

## Exercise: Create a map using ArcGIS Online

An environmental consultant agency has an ArcGIS Online organizational site to support collaboration across sectors.

Imagine that you are a member of the agency's impact assessment team. You have published some content for a new construction site project. Now you need to create a web map to illustrate the risk of wetland exposure to untreated runoff from the construction site.

### Estimated completion time: 20 minutes

To complete course exercises, you need the following:

- ArcGIS 10.2 for Desktop or ArcGIS 10.3 for Desktop (Basic, Standard, or Advanced)
- ArcGIS Online Organizational Account
  - Publisher role or [equivalent](#)
  - Approximate number of service credits consumed: 5 (based on current service credit rates; rates subject to change)

#### Step 1: Determine necessary content

The first step to create a map is to determine what content you will need to include.

Review the exercise scenario.

Based on the scenario, what content will you need to include in this map?

[Answer](#)

#### Step 2: Open a new map

Once you have identified the content you will use for the project, you can open a map and add these items to it.

If necessary, sign in to your organizational account.

[Remind me how](#)

At the top of your organizational site, click Map.

The ArcGIS Online map viewer opens. The viewer will open to a new map, or if you have opened layers or other items in the map viewer, it will open a map with these items added to it. You could continue working in this map, adding additional items, or you could open a new map. For this exercise, you will open a new map.

At the top of the ArcGIS Online map viewer, click New Map.

If prompted, click Yes to open the map.

A new map appears with a basemap layer that you plan to use as a reference.

#### Step 3: Add content to the map

Next, you will need to search for the items you want to add to the map.

In the ArcGIS Online map viewer, click Add.

There are several options you can choose from to add content to a map. You can search for and add layers, which are typically services that you, your organization, or the general public have published. You can also add map notes or files from your computer, which will create a layer that is saved in the map itself, meaning you cannot share the layer with others.

Click Search For Layers.

Search for the services you published in the previous exercise:

- In the Search For Layers pane, for the In field, choose My Content.
- Uncheck the option to search Within Map Area.  
[View result](#)
- Find the following layers and add them to the map:
  - Wetlands feature layer
  - Hydrologic soil groups tiled map layer
  - ConstructionSite feature layer

**Tip:** You can narrow your search by typing a keyword into the Find field.

 [If you did not complete the previous exercise or its optional steps, search for the services in ArcGIS Online](#)

Click Done Adding Layers.

The Contents pane appears and lists the layers added to the map. One of the layer names is hard to understand, so you will rename it.

In the Contents pane, for the ConstructionSite, click More Options, and choose Rename.

Change the layer name to **McCall construction site**, and click OK.

#### Step 4: Set up the map: Determine map users' requirements

Now that you have added content, you will set up the map based on the map user's tasks.

This map will be used in an impact assessment presented to the project team, managers, and project owner. The map users will need to:

- Locate the construction site
- Identify wetland types near the construction site
- Determine if there is a high runoff potential between the site and nearby wetlands

Use this information, along with the map tasks chart, to answer the following question.

[Review concept](#)

What items should be set up based on the map user's tasks?

[Answer](#)

#### Step 5: Set up the map: Create a bookmark

First, you will create a bookmark.

On the left side of your map, click the Zoom In button  to zoom into the map.

**Note:** You can also use your mouse and scroll wheel or the arrow keys on your keyboard.

Click and drag the map to move (pan) it.

Zoom and pan to the construction site so you can see the site and some nearby wetlands.

[View result](#) 

Click the Bookmarks button  and choose Add Bookmark.

Name the new bookmark **Construction Site**, and press Enter.

[View result](#) 

Close the Bookmarked places dialog box.

#### Step 6: Set up the map: Change layer symbology

Next, you will need to change layer symbology to make it easier to differentiate between the site, wetlands, and hydrologic soil groups.

Under Contents, for the McCall Construction site layer, click the Change Style button .

Under Select A Drawing Style, click Options.

Click Symbols to choose a color and outline color that you think will contrast the wetlands and soil groups symbology.

[View result](#) 

Click OK to preview the changes.

Click OK.

In the Change Style pane, click Done to save the changes.

You should now be able to distinguish between the site, wetland, and soils layers.

#### Step 7: Set up the map: Configure a pop-up

Last, you will configure the Wetlands pop-up to easily identify each type of wetland.

Under Contents, for the Wetlands, click More Options, and choose Configure Pop-up.

Under Pop-up Title, click the plus sign, and choose FID.

Each pop-up title will now display a unique ID for the wetland, in case the map user needs to reference the ID to find more information about the wetland.

Under Pop-up Contents, click Configure Attributes.

You can use the Configure Attributes dialog box to change the appearance of your pop-up window, including turning fields on and off, renaming fields, and changing the order that fields appear.

Turn off the FID and ATTRIBUTE fields.

[Hint](#)

Rename WETLAND\_TY and ACRES to **Wetland type** and **Acres**.

[Hint](#)

[View result](#) 

Click OK.

Click Save Pop-up to save your changes.

On the map, click one of the wetland areas.

The pop-ups are much easier to read, and the map users will have an easier time identifying the wetland type and ID if they need to find more information about the wetland.

