



ESRI EXTERNAL

# ArcGIS Solutions: Archived Help

## ArcGIS Online

Updated November 2024

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# 3D Basemaps

This solution documentation has been archived and is no longer updated. Content and links may be outdated. The capabilities have been replaced with [3D Buildings](#) and [Tree Data Management](#).

Mature phase Nov. 2023 – Oct. 2025	Retired phase Nov. 2025
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## Introduction to 3D Basemaps

3D Basemaps can be used to author and maintain a 3D basemap for your organization.

It provides a series of workflows that streamline the creation and maintenance of a 3D basemap that supports diverse information needs. This optimized approach allows organizations to use existing data (for example, lidar, building footprints, and utilities) and generate 3D visualizations that increase understanding and community engagement. 3D Basemaps is typically implemented by planning departments, emergency management agencies, GIS departments, and utilities that want to use 3D basemaps to visualize the built environment.

The 3D Basemaps solution delivers a set of capabilities that help you use existing data, develop a standard set of 3D layers, and visualize your community in an immersive way.

## Requirements

The 3D Basemaps solution requires the following:

- ArcGIS Online
- ArcGIS Pro 2.9 or later (Advanced)
  - ArcGIS 3D Analyst extension
  - ArcGIS Spatial Analyst extension

## Information products

3D Basemaps includes the following information products:

Item	Description	Minimum user type
3D Basemaps	An ArcGIS Pro project used by GIS analysts and mapping technicians to create and maintain a 3D basemap for their organization	GIS Professional Advanced

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# Release notes

The following are the release notes:

Version	Description
1.6	<ul style="list-style-type: none"><li>• A new 3D Basemaps ArcGIS Pro project to support ArcGIS Pro 3.1.</li><li>• Updated Classify trees in lidar using deep learning task to use the latest version of the Classify Point Cloud Using Trained Model geoprocessing tool.</li></ul>
1.5	<ul style="list-style-type: none"><li>• A new 3D Basemaps ArcGIS Pro project to support ArcGIS Pro 3.0.</li><li>• Added a workflow to create 3D water features such as lakes, rivers and coastal waters from 2D polygon features.</li><li>• New offset option in the Modify Ground Surface tool.</li><li>• Added the ability to buffer floor plates inwards as well as outwards.</li><li>• 3D Tree symbols can now be set through the symbology pane.</li></ul>
1.4	<ul style="list-style-type: none"><li>• Added deep learning for power line classification in lidar.</li><li>• Added the ability to extract power line features from lidar.</li><li>• Any web map with feature layers can now be quickly added to your 3D basemap.</li></ul>
1.3	<ul style="list-style-type: none"><li>• Resolved an issue when a meter-based coordinate system is used with the Windows language set to other than English.</li><li>• Resolved an issue with roof form extraction when running multiple times on large datasets.</li></ul>
1.2	<ul style="list-style-type: none"><li>• Added an integrated mesh editing and maintenance workflow.</li><li>• Added the ability to color trees in lidar point clouds.</li><li>• Lidar class codes can now be preserved when classifying trees using deep learning.</li><li>• Improved stability of footprint segmentation.</li><li>• Resolved an issue with extracting tree points using cluster analysis.</li></ul>
1.1	<ul style="list-style-type: none"><li>• Added deep learning for tree classification in lidar.</li><li>• Added tree extraction using cluster analysis.</li><li>• Significantly improved the performance and quality of building footprint extraction.</li><li>• Added links to 3D analysis solutions that can use 3D basemaps layers.</li><li>• Resolved an issue with building footprint extraction in ArcGIS Pro 2.6.</li></ul>
1.0	<ul style="list-style-type: none"><li>• First release of 3D Basemaps.</li></ul>

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# Use 3D Basemaps

The 3D Basemaps solution delivers a set of capabilities that help you leverage existing data (for example, lidar, building footprints, utilities), develop a standard set of 3D layers, and visualize your community in an immersive way.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

## Get to know 3D Basemaps

You will assume the role of a mapping technician responsible for creating a 3D basemap for your community. The 3D Basemaps ArcGIS Pro project includes a series of tasks to help guide you through these workflows. The first set of tasks will help you get to know 3D Basemaps.

1. Start the ArcGIS Pro application and open the 3D Basemaps project.
2. On the **View** tab, in the **Windows** group, click **Catalog**, and click **Catalog Pane**.
3. In the **Catalog** pane, expand the **Tasks** folder, and double-click the **Getting to know 3D Basemaps** task and go through the various subtasks.

## Understand the 3D Basemaps solution

The 3D Basemaps solution uses existing data within the organization such as lidar, building footprints, power lines, and underground pipe features. Your 3D basemap can be created at different levels of detail (LOD) depending on the quality of the input lidar data. This first task will guide you through the data requirements and help you learn how you can utilize your 3D basemap in other workflows and applications.

## Download sample data

Sample data is provided to help you learn how to use the 3D Basemaps solution. Click to expand the **Getting to know 3D Basemaps** task group and double-click the **Download sample data** task. Click the **sample data** hyperlink to download sample data for Naperville and Philadelphia. Using the sample data the first time will help you learn how to use the tasks and how to organize your data.

## Start using 3D Basemaps

The 3D Basemaps project includes a task workflow that provides a structured sequence using tasks and steps. Follow the steps in this task to learn how to use the 3D Basemaps solution.

## Publish data for your 3D Basemaps

After you have reviewed the Get to know 3D Basemaps section, you can begin using the solution with your data. The following set of tasks will help you learn how to use 3D Basemaps.

1. On the **View** tab, in the **Windows** group, click **Catalog**, and click **Catalog Pane**.

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2. In the **Catalog** pane, expand the **Tasks** folder, and double-click the **How to use 3D Basemaps** task and go through the various subtasks.

## Publish ground elevation surface

Detailed elevation layers can be automatically generated from the input lidar data. These layers are used to create buildings and vegetation layers. The ground elevation layer can be used to enhance the existing elevation in your 3D scene.

To publish your ground elevation surface, click the **Publish ground elevation surface** task and follow the steps provided.

## Extract elevation surfaces from LAS dataset

This task extracts three elevation surfaces from the LAS dataset: a ground elevation (dtm), a surface elevation (dsm), and a normalized surface elevation (ndsm). These surfaces are used to create buildings and vegetation layers. The ground elevation layer can also be used to improve the ground in your scene.

## Publish ground elevation

This task publishes the ground elevation layer to your organization. Reprojection to Web Mercator with height in meters is only required if you want to use the published layers in a global web scene.

## Publish buildings

Buildings with simple roof structures can be generated automatically from the lidar. Attributes such as building height, eave height, and the roof form are extracted from the lidar and added to the building footprints. Procedural rules are then used to create the 3D roof structures. High-density lidar (point spacing less than 3 feet) and building footprint segmentation are needed to model complex roof structures.

### Note:

The quality of the roof structures is dependent on the quality of the input lidar and building footprint data. A lidar point spacing of 3 feet or less is required, 1 foot or less is recommended. Building footprints with one roof type within their boundary (for example, suburban areas) will produce higher-quality roof structures than footprints with multiple roof types (for example, city centers). These footprints require splitting, segmentation, and updating of the roof form attributes.

To publish your buildings, expand the **Publish buildings** group task and follow the steps provided.

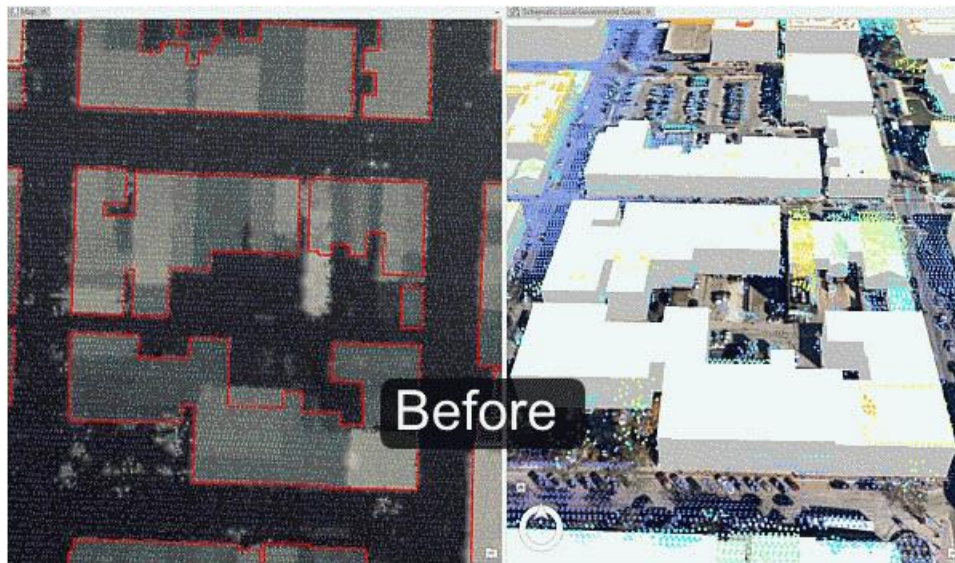


## Extract building footprints (optional)

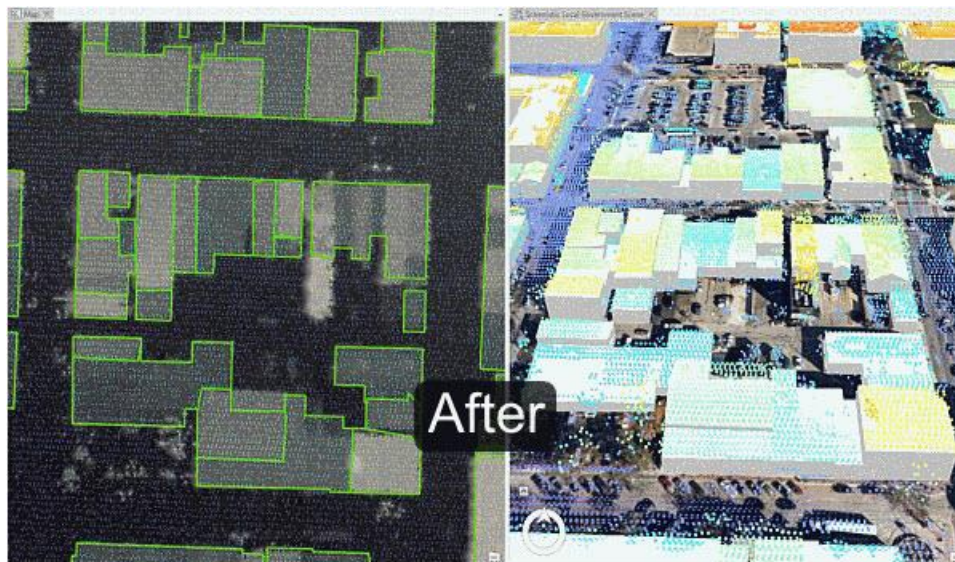
Run the **Extract building footprints** task to optionally extract building footprints from lidar. It is not required if you have an accurate footprint feature class.

## Preprocess building footprints (optional)

Run the **Preprocess building footprints** task to prepare the building footprints for a realistic 3D visualization. Some building footprints may contain several roof types and roof parts. To accurately represent these buildings, they need to be split into their separate parts. Building footprints can be split with another feature class or by differences in elevation.



This image shows the result of building extraction before preprocessing of building footprints.



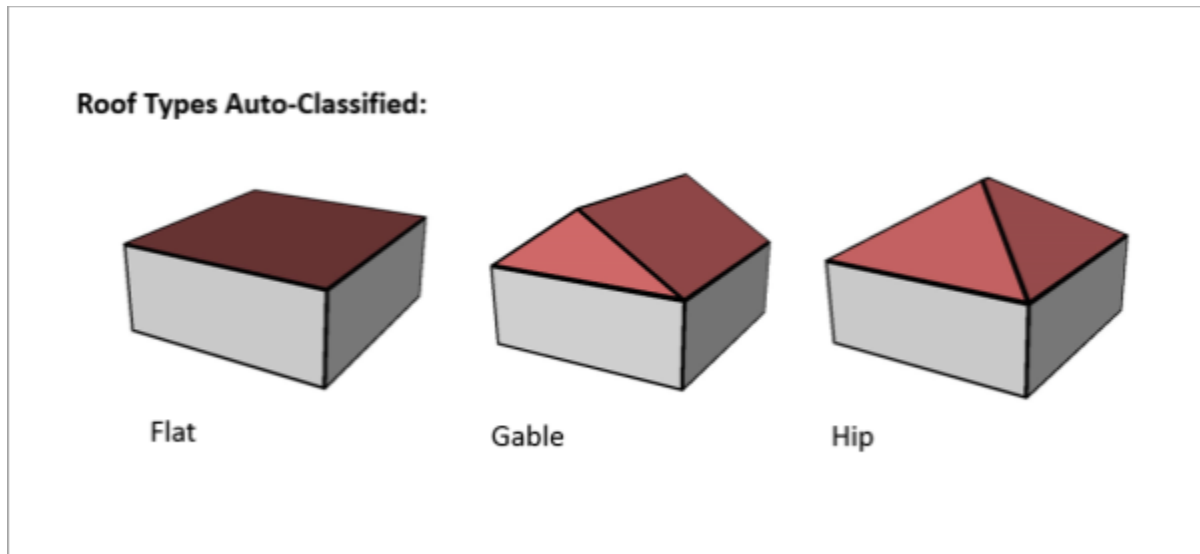
This image shows the result of building extraction after preprocessing of building footprints.

**Tip:**

Separate features of similar size into separate feature classes before running segmentation to improve segmentation quality. Use different spectral and spatial detail for each of these feature classes to tweak the roof segmentation for your data. Merge the feature classes when finished.

## Create buildings

Run the **Create buildings** task to create a 3D building layer. This task uses the elevation surfaces and building footprints to find both flat and sloped planar areas within a roof area of a building. It estimates a standard architectural form for the roof based on the attributes collected from these planar surfaces. These attributes are then used to inform a procedural rule that generates these features in 3D.



This image shows the roof types that will be automatically classified.

## Review buildings

Run the **Review buildings** task to inspect your building roof forms. The **Confidence Measurement** tool reports the following measurement (attribute added to the building footprints):

**Note:**

The **RMSE** field shows the root mean square error of the generated building multipatch to the underlying surface model. The higher this number, the more likely that the building creation encountered an error in classification. In general, a value of 1 meter (3 feet) or less is desirable, though this depends on the required application of the output features, and the resolution of the input data.



## Modify buildings

Use the **Modify buildings** task to further improve the quality of the building roof forms. The building roof form is driven by the attributes that are generated by the Create buildings task and by the underlying the building footprint. To refine the building roof form, modify the attributes or the building footprint.

### Tip:

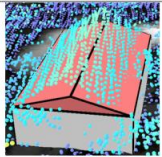
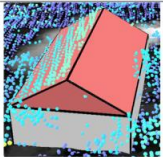
The attributes that control the roof form are building height, eave height, roof direction, and the type of roof are **BLDGHEIGHT, EAVEHEIGHT, ROOFORM, RoofDirAdjust**. By editing these attributes, you can adjust your building models to better match the lidar data.

BLDGHEIGHT	EAVEHEIGHT	ROOFORM	BuildingID	BASELEV	ROOFDR	RoofDirAdjust	RMSE
14.604	8.651	Shed	Building_11	676.2973	270	0	23.52487
23.3991	14.3113	Shed	Building_5	676.4396	180	0	23.76236
12.0947	9.3237	Shed	Building_12	675.0941	180	0	10.80013
40.7024	20.3622	Gable	Building_4	675.0016	90	0	28.61115
23.9771	16.05	Gable	Building_6	677.0032	90	0	22.10649
13.1209	8.4976	Gable	Building_9	674.629	90	0	11.42449
12.7999	9.8137	Shed	Building_17	676.435	0	0	12.90138
30.3233	8.9956	Hip	Building_1	673.9857	<Null>	0	19.56937

Building footprint attributes that control the roof form.

