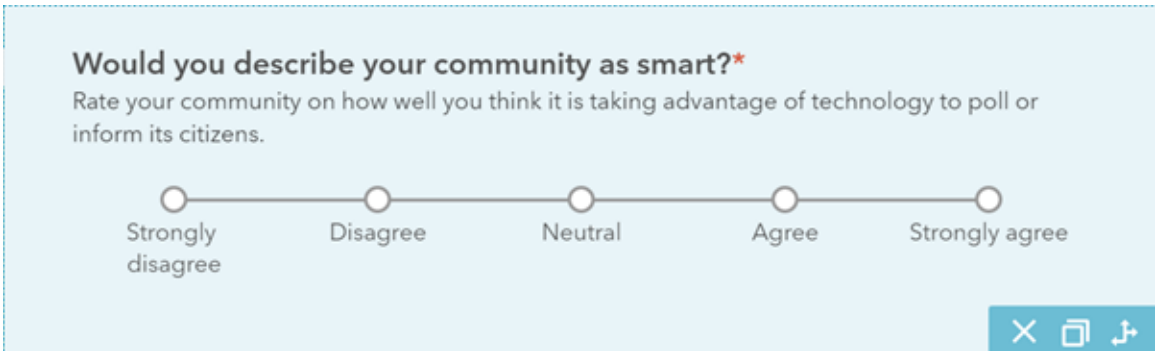
A Likert scale is a popular method in surveys and questionnaires for measuring opinions along a preset range, typically a rating of how much the taker agrees or disagrees with a statement.

o. In the Edit tab for the Likert question, fill in the survey fields as follows:

- Label: **Would you describe your community as smart?**
- Hint: **Rate your community on how well you think it is taking advantage of technology to poll or inform its citizens.**
- For Validation, check the box to make this question required.

You should enable the required option for any question that collects information you consider important.

For Likert questions, you can also choose the number and wording of your response items. For this question, you will leave Max. Value set to 5 and accept the default text for Items.

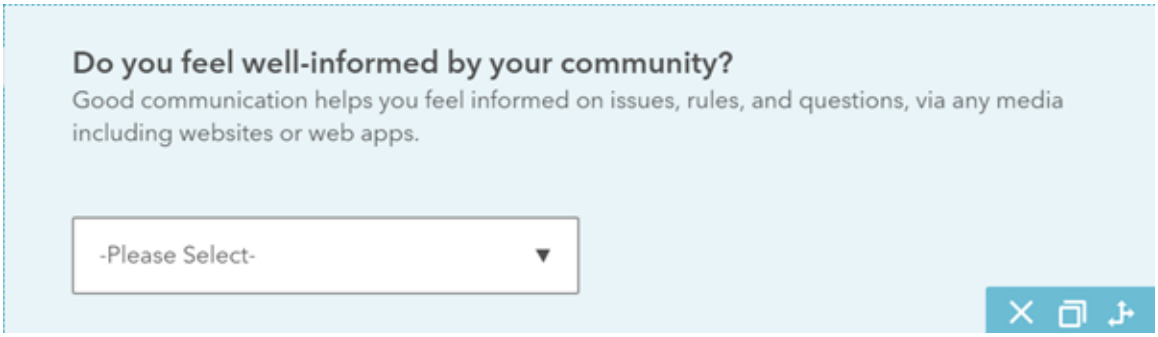


p. At the bottom of the Edit tab, click Save.

q. Next, add a Dropdown question to your form, below the previous question.

r. Fill in the survey fields as follows, and then click Save:

- Label: **Do you feel well-informed by your community?**
- Hint: **Good communication helps you feel informed on issues, rules, and questions, via any media including websites or web apps.**
- Choices: For the first choice, change the text to **Yes** and, for the second choice, change the text to **No**; for the third choice, click the Remove button ⊖ to delete it.



s. Add another Likert question to your form, below the previous question.

t. Fill in the survey fields as follows:

- Label: **How likely would you be to use a web or mobile app to give feedback to your community government?**
- Items: Change the default text to **Very likely, Somewhat likely, Neutral, Somewhat unlikely, Very unlikely**

u. At the bottom of the Edit tab, click Save, and then click Preview.

The preview shows you how your form will look to users. You can click the buttons at the top right to preview how the form will look on a desktop, phone, or tablet. You cannot actually complete the survey in the preview; you must publish the survey first.

v. After you are finished previewing the survey, at the top right, click the Close Preview button.

w. If you found any errors during the preview, fix them now.

