

## An introduction to ArcGIS QuickCapture

This document contains step-by-step instructions on how to prepare for data collection in the field using ArcGIS QuickCapture.

[ArcGIS QuickCapture](#) is a mobile data collection app that allows anybody in the field to capture accurate data and return it to the office or classroom for further use. Fieldworkers engage with a user-friendly digital form on mobile devices to capture and edit data. ArcGIS QuickCapture works even when disconnected from the Internet; the next time your device is connected to the internet, the collected data will automatically transfer to your ArcGIS Online map. It is free to download and can be downloaded onto personal phone devices or tablets. All you need is your ArcGIS login credentials.

### Overview of step-by-step guide

Part One – Prepare feature layers (types of data to be collected in the field) in ArcGIS Online.

Part Two – Create a map in ArcGIS Online for your feature layers to appear in after the data has been collected. Customise the symbology of your feature layers (points, lines, polygons).

Part Three – Prepare your QuickCapture data collection form and share it with your class / students / fieldworkers.

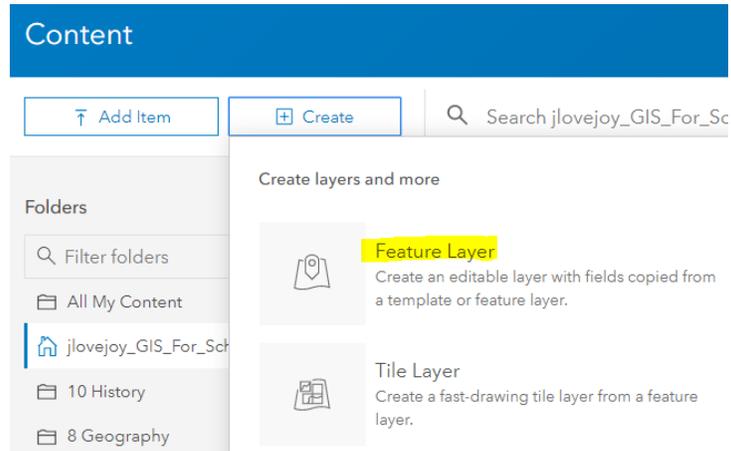
Part Four – Collect data in the QuickCapture application (phone or tablet) in the field.

### Context for training

For this guide, you will prepare a map and form to collect data from a public park. Alternatively, if you had a specific objective in mind, you can apply the steps in this document to your needs e.g. mapping invasive weed species.

### Part 1: Plan and create your feature layers

1. Sign into your ArcGIS organisational account in [ArcGIS Online](#).
2. Go to **Content**. In **My Content**, click **Create** and choose **Feature Layer** to open the **Create a feature layer** form.



3. Select the **Build a layer** category. Choose **Points, lines, and polygons**, and click **Create**. Conversely, if the data you are collecting is only point data, you may only be interested in choosing the **Points** option.

Create a feature layer
×

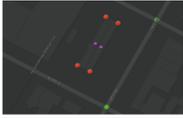
From Template
From Existing Layer
From URL

What do you want to do?
Select a feature layer template
Search

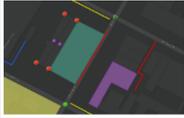
- Show All
- Build a layer
- Agriculture
- Electric Utilities
- Environment
- Forestry
- Gas Utilities
- General
- Natural Resources
- Petroleum
- Public Safety
- Telecommunications



Lines



Points



Points, lines, and polygons



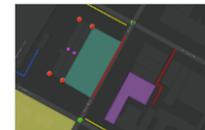
Polygons



Table

CREATE

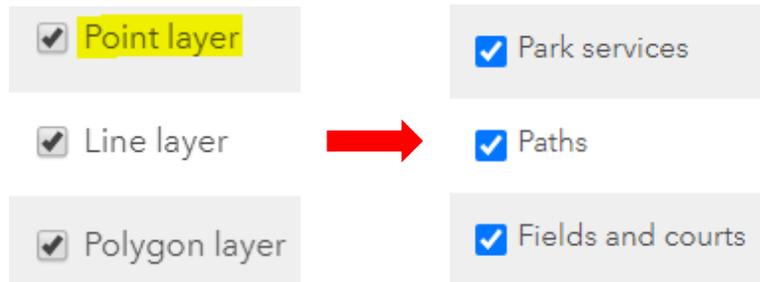
CLOSE



**Points, lines, and polygons**

Build a feature layer for collecting any combination of point, line, or polygon data. After creating the empty layer, define fields and domains as needed then start collecting data.