### Building height

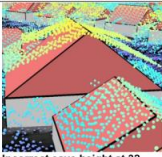
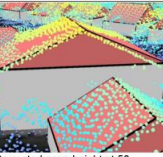
If the ridge of the building is not at the correct height, identify the elevation of a LAS point on the true ridge by clicking the LAS point while having the Explore tool active. You will need to subtract the BASELEV value from the LAS elevation to get the correct BLDGHEIGHT value.

Issue	Solution	Result
 <p>Incorrect building height at 25</p>	<p>Update the 'BLDGHEIGHT' field for the feature of interest</p>	 <p>Corrected Building height at 35</p>

Results of manual updating of the BLDGHEIGHT attribute are shown.

### Eave height

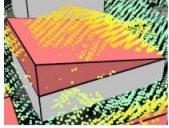
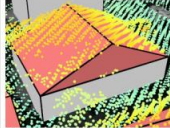
Similar to building height, reference the lidar to obtain the correct eave height. You will need to subtract the BASELEV from the lidar elevation to get the correct the EAVEHEIGHT value.

Issue	Solution	Result
 <p>Incorrect eave height at 32</p>	<p>Update the 'EAVEHEIGHT' field for the feature of interest</p>	 <p>Corrected eave height at 50</p>

Results of manual updating of the EAVEHEIGHT attribute are shown.

## Roof form

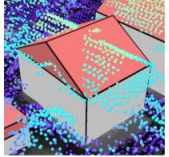
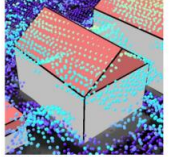
If your roof type does not match the lidar data, change the roof type by choosing the correct roof form from the drop-down list.

Issue	Solution	Result
 Incorrect Roof Type (Shed)	Update the 'ROOFFORM' field for the feature of interest to the correct type	 Roof Type Corrected (Gable)

Results of manual updating of the ROOFFORM attribute are shown.

## Roof direction

Adjust the direction of the roof by modifying the RoofDirAdjust field. The default value is 0. A value of 1 will rotate the roof counterclockwise 90 degrees, or a value of 2 will rotate it 180 degrees.

Issue	Solution	Result
 Incorrect Roof Direction	Input an integer value (0, 1, or 2) in the 'RoofDirAdjust' field to rotate the direction of the building model counter-clockwise.	 Roof Direction Corrected

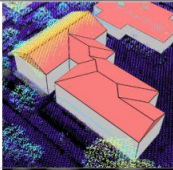
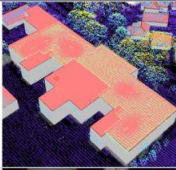
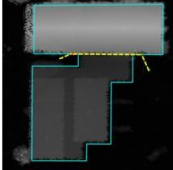
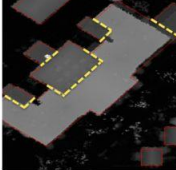
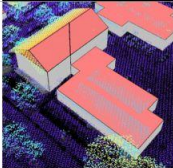
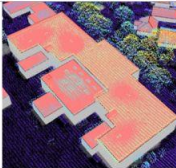
Results of manual updating of the RoofDirAdjust attribute are shown.

## Split roof segments

Some building footprints may contain several roof types and roof parts. To accurately represent these buildings, you can split the footprints into separate features manually and update the attributes for each feature accordingly.

To edit the building footprints, complete the following steps:

1. Select the feature you want to segment.
2. Use the **Split** tool in the Roof Segmentation task, or in the **Modify Features** pane to segment the selected feature.
3. Edit the attributes as needed with the new sections of the building footprint.

	Multiple Roof Types	Multi-tier Roofs
Identify building requiring segmentation		
Split building feature in 2D view at roof edge		
Update attributes of new building part features to generate building correctly		


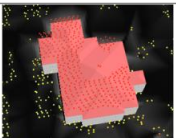

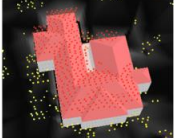
Results of manual splitting of buildings are shown.

### Modify building vertices

Sometimes building footprints may have been created incorrectly and do not represent the building adequately, resulting in lower-quality roof forms.

To edit the building footprints, complete the following steps:

1. Select the feature you want to modify.
2. Use the Vertices tool in the Modify Building Vertices task, or on the **Edit** tab to modify the selected feature.
3. Edit the attributes as needed with the modified building footprint.

	2D view with DSM and aerial photograph	3D view with Lidar points
Identify building requiring vertex modification		
Modify the vertices		

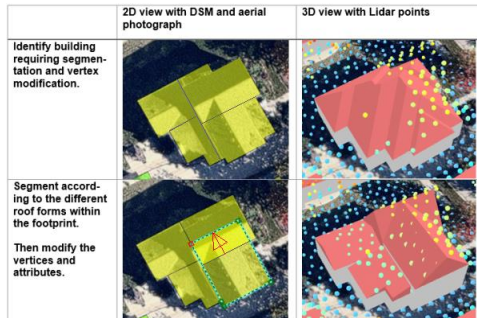
Results of manual updating of building vertices are shown.

### Create cross gable roof forms

You can also use vertex editing to make cross gable roof forms. To do so, complete the following steps:

1. Select the feature you want to modify.
2. Use the **Split** tool in the Roof Segmentation task, or on the **Edit** tab to segment the building footprint according to the roof forms present within the footprint.

- Use the **Vertices** tool in the Modify Building Vertices task, or in the **Modify Features** pane to extend one gable roof into the other one.
- Edit the attributes as needed with the modified building footprint.



Results of manual updating of cross gable roof forms are shown.

## Fuse buildings

If you have segmented some building footprints into separate features, you can use the **Fuse buildings** task to fuse the building features that represent building parts back together in the resulting 3D building features.

### Note:

Review and modification of buildings is done on the building footprint layer with procedural symbology. Fusing saves the modification to multipatch format for texture adding and publishing.

## Add textures to buildings (optional)

Use this task to add realistic textures to the previously extracted buildings.

### Note:

Textures depict generic usage of buildings and are applied based on footprint size. Using high-resolution textures will result in large output, potentially leading to decreased visualization performance.

## Publish buildings layer

This task publishes the building layer to your organization. Reprojection to Web Mercator with height in meters is only required if you want to use the published layers in a global web scene.

## Update buildings (optional)

Use this task if new lidar is available. It compares an existing 3D multipatch building layer with a new lidar dataset to verify whether there are any updates required due to new construction or

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demolition. If changes have been detected, these can then be merged back into the original 3D building layer.

To update your existing buildings, you will need the following data:

- Multipatch buildings
- Lidar with ground and buildings classified

The Update Buildings process accomplishes the following purposes:

- Detects changes between input 3D multipatch buildings and new lidar. The output is building update polygons where changes have been detected depending on the input parameters.
- Creates LOD2 update buildings using the building update polygons and the lidar.
- Merges the LOD2 update buildings with the existing 3D buildings.

## Publish floors

Building Floors can be created using the Publish floors task. The input is multipatch buildings, which can come from the Publish buildings task or from other sources such as CityEngine or third-party providers. The output is building floor plates and floor volumes. Floors can be created using a Building Space Use table where the building will be split into tiers or groups of floors, each with their own number of floors, floor height, space use, and color. Alternatively, building attributes such as number of floors, ground floor height, upper floor height, and roof height can be used to create the floors.

### Note:

Splitting buildings into floors can take a long time to run, especially when the initial split failed, and a more time-intensive splitting algorithm must be used. Ensure you only split the buildings that are required. Also, factors such as building size and complexity will affect the processing time.

In the **Task Pane**, click the **Publish floors** task and follow the steps provided.

## Create building floors

This tool splits existing 3D buildings into floors based on building attributes. You can use the buildings created in the Publish buildings task or bring in your own buildings.

One option to create building floors is to use the building space use table to split the building into tiers or groups of individual floors with defined space use. The building space use table has several attributes that describe the different tiers within the building. Each tier has an attribute defining space use, number of floors, floor color, and floor height. The BuildingTypeName attribute is the identifier that links the Building Space Use table to the building features. An example building space use table can be found in the tables folder of the 3D basemaps ArcGIS Pro project.

## Create floor volumes

If you require floor volumes, use the Create floor volumes task to create floor volumes out of the 3D floor plates. The Extrude By Attribute geoprocessing tool requires a building feature class with space usage information that includes floor height.

## Publish trees

Tree location, size, and width can be extracted from ground classified lidar as point features. Tree point features are then symbolized using procedural rules and can be schematic or realistic. If trees are classified in the lidar, the quality of the tree extraction will improve.

In the **Task pane**, expand the **Publish trees** group task and follow the steps provided.

## Classify trees in lidar using deep learning

Run this tool to optionally classify trees in the lidar using a deep learning model. Classified trees will improve the vegetation extraction but keep in mind that deep learning is computationally very intensive, and a powerful GPU is needed to process large datasets faster. Depending on data size and available hardware, it can take hours to finish. Start with one LAS file to see processing time on your system.

To work with the deep learning tools in ArcGIS Pro, you need to install supported deep learning frameworks packages. See [deep learning frameworks](#) for ArcGIS.

A [tree classification model](#) trained by Esri can be downloaded from ArcGIS Living Atlas of the World or you can create your own model using the Training a Deep Learning model for Point Cloud Classification notebook that can be found in the notebooks folder of the 3D basemaps ArcGIS Pro project.

## Extract tree points using surface analysis

Use this tool to extract tree points from the lidar using surface analysis. This type of extraction is faster for large lidar datasets, but the results are less accurate than using cluster analysis for dense lidar (point spacing less than 1.5 feet/0.5 meters).

## Extract tree points using cluster analysis

Use this tool to extract tree points from the lidar using cluster analysis. This type of extraction is slower for large lidar datasets, but the results are more accurate than using surface analysis.

### Note:

When creating the 3D trees, make sure to verify the **Vegetation class code**. The correct class codes for vegetation is typically 5. The tool will verify whether your lidar has this code, but trees might be represented by other codes as well. Visually review your lidar and verify what class code tree points have by clicking a tree lidar point. If the vegetation has not been classified, enter the class code that represents the vegetation, for example, 0 or 1.



**Tip:**

Use the Extract tree points using surface analysis tool to create an initial vegetation layer. Run the Extract tree points using cluster analysis tool for lidar files for which you need detailed trees and replace the trees from the initial layer with the more detailed trees where needed.

## Create colorized lidar trees

Classified lidar can also be used directly to visualize trees. This step extracts just the tree points from the input lidar and uses aerial imagery to colorize them.

## Publish bridges

If bridge surfaces are classified in the lidar and the lidar is dense enough, it is possible to extract the bridge surfaces as 3D polygons. 3D bridges can then be created by applying procedural rules.

In the **Task pane**, expand the **Publish bridges** group task and follow the steps provided.

## Create bridges

In the Extract bridge surfaces from lidar step, enter the following:

- **Class Code**—The class code that represents the bridge surfaces.
- **Sampling Value**—Experiment with this value to improve processing speed and output quality.
- **Bridge Area**—This is the minimum area that defines a bridge surface.

**Note:**

The bridge surface should be a separate class code. If bridge surfaces are not classified in the lidar, you can [interactively classify the bridge surfaces](#) in ArcGIS Pro.

**Note:**

Only rectangular bridge surfaces and models are supported.

## Publish power lines

Power line features such as wires and support structure locations with height can be extracted from classified lidar as line and point features. Simple symbology or procedural rules can be used to visualize the power lines in 3D. A wide variety of conductor and tower configurations are supported when using procedural rules. It is also possible to use your existing GIS data instead of the features extracted from lidar.

In the **Task pane**, expand the **Publish power lines** group task and follow the steps provided.

## Classify power line features in lidar using deep learning

Run this tool to optionally classify wires and support structures in the lidar using a deep learning model. Classified power lines will improve the wire and support structure locations extraction, but keep in mind that deep learning is computationally very intensive, and a powerful GPU is needed to process large datasets faster. Depending on data size and available hardware, it can take hours to finish. Start with one .las file to see processing time on your system.

To work with the deep learning tools in ArcGIS Pro, you need to install supported deep learning frameworks packages. See [Install deep learning frameworks for ArcGIS](#).

A [power line classification](#) model trained by Esri can be downloaded from ArcGIS Living Atlas, or you can create your own model using the Training a Deep Learning model for Point Cloud Classification notebook that can be found in the notebooks folder of the 3D basemaps ArcGIS Pro project.

After classification using deep learning, you can manually improve the classification further in the next step.

## Extract wires from lidar

This step extracts the wires as features from the classified lidar. It models each segment of a power line between two suspension points as individual line features. Use this step if you need to extract all wires as PolylineZ features.

### Note:

For best extraction results, ensure the average lidar point spacing is less than 1 foot or 30 centimeters.

## Extract support structure locations from lidar

Use this step to extract the support structure locations from lidar as PointZ (x,y,z) features with height as the attribute.

### Note:

For best extraction results, ensure the average lidar point spacing is less than 1 foot or 30 centimeters.

## Symbolize wires

Use this step to visualize the wire features that were extracted from lidar as 3D tubes.

## Symbolize support structure locations

Use this step to symbolize the support structures as complete transmission or distribution lines including wires and towers or poles. This can be useful if you need a realistic visual representation of the transmission or distribution lines with wires connected to the support structures.

### Note:

In this step, wires are modeled as catenary curves with a default sag to span ratio of 0.035, which may differ from the classified wire points in the lidar.

Run the Create transmission lines task to create 3D transmission lines. Enter the following:

- **Voltage**—Select the voltage for the transmission line. The values for the voltage list are read from the TowerLUTable table located in the project tables directory. Change these values to modify conductor and tower features.
- **Tower configuration**—Experiment with these parameters to create the desired towers.

Run the Create distribution lines task to create 3D distribution lines. Enter the following:

**Pole configuration**—Experiment with these parameters to create the desired poles.

### Note:

Both tools support point features as input. You can use existing features or features that have been extracted from lidar, or you can manually create features. A line and tower attribute must be present. The line attribute should describe which line the points belong to and the tower attribute should describe the tower order per line. Connected lines are not supported.

### Note:

This tool requires that the [Microsoft Access Database Engine driver](#) be installed.

## Publish underground pipes

You can turn your existing 2D underground utility features into 3D features using elevation attributes.

In the **Task pane**, expand the **Publish underground pipes** group task and follow the steps provided.

## Create gravity mains

Run the Create gravity mains task to create 3D gravity-driven mains. The first time you run this step, you evaluate the current state of the gravity mains and highlight errors. After reviewing the errors and updating fields that are incorrect, run Interpolate gravity mains to calculate any remaining missing values.

## Create manholes

Run the Create manholes task to create 3D manhole features.

## Create laterals

Run the Create laterals task to create 3D lateral features.

## Create a surface trench

Run the Create a surface trench task to better visualize underground pipe features.

## Publish integrated mesh

An integrated mesh is a textured continuous meshed surface capturing a current state of an area or city. They are often derived from drone, aerial, or satellite imagery via photogrammetric processing.

In the **Tasks** pane, expand the **Publish integrated mesh** group task and follow the steps provided.

## Add integrated mesh

This step adds an integrated mesh to your scene. A mesh (.slpk) is typically created from photogrammetric sources, like imagery captured by drones and processed with Drone2Map or SiteScan. There are also several Esri partners that specialize in producing city-scale integrated mesh for purchase.

## Modify integrated mesh

Use this step to make a modification to an integrated mesh layer. You can create a new modification or import from an existing polygon feature layer. Mesh modifications are useful to be able to show other 3D layers such as buildings, trees or bridges together with the integrated mesh.

## Publish integrated mesh layer

This step publishes the integrated mesh layer to your organization. Reprojection to Web Mercator with height in meters is only required if you wish to use the published layer in a global web scene.

Run **Share as new web scene** to publish the entire scene as web scene to your organization. Remove all the layers that you don't want to publish from the scene before publishing.

Run **Share as scene layer** if you need to add an integrated mesh to an existing web scene.

