



Activity 2:

Creating Your Own Layer from a CSV file – Emergency Shelters in Hawaii

In the previous activity, you became familiar with the locations of volcanoes and high hazard lava flow zones on the island of Hawaii. For planning purposes, it might be useful to know where these areas are in relation to highways (which are already on your map) and emergency shelters (which are not).

A lot of information that is potentially spatial in nature is locked away in spreadsheets and text files. If this information is properly formatted, it can be added to ArcGIS Online and turned into map layers. All you need are well-defined street addresses or pairs of latitude-longitude coordinates.

In this activity, you'll create a new layer from a CSV file of emergency shelter addresses. A CSV (comma-separated values) file stores table data in a plain text format. It's an import/export format commonly supported by spreadsheet and database applications.

Download and view a CSV file

1. Hover over the HOME button in the top left-corner of the map, select Groups, and then click on the Cohort 2 group.
2. Click the Hawaii Emergency Shelters CSV thumbnail.

OBJECTID	NAME	ADDRESS	CITY	STATE	ZIP
1	1000 High	1000 High	Honolulu	HI	96813
2	2000 High	2000 High	Honolulu	HI	96813
3	3000 High	3000 High	Honolulu	HI	96813
4	4000 High	4000 High	Honolulu	HI	96813
5	5000 High	5000 High	Honolulu	HI	96813
6	6000 High	6000 High	Honolulu	HI	96813
7	7000 High	7000 High	Honolulu	HI	96813
8	8000 High	8000 High	Honolulu	HI	96813
9	9000 High	9000 High	Honolulu	HI	96813
10	10000 High	10000 High	Honolulu	HI	96813
11	11000 High	11000 High	Honolulu	HI	96813
12	12000 High	12000 High	Honolulu	HI	96813
13	13000 High	13000 High	Honolulu	HI	96813
14	14000 High	14000 High	Honolulu	HI	96813
15	15000 High	15000 High	Honolulu	HI	96813

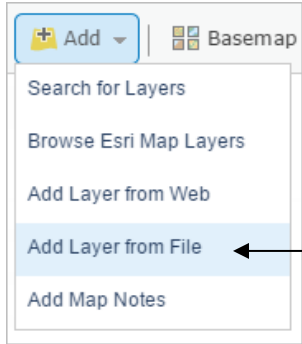
Hawaii Emergency Shelters CSV
 CSV file of emergency shelter locations on the island of Hawaii
 CSV by hpierce
 Last Modified: July 6, 2015
 (0 ratings, 0 comments, 1 view)

Depending on your browser, the CSV file may automatically save to your Downloads folder, or you may need to save it to a location on your computer by clicking Open, Download, and then Save it.

3. After the file is saved, open the file with Microsoft Excel to view the data. Each row in the table represents an emergency shelter. (On the island of Hawaii, most shelters are schools.) The address columns allow the table to be interpreted as spatial data.
4. Close Excel. (If you're prompted to save changes again, click Don't Save.)

Add the CSV file as a layer

1. In ArcGIS Online, at the top of the page, click My Content.
2. On your My Content page, click the arrow next to your **Hawaii Island Lava Flow Hazard Zones** map and choose Open in map viewer.
3. On the ribbon bar, click the Add button and choose Add Layer from File.



4. In the Add Layer from File window, click Choose File. Browse to the location where you saved the Emergency Shelters CSV file. Click the file to select it and click Open.
5. On the Add Layer from File box, click Import Layer.
Tip: You can also drag and drop a CSV file directly into a web map from your computer. The layer can be created as long as the CSV file contains either street addresses or latitude-longitude coordinates.
6. In the Add CSV Layer window, click the Country drop-down arrow and choose United States.
7. Click Add Layer.

On the map, a point symbol is drawn at the address of each shelter. As you can see from the legend, most or all of the shelters are schools. By default, the points are assigned unique colors on the basis of name. Other drawing options are shown in the Change Style pane. For this map, the individual names aren't important. You're interested in the shelters as shelters, so you want to give them all the same symbol.

EmergencyShelters

1 Choose an attribute to show

Show location only ▼

8. In the Change Style pane that appears, under Select a drawing style, make sure that Location (Single symbol) style is selected (has a check mark next to it).