Considerations for crowdsource survey design

Your survey uses a fairly simple data model with just a few questions. When you create your smart form for crowdsourcing survey responses, you can add as many fields as you want, depending on the kind of data you need to collect. Your smart form can contain skip logic, supply default responses to questions, and support multiple languages. You can also add dependent questions, which, according to rules that you set, will only appear based on the answer to another question. You must balance the length of the survey with the survey taker's

willingness to complete it. The longer the survey, the more likely it is that some questions will not get answered.

When creating a survey, keep the following factors in mind:

- **Data model considerations**: When creating your data model, consider what you are going to do with the data. Will you want to filter the data? Analyze it? Symbolize it based on a field? Show the results in a geo app? Display high-level results in a dashboard for executive briefings? These factors, along with your survey takers' experience, are important considerations when collecting data.
- **Question considerations**: When creating the questions for your survey, keep in mind who the results will be shared with. There are security and privacy considerations to remember. For example, you should not collect any personally identifiable information, such as full name, address, and so on, if the results will be shared in a publicly available dashboard, website, or report.
- **Survey details**: Lastly, before creating your survey, it is important to plan out the survey details, such as the purpose, desired results, and all questions. You are allowed to edit some details after a survey is published, but you cannot edit schema items such as data field names and types. Edits made after people have started taking the survey can impact or invalidate any results you have already received.

Step 3: Publish and view your data collection app

Now you are ready to publish your survey.

a. After you are done editing and previewing the form, at the bottom right, click Publish.

b. When asked if you are sure, click Publish again.

Note: If you get an error message, click Save, and then click Publish again.

c. After publishing completes, at the top, click the Collaborate tab.

You can now set the sharing options for your survey.

Currently, no one except you can submit data to the survey. Normally, you would share the survey to a group, your organization, or everyone in the general public to begin collecting data. Sharing from the Share Survey tab on the left shares a view of the survey appropriate for a field worker, who would submit surveys. Sharing from the Share Results tab shares a view of the survey appropriate for stakeholders who need to view the results but will not edit the layer by submitting surveys.

You would use the Share Survey tab to send the survey form link to people to take the survey. You would use the Share Results tab to share the survey results, for example, by adding it to a web map and making a dashboard from that map.

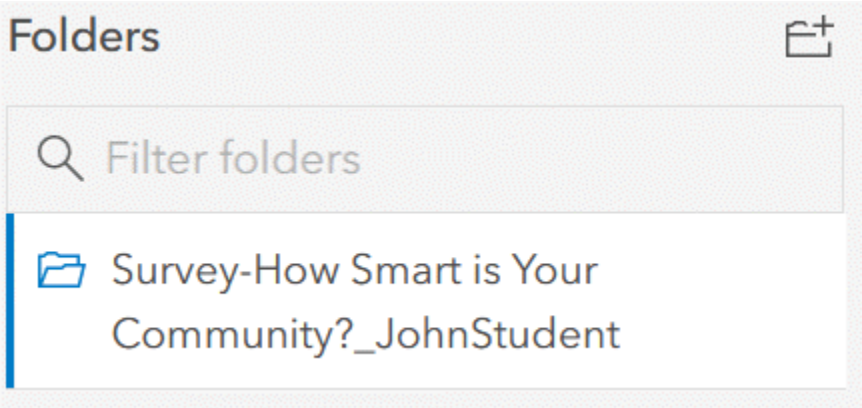
For now, only you need to be able to take this survey, as a test. When you create a web map and geo app later in this exercise, you will be provided with an example survey that will have already been shared to Everyone. That example survey will have more data for you to view.

d. To take your survey, at the top left, next to ArcGIS Survey123, click the down arrow and choose ArcGIS Online.

e. If necessary, sign in with the credentials for this course.

f. Click Content.

g. On the left side, under Folders, click Survey-How Smart is Your Community.