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## Modify integrated mesh in web scene

This tool modifies an integrated mesh in a published web scene without having to republish the entire mesh as a new web scene.

## Publish water features

This task allows you to create and publish 3D water features as multipatch features and polygon features. Water features can represent flat water bodies such as lakes and coastal waters as well as rivers with a certain gradient. This task works well with flat water features and river features at city scale. Larger features with a lot of gradient will result in many polygons which may lead to performance degradation.

### Create water features

This step creates water features as 2D polygons. You can skip this step if you already have a polygon feature class that defines the water features.

### Modify water features

The water features need to have a depth attribute that describes the average depth for each water feature. These values are used to modify the ground elevation for the area of the water features so that the water surface features display properly.

In this step you can calculate the depth values for all water features. If you want specific depth values for each water feature, open the feature attribute table and set the values manually.

### Create 3D water features

This step allows you to create 3D water features from the 2D water features and a ground elevation (dtm) surface as input.

This tool outputs a multipatch layer and a polygon layer representing the 3D water level. Use the multipatch layer to visualize large areas of flooding as this format is suited for fast rendering of many features. Use the polygon layer if you want to leverage water animation in ArcGIS Pro and the Scene viewer.

### Symbolize water features

Use this step to symbolize the water features with a water renderer.

## Publish 3D Basemaps

The 3D basemap is a web scene that can be used across the ArcGIS platform.

In the **Task pane**, expand the **Publish 3D basemap web scene** group task and follow the steps provided.

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## Publish 3D basemap web scene

Use this step to create a web scene containing the 3D basemap layers.

**Tip:**

For more information on creating a web scene, see [Get started with scenes](#).

## Add web map to web scene

Use this step to add the layers of a web map to a web scene; for example, you can add a web map to the 3D basemaps web scene.



# Address Field Operations

This solution documentation has been archived and is no longer updated. Content and links may be outdated. The capabilities have been replaced with [Address Data Management](#).

Mature phase Nov. 2023 – Oct. 2025	Retired phase Nov. 2025
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## Introduction to Address Field Operations

Address Field Operations can be used to crowdsource missing address information from stakeholders, manage address fieldwork, and collect and verify address information while in the field.

Current and accurate address data is an essential requirement for a variety of functions, including emergency management, as well as administration, research, publications, mapping, routing, navigation, and many other purposes. Successful address authorities assign addresses early in the development life cycle and improve the integrity of their address repository with quality control procedures that incorporate feedback from stakeholders. Address Field Operations is typically implemented by planning departments, public safety agencies, GIS departments, and other local government organizations that want to continuously improve an address repository that supports a variety of government functions.

The Address Field Operations solution delivers a set of capabilities that help you solicit missing or inaccurate address information from internal and external stakeholders, verify these submissions in the office, or create work assignments and dispatch staff to verify and collect new address information from a mobile device in the field.

## Requirements

Address Field Operations requires the following:

- ArcGIS Online
- ArcGIS Workforce
- ArcGIS Collector

## Information products

Address Field Operations includes the following information products:

Item	Description	Minimum user type
Address Crowdsourcing	An ArcGIS Survey123 form used by addressing staff to crowdsource missing address information from stakeholders.	Editor
Address Assignments	An ArcGIS Workforce Classic project used by addressing staff to manage address field operations. Field users access the Address Assignments project using the Workforce for ArcGIS mobile app.	Mobile Worker
Address Field Inventory	An ArcGIS Collector map used by addressing staff to collect address information while in the field.	Mobile Worker

## Release notes

The following are the release notes:

Version	Description
1.0	<ul style="list-style-type: none"><li>• First release of Address Field Operations</li></ul>

# Use Address Field Operations

The Address Field Operations solution delivers a set of capabilities that help you solicit missing or inaccurate address information from internal and external stakeholders, verify these submissions in the office, or create work assignments and dispatch staff to verify and collect new address information from a mobile device in the field.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

## Submit a missing address

You will first assume the role of an employee in the public works department. When attempting to issue a permit, you search for an address, but no result is returned. You will use the Address Crowdsourcing form to report the missing address.

1. Sign in to your ArcGIS organization and browse to the Address Crowdsourcing form.
2. Open the item page and click **Open in Survey123 > Open in browser**.
3. In the Address Crowdsourcing form, fill in the following details:


Questions	Answers
<b>Address Number</b>	Type an address number.
<b>Full Road Name</b>	Type the name of a road.
<b>Municipality</b>	Type the name of your municipality.
<b>Select Location</b>	Zoom and pan in the map to the approximate location of the missing address.
<b>Full Name</b>	Type your name.
<b>Email</b>	Type your email address.
<b>Phone</b>	Type your phone number.

4. Click **Submit**.

## Assign a missing address for verification

You will now assume the role of a supervisor at an addressing authority. As a supervisor, you are responsible for assigning field crews to verify missing or incorrect address reports from stakeholders. Using the Address Assignments ArcGIS Workforce Classic project, you will create a new assignment using the missing address report and assign it to one of your mobile workers.

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1. Verify that you are signed in to your ArcGIS organization and click the **Apps** button  in the header of the site.
2. From the app launcher, click **Workforce** to open the app.
3. Under **Classic projects**, click Address Assignments to open the project.

**Tip:**

When implementing the Address Field Operations solution in your organization, you must add anyone responsible for verifying addresses in the field to the Address Assignments ArcGIS Workforce Classic project with a Mobile Worker role. You can add users and assign roles in the configuration settings of the project. To access configuration settings, hover over **Address Assignments** project and click **Configure**. Click the **Users** tab. For the purposes of this exercise, ensure your named user account is assigned as a dispatcher and as a mobile worker. Click **My Projects** tab to return to your projects.

4. On the map, select the address you created in the previous section and click the **+ Create Assignment** at the bottom of the pop-up window.
5. From the **Create Assignment** panel, fill in the following details:
  - For **Assignment Type**, choose **Verify Address**.
  - For **Assigned to**, choose a worker.
  - For **Priority**, choose **Medium**.
  - For **Due Date**, choose tomorrow.
6. Click **Create Assignment**.

## Verify missing addresses

You will now assume the role of a mobile worker at an addressing authority. As a mobile worker, you are responsible for verifying missing or incorrect address reports. Using the Address Assignments ArcGIS Workforce Classic project, you will review and update the status of your assignments and open the Address Field Inventory map in ArcGIS Collector to verify missing addresses.

1. Download Workforce for ArcGIS and ArcGIS Collector apps onto your mobile device.
2. Open the Workforce for ArcGIS app and sign in to your ArcGIS organization.
3. Tap the **Address Assignments** project.
4. Tap **Verify Address** from the **To Do** list.
5. Tap **Start**.
6. From the overflow menu, tap **Collect at Assignment**.  
This opens the Address Field Inventory map in ArcGIS Collector and defaults to the location of the assignment and drops a pin.
7. Tap **Close** to cancel the dropped pin.
8. Tap the missing address point at the same location.
9. Tap **Edit** to modify the details of the address.  
At this point, verify the details of the address and make any necessary changes to the attributes and location of the address.
10. Tap **Verified** and tap **Yes**.

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11. Tap **Submit**.  
The address point changes from red to green and now reflects any edits you made during verification.
12. Return to the Workforce for ArcGIS app and tap **Finish** to complete the assignment.

## Collect new addresses

You will continue your role as a mobile worker at an addressing authority. You are responsible for collecting addresses for a new subdivision in the community. You will use the Address Field Inventory map in ArcGIS Collector to collect new addresses in the field.

1. From your mobile device, open the ArcGIS Collector app.  
Tap the back arrow, if necessary, to go back to the **Maps** list.
2. Tap the **Address Field Inventory** map.
3. Tap **Add**.
4. By default, the point is set at your current location. Adjust the location on the map as necessary and tap **Add Point**.
5. Swipe up and enter the details of the address.  
When adding multiple addresses, they may have common attributes such as the road name and municipality. You can create a copy of an existing address point by selecting it and tapping **Copy**.
6. Tap **Submit**.

# Capital Project Planning

This solution documentation has been archived and is no longer updated. Content and links may be outdated. The capabilities have been replaced with [Capital Project Coordination](#).

Mature phase Nov. 2024 – Oct. 2026	Retired phase Nov. 2026
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## Introduction to Capital Project Planning

Capital Project Planning can be used to define a project portfolio, organize the portfolio into an official capital improvement plan, and share the plan with internal and external stakeholders.

High-quality infrastructure is essential to a community's economic vitality and quality of life. A good capital project planning process helps communities make smart infrastructure improvements and investments in their future. Governments may have hundreds of projects in their capital improvement plan (CIP) that range in cost from thousands to billions of dollars. Managing this CIP comes with inherent challenges that can impact the schedule, quality, and cost of infrastructure improvements. Capital Project Planning is typically implemented by government agencies and utilities that want an efficient way to manage and share a capital improvement plan.

The Capital Project Planning solution delivers a set of capabilities that help you define capital project plans, coordinate project schedules with internal and external agencies, manage pavement moratoriums, organize a project portfolio into an official capital improvement plan, and share capital improvement plans with the public and other key stakeholders.

## Requirements

Capital Project Planning requires the following:

- ArcGIS Online



# Information products

Capital Project Planning includes the following information products:

Item	Description	Minimum user type
Capital Project Plans	A Category Gallery app that includes a collection of ArcGIS Web AppBuilder apps used by project leads to organize new capital project plans and revise project information during the planning process	Contributor
Capital Project Review	A Crowdsourcing Manager app used by plan review staff to organize a project portfolio into an official capital improvement plan	Contributor
Capital Project Review Dashboard	An ArcGIS Dashboards app used by plan review staff to examine proposed projects before inclusion in an official capital improvement plan	Viewer
External Agency Projects	An ArcGIS Web AppBuilder app used by private utilities and external agencies to share capital projects planned for their respective infrastructure	Contributor
Pavement Moratoriums	An ArcGIS Web AppBuilder app used by engineering and operations staff to inventory moratoriums that preclude, or restrict, right-of-way activity on newly paved streets	Contributor
Capital Improvement Plan	An ArcGIS Experience Builder app used by the public and other interested parties to review projects included in the capital improvement plan	Viewer (required if application is used for internal purposes only)

# Release notes

The following are the release notes:

Version	Description
1.1 (Jul 2022)	<ul style="list-style-type: none"> <li>A new Capital Project Plans app.</li> </ul>
1.0 (Nov 2020)	<ul style="list-style-type: none"> <li>First release of Capital Project Planning</li> </ul>

# Use Capital Project Planning

The Capital Project Planning solution delivers a set of capabilities that help you define capital project plans, coordinate project schedules with internal and external agencies, manage pavement moratoriums, organize a project portfolio into an official capital improvement plan, and share capital improvement plans with the public and other key stakeholders.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

## Note:

Use your organization's data or configured apps to follow these workflows.

## Manage pavement moratoriums

Engineering and operations staff of a local municipality are typically responsible for inventorying moratoriums that preclude or restrict right-of-way activity on newly paved streets. Moratoriums identified by staff are shared with municipal departments, private utilities, and other external agencies so that they can understand the impact of any work planned in the same right-of-way.

You will assume the role of a municipality staff member and will use the Pavement Moratoriums app to create new and update existing pavement moratoriums.

### Add a pavement moratorium

In this workflow, you will use the Pavement Moratoriums app to create a pavement moratorium.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Capital Project Planning solution.
2. View the Pavement Moratoriums app.  
The app opens with the **Create Moratorium** widget opened by default.
3. On the map, use the search field to zoom to your area.
4. In the **Create Moratorium** widget, click the **Pavement Moratoriums** template, and then uncheck the **Save new features automatically** check box.

## Note:

When **Save new features automatically** is checked, edits are automatically saved without opening the **Pavement Moratoriums** form. This option is useful when you want to digitize new features quickly.

5. On the map, draw a new pavement moratorium.  
A **Pavement Moratoriums** form opens on the right.
6. Complete the form with your moratorium information.
7. Click **Save** to complete the pavement moratorium creation workflow.

## Edit a pavement moratorium

In this workflow, you will edit the details for an existing moratorium.

1. In the **Create Moratorium** widget, unselect the **Pavement Moratoriums** template, if necessary.
2. On the map, select the moratorium that you just created.  
The **Pavement Moratoriums** form opens on the right.
3. Revise the form information, and then click **Save**.

## Delete a pavement moratorium

In this workflow, you will delete an existing moratorium from the app.

1. In the **Create Moratorium** widget, unselect the **Pavement Moratoriums** template, if necessary.
2. On the map, select the moratorium that you just created.  
The **Pavement Moratoriums** form opens on the right.
3. Click **Delete**, and then confirm the deletion.

### Note:

If you plan to complete subsequent workflows, ensure that you leave at least one moratorium in the app.

## Create and share project plans

Capital projects, typically defined for water, sewer, stormwater, parks, facility, and transportation assets in a community, can be visualized together with external agencies' projects when the agencies plan and schedule work for their respective infrastructure. Sharing this information helps identify potential project conflicts and can become the foundation for public-private partnership opportunities.

Infrastructure project planning and coordination between municipalities and external agencies can be achieved by using the Capital Project Planning and External Agency Projects apps.

## Create and share external agency projects

In this workflow, you will assume the role of a project lead from a private utility who is responsible for coordinating infrastructure development and improvement activities with the local municipality. You will use the External Agency Projects app to gain insight into existing external projects and pavement moratoriums and to enter new project information.

The updates that you provide in the External Agency Projects app will be immediately available to the municipality plan review team and will aid in their coordination of schedules of planned projects.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Capital Project Planning solution.
2. View the External Agency Projects app.  
The app opens with the **Sort Projects** widget opened by default. This widget allows you to search for and filter existing external agency projects by company name.
3. To create a new external agency project, at the top right, click the **Create Project** button.  
The **Create Project** widget opens.
4. On the map, use the search field to zoom to your area.
5. In the **Create Project** widget, click the **External Agency Projects** template, and then uncheck the **Save new features automatically** check box.

**Note:**

When **Save new features automatically** is checked, edits are automatically saved without opening the **Pavement Moratoriums** form. This option is useful when you want to digitize new features quickly.

6. On the map, draw a new external project boundary.  
An **External Agency Projects** form opens on the right.
7. Complete the form with your project information.
8. Click **Save** to complete the external agency project creation workflow.

## Define capital project plans

In this workflow, you will assume the role of a public works organization project lead who is responsible for organizing new capital project plans and revising project information during the planning process. You will use the Capital Project Plans app to gain insight into existing project plans, external agency projects, and pavement moratoriums and to create a project plan.

After all relevant information has been added to the project plan and is ready for internal review, you will be able to share your plan with members of the coordinating body.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Capital Project Planning solution.
2. View the Capital Project Plans app.  
The Capital Project Plans app is a gallery that contains individual Capital Project Planning apps for water, sewer, stormwater, facilities, and transportation projects.
3. Click the Sewer Project Plans app.  
The app opens with the **Create Plan** widget opened by default. This widget allows you to create, edit, and delete sewer plans.
4. On the map, use the search field to zoom to your area.
5. To create a sewer project plan, in the **Create Plan** widget, click the **Sewer Collection** template.
6. On the map, draw a new sewer project.  
A **Sewer Project Plans** form opens on the right.
7. Complete the form with your project information.  
The **Project Status** parameter allows you to share your project in the Capital Project Review app with members of the coordinating body.

8. To share your plan with members of review board, for **Project Status**, choose **Analysis and Review**.
9. Click **Save** to complete the capital project plan creation workflow.

**Tip:**

Existing sewer project plans can also be edited or deleted. To edit or complete a plan, click the **Sewer Collection** template to unselect it, and then on the map, select an existing sewer project plan to enable the **Sewer Project Plans** form. In the form, you can edit plan information, update the feature's geometry, or delete the plan.

## Organize and review the project portfolio

Many agencies have a coordinating body that is responsible for examining project proposals and preparing a consolidated list of projects that align with community goals and strategic priorities.

Project-planning organization and review can be achieved using the Capital Project Review Dashboard and the Capital Project Review app.