- Click on **Point layer**. Rename it to **Park services**. Click **Save**. Repeat this for **Line layer** and **Polygon layer**, renaming the layers **Paths** and **Fields and courts**.



- Click **Next**.
- Set the map extent for your new hosted layer. This is the portion of area that will show in a map by default. If you are only collecting data in a local area, then it may be a good idea to tighten the map extent on a specific location. Click **Next** once you are happy with the map extent.

Create a feature layer ×

Pan and zoom this map to set the map extent for the new hosted layer.



Left:  Right:

Top:  Bottom:

Back

7. Enter a title, tags and summary for your feature layer. Click **Done**.

## Create a feature layer ✕

Specify a title, tags, and summary for the new hosted layer.

**Title:**

Public park features (Quick Capture training tutorial)

**Tags:**

Data collection ✕ Quick Capture training tutorial ✕ Public Park features ✕

Add tags

**Summary:** (Optional)

This feature layer contains points, lines and polygons. It has been created to provide useable and relevant feature layers for services that may appear in public parks.

Your **Public parks layer** is now created, and its item page opens. In the following steps you will create the fields that define the data collection form for the **Park services (points)** layer, which is currently selected in the image below.

8. Go to the **Data** tab of the item page and go to **Fields**. If you created layers for points, lines and polygons, verify that **Park services (points)** is selected.



9. Click **Add** in the top-right corner. In Field Name, type **ParkServices**. In Display Name, enter **Type of service**. Note that field names cannot have spaces however, display names will be what data collectors see.

Choose **Integer** for Type. Accept the other defaults and click **Add New Field**.

### Add Field ✕

Field Name:

Display Name:

Type:

Default Value: (Optional)

Allow Null Values:

- Click the newly created field, **Type of service**. It will appear near the bottom of the table view.  
Click **Create List** to create a list of choices for the type of service.

Type of service  ×

---

Description  Edit

A brief summary of the item is not available.

Field Value Type   Edit

Create List

Delete

Details

- Type a label of **Bubblers** with a code of **0**.

Label	Code
<input type="text" value="Bubblers"/>	<input type="text" value="0"/> 

- Click **Add**. Add entries for **Restrooms** (code **1**) and **Picnic table** (code **2**). Add as many services as you want.

Label	Code
<input type="text" value="Bubblers"/>	<input type="text" value="0"/> 
<input type="text" value="Restrooms"/>	<input type="text" value="1"/> 
<input type="text" value="Picnic table"/>	<input type="text" value="2"/> 
<input type="text" value="Barbeque"/>	<input type="text" value="3"/> 
<input type="text" value="Park gym"/>	<input type="text" value="4"/> 
<input type="text" value="Waste bin"/>	<input type="text" value="5"/> 
<input type="text" value="Playground"/>	<input type="text" value="6"/> 

- Click **Save**.

14. **Optional step:** If you require your fieldworkers to add notes to the data they collect in the field you will need to add another field.



15. Name this field **Notes**. Set the type as **String**. This will allow fieldworkers to make notes against the amenities they map.

Add Field
✕

Field Name:

Display Name:

Type:  ▼

Length:

Default Value: (Optional)

Allow Null Values:

Add New Field
Cancel

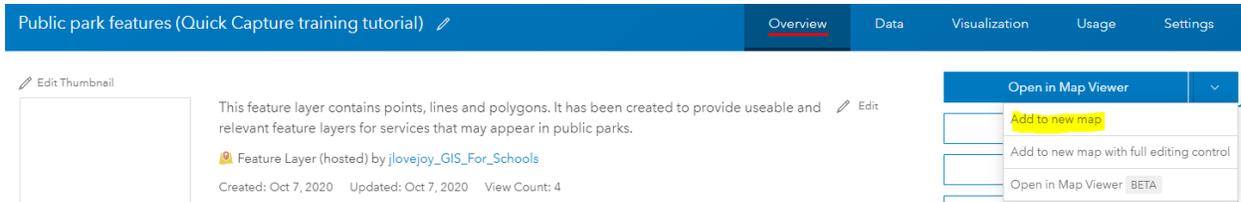
16. You will need to repeat steps 9 to 15 for your **Paths** and **Fields and Courts** layers. Do this now before moving on to the next steps.