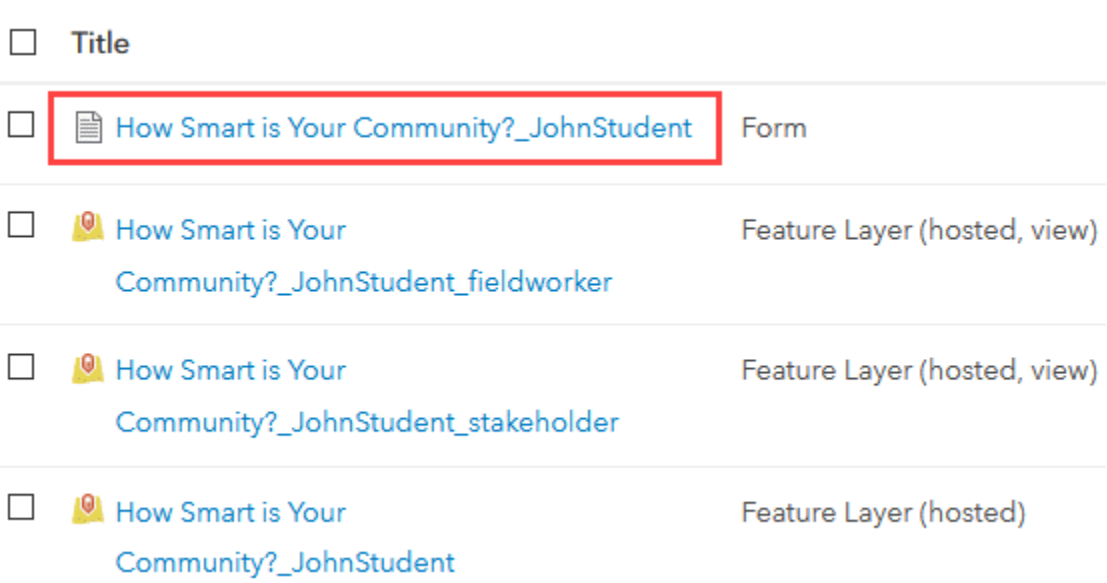


h. In the Survey folder, you will see the survey results layers. In addition to the survey form, there is a hosted feature layer and two other layers:

1. A view of the survey results hosted feature layer, named _fieldworker. This layer is used for sharing the survey form so that other people may take your survey.
2. A view of the survey results layer, named _stakeholder. This layer is used if you want to share your survey results.

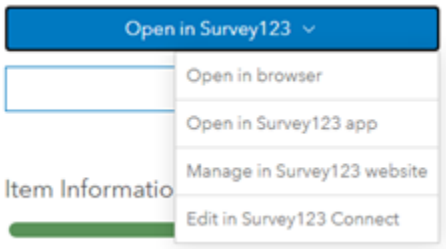
Here is a link with more information on views (https://bit.ly/2MGM1wR).

i. On the right, click the survey item with the type Form.



The item page for your survey opens. From here you can update the metadata, share the survey, return to Survey123 to manage the survey, or open the survey and submit a response.

j. On the right, click Open In Survey123 and choose Open In Browser.



k. Complete your survey, and then submit your results.

l. In the browser tab, return to survey123.arcgis.com.

m. If necessary, click My Surveys, and then locate your survey.

n. Click the Analyze button.

The current results of your survey are displayed. There is a chart for each question, with a table below displaying the answer counts and percentages.

o At the top of the page, click Data to visualize your survey results on a map.

Your survey only has one result, so the graphs and map do not have much data to show.

Step 4: Edit and save a web map

For each user who takes your survey, another point feature is added to the feature layer. Because your survey does not have many results yet, you will use the class example survey to make a map in ArcGIS Online.

a From ArcGIS Survey123, return to ArcGIS Online.

Hint: At the top left, next to ArcGIS Survey123, click the down arrow. Click ArcGIS Online and, if necessary, sign in using your course credentials.

b At the top right, click the App Launcher button .

c From the list of apps displayed, choose Map Viewer.

Note: If you do not see Map Viewer, click Map Viewer Beta.

d If necessary, on either the Map Viewer Is Out Of Beta or the Welcome To Map Viewer message, click OK.

e On the Layers panel, click Add Layer.

f Under Add Layer, click the My Content down arrow and choose ArcGIS Online.

Next, you will search ArcGIS Online for a feature layer associated with the class example survey. When searching for items, you can search a specific field, such as owner, title, or tags. The owner of the class survey is EsriTrainingSvc, so you will use the search term owner:EsriTrainingSvc to limit the search results to content published by EsriTrainingSvc. You can use advanced search (https://bit.ly/30N1vqN) to quickly find ArcGIS Online items.

g In the Search For Layers field, type **How smart is your community owner:EsriTrainingSvc** and press Enter.

Note: The search term **owner:EsriTrainingSvc** *is case sensitive.*

Remember, the _fieldworker layer is used for sharing the survey form so that other people can take the survey, whereas the _stakeholder layer is used for sharing your survey results.

h Add the How Smart is Your Community?_stakeholder layer to the map.

i At the top of the Add Layer pane, click the back button < to return to the Layers pane.