### Review the portfolio of capital project plans

In this workflow, you will assume the role of a member of the coordinating body that is responsible for reviewing proposed projects. You will use the Capital Project Review Dashboard to examine proposed projects, visualize project schedules, and summarize estimated costs.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Capital Project Planning solution.
2. View the Capital Project Review Dashboard app.  
On the right, any capital projects submitted for analysis and review are listed.

**Tip:**

If you do not have any projects listed, return to and complete the **Define capital project plans** workflow.

3. On the left, adjust the filters to refine the capital project list by type, fiscal year, funding source, status, and planned start date.

**Note:**


Filter options will vary based on the types of projects submitted.

4. On the right, in the **Capital Projects** list, click the name of a capital project to zoom to it on the map.
5. On the map, click a project to see a pop-up with more information about the project.
6. If a proposed plan is ready for further review, click the **Review Now** button to launch the selected capital project plan within the Capital Project Review app.

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## Organize the project portfolio into an official capital improvement plan

In this workflow, you will assume the role of a member of the coordinating body that is responsible for reviewing proposed projects. You will use the Capital Project Review app to sort various key characteristics of a project and update project information, such as status, fiscal year, and funding sources, where appropriate.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Capital Project Planning solution.
2. View the Capital Project Review app.  
The same portfolio of projects from the Capital Project Review Dashboard are visible in this app.
3. At the top, in the table, click a column head to sort and filter the project list by that key field.
4. In the table, click a project to view its details.  
The project details appear in the bottom left pane. If any items were attached when the project was created, you will see **Details** and **Attachments** tabs.
5. Click the **Details** tab, and then click the **Edit record** button , if necessary.  
As a decision maker, you can refine plan information such as funding source, fiscal year, project status and phase, and whether a project is funded.
6. In the project details, click the **Project Status** drop-down arrow and choose **Board Authorized**, and then click the **Funded Project** drop-down arrow and choose **Yes**.  
These settings ensure that the project will be included in the capital improvement plan (CIP).
7. Click **Save**.  
Because you have authorized the project and marked it as funded, it is no longer listed in the Capital Project Review app.

## Explore the capital improvement plan

In this workflow, you will assume the role of a community member who is interested in learning more about projects being planned in your community and where they are located. You will use the Capital Improvement Plan app to review projects included in the capital improvement plan (CIP).

1. In a browser, from the Capital Project Tracking solution, view the Capital Improvement Plan web experience app.  
Any projects that you authorized and marked as funded in the previous step appear in the **Projects** pane.
2. In the left panel, under **Type**, check an option or options, and then set **Planned Start Date** filters to further explore and refine capital improvement plan results.

### Note:

Filter options will vary based on the types of projects listed.

3. In the **Projects** pane, click a project to zoom to it on the map and view project details.

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4. On the map, click the Home button to zoom to the full extent of the project map.  
You can also use the map extent to filter results.
5. Pan and zoom the map to refine the list of projects and project details.

# Capital Project Tracking

This solution documentation has been archived and is no longer updated. Content and links may be outdated. The capabilities have been replaced with [Capital Project Coordination](#).

Mature phase Nov. 2024 – Oct. 2026	Retired phase Nov. 2026
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## Introduction to Capital Project Tracking

Capital Project Tracking can be used to manage an active project portfolio, communicate project status, and share project updates with internal and external stakeholders.

Managing a large project portfolio and quickly communicating progress is a challenge for government agencies and utilities. Many times, the lack of information leads to expensive project changes, budget overruns, frustrated executives and a disenfranchised public. Maintaining effective communication with internal and external stakeholders throughout the life cycle of a capital project increases transparency and strengthens public trust. It also assures stakeholders that public dollars are being spent effectively and improvements are being made in a timely manner. Capital Project Tracking is typically implemented by government agencies and utilities that want to proactively share the status of active capital projects with the communities they serve.

The Capital Project Tracking solution delivers a set of capabilities that help you manage the status of active capital projects, track project performance, share project progress with internal stakeholders, and communicate investments being made with the public.

## Requirements

Capital Project Tracking requires the following:

- ArcGIS Online



## Information products

Capital Project Tracking includes the following information products:

Item	Description	Minimum user type
Maximizing Capital Expenditures	An ArcGIS Hub site used by the public to learn more about public investments being made and how they can participate in the capital project planning process	Not required
Capital Project Dashboard	An ArcGIS Experience Builder app used by internal and external stakeholders to monitor active capital projects	Viewer (required for internal stakeholders)
Capital Project Reports	A Crowdsourcing Manager app used by project leads to manage the status of active capital projects and communicate the schedule, quality, and cost to internal and external stakeholders	Contributor

## Release notes

The following are the release notes:

Version	Description
1.0 (Nov 2020)	<ul style="list-style-type: none"><li>• First release of Capital Project Tracking</li></ul>

# Configure Capital Project Tracking

Capital Project Tracking can be used to manage an active project portfolio, communicate project status, and share project updates with internal and external stakeholders.

In this topic, you will learn how to configure the Capital Project Tracking solution to meet specific needs in your organization.

## Load data

The Capital Project Tracking solution is built on the same foundational feature layer, InfrastructureProjects, used in the Capital Project Planning solution. If you have also deployed the Capital Project Planning solution, you can use that solution to define project plans and organize your project portfolio into a capital improvement plan. Once projects have been approved and funded, they will display in the Capital Project Tracking solution.

If you are using another system for project planning and want to use the Capital Project Tracking solution to report and share active projects with key stakeholders and the public, you will need to load these projects into the InfrastructureProjects feature layer. You will also need to update the Project Status, Funded Project, and Project Phase fields to make the projects visible in the Capital Project Reports and Capital Project Dashboard apps.

## Load capital projects from a shapefile or file geodatabase

To load capital projects from a shapefile or file geodatabase, complete the following steps:

1. Create a .zip file of your shapefile or file geodatabase.
2. Sign in to your ArcGIS organization and browse to the InfrastructureProjects feature layer.
3. From the item page, click **Update Data**.
4. Follow the steps in the **Update data** wizard to load your data.

### Note:

The only required field is the projtype (Project Type) field. This is a text field that defines the type of project and supports the following values: Facilities, Parks, Sewer Collection, Stormwater Drainage, Transportation, Water Distribution, and Other.

## Update project attributes

The Capital Project Reports and Capital Project Dashboard apps both use feature layer views to ensure only approved and funded projects are visible. Projects will only display in these apps if the **Project Status** is set to Board Authorized, **Funded Project** is set to Yes. And **Project Phase** is set to PreDesign, Design, Construction, or Closeout.

To update the project attributes, complete the following steps:

1. Verify that you are signed in to your ArcGIS organization and browse to the InfrastructureProjects feature layer.
2. Open the item page and click the **Data** tab.

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3. Click within a cell in the table and edit the attributes of the project.
4. Click the column containing the values you want to update.
5. Click **Calculate**.
6. Click **SQL**.
7. Enter the value you want to apply. For text fields, you need to surround the value with single quotes, for example, 'Board Authorized'.

**Tip:**

For more information, see [Calculate field values](#).

## Configure the Maximizing Capital Expenditures site

The Capital Project Tracking solution includes the Maximizing Capital Expenditures ArcGIS Hub site. This site can be configured with your organization's branding and used to share important capital investment and planning information with the public.

### Update with organizational information


After deploying the Capital Project Tracking solution, the Maximizing Capital Expenditures Hub site layout only requires a few updates to fit your local context.

To update the site with your organizational information, complete the following steps:

1. Verify that you are signed in to your ArcGIS organization and browse to the Maximizing Capital Expenditures site.
2. From the item page, click **Configure**.
3. Scroll to the statistics section under the Hub site title.

The **Capital Projects** and **Public Investment (dollars)** summary statistics cards are already linked to the Capital Project Tracking solution's InfrastructureProjects\_allfundedprojects feature layer. These statistics will automatically update as you load data into the feature layer.

The **Public Workshops** statistic is provided in a text card styled to resemble the summary statistics cards, but you can manually enter a statistic of your choice, independent of feature layer data. You can update the **Public Workshops** text card using a metric of your choice, or you can replace the text card with a summary statistics card and connect it to the InfrastructureProjects\_allfundedprojects feature layer in a similar fashion to the other dynamic statistics cards.

4. Scroll to any additional sections that you want to update, hover over the card, and click the edit pencil  that appears in the horizontal toolbar, and then edit the content with information specific to your organization.
5. In the side panel, click **Footer**.  
A custom footer is provided. In most cases, you will need to update it with your organization's branding, contact information, and social media references.
6. Click the **HTML** text box.

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The **HTML** window appears.

7. Make the necessary changes and click **Apply**.
8. Click **Save**.
9. Click the **Save** drop-down arrow and click **Publish Draft**.

## Share items with the public

Several layer views, maps and apps included in the Capital Project Tracking solution must be shared with everyone so they can be accessed by the public on the Maximizing Capital Expenditures site.

To share items with the public, complete the following steps:

1. Verify that you are signed in to your ArcGIS organization and browse to the Capital Project Tracking folder.
2. Next to each of the following items, check the check box:

Name	Item type
InfrastructureProjects_allfundedprojects	Feature layer (hosted, view)
Capital Project Dashboard	Web Map
Capital Project Dashboard	Dashboard
Capital Project Mobile Dashboard	Dashboard
Capital Project Dashboard	Web Experience
Maximizing Capital Expenditures	Hub Site Application
Capital Project Tracking	Hub Initiative

**Note:**

You will only have a Hub Initiative item if your organization has ArcGIS Hub Premium.

3. Click **Share**.
4. In the **Share** window, click **Everyone (public)** and click **Save**.  
The **Warning: Sharing editable layers publicly** message appears notifying you that you are sharing editable layers publicly.
5. Click **Update**.

# Use Capital Project Tracking

The Capital Project Tracking solution delivers a set of capabilities that help you manage the status of active capital projects, track project performance, share project progress with internal stakeholders, and communicate investments being made with the public.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.


## Note:

Use your organization's data or configured apps to follow these workflows.

## Update capital project status

You will first assume the role of a public works project lead responsible for communicating schedule, quality, and cost updates on active capital projects.

The updates you provide in the Capital Project Reports app will be immediately viewable to the public and key stakeholders through the Maximizing Capital Expenditures site and the Capital Projects Dashboard.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Capital Project Tracking solution.
2. View the Capital Project Reports app.  
The Capital Project Reports app shows all categories of capital projects by default.
3. On the left, click a report type to view active capital projects.
4. At the top of the page, in the table, click a project report to view project details.  
At the bottom left, you see the project's current information, including any attachments and comments associated with the project.
5. To edit the project's information, on the **Details** tab, click **Edit**  .
6. Update the parameters with new values.
7. Click **Save**.

## Monitor active capital projects

As a member of the community, you are interested in learning more about the active capital projects in the community and whether they are on schedule and budget. You will use the Maximizing Capital Expenditures site to learn about the active public investments being made in the community and how you can participate in the capital project planning process.

1. In a browser, from the Capital Project Tracking solution, view the Maximizing Capital Expenditures site.
2. Scroll to the **Active Capital Projects** section and click the **Review Active Projects** button.
3. On the left, under Active Projects, any active projects are listed.

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4. On the left, adjust the filters to refine the list by type, phase, or fiscal year.
5. The map's current extent can also further refine the results shown in the **Active Projects** list.
6. Pan and zoom around the map to dynamically update the refined results in the dashboard.

**Note:**

Using the map extent to refine dashboard results will also honor dashboard filters for **Type, Phase, or Fiscal Year**, if enabled.

7. To view the location and project details for a project, click a project in the **Active Project** list.  
Selecting a project from the **Active Projects** list automatically pans and zooms the map to the selected project and updates and filters the project summary and detail information.

# Coronavirus Business Continuity

This solution documentation has been archived and is no longer updated. Content and links may be outdated.

Mature phase Nov. 2023 – Oct. 2025	Retired phase Nov. 2025
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## Introduction to Coronavirus Business Continuity

Coronavirus Business Continuity can be used to maintain business operations and share authoritative information with customers and stakeholders during the coronavirus disease 2019 (COVID-19) pandemic.

The rapid switch to home offices, frequently changing government regulations, and employee inability to report to work has made it difficult for organizations to understand the capacity of their workforce during the COVID-19 pandemic. Organizations need to know who is able to work and where employees are working from to make business continuity decisions. Having personnel perform a daily self-check-in or having supervisors check in with their teams gives organizations clarity into workforce capacity. Coronavirus Business Continuity is typically implemented by organizations that want a clear understanding of workforce capacity and facility status to help them adapt and ensure business continuity.

The Coronavirus Business Continuity solution delivers a set of capabilities that help you understand the operational capacity of your workforce, monitor the status of your facilities, and communicate your reopening plans to customers and employees.

## Requirements

Coronavirus Business Continuity requires the following:

- ArcGIS Online

## Information products

Coronavirus Business Continuity includes the following information products:

Item	Description	Minimum user type
Individual Check-in	An ArcGIS Survey123 form used by employees or contract personnel to report their work status	Editor
Team Check-in	An ArcGIS Survey123 form used by a manager, supervisor, or team lead to report the work status of their personnel	Editor
Personnel Status Dashboard	An ArcGIS Dashboards app used by human resources executives or incident commanders to monitor workforce capacity	Viewer
Team Status Dashboard	An ArcGIS Dashboards app used by a manager, supervisor, or team lead to monitor the capacity of their team.	Viewer
Facility Status Reporter	An ArcGIS Web AppBuilder app used by facility managers to look up facilities they are responsible for and submit a report	Editor
Facility Status Report	An ArcGIS Survey123 form used by a building or facility manager to report facility and operational status	Editor
Facilities Status Dashboard	An ArcGIS Dashboards app used by executives and managers to monitor the operational status of their facilities	Viewer
Coronavirus Business Continuity	An ArcGIS Hub site used by businesses, utilities, and government agencies to share COVID-19 health and safety plans with employees returning to the workplace and customers who visit their place of business	Viewer (required for internal destination page)



# Release notes

The following are the release notes:

Version	Description
2.0	<ul style="list-style-type: none"><li>• A new ArcGIS Hub site used by businesses, utilities, and government agencies to share COVID-19 health and safety plans with employees returning to the workplace and customers who visit their place of business</li><li>• A new Facilities feature layer that supports the implementation of the Coronavirus Business Continuity and Coronavirus Business Reopening solutions</li><li>• A new Individual Check-in survey that supports the implementation of the Coronavirus Business Continuity and Coronavirus Health Screening solutions</li></ul>
1.0	<ul style="list-style-type: none"><li>• First release of Coronavirus Business Continuity</li></ul>

# Configure Coronavirus Business Continuity

Coronavirus Business Continuity can be used to maintain business operations and share authoritative information with customers and stakeholders during the coronavirus disease 2019 (COVID-19) pandemic.

In this topic, you'll learn how to configure the Coronavirus Business Continuity solution to meet specific needs in your organization.

## Load data

To load personnel and facilities data, complete the following two workflows.

### Load personnel data from a spreadsheet

Personnel information must be loaded before using the Individual Check-in, Team Check-in, and related dashboards. The Check-in forms require a user to sign in with a user name. The signed-in user name is automatically associated with their full name, team, and office location whenever a check-in is submitted. Personnel information is stored in a table in the Personnel feature layer, and you can use the PersonnelSource.csv file to organize your personnel information before loading it into ArcGIS. Ensure that you populate the user name column in the PersonnelSource.csv file with the ArcGIS user names in your organization that use the Individual Check-in or Team Check-in forms.

To load personnel data from a spreadsheet, complete the following steps:

1. Sign in to your ArcGIS organization and browse to the PersonnelSource.csv item.
2. From the item page, click **Download**.
3. Open the CSV file and edit it with your information.
4. Save and close the file.
5. In your ArcGIS organization, browse to the Personnel feature layer.
6. From the item page, click **Update Data**.
7. Follow the steps in the **Update data** wizard to load your data.