When you create your lists for your **Types of paths** field, you could include the following: *bicycle paths, footpaths, trails etc.*

When you create your list for your **Types of Fields and courts** field, you could include the following: *oval, dog park, court, grassed area, car park etc.*

## Part 2: Make a map

- Once you have finished creating your new fields, click on **Overview**. In the drop-down list for **Open in Map Viewer**, select **Add to new map** to start making your map.



- Save your map. Give it an appropriate title and tag so that it is easily identifiable.



### Save Map

Title:

Categories:

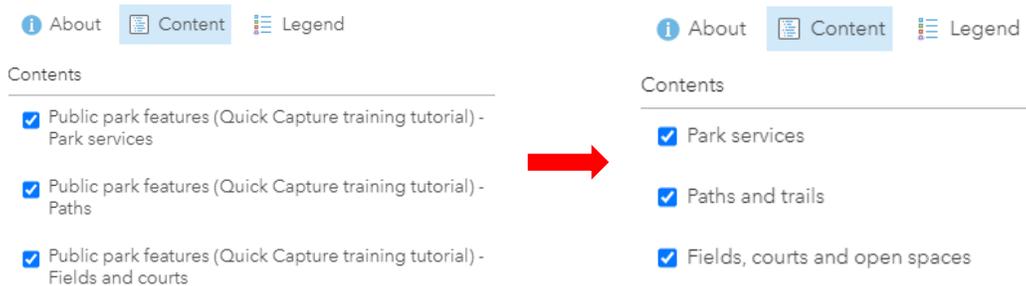
Tags:

Summary:

Save in folder:

**SAVE MAP** CANCEL

- In the **Contents** pane, hover over the *Park Services* layer, click **More Options** , choose **Rename**, and rename the layer to **Park services** as shown below. Repeat this process for the other layers.



4. Hover over the **Park services** layer. Click **Change Style** .

5. Choose to show the **Type of service** attribute.

Change Style

Park services

1 Choose an attribute to show  
 Type of service

[Add attribute](#)

2 Select a drawing style



6. Click **Options** for the **Types (Unique symbols)** drawing style.

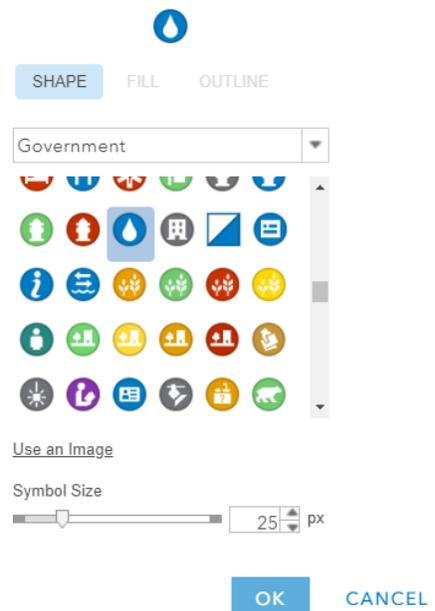
7. Default symbol colours will be assigned to each park service. If you are happy with these default symbols you can leave it as is and press **OK** and **DONE**. If you would like to choose your own symbols, follow the instructions below:

Click the symbol next to **Bubblers**. Click **Shape**, choose the **Government** category, and click the **water**  icon. Set it to a size of **25** and click **OK**.

### Type of service

Click to edit symbol or label.

	LABEL	COUNT	
:	Barbeque	3	
:	<span style="border: 1px solid red; padding: 2px;">Bubblers</span>	2	
:	Park gym	2	
:	Picnic table	0	
:	Playground	1	

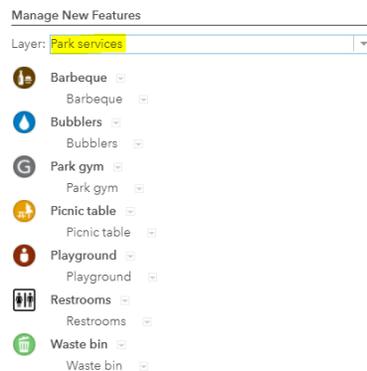



- Repeat this step, configuring the symbols for **Restroom**  and **Picnic table** , also in the **Government** category. If you added additional services, find appropriate symbols for them as well.
- Click **OK**, then **DONE**.
- Click **Edit**, then **Manage**.



- Ensure your **Park services** layer is selected. Then click **Save Changes**. You must save these changes to apply the symbology alterations you made.