You may need to zoom out to see all of the features in the layer. You could change the basemap or point symbology to display the data differently in the web app. But for now, you will just turn on clustering. Clustering is a method of aggregating data to simplify display by grouping numerous nearby points into fewer larger points. Cluster points depend on the map scale, so as you zoom in to a map that is using clustering and ground distances get smaller, symbols are broken out into multiple smaller symbols.

j On the Settings toolbar on the right, click Clustering.

k In the Clustering pane, for Enable Clustering, turn the option on.

After enabling clustering, you can configure how your clusters appear. Several clustering enhancements (https://bit.ly/39pSdFf) were added in the June 2020 release of Map Viewer.

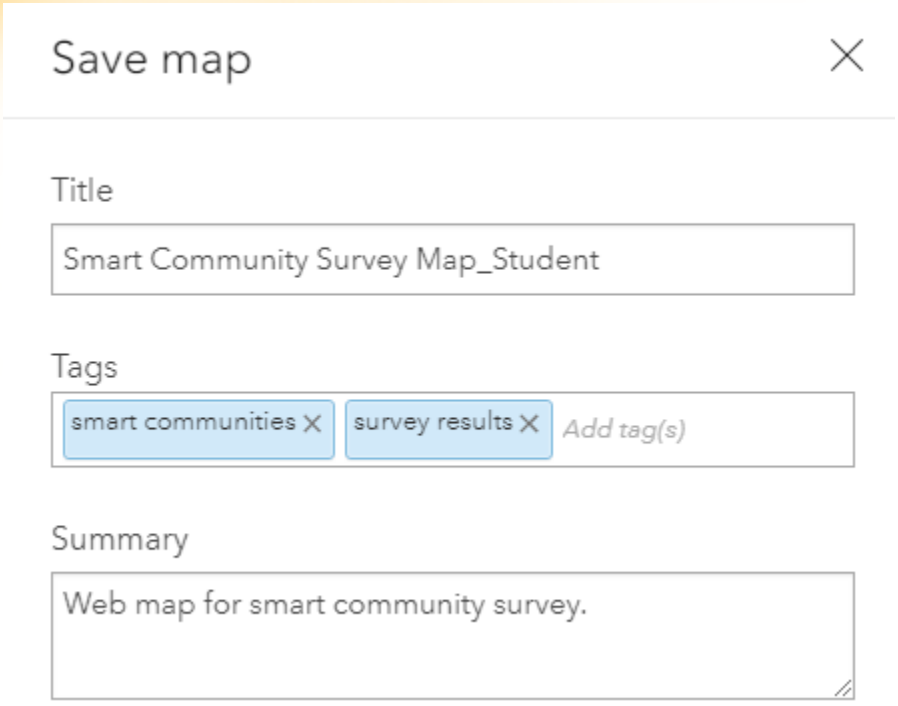
l Below Enable Clustering, explore the different options.

Now you will save the map to use it in a web app.

m From the Contents toolbar on the left, click Save.

n Fill in the fields as follows:

- Title: **Smart Community Survey Map_<your name>**
- Tags: **smart communities, survey results**
- Summary: **Web map for smart community survey.**



o Click Save Map.

Recalling the geo apps workflow, you have created a web layer and added that layer to a web map. The third step is to use the map to create a web app.

Step 5: Create an ArcGIS Dashboard

You can now use the web map containing the feature layer to create a dashboard to display the crowdsourced survey data. A dashboard is a view of information that helps you monitor events or activities. First, you will look at how to share your map.

> **ArcGIS Online updates on April 13, 2021.** After April 13, ArcGIS Dashboards Beta becomes the default version of ArcGIS Dashboards, and the previous version becomes ArcGIS Dashboards Classic. If you are completing this exercise *after April 13*, you are welcome to refer to the notes provided to practice the newer workflow.

a On the Contents toolbar on the left, click Share Map.

Sharing with people, such as Everyone or your organization, is necessary to allow others to see your results.

As mentioned in another lesson, sharing a web app means you must share the underlying web map, and sharing a web map means sharing the layers in the map. By default, your layers and web maps are private. This app (and map) can remain private because they are only for you, for learning. Later, you can create survey and dashboard apps that are shared with everyone.

b. Close the Share dialog box.

Note: ***(Optional) After April 13, 2021,*** *if you would like to practice creating a dashboard using the newer workflow, perform the following steps:*

- *In the Contents toolbar on the left, click Create App.*
- *In the pop-up window, click Dashboards.*
- *In the Create New Dashboard window, fill in the fields as specified in Step 5e below.*
- *Click Create Dashboard.*
- *Skip the rest of Step 5, and proceed directly to Step 6a.*

Creating a geo app directly from the web map adds the web map to the geo app for you.

c. Click the App Launcher button and choose Dashboards.