#### Tip:

In some cases, you may need to add or modify past check-in information. The Creator and CreationDate fields on feature layers are not editable when editor tracking is enabled. However, you can temporarily disable editor tracking on the layer and then load or modify your check-ins. Once you have completed loading your source data, reenable editor tracking on the layer.

### Load facilities from a spreadsheet

Facilities must be loaded before using the Facility Status Reporter and Facility Status Dashboard. You can use the FacilitiesSource.csv file to inventory your facilities before loading it into ArcGIS.

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To load your facilities from a spreadsheet, complete the following steps:

1. Verify that you are signed in to your ArcGIS organization and browse to the FacilitiesSource.csv item.
2. From the item page, click **Download**.
3. Open the CSV file and edit it with your information.

**Note:**

At a minimum, you must provide a unique facilityid and the latitude and longitude for each facility. If you don't have a unique ID, you can edit the .csv in Excel and copy this formula into the first row of the facilityid column: =CONCATENATE("Facility-", TEXT(ROW(A1),"00000")). You can then drag the right corner of the cell to fill the formula down for all facilities giving each a unique ID.

4. Save and close the file.
5. In your ArcGIS organization, browse to the Facilities feature layer.
6. From the item page, click **Update Data**.
7. Follow the steps in the **Update layer** wizard to load your data.

## Configure the Coronavirus Business Continuity site


The Coronavirus Business Continuity solution includes the Coronavirus Business Continuity ArcGIS Hub site. This site can be configured with your organization's branding and used to share information with the public and employees about how the organization is keeping customers, residents, and employees safe as organizations return to work during the coronavirus disease 2019 (COVID-19) pandemic.

The Coronavirus Business Continuity site contains information for the public and is intended to be shared with everyone and available to anonymous users. The Internal Destination page contains information for employees and is intended to be shared inside the organization and only available to named users in the organization. The Internal Destination page also includes content intended for facility managers or executives and is only visible to users in the organization who are members of specific groups.

### Update with organizational information

After deploying the Coronavirus Business Continuity solution, the Coronavirus Business Continuity Hub site layout only requires a few updates to fit your local context.

To update the site with your organizational information, complete the following steps:

1. Verify that you are signed in to your ArcGIS organization and browse to Coronavirus Business Continuity site.
2. From the item page, click **Configure**.
3. Scroll to any sections that you want to update, hover over the card, and click the edit pencil  that appears in the horizontal toolbar, and then edit the content with information specific to your organization.
4. In the side panel, click **Footer**.

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A custom footer is provided. In most cases, you will need to update it with your organization's branding, contact information, and social media references.

5. Click the **HTML** text box.  
The **HTML** window appears.
6. Make the necessary changes and click **Apply**.
7. Click **Save**.
8. Click the **Save** drop-down arrow and click **Publish Draft**.
9. To edit content on the associated **Internal Destination** Hub page, follow these steps: .
  - a. At the top left, click the **Coronavirus Business Continuity** drop-down arrow and choose **Site Home**.
  - b. To the right of **Customize**, click the **number of associated pages** button.
  - c. Under **Home**, click **Internal Coronavirus Business Continuity**.
  - d. Scroll through the page to a section that you want to update, click the edit pencil, and edit the content with information specific to your organization.
  - e. Click **Save**.
  - f. Click the **Save** drop-down arrow and click **Publish Draft**.

## Extend business continuity surveys

The Coronavirus Business Continuity solution includes a series of surveys (Individual Check-in, Team Check-in, and Facility Status Report) that can be used to understand the capacity of your workforce and status of facilities you operate.

Review the preconfigured questions and adjust as necessary to remain in compliance with your organizational policies and any applicable laws. In addition, ensure you secure the survey and underlying layers and only share the content with appropriate members of your organization.

## Update feature layer views

The Coronavirus Business Continuity solution includes a series of views created from the Facilities and Personnel feature layers. Organizations may want to modify the Facility Status Report and Individual Check-in surveys by first adding new fields to the feature layers and then configuring the surveys to use the newly created fields. When doing so, the new fields must be exposed in the appropriate views. Additionally, some views are created by joining two sources together, and these views must be re-created with the same name and URL after a new field is added.

Organizations may want to modify the Facility Status Report, Individual Check-in, and Team Check-in surveys by adding new survey questions. When adding new questions, begin with the Update feature layer views section below. For changes such as removing questions or formatting the survey, proceed to the Modify business continuity surveys section.

To add one or more fields to a layer and re-create the views, complete the following steps:

1. Verify that you are signed in to your ArcGIS organization.
2. [Add a new field](#) to a layer in the Facilities or Personnel hosted feature layer.
3. Browse to the view in your contents.
4. Open the item page and click the **Visualization** tab.

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5. Click **More Options** on the appropriate layer or table and click **Set View Definition > Define Fields**.
6. Scroll to the newly created field and check the box next to the new field or fields.
7. Click **Apply**.  
The new field is added to the view's definition.

To update a join view, complete the following steps:

1. Browse to the join view in your contents (for example, Facilities\_current).
2. Open the item page and scroll to the URL section. Click the **Copy** button.
3. Paste the copied URL into Microsoft Notepad or another text editor for reference.

**Note:**

The feature layer name will be used below when re-creating the join. The name can be found after services in the URL structure and may also contain a unique GUID, for example, Facilities\_current\_a45f71a48587425c9b90ee5527cd26d1.

4. Click the **Settings** tab.
5. Click the **Delete Item** button and click **Delete**.
6. Browse to the source hosted feature layer (for example, Facilities).
7. Open the item page and click **Open in Map Viewer Classic**.
8. Click the **Analysis** button and click **Summarize Data > Join Features**.
9. Configure the join using the following table:

Target layer	Layer to join to the target layer	Types of join	Fields to match	Join operation	Define which record is kept	Result layer name
Facilities	Facilities Status Report	Choose the fields to match	GlobalID = facilityguid	Join one to one	Order by created_date/Newest	Facilities_current
Facilities	Facilities Status Report	Choose the fields to match	GlobalID = facilityguid	Join one to one	Order by created_date/Newest	Facilities_public
Personnel	Personnel Information	Choose the fields to match	Creator = username	Join one to one	Order by CreateDate/Newest	Personnel_all
Personnel Information	Personnel	Choose the fields	Username = Creator	Join one to one	Order by CreateDate/Newest	Personnel_current

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		to match				
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**Note:**

Ensure each new join view uses the names defined in this table. If you use the same names, the layers in the map and the existing dashboard widgets do not have to be reconfigured. If your join view contains a unique GUID, the new join view needs to be named with the unique GUID.

10. Uncheck **Use current map extent**, if checked.
11. Check **Create results as hosted feature layer view**.
12. Update the Personnel Status Dashboard or Facilities Status Dashboard to account for the new fields you added to the layers.

## Modify business continuity surveys

To modify a Coronavirus Business Continuity survey, complete the following steps:

1. Start ArcGIS Survey123 Connect and sign in to your ArcGIS organization.
2. Click **Facility Status Report** to download the survey.

**Note:**

The Facility Status Report survey is an example. The steps below are the same for the Individual Check-in or Team Check-in surveys.

3. In the **Download** window, click **Download** and click **OK**.
4. Click **Facility Status Report** again to open the survey.
5. On the side toolbar, click the **Open XLSForm Spreadsheet** button.
6. In the Microsoft Excel spreadsheet, click the **choices** tab.  
This tab comprises all the selectable options for survey questions.
7. Revise the survey to reflect your needs.
8. Save and close the Microsoft Excel spreadsheet.
9. In ArcGIS Survey123 Connect, click **Publish** on the side toolbar.
10. Click **Publish survey** to publish your changes and click **OK**.

# Use Coronavirus Business Continuity

The Coronavirus Business Continuity solution delivers a set of capabilities that help you understand the operational capacity of your workforce, monitor the status of your facilities, and communicate your reopening plans to customers and employees.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

## Note:

Use your organization's data or configured apps to follow these workflows.

## Monitor workforce capacity

The coronavirus disease 2019 (COVID-19) pandemic has significantly affected the workforce of many organizations. Personnel who typically report to an office may be forced to work from home, facilities may be closed or access may be restricted to essential workers, and workers may be unable to report to work due to household issues. Organizations need to know who is able to work and where employees are working from to make business continuity decisions. Having personnel perform a daily self check-in or having supervisors check in their teams gives organizations clarity into workforce capacity.

The Coronavirus Business Continuity solution includes an Individual Check-in form that collects information from personnel including their work status, work location, and wellness information. Organizations deploying the Coronavirus Business Continuity solution should review the preconfigured questions and adjust as necessary to remain in compliance with organizational policies and applicable laws. In addition, ensure that you secure the survey form and underlying layers and only share the content with appropriate members of your organization.

Some organizations may find it more efficient to have managers, supervisors, or team leads check their team members in using the Team Check-in form. If your organization decides to use the Team Check-in form, you can follow the same general steps described here but with the Team Check-in form and the Team Status Dashboard.

## Complete individual check-in

You will start by assuming the role of an employee or contractor in a government agency, business, or utility. You have been asked to use the Individual Check-in form to share your work status each morning.

1. In a browser, from the Coronavirus Business Continuity solution, view the Individual Check-in form.
2. Complete the form with as much information as possible.

## Note:

Required questions are marked with a red asterisk.

3. Click **Submit**.

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## Monitor individual check-ins

Now, you will assume the role of a human resources or operations manager in the same government agency, business, or utility. You are asked to monitor the capacity of your workforce and are looking to see if your organization has business locations or teams that lack the staff required to continue operations. You will view the overall status of your workforce and then look more closely at specific locations and trends.

### Note:

The steps below are the same if you choose to use the Team Status Dashboard app to monitor the capacity of your team.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Coronavirus Business Continuity solution.
2. View the Personnel Status Dashboard app.  
The Personnel Status Dashboard app opens with an overview of the current status.  
  
The overview displays key metrics. This information gives management a quick overview of the number of team members working from their normal locations, from home, and offsite. Any absences and statistics related to the overall health of your workforce are also shown.
3. On the left, in the filter panel, for **Check-in Type**, choose **Individual**.
4. At the lower-right corner of the dashboard, click the **All** tab to see a complete list of check-ins.
5. On the left, in the filter panel, set additional filters to further refine the dashboard results. You can filter by location, team, date, and other key metrics captured in the Individual Check-in form. In the **Personnel** list, you can click an employee to see additional details.
6. On any indicator, click the **History** tab to review results over time; move the slider in each chart to adjust the time period displayed.
7. At the lower-right corner of the dashboard, click the **Offsite Personnel** tab to see the location of all personnel working offsite.

## Track facility status

As the COVID-19 pandemic develops, some organizations have been required to rapidly close facilities or have decided to greatly reduce the number of personnel working in certain facilities. Having visibility into the status of all facilities is a critical component in making business continuity decisions. Daily or periodic status reports from facilities help organizations make informed decisions and necessary operational changes.

The Coronavirus Business Continuity solution includes a Facility Status Report form for facility managers to report the status of the facilities they are responsible for and a Facilities Status Dashboard app to monitor results. Organizations deploying the Coronavirus Business Continuity solution should review the preconfigured questions and adjust as necessary to remain in compliance with organizational policies and applicable laws.



## Complete a facility status report

You will start by assuming the role of a local facility manager in a government agency, business, or utility. You have been asked to use the Facility Status Reporter app and Facility Status Report form to share the status of your facility each day or on a weekly basis.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Coronavirus Business Continuity solution.
2. View the Facility Status Reporter app.
3. On the right, in the **Locate facility** widget, search for a facility; alternatively, click a location on the map.
4. Review the facility details.
5. Click **Submit Status Report**.
6. Complete the Facility Status Report form with as much information as possible.
7. Click **Submit**.

## Monitor facility status

Now, you will assume the role of a facility manager or operations manager in the same government agency, business, or utility. You have been asked to monitor the status of your facilities and are looking to see if your organization has business locations that may be impacted by the COVID-19 pandemic. You will view the status of all facilities and then look more closely at specific locations and trends.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Coronavirus Business Continuity solution.
2. View the Facilities Status Dashboard app.  
The overview displays key metrics. This information gives management a quick overview of the number of facility reports they have received, operational status of their facilities, and staffing capacity at all facilities.
3. On the left, use filters to refine the results by facility name, country, or geographic region, or by various key facility characteristics.
4. On the right, in the **Number of Facilities** list, select a facility to review facility information; alternatively, click a facility on the map.

### Note:

In some instances, organizations may want to review COVID-19 case information around their facilities. In the United States, this information is available at the county level and can be added to the Facilities Status Dashboard map. After you add it to the web map, it is available to facility managers and operations managers when they review the status of their facilities.

## Review return to work resources

As an employee in a government agency, business, or utility, you are interested in learning more about what the organization is doing to keep you and your family safe as you begin to return to work. You will use the Coronavirus Business Continuity site to learn about which

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facilities are open and how their hours may be impacted, the safety plans in place at those facilities, and how you can check in and complete a health screening if you are coming into the office.

1. In a browser, from the Coronavirus Business Continuity solution, view the Coronavirus Business Continuity site.

This site is intended to be shared with the public and is where you can share content intended for your customers and residents in the community.

2. Scroll through the site and review the content.
3. On the site header, click the **Internal Destination** tab.

The **Internal Destination** page is intended to be shared inside the organization and is where you can share content that is only intended for your employees. The page also includes content intended for facility managers (**Manage Facility Status**) or executives (**Gain Organizational Insight**) and is only visible to those users in the organization who are members of specific groups.

4. Scroll through the page and review the content.

# Coronavirus Business Reopening

This solution documentation has been archived and is no longer updated. Content and links may be outdated.

Mature phase Nov. 2022 – Oct. 2024	Retired phase Nov. 2024
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## Introduction to Coronavirus Business Reopening

The Coronavirus Business Reopening solution can be used during the coronavirus disease 2019 (COVID-19) pandemic to guide the reopening of locations that are in multiple jurisdictions.

In the United States, business reopening has been delegated to individual states, and governors have established guidelines that must be met before each state can start to reopen. The disaggregated nature of these guidelines has made it difficult for organizations with business locations across geographically diverse jurisdictions to make reopening decisions. A consolidated view of authoritative case data and relevant health restrictions simplifies the decision to open or close a location and allows an organization to adjust its plans as the pandemic evolves. Coronavirus Business Reopening is typically implemented by organizations that want to take a proactive data-driven approach to reopening plans and adjust business operations, when necessary, during the COVID-19 pandemic.

The Coronavirus Business Reopening solution delivers a set of capabilities that help you continuously evaluate business locations to determine readiness, visualize the latest authoritative COVID-19 case data and health restrictions for surrounding communities, and prioritize where reopening can begin.

## Requirements

Coronavirus Business Reopening requires the following:

- ArcGIS Online
- ArcGIS Notebooks
- ArcGIS Survey123 Connect

# Information products

Coronavirus Business Reopening includes the following information products:

Item	Description	Minimum user type
Coronavirus Business Reopening dashboard	An ArcGIS Dashboards app used by business executives to evaluate COVID-19 case data and health restrictions and understand the impact on business locations that are in many diverse jurisdictions	Viewer
Coronavirus Daily Analysis	An ArcGIS Notebooks app that populates daily COVID-19 case information and health restrictions from county and state sources	Creator
Facility Status Reporter	An ArcGIS Web AppBuilder app used by facility managers to look up facilities they are responsible for and submit a report	Editor
Facility Status Report	An ArcGIS Survey123 form used by a building or facility manager to report the staffing, facility, and operational status	Editor
FacilitySource	A .csv file that can be used to load an authoritative list of facilities into ArcGIS	Not required

# Release notes

The following are the release notes:

Version	Description
2.0	<ul style="list-style-type: none"><li>A new version of the Facilities feature layer used in both the Coronavirus Business Continuity and Coronavirus Business Reopening solutions</li><li>Addition of the Facility Status Reporter app and Facility Status Report survey to maintain facility report status</li></ul>
1.1	<ul style="list-style-type: none"><li>Updated the Health Restrictions layer due to schema change.</li><li>Updated field lengths to 4000 to support changes in the State Health Restrictions layer.</li><li>Updated ArcGIS Notebooks to account for facilities not located in the United States.</li></ul>
1.0	<ul style="list-style-type: none"><li>First release of Coronavirus Business Reopening in the ArcGIS Solutions application</li></ul>

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# Configure Coronavirus Business Reopening

In this topic, you will learn how to configure the Coronavirus Business Reopening solution to meet specific needs in your organization.