Alternatively, you may wish to add an additional type of service. For example, you may wish to be able to collect data on park benches and recycling bins too. Note, you can revisit the **Edit** function at any time to manage (delete and add) more features in a layer.



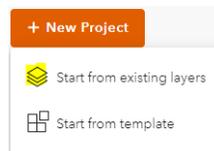
ADD NEW TYPE OF FEATURE

SAVE CHANGES

12. If required, repeat steps 1 – 11 in this section for your **Paths** and **Fields and courts** layers.
13. If you want others to be able to access this map, set your share settings appropriately.

### Step 3: Design your QuickCapture data collection form

1. Go to [ArcGIS QuickCapture](#) and **sign in with ArcGIS Online**. You may wish to bookmark the webpage.
2. Select **New Project** in the top-right corner of the webpage. Choose **Start from existing layers**.



3. Under **My Layers**, select the feature layer you previously prepared in ArcGIS Online. In this case, it should be the most recent option: **Public park features (Quick Capture training tutorial)**.



4. Ensure the checkbox for **Create buttons from layer symbology** is selected. Press **Next**.

Create buttons from layer symbology ⓘ

**Next**

5. Enter a title for your QuickCapture project, check that your email is correct and choose a folder on your ArcGIS Online account to save your project in. If you do not have folders, save it in **Root**. Click **Create**.

Title  
Public park features data collection form

Data recovery email  
jlovejoy@esriaustralia.com.au

Save in folder  
Root

Create

6. Your project will be created. A smartphone or tablet display will load, which will show you what data collectors will see on the devices they collect data on.

As you prepare the appearance of this form you may wish to change the device view. This can be done by selecting the arrow at the bottom of the image below.

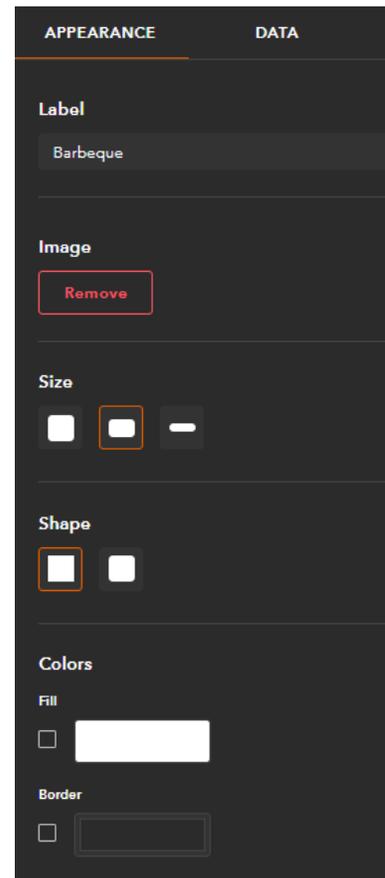


- Click on the first button displayed. In the case of this example, **Barbeque** appears first. By selecting a button, you will notice that additional options for editing the **Appearance** and **Data** of each button shows up.

- Under the **Appearance** tab, you can modify the label, add images (if you did not previously select symbols), change the size and shape of buttons and change the colours and borders of the buttons.

When making changes, consider the size of the devices the majority of fieldworkers will be collecting data on. For example, some labels may be too long and need to be shortened *i.e.* *'bicycle paths'* becomes *'bike paths'*.

Making the size of the buttons smaller may also help.



9. Under the **Data** tab, you can enable extra user functions.

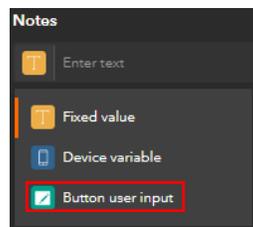
For point data, keep **Single point** selected under **Capture mode**.

You may require students to take photos of points collected. If this is the case turn on the **Take photo** button. Select whether a photo is required or not by checking / unchecking the checkbox.