Note: Before April 13, 2021, click Dashboards Beta.

ArcGIS Dashboards opens in a new tab. ArcGIS Dashboards has much of the same functionality as ArcGIS Dashboards Classic but includes some new features and an enhanced user experience.

d. Click Create Dashboard.

e. Update the fields as follows:

- Title: **Smart Community Survey Dashboard_<your name>**
- Tags: **smart communities, survey results**
- Summary: **Dashboard for smart community survey**
- Save in folder: <your course ArcGIS Online login name>

Hint: Click Enter after typing each Tag.

f. Click Create Dashboard.

The dashboard web app is displayed and ready for you to add elements. Elements are tools like charts, gauges, and so on. First, you will add the map element.

g. At the top right, click the Add button.

h. From the drop-down list of elements, choose Map.

i. Point to your Smart Community Survey Map and click Select.

Options for configuring your map element appear. These settings control how the map displays and which tools are available.

j. Review the available options, and then click Done.

By constructing both a collection app (the survey) and a display app (the dashboard) from the same feature layer, you ensure that any new data from the collection app is added to the display app in real time. Use this workflow if the collected data does not need to be vetted before it is made public and you want to see the changes live, as they occur.

Step 6: Add elements to the dashboard

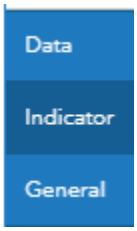
You have added a map element to your dashboard. Next, you will add indicator and serial chart elements, which will give the dashboard viewer additional information.

a. To add another element to your dashboard, at the top right, click the Add button and choose Indicator.

b. Click the How Smart is Your Community? Stakeholder - Survey layer.

The options to configure the element are on the left, and the preview pane is on the right.

c. To configure the indicator element, on the left, click the Indicator tab.



d. In the Top Text field, type **Surveys completed:**.

e. Click through the different tabs, and feel free to make any additional changes.

f. At the bottom right, click Done.

You can see the indicator element added to the dashboard, next to the map. The indicator element is a real-time display of how many surveys have been completed. If you had more elements, you could drag the elements to rearrange them.

g. At the top right, click the Save button.

As always, it is a good idea to save frequently. Now you will add and configure a dynamic chart element.

h. Click the Add button and choose Serial Chart.

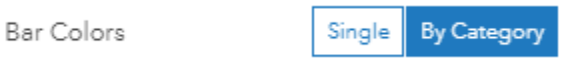
i. Click the How Smart is Your Community? Stakeholder - Survey layer.

j. On the configuration page, from the Data tab, click the Category Field down arrow and choose Would You Describe Your Community As Smart.

The preview updates with the results of the survey question about smart communities.

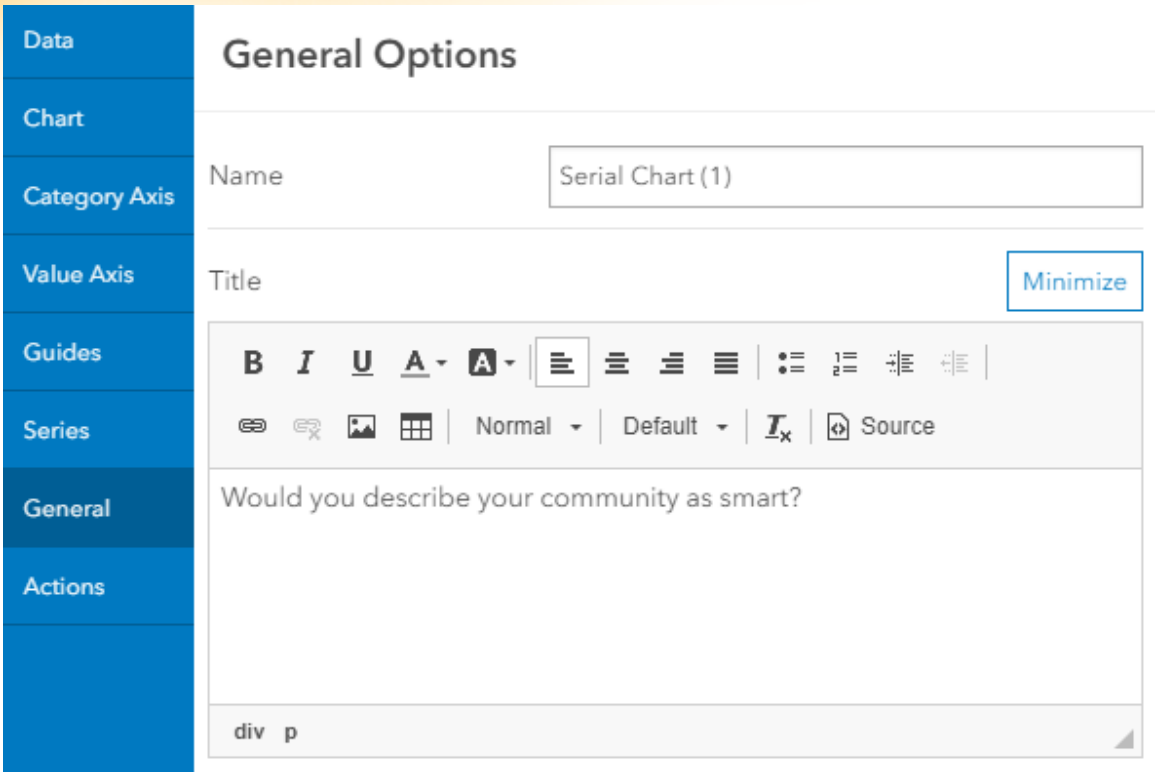
k. Click the Series tab.