## Load data

The Coronavirus Business Reopening solution can be used by organizations as a source of information while making the decision to reopen locations in multiple states.

Facility information must be loaded and the ArcGIS Notebooks must be run before using the dashboard. The FacilitySource file can be used to organize facility information before loading it into ArcGIS. Ensure that you populate the facilityid column with unique values in the FacilitySource; otherwise, the application will not work effectively.

In some cases, you may have an inventory of facilities in ArcGIS already. If you do, review the layers provided with the solution and determine what, if any, source data you would like to load. Then load your existing data into the layers provided with the ArcGIS Solution before sharing the maps or applications.

### Note:

If you do have to load data into the solution, you may want to develop a source-target matrix to track how your source data will be loaded into the target layer or layers used in the solution.

To load your facilities from a spreadsheet, complete the following steps:

1. Sign in to your ArcGIS organization and browse to the FacilitySource item.
2. Open items details page.
3. Click **Download**.
4. Edit the CSV and populate your facility information in the document.

### Note:

At a minimum, you must provide a unique facilityid and the latitude and longitude for each facility in the FacilitySource. If you don't have a unique id, you can edit the CSV in Excel and copy this formula into the first row of the facilityid column: `=CONCATENATE("Facility-", TEXT(ROW(A1),"00000"))`. You can then drag the right corner of the cell to fill the formula down for all facilities giving each a unique id.

5. In your ArcGIS organization, at the top of the site, click **Content**.
6. On the **My Content** tab, type facilities in the search box.
7. Under the **Item Type**, click **Layers - Feature Layers**.
8. Click on the item title for the layer that you want to load data into to view its details.
9. Click **Update Data** and select **Append Data to Layer**.
10. Under **Filename**, choose your spreadsheet.
11. Click **Upload and Continue**.
12. Click **Show field matching** to map the fields.

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13. If you are only appending new features to the layer, click **Apply Updates**.

**Tip:**

To make additional updates to a hosted feature layer, see [Append data to layers](#).

## Extend the business reopening facilities layer

The Coronavirus Business Reopening solution contains a layer for facilities that represents your organization's assets. Organizations may want to modify the facilities layer or the Facility Status Report surveys by first adding new fields to the feature layers and then configuring the surveys to use the newly created fields. When doing so, the new fields must be exposed in the appropriate views. Additionally, some views are created by joining two sources together, and these views must be re-created with the same name and URL after a new field is added.

Organizations may want to modify the Facility Status Report survey by adding new survey questions. When adding new questions, begin with the Update feature layer views section below. For changes such as removing questions or formatting the survey, proceed to the Modify Facility Status Report survey section.

### Update feature layer views

To add one, or more, fields to a layer and re-create the views, complete the following steps:

1. Add a new field to a layer in the Facilities hosted feature layer.
2. Browse to the view in your contents.
3. Click the **Open in Map View** drop-down arrow and click **Add to new map**.
4. Click the **More Options** button on the appropriate layer or table, click **Set View Definition**, and click **Define Fields**.
5. Scroll to the newly created field and check the box. Click **Apply**.  
The new field is added to the view's definition.

To update a join view, complete the following steps:

1. Browse to the join view in your contents (for example, Facilities\_current).
2. On the item details page, scroll to the URL section. Click the **Copy** button.
3. Paste the copied URL into Windows Notepad or another text editor for reference.

**Note:**

The feature layer name will be used below when re-creating the join. The name can be found after services in the URL structure and may also contain a unique GUID. For example, Facilities\_current\_a45f71a48587425c9b90ee5527cd26d1.

4. Delete the existing join view (for example, Facilities\_current).
5. Add the source hosted feature layer to a new web map (for example, Facilities).
6. Click **Analysis > Summarize Data > Join Features**.
7. Configure the join using the following table:

Name of join	Target layer	Layer to join to the target layer	Fields to match	Join operation	Define which record is kept
Facilities_Statistics	Facilities	US Counties Coronavirus Trends	countyfips = cty_fips	Join one to one	First record
Facilities_current	Facilities	FacilitiesStatus Report	GlobalID = facilityguid	Join one to one	Order by created_date/Newest

**Note:**

Ensure that each new join view uses the names defined in this table. If you use the same names, the layers in the map and the existing dashboard widgets do not have to be reconfigured. If your join view contains a unique GUID, the new join view must be named with the unique GUID.

8. If necessary, uncheck **Use current map extent**. Check **Create results as hosted feature layer view**.
9. Optionally, update the Coronavirus Business Reopening dashboard to account for the new fields you added to the layers.

## Modify a Facility Status Report survey

To modify a Facility Status Report survey, complete the following steps:

1. Install [ArcGIS Survey123 Connect](#).
2. Start ArcGIS Survey123 Connect and sign in to your ArcGIS organization.
3. Click Facility Status Report to download the survey.
4. Click Facility Status Report again to open the survey.
5. In the left pane, click **Open XLSForm Spreadsheet**.
6. In the Microsoft Excel spreadsheet, click the **choices** tab.  
This tab comprises all the selectable options for survey questions.
7. Revise the survey to reflect your needs.
8. Save the Microsoft Excel spreadsheet and preview your changes in ArcGIS Survey123 Connect.
9. In ArcGIS Survey123 Connect, click **Publish** in the left pane to publish your changes.

# Use Coronavirus Business Reopening

The Coronavirus Business Reopening solution delivers a set of capabilities that help you continuously evaluate business locations to determine readiness, visualize the latest authoritative COVID-19 case data and health restrictions for surrounding communities, and prioritize where reopening can begin.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

## Note:

Use your organization's data or configured apps to follow these workflows.

## Update health restrictions and case information

To help businesses understand and prioritize reopenings, decision makers rely on the latest state health guidelines, as well as COVID-19 case information tabulated for counties in the United States. The layers supplied in the Coronavirus Business Reopening solution contain health restriction and case information from authoritative sources, at the state and county level. The ArcGIS notebook included with the solution will help organizations pull the latest health restriction and case information from the following layers on a daily basis:

- [US Counties and Territories for COVID-19 Trends layer](#)
- [NEMA emergency measures status](#)

## Update health restriction and case information

First, you will assume the role of a data analyst in a business. You have been asked to use the Coronavirus Daily Analysis notebook to update health restriction and COVID-19 case information.

1. In your browser, open the Coronavirus Daily Analysis notebook.
2. Along the menu bar, click **Kernel**, and then click **Restart and Run All**.

## Note:

This step must be done daily. If this step is not run, your dashboard will be blank or out of date. The notebook takes up to four minutes to finish. There will be no user message stating that the notebook is done. The notebook has finished running when all the cell indicators in the notebook have switched from \* to numbers.

The notebook clears outputs from the previous run and refreshes the **US Counties Coronavirus Trends** and **State Health Restrictions** layers with the latest updated content.



**Note:**

Running this notebook may consume credits if your facilities layer has locations outside of the US, every time the notebook is run. It is recommended that you only have facilities that are located in the US in the facilities layer.

## Understand health restrictions and case information

As the COVID-19 pandemic unfolds, some businesses are being required to rapidly close facilities or readjust reopening of facilities based on the latest case and health restriction information. Having visibility into the status of all facilities alongside the latest information coming out at the state and county level is a critical component in making business reopening decisions. Daily or periodic status reports from facilities help organizations make informed decisions and necessary operational changes. The Coronavirus Business Reopening dashboard aggregates and summarizes information from authoritative sources on the latest guidelines and trends.

### Review health restrictions and case information

You will start by assuming the role of an operations manager. You have been asked to explore the latest health restriction information in the Coronavirus Business Reopening dashboard and view the overall impact that COVID-19 health restrictions and cases are having on business locations.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Coronavirus Business Reopening solution.
2. View the Coronavirus Business Reopening dashboard.  
The Coronavirus Business Reopening dashboard opens with an overview of the overall status of your facilities, focused on health restrictions by state.
  - The global filters across the top allow conditions to be set, which limits data visualization in the dashboard.
  - The facility list on the left side is interactive; when an item is selected, the map will zoom to the selected facility.
  - Along the bottom are a set of tabs to focus your view based on health restrictions and case information.
3. On the map, select a state where the stay-at-home restrictions have been lifted. A pop-up window shows the latest restrictions and guidelines.
4. Scroll through the pop-up.  
The pop-up includes a link to an infographic with further state-level socioeconomic and demographic details as well as a link to the latest state-projected peak use of hospital resources provided by the [Institute for Health Metrics and Evaluation](#) (IHME).
5. At the bottom of the pop-up, click the third button.  
On the left, the facilities list and metrics filter to reflect the selected state.

**Tip:**

You can also filter for a state's metrics by selecting a state from the **State** drop-down list at the top of the app.

6. Below the map, click the **Case Information** tab.  
This tab reveals metrics of the latest case information by counties. All metrics are filtered down to the state that you selected on the previous tab.  
  
The metrics displayed on the right side of the panel provide context as to the number of facilities that are within each trend type. Along the bottom are a set of panels that display the overall case and mortality rate by counties for the selected state.

**Note:**

If no state is selected, an overall breakdown of the United States is shown.

A key indicator that a county may be recovering is the number of consecutive days with zero new cases. Counties with zero new cases over the past 14 or more days may no longer have active cases and can indicate an important milestone in reopening facilities. The global filter along the top, **Number of Days with Zero Cases**, enables a number to be entered representing the number of consecutive zero case days. Entering a value filters the counties and the facilities within those counties that meet or exceed the value.

Below the map, the **Count of Counties with Zero New Cases** chart provides context into the number of counties that have maintained zero cases over a period of time. Hovering over each dot in the chart displays the total number of counties that have consistently maintained zero cases for the given number of days. Furthermore, the chart provides additional fine-tuning capabilities by interactively selecting a range that refines your view to focus on counties that are within a given threshold range.

7. In the map, select a county.  
A pop-up shows the latest case information.
8. Scroll through the pop-up.  
The pop-up includes a link to an infographic with further county level socioeconomic and demographic details.
9. At the bottom of the pop-up, click the third button.  
Clicking this button selects the county and filters all metrics to that county.  
  
The facilities list and metrics on the left and the panels below the map filter to reflect the selection.

## Locate counties with zero new cases

To help businesses understand and prioritize reopenings, decision makers rely on the latest state health guidelines, as well as COVID-19 case information tabulated for counties in the United States. This workflow will show you how to identify the counties, in a given state, that have had zero case days for a given period of time.

## Filter counties with zero new cases

You will start by assuming the role of an operations manager in a business. You have been asked to use the Coronavirus Business Reopening dashboard to find business locations in counties that have had zero new COVID-19 cases over a period of time.

1. In the dashboard, click the **Case Information** tab to access county-level information.
2. At the top of the dashboard, click the **State** drop-down menu and choose a state.  
The information at the bottom of the dashboard now reflects the counties for the selected state.
3. At the top right of the dashboard, for **Number of Days with Zero Cases**, type the number of zero case days desired.  
The dashboard updates to show counties with your specified number of zero case days.

### Tip:

You can further filter this selection by selecting the days desired to view in the map.

## Locate zero new cases using the case chart

Now, you will use the case graph to find business locations in counties that have had zero new cases over a period of time.

1. At the bottom of the dashboard, click the **Case Information** tab to access county-level information.
2. At the top of the dashboard, select a state from the **State** drop-down menu.  
The information at the bottom of the dashboard now reflects the counties for the selected state.
3. Select the number of zero case days desired.  
The facilities list and metrics at the left and the panels below the map filter to reflect the selection.

## Track facility status

As the COVID-19 pandemic develops, some organizations are being required to rapidly close facilities. Having visibility into the status of all facilities is a critical component in making business reopening decisions. Daily or periodic status reports from facilities help organizations make informed decisions and necessary operational changes.

The Coronavirus Business Reopening solution includes a Facility Status Report form for facility managers to report the status of the facilities they are responsible for. Organizations deploying Coronavirus Business Reopening should review the preconfigured questions and adjust as necessary to remain in compliance with organizational policies and applicable laws.

## Complete a facility status report

You will start by assuming the role of a local facility manager in a government agency, business, or utility. You were asked to use the Facility Status Reporter app and Facility Status Report form to share the status of your facility each day or on a weekly basis.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Coronavirus Business Reopening solution.
2. View the Facility Status Reporter app.
3. On the right, in the **Locate facility** widget, search for the name of a facility.
4. In the results, select the facility, and then review the facility details.
5. Click **Submit Facility Report**.
6. Complete the **Facility Status Report** with as much information as possible.
7. Click **Submit**.

# Coronavirus Force Readiness

This solution documentation has been archived and is no longer updated. Content and links may be outdated.

Mature phase Nov. 2022 – Oct. 2024	Retired phase Nov. 2024
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## Introduction to Coronavirus Force Readiness

Coronavirus Force Readiness can be used to understand force availability and share authoritative information with decision makers during the Coronavirus Disease 2019 (COVID-19) pandemic.

The solution provides units with information regarding which personnel can report for duty and an understanding of their capacity to respond to a request for assistance during the COVID-19 pandemic. Units may be requested to assist in setting up alternate care facilities, detection testing sites, supporting food distribution, and so on. Having personnel perform a routine check-in or having someone from the armory or unit provide the readiness status of a group of personnel gives units clarity into a unit's readiness during the pandemic. Coronavirus Force Readiness is typically implemented by the National Guard, Air National Guard, and other service branches that want to take a data-driven approach to understanding force availability during COVID-19.

The Coronavirus Force Readiness solution delivers a set of capabilities that help you to understand the operational capacity of a force, monitor the status of units, and communicate capabilities and disruptions to commanders and administrative staffs during the COVID-19 pandemic.

## Requirements

Coronavirus Force Readiness requires the following:

- ArcGIS Online
- ArcGIS Survey123

# Information products

Coronavirus Force Readiness includes the following information products:

Item	Description	Minimum user type
Admin Dashboard	An ArcGIS Dashboards app used by administrative NCOs to monitor personnel availability.	Viewer
Personnel Readiness Dashboard	An ArcGIS Dashboards app used by any unit member to track and monitor personnel readiness and availability.	Viewer
Commander's Dashboard	An ArcGIS Dashboards used by commanders to quickly assess the overall unit readiness.	Viewer
Personnel Readiness Report	An ArcGIS Survey123 form used by a military unit member to report availability.	Not required
Personnel Readiness Batch Report	An ArcGIS Survey123 form used by an NCO or armory clerk to report the availability of their personnel.	Not required

## Release notes

The following are the release notes:

Version	Description
1.0	First release of Coronavirus Force Readiness

# Configure Coronavirus Force Readiness

In this topic, you will learn how to configure the Coronavirus Force Readiness solution to meet specific needs in your organization.

## Extend force readiness surveys

The Coronavirus Force Readiness solution includes a series of surveys that can be used to understand the capacity of your workforce.

Review the preconfigured questions and adjust as necessary to remain in compliance with your organizational policies and any applicable laws. Additionally, ensure that you secure the survey and underlying layers and only share the content with appropriate members of your organization.

## Update feature layer views

The Coronavirus Force Readiness solution includes a series of views created from the Personnel Readiness feature layer. The feature layer is used in the surveys and the subsequent views are used in the dashboards. Organizations may modify the Personnel Readiness Report survey and ultimately add new fields to the feature layers. When doing so, the new fields must be exposed in the appropriate views.