#### Step 8: Save the map

Now that you have set up the map, you are ready to save it.

At the top of the ArcGIS Online map viewer, click the Save button  and choose Save.

In the Title field, type **McCall impact assessment**.

In the Tags field, type **Idaho, impact assessment, training** and press Enter.

In the Summary field, type **This map illustrates runoff potential for wetlands in and around McCall, Idaho**.

Confirm that Save in folder is set to PublishAGOL.

**Note:** If you do not have a PublishAGOL folder, save the map to your root folder.

[View result](#) 

Click Save Map.

 [Create a new folder and move items in My Content](#) 

It is best practice to complete the item details for each item you add to ArcGIS Online, including maps. However, for the sake of time, you will skip this step.

Now that you have created the map, you can think about who you want to share it with and how you want to share it.

## Exercise: Share an app using ArcGIS Online

 [Print](#)

An environmental consultant agency has an ArcGIS Online organizational site to support collaboration across sectors.

Imagine that you are a member of the agency's impact assessment team. You have created a map to share with community members at the town meeting. You would like to share the map in a way that focuses on the map legend and an explanation of what the map illustrates concerning potential runoff impact. You will use an ArcGIS Online web app template to complete this task.

### Estimated completion time: 15 minutes

To complete course exercises, you need the following:

- ArcGIS 10.2 for Desktop or ArcGIS 10.3 for Desktop (Basic, Standard, or Advanced)
- ArcGIS Online Organizational Account
  - Publisher role or [equivalent](#)
  - Approximate number of service credits consumed: 5 (based on current service credit rates; rates subject to change)

#### Step 1: Share the map

If necessary, sign in to your organizational account.

Navigate to My Content.

Open your PublishAGOL folder. (If you do not have this folder, create one: Under Folders, click New.)

Click the arrow next to the McCall impact assessment map, and choose to open it in the map viewer.

 [If you did not complete the previous exercise, search for the map in ArcGIS Online](#) 

In the ArcGIS Online map viewer, click the Share button .

Review the exercise scenario. Which permission level is appropriate for this map (Private, Group, Organization, or Public)?

#### [Answer](#)

In the Share dialog box, check Everyone.

**Note:** If you are unable to share with Everyone, share with your organization instead.

Remember, this map references layers. In order for community members to see the layers referenced in the map, the layers will need to be shared with the same permission level as the map.

If necessary, in the Update Sharing dialog box, click Update Sharing.

The map and the layers it references are shared publicly, for anyone to open and access.

## Step 2: Choose an app template

Now that you have decided who to share the map with, you need to determine which app template you will use to share your map.

In the Share dialog box, click Create A Web App.

There are a variety of apps you can choose from, each with a different focus or look. You can preview your map in one of these templates, publish an app using one of these templates, or download the template to deploy on your organization's web server.

On the Configurable Apps tab, hover over one of the templates to see a description.

Under the template, click Create, and choose Preview.

A preview appears of how your map will look in this template.

Close the preview window.

Choose a template that focuses on the map legend and an explanation of what the map illustrates.

Under the template, click Create App.

In the Title field, type **McCall impact assessment app**.

In the Summary field, replace the word "map" with **app**.

Uncheck the box to share this app in the same way as the map. (You will configure the app before sharing it.)

[View result](#) 

Click Done.

Your new web app opens with options to configure it.

## Step 3: Configure the app

In the configuration page you can change a number of settings for your app. Typically, these settings include the title, subtitle, description, and the maps included.

Change some of the configuration settings.

Click Save to preview your changes.

Click Done.

The app's details page appears from which you can open the app, edit its item description, and make additional configurations to best illustrate information about the site and runoff impact.

It is best practice to complete the item details for each item you add to ArcGIS Online, including apps. For the sake of time, you will just add a description.

Click Edit.

For Description, type **Wetlands located south of the construction site are situated on soil that has high runoff potential (hydrologic soil group D). These wetlands are at the highest risk of impact from construction site runoff, and should be further analyzed in terms of slope and average precipitation in the area.**

Click Save.

#### Step 4: Share the app

Once you have configured your app, you are ready to share it for other community members to access.

On the item details page, click Share.

In the Share dialog box, check Everyone.

**Note:** If you are unable to share with Everyone, share with your organization instead.

Click OK.

At the top of your organizational site, click My Content.

Open the PublishAGOL folder.

The McCall impact assessment app (Type: Web Mapping Application) is listed as shared with Everyone. The app is now accessible to all community members to view and interact with during the town meeting.

#### Step 5: Unshare and remove content

It is a good idea to regularly clean out your ArcGIS Online account by deleting unwanted content. Even if you want to keep content, unsharing content after it no longer needs to be shared is a good way to minimize irrelevant or outdated results from ArcGIS Online searches.

In the PublishAGOL folder, check the box for all the shared items in the folder.

Click Share.

In the Share dialog box, uncheck Everyone, and click OK.

**Note:** If you were only able to share with your organization, uncheck that box.

If you want to delete these items, select them and click Delete. (Click the box at the top to select all.)

A Delete dialog box prompts you to make sure you want to delete the items.

In the Delete dialog box, click Delete.

Close your browser window.