l. Change Bar Colors to By Category to show each bar in a different color.



m. Click the General tab.

n. To the right of Title (below the Name field), click the Edit button and change the title to **Would you describe your community as smart?**



The Serial Chart title will populate in the preview.

o Click through the other tabs to make any other changes you like.

p At the bottom right, click Done.

Now that you have more than one element, you will configure each element to interact with the map element.

q On the Map element, point to the top-left corner until you see four button icons.

The second button, Configure, allows you to return to an element's configuration page to make more changes.

r Click the Configure button.

Note: This Configure button is not the same as the Configure button at the top of the dashboard, next to the Save button. That button is for configuring the overall dashboard, not elements.

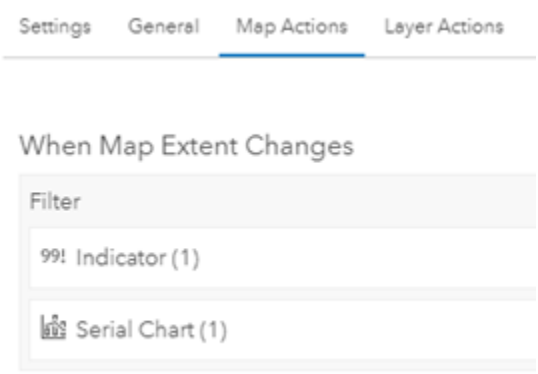
s Click the Map Actions tab.

Map actions include panning and zooming, which change the map extent. You can configure other elements to be filtered when the map extent changes, so that the elements show only what is being shown on the map. In this way, you can see how people from different parts of the world perceive the tech-savviness of their communities.

t On the right, click Add Action and click Filter.

u On the right, click Add Target and choose Indicator.

v Click Add Target again and choose Serial Chart.



w Click Done.

x Pan around the map to see the changes in the indicator and the serial chart.

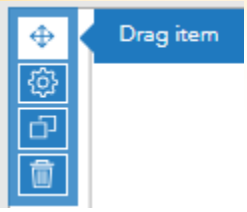
You can now see how your dashboard is starting to come together.

Step 7: Rearrange the elements

The next step is to rearrange the elements on your dashboard.

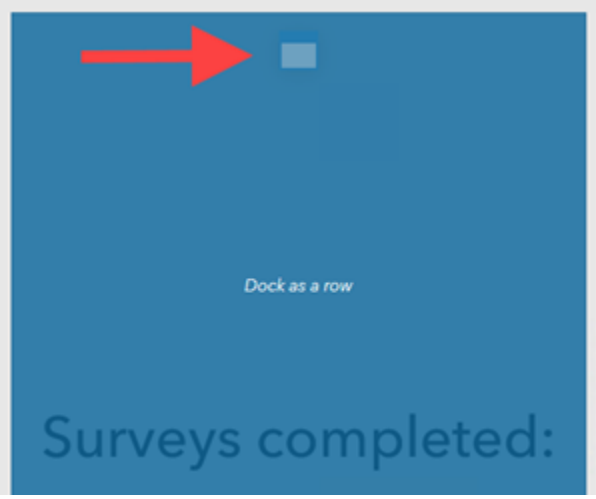
a On the Serial Chart element, point to the top-left corner until you see the four icons.

The first button, Drag Item, is used to move elements around in the dashboard.



b. Click the Drag Item button, and drag your pointer to the right, over the Indicator element.