To add one or more fields to a layer and re-create the views, complete the following steps:

1. Browse to the view in your contents.
2. Click the **Visualization** tab.
3. Click the **Options** button **...** on the appropriate layer or table, then click **Set View Definition**.
4. Click **Define Fields**.
5. Scroll to the newly created field and check the box. Click **Apply**.  
The new field is added to the view's definition.
6. Repeat steps 1 through 5 for the Personnel Readiness Dashboard.
7. Update the Personnel Readiness Dashboard to account for the new fields you added to the layers.

## Modify readiness surveys

To modify a Coronavirus Force Readiness survey, complete the following steps:

1. Install ArcGIS Survey123 Connect.
2. Start ArcGIS Survey123 Connect and sign in to your ArcGIS organization.
3. Click Personnel Readiness Report to download the survey.
4. Click the Personnel Readiness Report again to open the survey.
5. In the left pane, click **Open XLSForm Spreadsheet**.
6. In the Microsoft Excel spreadsheet, click the **Choices** tab. This tab comprises all of the selectable options for survey questions.
7. Revise the survey to reflect your personnel readiness needs.

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8. Save the Microsoft Excel spreadsheet and preview your changes in ArcGIS Survey123 Connect.
9. In ArcGIS Survey123 Connect, click **Publish** in the left pane to publish your changes.

## Configure echelons

The dashboards are preconfigured to display four battalions and four companies under each battalion. Follow the steps below to add or remove battalions or companies from your dashboard.


### Add a battalion

To add battalions or companies to the dashboard, complete the following steps:

1. Sign in to your ArcGIS Online organization.
2. Browse to the Personnel Readiness Dashboard and open the item details page.
3. Click **Edit Dashboard**.
4. Select the last battalion tab while in edit mode.
5. Go to the editing tool within this element and select **Duplicate**.
6. Drag the newly created copy and position it below the last battalion tab.
7. Reference duplicated battalion settings, text, and configuration.
8. Add a new name, for example, 5th BN, to the new component.
9. Save your application.

### Remove a battalion tab

To remove a battalion or companies from the dashboard, complete the following steps:

1. Sign in to your ArcGIS Online organization.
2. Browse to the Personnel Readiness Dashboard and open the item details page.
3. Click **Edit Dashboard**.
4. Select the battalion tab you want to delete while in edit mode.
5. Click the **Delete** button  to delete the selected battalion.
6. Save your application.

## Configure alternate reporting periods

The dashboards are preconfigured to display individuals reporting within the last 24 hours. The dashboard owner can configure the dashboard to display alternate reporting periods. The **Personnel List** is the most commonly configured element in regard to its contents and time frame.

To modify the reporting period, complete the following steps:

1. Sign in to your ArcGIS Online organization.
2. Browse to the Personnel Readiness Dashboard and open the item details page.
3. Click **Edit Dashboard**.
4. Go to the editing tool within the **Personnel List** element and select **Configure**.

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5. Below Battalion, select the **And** option and add **Date Reported** from the drop-down list. You can now select from any of the available options and time frames.
6. Click **Done** and save your application displaying the new reporting period.

## Add readiness tabs for new battalions and companies

The dashboards are preconfigured to display four battalions and four companies and their applicable total force/unit size. This tab also contains the availability based on survey submissions and percentage of readiness.

To add percentages of readiness to the dashboard, complete the following steps:

1. Sign in to your ArcGIS Online organization.
2. Browse to the Personnel Readiness Dashboard and open the item details page.
3. Click **Edit Dashboard**.
4. Select the **3rd Battalion** tab while in edit mode
5. Go to the editing tool within the **Personnel List** element and select **Duplicate**.
6. Drag the newly created copy and position it below the **3rd Battalion** tab. Reference the 3rd Battalion settings, text, and configuration.
7. Add a new name, such as 5th BN, to the new component and save your application.
8. Go to the **Reference** section within the configuration tool and add the unit size below **Fixed Value**.  
This number will provide the available value and percentage of readiness.
9. Follow the previous step and enter your current **Total Force** for each unit level.
10. If you need to remove a battalion tab, click the **Delete** button .
11. Save your application.

# Use Coronavirus Force Readiness

The Coronavirus Force Readiness solution delivers a set of capabilities that help you to understand the operational capacity of a force, monitor the status of units, and communicate capabilities and disruptions to commanders and administrative staffs during the COVID-19 pandemic.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

## Monitor force readiness

The Coronavirus Force Readiness solution includes a Personnel Readiness Report survey that collects information from personnel, including their duty type, location, MOS (military occupational specialty), unit they belong to, and wellness information. Units deploying Coronavirus Force Readiness should review the preconfigured questions and adjust as necessary to remain in compliance with policies and applicable laws of your state or unit. In addition, ensure that you secure the survey and underlying layers and only share the content with appropriate members of your unit.

Some organizations may find it more efficient to have an individual, such as someone from the armory, check their unit member in using the Personnel Readiness Batch Report survey. If a unit decides to use the batch survey, follow the same general steps below with the Personnel Readiness Batch Report survey and the Personnel Readiness Dashboard.

## Complete individual readiness report

You will start by assuming the role of a military unit member. You are asked to use the Personnel Readiness Report survey to share your availability status each morning.

1. In a browser, go to your Personnel Readiness Report survey.
2. In the Personnel Readiness Report survey, fill in the following details:

Parameter	Value
<b>State</b>	Select <b>California</b> .
<b>Battalion</b>	Select <b>1st Battalion</b> .
<b>Company</b>	Select <b>A Company</b> .
<b>Rank</b>	Select <b>E-4/CPL</b> .
<b>MOS</b>	Type <b>12W</b> .
<b>Select Duty Type</b>	Select <b>State Active Duty</b> .

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<b>First Name</b>	Type your first name.
<b>Last Name</b>	Type your last name.
<b>Commander</b>	Type your commander's name.
<b>Provide Location</b>	Select your location on the map or provide your address.
<b>Can you report for duty?</b>	Select <b>No</b> .
<b>Is it health related?</b>	Select <b>Yes</b> .
<b>Is it your health or someone else's?</b>	Select <b>Self</b> .
<b>Is it COVID-19 related?</b>	Select <b>Yes</b> .
<b>Select your status</b>	Select <b>Quarantined</b> .
<b>Select date quarantine started</b>	Select a date within 14 days of today.
<b>Check completed by:</b>	Select <b>Self</b> .

3. Click **Submit**.

## Monitor personnel readiness

Now, you will assume the role of the Readiness NCO in the same unit. You are asked to monitor the readiness of your unit and are looking to see whether your unit is available to be assigned to a mission. You will view the overall readiness of your workforce.

### Note:

The steps below are the same if you are an administrative NCO and will be using the Admin Dashboard to monitor the readiness of your team. The Admin Dashboard will contain personal information about the individual unit members.

1. In a browser, go to the Personnel Readiness Dashboard app.
2. The Personnel Readiness Dashboard opens with an overview of the overall readiness of the brigade and each battalion in the brigade.  
The overview displays key metrics. This information gives leadership a quick overview of the number of unit members available. Statistics related to the availability of your unit are also shown.

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3. In the filter at the top of the dashboard, click **Last 24 Hrs** to see a complete list of the submissions from the last 24 hours.
4. Filter by **Time frame**, **MOS by Battalion**, and **MOS by Company**. Review the list of personnel and their locations in the map.
5. Click each of the **Battalion** tabs to see the availability for each company in that battalion.
6. Adjust the slider in the **Quarantined (Start Date) - Last 14 Days** chart to adjust the time period you want to review.

In the lower left corner of the dashboard, you can review the **COVID-19 Status** submitted by individual unit members.

# Coronavirus Health Screening

This solution documentation has been archived and is no longer updated. Content and links may be outdated.

Mature phase Nov. 2022 – Oct. 2024	Retired phase Nov. 2024
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## Introduction to Coronavirus Health Screening

Coronavirus Health Screening can be used to conduct coronavirus disease 2019 (COVID-19) health screenings before employees and visitors are permitted to enter a building, facility, or location.

As employees return to work and locations reopen to the public, organizations are taking steps to protect the health and safety of all individuals in their facilities. As a result, many organizations are asking employees and visitors to attest each day that they are symptom free and have not had recent contact with anyone who has tested positive for COVID-19. Many are also requiring a temperature check before they are permitted to enter the building. Coronavirus Health Screening is typically implemented by organizations that want to conduct health screenings on all employees and visitors entering their facilities.

The Coronavirus Health Screening solution delivers a set of capabilities that help you screen employees and visitors by requiring that they self-report symptoms or contact, record the result of a temperature check, and track who was permitted to enter a facility or location on a given date.

## Requirements

Coronavirus Health Screening requires the following:

- ArcGIS Online

## Information products

Coronavirus Health Screening includes the following information products:

Item	Description	Minimum user type
Employee Health Screening	An ArcGIS Survey123 form used by employees or contract personnel to self-report coronavirus symptoms or contact before entering a facility or location	Editor
Visitor Health Screening	An ArcGIS Survey123 form used by visitors to self-report coronavirus symptoms or contact before entering a facility or location	Not required
Temperature Check	An ArcGIS Survey123 form used by health screeners to record temperature checks of employees and visitors before entering a facility or location	Editor
Health Screening Dashboard	An ArcGIS Dashboards app used by health screeners and human resources executives to monitor health screenings and determine who was permitted to enter a facility or location on a given date	Viewer

## Release notes

The following are the release notes:

Version	Description
1.0	<ul style="list-style-type: none"><li>First release of Coronavirus Health Screening</li></ul>

# Configure Coronavirus Health Screening

In this topic, you will learn how to configure the Coronavirus Health Screening solution to meet specific needs in your organization.

## Load screening locations

Screening locations must be loaded into the HealthScreenings feature layer before using the Health Screening Dashboard. The ScreeningLocationsSource.csv file included with the solution can be used to organize your screening locations before loading into ArcGIS.

To load your screening locations from the ScreeningLocationsSource.csv file, complete the steps below:

1. Sign in to your ArcGIS organization and browse to the ScreeningLocationsSource item.
2. Open the item page and click **Download**.
3. Browse to and open the ScreeningLocationsSource.csv file.  
There are two fields in the .csv file, location and capacity, that match the Locations table in the HealthScreenings feature layer.
4. Edit the .csv file and provide your list of screening locations and their capacity.
5. In your ArcGIS organization, browse to the HealthScreenings feature layer.
6. Open the item page and click **Update Data > Append Data to Layer**.
7. Click **Choose File** and browse to your ScreeningLocationsSource.csv file, and click **Open**.
8. Click **Upload and Continue**.
9. Click the **Choose the layer that you wish to append data into** drop-down arrow and choose **Locations**.
10. Uncheck **Update existing features**.
11. Click **Show field matching** to map the fields.

### Note:

If the capacity field isn't available as a **Match Field** option, check the .csv file to make sure the values in the capacity field are all numbers.

12. Click **Apply Updates**.

## Update location choice list

The Employee Health Screening and Visitor Health Screening surveys provide a default list of options for the **Campus, Building, or Place Name** question. You will update this choice list to reflect the locations you loaded into the HealthScreenings feature layer in the previous steps.

1. Install [ArcGIS Survey123 Connect](#).
2. Start ArcGIS Survey123 Connect and sign in to your ArcGIS organization.
3. Click **Employee Health Screening** to download the survey.

**Note:**

The Employee Health Screening survey is an example. The steps below are the same for the Visitor Health Screening survey.

4. In the **Download** window, click **Download** and click **OK**.
5. Click **Employee Health Screening** again to open the survey.
6. On the side toolbar, click the **Open XLSForm Spreadsheet** button.
7. In the Microsoft Excel spreadsheet, click the **choices** tab. The location list defines the choices for the **Campus, Building, or Place Name** question.
8. Update the list to reflect the locations you loaded in the previous steps.
9. Save and close the Microsoft Excel spreadsheet and preview your changes in ArcGIS Survey123 Connect.
10. In Survey123 Connect, click **Publish** on the side toolbar.
11. Click **Publish survey** to publish your changes and click **OK**.

## Extend health screening surveys

The Coronavirus Health Screening solution includes a series of surveys (Employee Health Screening, Visitor Health Screening, Temperature Check) that can be used by an employee, contractor, or visitor to self-report coronavirus symptoms or contact before entering a facility or location.

Review the preconfigured questions and adjust as necessary to remain in compliance with your organizational policies and any applicable laws. The screening surveys do not record any of the responses to the health-related questions and are only used to determine the result of the screening.

### Add additional fields

The health screening surveys leverage a series of views created from the HealthScreenings feature layer. Organizations may want to modify the Employee Health Screening, Visitor Health Screening, and Temperature Check surveys by first adding new fields to the feature layers and then configuring the surveys to use the newly created fields. When doing so, the new fields must be exposed in the appropriate views.

When adding new questions, consider if you need to store the answer when the survey is submitted. For example, the health question responses are not stored with the feature layer and don't require a field.

To add one or more fields to a layer and update the views, complete the following steps:

1. Verify that you are signed in to your ArcGIS organization.
2. [Add a new field](#) to a layer in the HealthScreenings hosted feature layer.
3. Browse to the view.
4. Open the item page and click the **Visualization** tab.
5. Click **More Options** on the appropriate layer or table, click **Set View Definition > Define Fields**.
6. Scroll to the newly created field and check the box next to the new field or fields.

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7. Click **Apply**.  
The new field is added to the view's definition.

## Modify health screening surveys

To modify a Coronavirus Health Screening survey, complete the following steps:

1. Start ArcGIS Survey123 Connect and sign in to your ArcGIS organization.
2. Click **Employee Health Screening** to open the survey.

### Note:

The Employee Health Screening survey is an example. The steps below are the same for the Visitor Health Screening and Temperature Check surveys.

3. On the side toolbar, click the **Open XLSForm Spreadsheet** button.
4. Revise the survey to reflect your health screening needs.
5. Save and close the Microsoft Excel spreadsheet and preview your changes in Survey123 Connect.
6. In Survey123 Connect, click **Publish** on the side toolbar.
7. Click **Publish survey** to publish your changes and click **OK**.

## Self-report temperature

Health screenings typically involve a temperature check before an individual is permitted to enter a facility. By default, the Coronavirus Health Screening solution assumes a health screener will perform the temperature check, record the result, and admit or turn away the individual based on the result. Some organizations may choose to have employees or visitors perform their own temperature checks and record the result using the original health screening survey. This eliminates the need for a health screener to perform a temperature check before entering the facility.

To enable employees or visitors to report their temperature in the health screening survey, complete the following steps:

1. Start ArcGIS Survey123 Connect and sign in to your ArcGIS organization.
2. Click **Employee Health Screening** to open the survey.

### Note:

The steps below can also be used to modify the Visitor Health Screening survey.

3. On the side toolbar, click the **Open XLSForm Spreadsheet** button.
4. In the Microsoft Excel spreadsheet, find the ask\_temperature question in the third row, column B (name).
5. Scroll to the right to column J (default) and change the text from No to Yes for this row.
6. Save and close the Microsoft Excel spreadsheet and preview your changes in Survey123 Connect.

**Note:**

After you answer no to the three COVID-19 symptom and contact questions, a new question asking for your temperature is now required.

7. In Survey123 Connect, click **Publish** on the side toolbar.
8. Click **Publish survey** to publish your changes and click **OK**.

## Remove the temperature check list from the dashboard

When the health screening survey is configured to ask the employee or visitor for their temperature, the temperature check list in the screening dashboard no longer applies and can be removed.

1. Verify that you are signed in to your ArcGIS organization and browse to the Health Screening Dashboard.
2. Open the item page and click **Edit Dashboard**.
3. Hover over the upper left corner of the **Temperature Check** element and click **Delete**.
4. In the **Delete Element** window, click **Delete**.
5. Click **Save** to save the dashboard.

# Use Coronavirus Health Screening

The Coronavirus Health Screening solution delivers a set of capabilities that help you screen employees and visitors by requiring that they self-report symptoms or contact, record the result of a temperature check, and track who was permitted to enter a facility or location on a given date.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

## Note:

Use your organization's data or configured apps to follow these workflows.