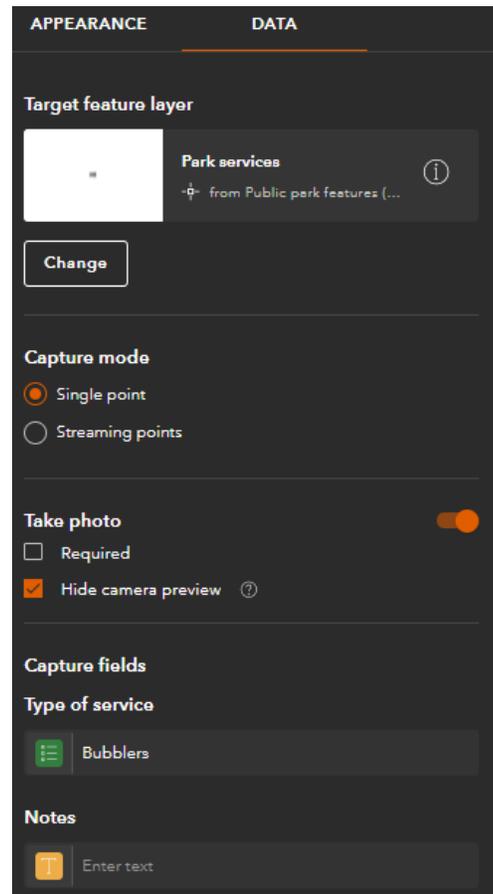
Alternatively, you can check **Hide camera preview** which will automatically take a photo when the button is pressed. This would require fieldworkers to have their device facing the service before pressing the button and they will not be able to view the photo they took.

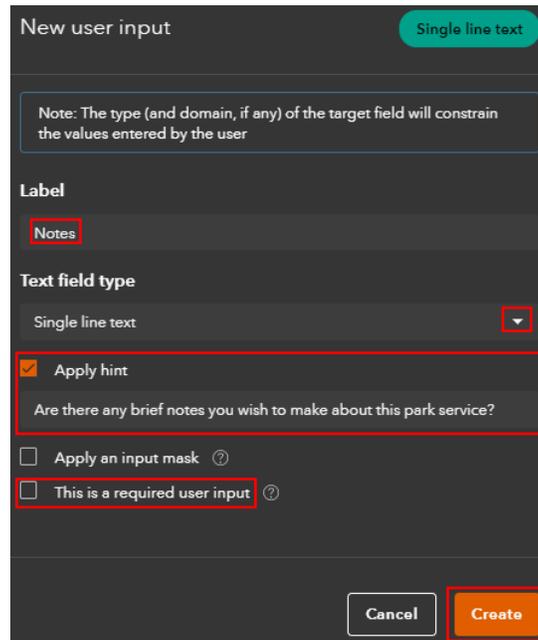
If you created a **Notes** field for your feature layers (Part One: steps 14 and 15), then you are able to configure a **Button User input** that prompts fieldworkers to make notes or comments. Set this up by:

- Click on the Notes icon. 
- Select **Button user input** and click **Create new**.



- Label the input function as **Notes**. Change the **Text field type** to **Single line text** or **Multiline text** depending on how brief or thorough the notes should be.
- You can select **Apply hint** to provide further instructions for fieldworkers when submitting notes.
- If notes are required, check **This is a required user input**.
- Click **Create** to apply your changes





New user input Single line text

Note: The type (and domain, if any) of the target field will constrain the values entered by the user

**Label**  
Notes

**Text field type**  
Single line text

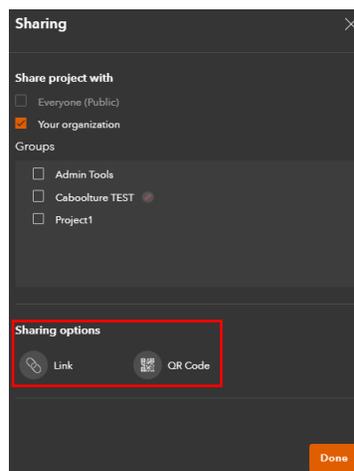
Apply hint  
Are there any brief notes you wish to make about this park service?

Apply an input mask ?

This is a required user input ?

Cancel Create

10. You will need to format each button's appearance and data collection tools. Repeat steps 8 and 9 for each button as required.
11. Once you are happy with the data collection form (appearance, data collection), click **Save**.
12. Choose your share settings by clicking on **Share** and selecting **Your organisation** or a specific group if you have created one *e.g. Mr Smith's Year 7 Geography class*.
13. Once you have shared the QuickCapture form appropriately, you will be able to share this with your class / fieldworkers via a link or QR code. Note: at this stage, students will need to have QuickCapture downloaded on their personal devices or school devices by visiting the app / android store. It is free to download.