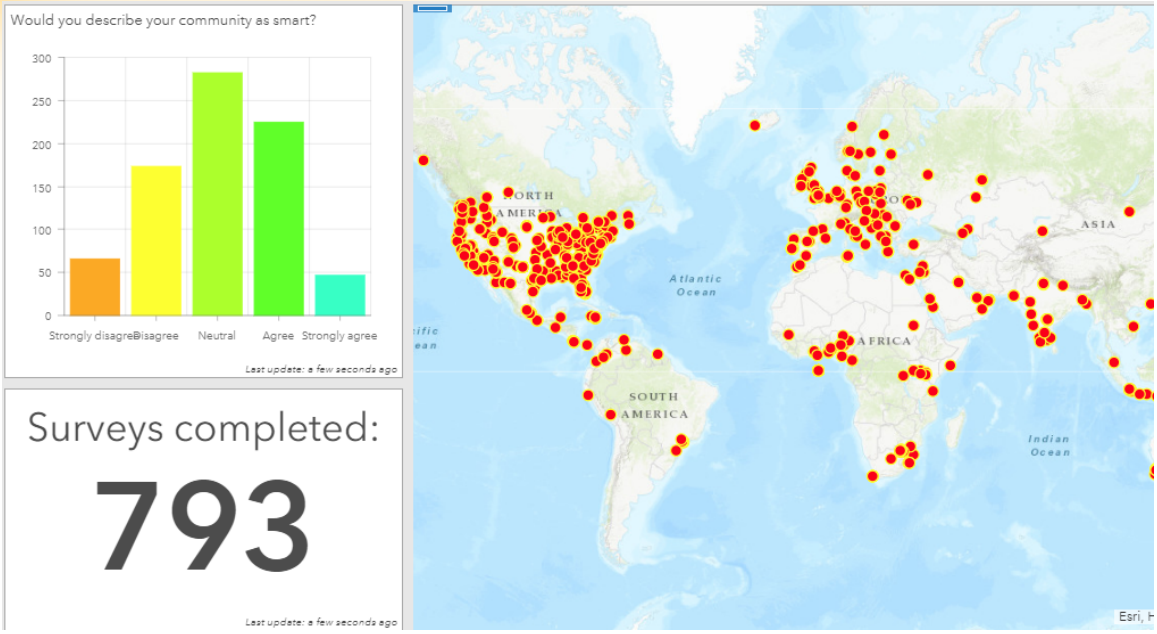
c. Drag the Serial Chart element to the top docking icon to move the chart into the same column as the Indicator element.



When you drag the Serial Chart element, you see small squares on the indicator element. These squares are used to dock the element. If you use left or right docking, the element will be added to a new column on the left or right, respectively. If you use top or bottom docking, the element will be docked as a row above or below, respectively.

d. Grab and drag the vertical bar that separates the elements to expand the Map element and shrink the Indicator and Serial Chart elements.

Your dashboard should look similar to this graphic.



Note: Your map and survey results will vary in appearance and number of surveys completed.

e Rearrange the elements until you are satisfied, adding more elements, if you want.

f Explore the dashboard, changing the map extent and observing the changes in the survey responses.

Your dashboard is complete, but depending on your objectives, you could make more changes or add more elements. A dashboard is a great, easily understood way to display survey results and inform your audience.

Step 8: Finish the dashboard

You now have a live dashboard that reflects the current state of your survey. You can monitor a dashboard for changes, or share a dashboard with members of your organization or the general public.

a Save the dashboard again.

There is no publish or launch function because the dashboard is configured live. It is initially shared with whomever you shared it with when you created it.

b After saving, at the top left, click the Home down arrow, and choose Dashboard Item Details.

The item page for your dashboard displays.

c On the right, click Share.

Currently, your dashboard is only visible to you. You can update the sharing level to make the dashboard visible to a broader audience. For this part of the exercise, there is no need to share your dashboard. But, if you create a dashboard in Part II, you will need to share it with Everyone (Public).

d Click Cancel.

e Close your browser.

Congratulations! You have created a dashboard that displays and analyzes dynamic survey data. In the Do-It-Yourself part of the exercise, you can apply what you have learned.

Part II - Do-It-Yourself

The Do-It-Yourself part of the exercise contains optional goals for you to apply what you learned in the Guided part and, with less guidance, build your own geo apps. Feel free to explore and experiment. Resources and samples to help you are listed in the Learning Resources section at the end.

Even if you choose not to complete a Do-It-Yourself project, we ask that you read through this section so that you can find and learn from your fellow students' work.