9. At the bottom of the Change Style pane, click Done.

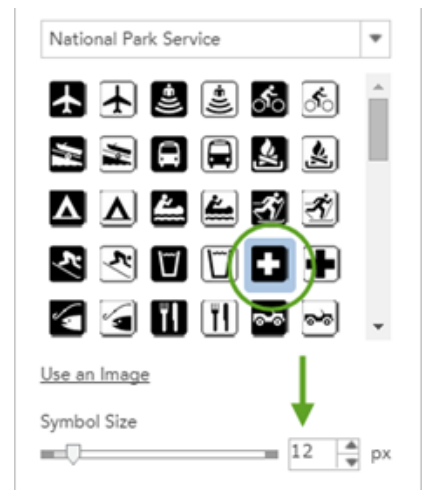
On the map, the shelters are drawn with a single, default symbol.

Symbolize the shelters

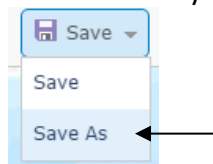
You'll want to change the generic dot symbol to something that better represents emergency shelters.

1. Hover over the Emergency Shelters layer and click the Change Style button.
2. Click the Options button for the Location (Single symbol) drawing style.
3. Under Showing Location Only, click Symbols to change the symbol.
A symbol palette opens, showing a variety of symbols that belong to the default Shapes category of symbols.
4. Click the drop-down arrow next to Shapes and choose the National Park Service category.
5. In the National Park Service category, find the symbol with a white cross on a black background and click it to select it.
6. Change the symbol size to 12 px (pixels) and click OK.
The symbols are updated on the map.
7. In the Change Style pane, click OK and click Done.

The new symbols are intuitively recognizable as emergency shelters. Their strong black and white colors help them stand out from the reds and oranges of the hazard zones.



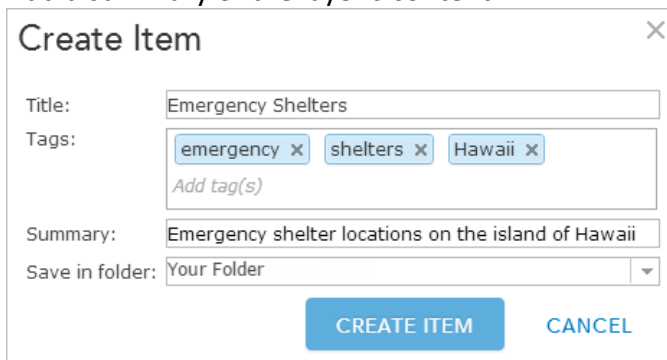
8. Click on the drop-down arrow next to the Save button on the ribbon bar above the map and select **Save As**. Save your map as **Hawaii Island Emergency Shelters**.



Optional Step: Save the shelters as a layer

The Emergency Shelters layer exists in your map but nowhere else. Nobody would be able to find it, for instance, by searching the organization's layers. By saving it as a layer to your My Content page, you can share it and add it to other maps. You'll be its owner, and the properties you give it will be its defaults. When someone else adds the layer to a map (assuming you share it), it will display with the symbology you chose.

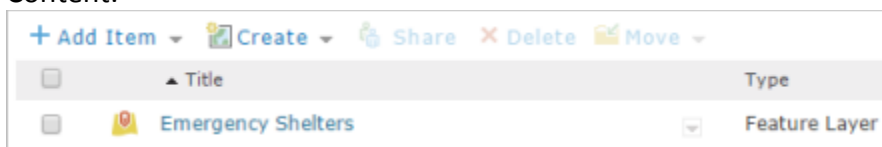
1. Click on More Options for the Emergency Shelters layer and choose Save Layer from the menu.
Note: This menu choice is only available for layers that you've created. You won't see it in the properties for other layers in the map.
2. On the Create Item dialog box, keep the title Emergency Shelters.
3. Add a few tags that will help people find the map through searches. After each tag, press Enter.
4. Add a summary of the layer's content.



The 'Create Item' dialog box is shown with the following details:

- Title: Emergency Shelters
- Tags: emergency x, shelters x, Hawaii x
- Summary: Emergency shelter locations on the island of Hawaii
- Save in folder: Your Folder
- Buttons: CREATE ITEM, CANCEL

5. Click Create Item.
6. Click on the Save button on the ribbon bar above the map and save your map one last time.
7. In the upper left corner of the screen, hover the cursor over the Home button and choose My Content.



The layer now appears as an item on your My Content page.

Modified from: *Getting Started with ArcGIS Online* [<http://learn.arcgis.com/en/projects/get-started-with-arcgis-online/#>]

The GeoTech Consortium of Western New York was funded through the U.S. National Science Foundation (NSF) Office of Advanced Technological Education under Grants Award # 1501076 to Monroe Community College.