Sharing

Share project with

Everyone (Public)

Your organization

Groups

Admin Tools

Cabooture TEST

Project1

Sharing options

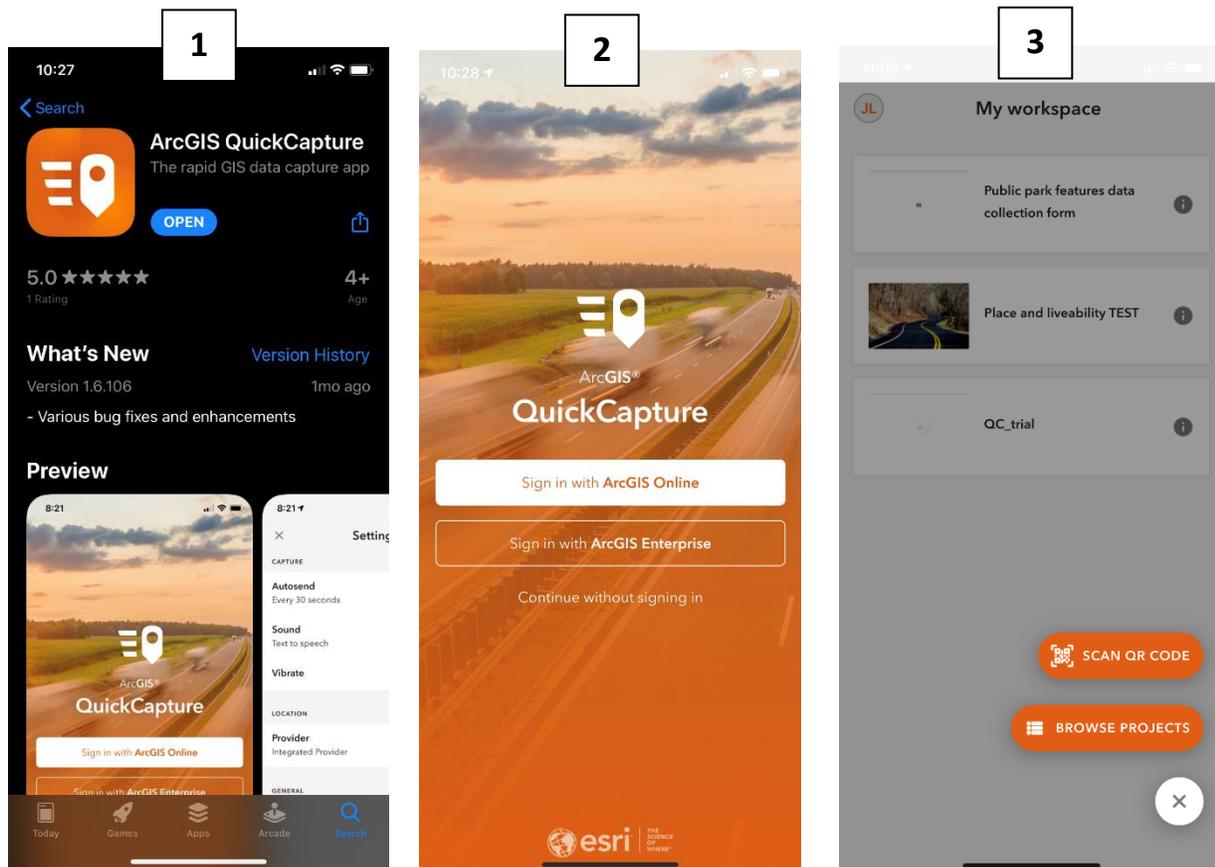
Link

QR Code

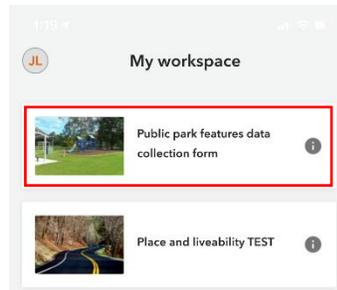
Done

## Part 4: Capture data in public parks using QuickCapture

1. On your mobile device or tablet, Open the QuickCapture App. Alternatively, download it from the App Store.
2. Choose **Sign in with ArcGIS Online** and enter your ArcGIS login credentials.
3. Scan the QR code supplied by the teacher / leader prior to leaving to collect data. This can be done any time prior to the data collection date.