Build a data-collection survey

The Guided part of this exercise conveyed the potential of a workflow that collects and publishes live survey result data through the same feature service. At the beginning of the exercise, you used a pre-existing survey form to submit your community opinions. Then, you created your own Survey123 smart form. Finally, you created an ArcGIS Dashboard app to view other MOOC participants' entries.

Survey123 creates and populates the feature service (in this case, points with attribute information) and the dashboard app uses that same service. In the real world, you would create a dashboard or other viewing app from the same feature service; however, in this exercise, you used a different feature service to create the geo app so that the app had some results to view.

Now that you understand how a single hosted feature layer can be used to both collect and share information, try building your own app about a topic that interests you. You are welcome to do one or both of the following two options.

Option 1. Create a new survey form

Create a survey in Survey123, and ask a couple of questions. Do not forget to add the map component (Map question) so that you can see some location information. From the Collaborate tab, on the Share Survey tab, update sharing to allow Everyone (Public) to submit responses to the survey. Then, add the survey link to a Forum post in which you ask other students to take your survey and help you gather data.

Option 2. Display the results of a survey
Create a geo app to display the results of your survey. You can use ArcGIS Dashboards, any of the Configurable Apps (https://bit.ly/2jInpGq), Web AppBuilder (https://bit.ly/1DAV2Kb), or even ArcGIS StoryMaps (https://bit.ly/1X8Bkl4) to share your work in an engaging way.

Share your work with the class

After you complete the Do-It-Yourself part of this exercise, share your results with the class.

1. Surveys
For a crowdsourcing project, you first need to share the survey with the class and ask everyone to take the survey. In Survey123, on the Share Survey tab of the Collaborate tab, check the Everyone (Public) box. After the survey is shared, copy the link generated on the Share Survey tab and paste the link into a post for the class. You can also open the survey form, copy the URL from the browser, and share the URL in your post.

2. Survey results
If you display the results of the survey with an ArcGIS Dashboard or other geo app, make a new forum post or add to the existing post to announce your app and share the link.

Remember, you make apps, including dashboards, from web maps. To make a web map from a survey results layer, follow these steps:

1. In Survey123, from the Collaborate tab, click the Share Results tab, share the survey to Everyone (Public), and then click Save.
2. Go to ArcGIS Online.
3. Click the App Launcher and choose Map Viewer.
4. Click Add Layer.
5. Add the _stakeholder view layer.
6. Configure the map, save it, and then click the Share button to share the map publicly.

Sharing

To share your work with the class, perform these tasks:

1. To share your survey so that people can view the responses in a dashboard or other app, on the Survey123 Share Results tab of the Collaborate tab, check the Everyone (Public) box.
2. To share your dashboard or other app, if you made one, you can use the Sharing dialog, click the sharing level icon next to the dashboard on your Contents page, or use the Share button from the app's item page.
3. After sharing, open the link to the survey form or dashboard and copy the link from the browser.
4. Test the app(s) in a new incognito browser window, one that you are not already signed in to.
5. Create a new forum post to announce your app so that other students and instructors can review the app.
6. Give the post a meaningful title, and add the hashtag **#DIYSection3**.
7. Add the link to the app to your post. The link can be a shortened link from the Share dialog box or the full URL copied from the web browser when viewing the app.

Finding the work of other students

Now that you have shared your work from the Do-It-Yourself part of the exercise in the forum, go find and review the work of other students.

1. In the forums, search by the hashtag **#DIYSection3**.
2. Read other student posts, and look at their geo apps. If a student created a crowdsourcing app, complete the survey so that the student gets some results to display.
3. Give any helpful feedback or ask questions by replying to the forum post.

Learning Resources

We hope that with the app-building skills you have developed here, you can collect and share information with your communities to make them smarter.

Here are some more resources to help you continue learning:
Field operations apps, including Survey123, ArcGIS Dashboards, and more (https://bit.ly/2L1oNzk)
ArcGIS Survey123 community on Esri Community (https://bit.ly/2F3NfyB)
ArcGIS field apps seminar video (https://bit.ly/2NbWFuY)
Survey123 page on GitHub (https://bit.ly/2vRi463)

More Esri training:
Training seminar: Survey123 for ArcGIS: Collect Data in the Field with Smart Forms (https://bit.ly/2BlDAoS)
Tutorial: Create Your First Dashboard Using ArcGIS Dashboards (https://bit.ly/2UWw0Z3)
Instructor-led course: Field Data Collection and Management Using ArcGIS (https://bit.ly/2EJfmFB)