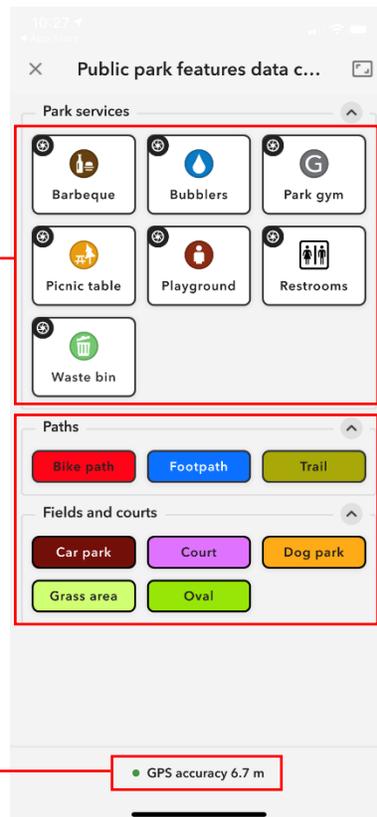
4. Select the project you previously created in QuickCapture (Part 3 of this guide).



5. Walk around in your local park, adding services, paths, and fields and courts as you go.

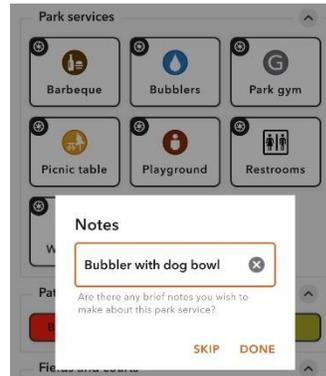
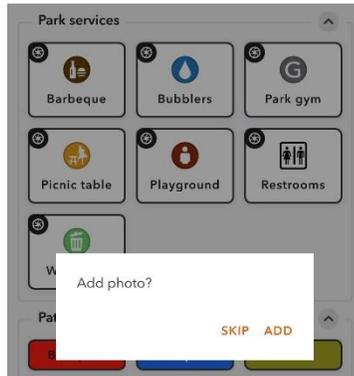
**Park services** are representative of point data. Simply walk up to a service and press the relevant button to map it.

**GPS accuracy:**  
Depending on your location, your GPS accuracy may be less accurate. For example, built up areas tend to interfere with a device's GPS accuracy.

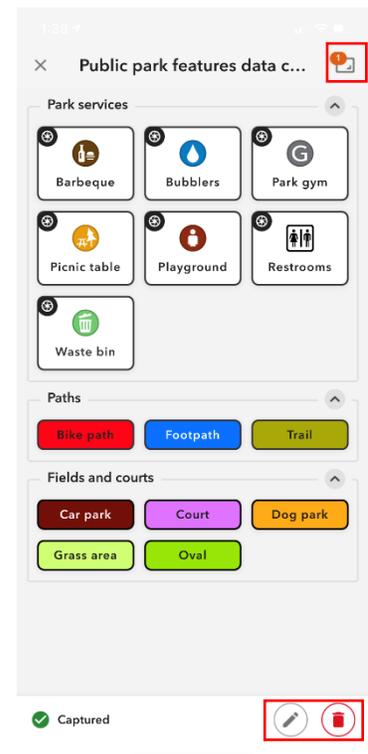


**Paths** are representative of line data and **Fields and courts** are representative of polygon (area) data. To map lines and areas, press the button once to begin. Walk the path or the perimeter of the area you are mapping. Then press the same button again to finalise the submission.

- If you added the ability to take photos or make notes, the app will automatically prompt you with the option to take a photo or make a note.



- You can view the data you have added on a map viewer briefly after you have pressed a button.



- If you make an error, press a button by accident or are not happy with the placement of a point, line or polygon, you can edit or delete the entry. However, this must be done promptly and before mapping another piece of data.

Once you have finished collecting data on the QuickCapture application, you will be able to view your data on the map you created in ArcGIS Online (Part Two). If you reopen your ArcGIS Online map and zoom into the park you just collected data at, you will now see your data.



## Next Steps:

### *Request a free ArcGIS Online Account for your school:*

Australian schools can request a free ArcGIS Online account as part of Esri Australia's Classroom GIS Initiative. A school subscription provides additional map layers, content, features and privacy. Learn more about ArcGIS Online, and apply for your ArcGIS Online School subscription at <http://esriaustralia.com.au/education>

### *Speak to Esri Australia's Education Program Manager:*

Australian schools can seek additional support or speak to our Education Program Manager by emailing [education@esriaustralia.com.au](mailto:education@esriaustralia.com.au).