## Self-report symptoms or contact

You will start by assuming the role of an employee in a government agency, business, or utility. Each day before entering a facility, you are asked to attest that you are symptom free and have not had recent contact with anyone who has tested positive for COVID-19.

1. In a browser, from the Coronavirus Health Screening solution, view the Employee Health Screening form.
2. Complete the form with as much information as possible.

## Note:

Required questions are marked with a red asterisk.

If you are signed in, the form automatically fills in your name and email address from your user profile. If you select **Yes** to any of the health-related questions, a message displays at the bottom of the form indicating that you are at risk for COVID-19 and are not permitted to enter the building, and no other questions display.

3. Click **Submit**.

## Perform a temperature check

Now, you will assume the role of a health screener in the same government agency, business, or utility. You have been asked to perform a temperature check of employees or visitors before they will be permitted to enter the facility.

## Note:

If an organization chooses to ask employees and visitors to self-report their temperature, these steps do not apply. [Follow these steps](#) to expose a temperature check question in the health screening surveys.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Coronavirus Health Screening solution.

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2. View the Health Screening Dashboard app.  
The Health Screening Dashboard app opens to a list of employees and visitors who require a temperature check. The list is populated with the names of employees and visitors who have submitted the Employee Health Screening form.
3. Locate an individual in the list, and then click the thermometer button to the right of the individual's name.  
The **Temperature Check** form opens in a new tab.
4. Confirm that the value for **Full Name** matches the individual that you selected.
5. Type the temperature.

**Note:**

A temperature below 100.4 is not considered a fever and results in a message that states that the individual is permitted to enter the building. A temperature of 100.4 or higher returns a message that states that the person is not permitted to enter.

6. Click **Submit**.
7. Close the **Temperature Check** form and return to the Health Screening Dashboard app.

## Monitor health screenings

You will continue your role as a health screener in the government agency, business, or utility. You have been asked to admit only employees or visitors who have passed the health screening into the building and to instruct those that have not passed the screening to return home. You have also been asked to monitor building occupancy to ensure that it doesn't exceed the maximum capacity.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Coronavirus Health Screening solution.
2. View the Health Screening Dashboard app.  
The Health Screening Dashboard app has three tabs: **Temperature Check**, **Admit**, and **Rejected**. At the bottom of the dashboard, an indicator shows the building's current occupancy rate.

**Note:**

If an organization chooses to ask employees and visitors to self-report their temperature, the Temperature Check list does not apply.

3. On the left side of the app, click the arrow to display the filter panel.

**Tip:**

You can pin the filter panel to the dashboard by clicking the pin in the upper-right corner.

4. For **Location**, select a building.  
The **Occupancy** indicator updates to show the building's maximum capacity and the number of employees and visitors who have been admitted to that building.

When additional individuals pass the health screening, the occupancy percentage updates. When occupancy reaches 100 percent, the value displays in red.

5. Adjust additional filters to further refine the results.
6. On the dashboard, click the **Admit** tab and review the list of individuals who have passed the screening and are permitted to enter the building.
7. Click the **Rejected** tab and review the list of individuals who did not pass the screening and are not permitted to enter the building.

## Export a list of admitted employees and visitors

You will assume the role of a human resources executive. An employee has tested positive for COVID-19 and was recently in one of your buildings. You need to export a list of every employee and visitor who was admitted to the facility on the same day and follow up with the health department.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Coronavirus Health Screening solution.
2. Open the **Employee Health Screening** form item page.
3. Click **Open in Survey123** and choose **Manage in Survey123 website**.
4. At the top right, click the **Data** tab.
5. On the left, click **Filter**.
6. Set the first expression to result is admit.
7. Click **Add expression**.
8. Set the second expression to EditDate is on and specify the date.
9. Click **Apply**.
10. Click **Export** and choose your output format.  
After you select the format, the file downloads.

# Coronavirus Recovery Dashboard

This solution documentation has been archived and is no longer updated. Content and links may be outdated.

Mature phase Nov. 2022 – Oct. 2024	Retired phase Nov. 2024
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## Introduction to Coronavirus Recovery Dashboard

Coronavirus Recovery Dashboard can be used to tabulate and monitor key recovery metrics and trends that support phased coronavirus disease 2019 (COVID-19) recovery efforts.

As communities begin to reopen, balancing public health metrics with economic growth is essential and understanding how these metrics vary from one geography to another helps decision makers develop strategic reopening plans. Coronavirus Recovery Dashboard is typically implemented by government organizations that want to visualize key recovery metrics over time to help inform health restrictions, social distancing decisions and recommendations made to open certain sectors of the economy.

The Coronavirus Recovery Dashboard solution delivers a set of capabilities that help you tabulate recovery and reopening metrics, monitor key trends and performance targets for defined geographies, and communicate progress to interested stakeholders.

## Requirements

Coronavirus Recovery Dashboard requires the following:

- ArcGIS Online
- ArcGIS Pro 2.5 or later (Basic, Standard, or Advanced)

# Information products

Coronavirus Recovery Dashboard includes the following information products:

Item	Description	Minimum user type
Coronavirus Recovery Dashboard	An ArcGIS Dashboards app used by health and human services staff to monitor symptoms, cases, and hospital capacity metrics and trends to support phased recovery efforts	Viewer
Coronavirus Recovery Mobile Dashboard	An ArcGIS Dashboards app optimized for mobile devices, used by health and human services staff to monitor symptoms, cases, and hospital capacity metrics and trends to support phased recovery efforts	Viewer
Coronavirus Recovery Data Management	An ArcGIS Pro project used by health and human services staff to tabulate key recovery metrics and calculate symptoms and case trends	GIS Professional Basic

## Release notes

The following are the release notes:

Version	Description
1.1	<ul style="list-style-type: none"><li>A new Coronavirus Recovery Dashboard and Coronavirus Recovery Mobile Dashboard that resolves an issue where the location selector fails to load in the new ArcGIS Dashboards app.</li></ul>
1.0	<ul style="list-style-type: none"><li>First release of Coronavirus Recovery Dashboard</li></ul>

# Configure Coronavirus Recovery Dashboard

In this topic, you will learn how to configure the Coronavirus Recovery Dashboard solution to meet specific needs in your organization.

## Configure recovery dashboard

The Coronavirus Recovery Dashboard includes a series of key recovery indicators defined by the United States Centers for Disease Control and Prevention (CDC) and specific metrics identified by the United States National Governors Association (NGA). The indicators and metrics are tabulated for a specific reporting area. The reporting areas can be a country, state or province, region, county, zip code, municipality, or any other geographic area you are using to tabulate results.

To configure the dashboard for new metrics and trends you want to monitor, complete the steps below:

1. Sign in to your ArcGIS organization and browse to the Coronavirus Recovery Dashboard item.

### Note:

The steps below are the same for the Coronavirus Recovery Mobile Dashboard item.

2. Open the item page and click **Edit Dashboard**.
3. Hover over the upper left corner of a element and click **Duplicate**.
4. Hover over the upper left corner of the duplicated element and click **Configure**.
5. Click the **Data** tab.
6. For an indicator element, change the **Value** setting to the new metric field. For a serial chart element, change **Series 1** to the new value field and change **Series 2** to the new value trend field.
7. Click the **General** tab.
8. Change the name of the element.
9. Modify the **Title** setting by clicking **Edit** and updating the title for the metric.
10. Click **Done**.
11. Hover over the **Coronavirus Recovery Dashboard** in the upper right corner of the dashboard and click **Configure**.
12. Click the **Actions** tab.
13. For **Filter**, click **Add Target** and select the element you added.
14. Scroll to the bottom, and for the new element, select **Name** for both **Source** and **Target**.
15. Click **Done**.
16. Click **Save** to save the dashboard.

## Set metric targets

The Coronavirus Recovery Dashboard has target goals of 90 percent for testing and health care metrics. The target percentage is provided as an example of how you can set a target and

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indicate whether you are meeting the target. You will want to configure these targets to meet your community's goals.

To set the target for a testing or health care metric, complete the steps below:

1. Sign in to your ArcGIS organization and browse to the Coronavirus Recovery Dashboard item.

**Note:**

The steps below are the same for the Coronavirus Recovery Mobile Dashboard item.

2. On the dashboard item page, click **Edit Dashboard**.
3. Hover over the upper left corner of the indicator element and click **Configure**.
4. Click the **Data** tab.
5. Change the **Reference** value to the desired target.  
In some cases, you may not have a target associated with a metric and only want to indicate that the value is being measured. If so, you can disable the **Conditional Formatting** option. If you want to keep the target and don't want to disable this option, skip to step 10.
6. Click the **General** tab.
7. Click **Edit** to modify the **Description** setting.
8. Click **Source** and copy the following HTML snippet into the editor:

```
<table style="background-color:#2695bc; color:#ffffff; font-size:16px; padding:2px; text-align:center; width:100%">
  <tbody>
    <tr>
      <td>
        <p>Measured</p>
      </td>
    </tr>
  </tbody>
</table>
```

9. Click **Source**.
10. Click **Done**.
11. Click **Save** to save the dashboard.

# Use Coronavirus Recovery Dashboard

The Coronavirus Recovery Dashboard solution delivers a set of capabilities that help you tabulate recovery and reopening metrics, monitor key trends and performance targets for defined geographies, and communicate progress to interested stakeholders.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

## Note:

Use your organization's data or configured apps to follow these workflows.

## Tabulate recovery metrics

Past case and symptom information can be used to calculate 14-day trends to indicate if the community is seeing a downward or upward trend. New metric information can be added as frequently as you receive updates, and trend lines can be recalculated with the latest information to give an accurate picture of the current state in the community.

You will start by assuming the role of an epidemiologist. You are asked to use the Coronavirus Recovery Data Management project to tabulate coronavirus disease 2019 (COVID-19) cases each morning.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Coronavirus Recovery Dashboard solution.
2. Download the Coronavirus Recovery Data Management project, and then unzip the folder.
3. From the unzipped folder, open the Coronavirus Recovery Data Management project in ArcGIS Pro.
4. In the **Catalog** pane, expand the **Tasks** folder, and then double-click the **Coronavirus Recovery Data Management** task.

## Note:

If you do not see the **Catalog** pane, from the **View** tab, in the **Windows** group, click **Catalog Pane**.

5. In the **Task** Pane, expand the **How to Use Coronavirus Recovery Data Management** task group to see the collection of tasks.
6. Open each task and follow the steps provided.

## Monitor coronavirus recovery

Now you will assume the role of a public health officer or executive in the same government agency. You have been asked to monitor case and symptom trends over the last 14 days and verify that testing and health care facilities are meeting specific requirements.

Before beginning a phased reopening, you want to confirm that there is a downward trend in the number of new positive cases and individuals experiencing flu-like and COVID-19 symptoms.

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You also want to ensure a minimum percentage of testing sites and health care facilities are meeting minimum requirements defined by the community.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Coronavirus Recovery Dashboard solution.
2. View the Coronavirus Recovery Dashboard app.  
The Coronavirus Recovery Dashboard solution opens with trend information for cases and symptoms and metrics for testing and health care facilities.
3. Observe whether the number of cases and symptoms has increased or decreased over the last 14 days.
4. View the testing and health care metrics and validate that each is meeting the specified target.
5. At the top right, from the drop-down list, choose another reporting area to view the metrics and trends for that area.

# Coronavirus Response

This solution documentation has been archived and is no longer updated. Content and links may be outdated.

Mature phase Jul. 2023 – Jun. 2025	Retired phase Jul. 2025
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## Introduction to Coronavirus Response

Coronavirus Response can be used to understand the impact of the coronavirus disease 2019 (COVID-19) pandemic and share authoritative information about the pandemic with the community.

As the COVID-19 pandemic has spread, health and human services agencies are tabulating case and testing results to better understand the impact on the community. To prevent further spread, health orders have been issued that severely impact services delivered at many public gathering places (for example, schools, government buildings, hospitals, restaurants, businesses, and common places). As a result, many have closed or altered their hours and laid off employees. Community meal programs have responded by increasing capacity, switching to take out meals, limiting facility access and enforcing social distancing during pickups. Coronavirus Response is typically implemented by government agencies that want educate the public on the current case information and the pandemic's impact on public gathering places and meal programs.

The Coronavirus Response solution delivers a set of capabilities that help you monitor COVID-19 cases and response activities, communicate the impact on public places (for example, schools, government buildings, and common places), inventory meal sites, monitor meal programs, and share information with the public.

## Requirements

Coronavirus Response requires the following:

- ArcGIS Online
- ArcGIS Survey123 Connect

## Information products

Coronavirus Response includes the following information products:

Item	Description	Minimum user type
Community Impact Dashboard	An ArcGIS Dashboards app used by health and human services staff to monitor key coronavirus response metrics and share this information with the public	Viewer
Community Impact Mobile Dashboard	An ArcGIS Dashboards app, optimized for mobile devices, used by health and human services staff to monitor key coronavirus response metrics and share this information with the public	Viewer
Coronavirus Case Dashboard	An ArcGIS Dashboards app used by health and human services staff to visualize coronavirus cases in their community	Viewer
Coronavirus Case Mobile Dashboard	An ArcGIS Dashboards app, optimized for mobile devices, used by health and human services staff to visualize coronavirus cases in their community	Viewer
Case Reporter	An ArcGIS Survey123 form used by health and human services staff to tabulate coronavirus cases in their community	Editor
Public Place Manager	A Crowdsorce Manager app used by health and human services or emergency response staff to manage the status of public gathering places (for example, schools, and common places)	Editor
School Closings	An ArcGIS Web AppBuilder app used by the public to obtain school closing information	Not required
Medical Facilities Locator	An ArcGIS Web AppBuilder app used by the public to locate the nearest hospital or healthcare clinic	Not required
Community Closings	An ArcGIS Web AppBuilder app used by the public to obtain information about gathering places (for example, government buildings and public places) in the community	Not required
Meal Sites Manager	A Crowdsorce Manager app used by school district or emergency response staff to inventory meal pickup locations	Editor
Meal Site Report	An ArcGIS Survey123 form used by school district staff or volunteers to tabulate meals served at a site	Editor
Meal Sites Locator	An ArcGIS Web AppBuilder app used by the public to locate the nearest meal site pickup location	Not required
Meal Sites Dashboard	An ArcGIS Dashboards app used by school district or emergency response staff to monitor meal programs	Viewer

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## Release notes

The following are the release notes:

Version	Description
1.0	<ul style="list-style-type: none"><li data-bbox="414 373 971 407">• First release of Coronavirus Response</li></ul>

# Configure Coronavirus Response

Learn how to configure the Coronavirus Response solution to meet specific needs in your organization.

## Load public places and meal sites

Coronavirus Response can be used by public health agencies and other emergency response agencies to show the impact on public gathering places and inventory meal sites. In some cases, you may have this information in ArcGIS or a spreadsheet already.

Review the layers provided with the solution and determine what, if any, source data you want to load. Then load your existing data into the layers provided with the solution before sharing the maps or applications.

Once you have determined what source data must be loaded, complete one or more of the data-loading workflows below.

## Load data from a spreadsheet

If you do not have an inventory of public gathering places in ArcGIS, you may have them in a spreadsheet. If you don't have a spreadsheet already, you can use the sample .csv file included with the solution (FacilitySource.csv) to inventory the public gathering places, hospitals, educational facilities, and meal sites. Many times, you can use alternate data sources to start your inventory. For example, you can use the Homeland Infrastructure Foundation – Level Data (HIFLD) infrastructure data for all 50 U.S. states; Washington, D.C.; and the U.S. territories of Puerto Rico, Guam, American Samoa, Northern Mariana Islands, Palau, and Virgin Islands.

### Tip:

If you decide to use the HIFLD data, download the data for your community and review the currency of this information. You may want to augment your facility list by adding additional facilities (for example, temporary facilities) to your spreadsheet.

To load your public gathering places or meal sites from a spreadsheet, complete the steps below:

1. Sign in to your ArcGIS organization and browse to the FacilitySources item.
2. Open the item page and click **Download**.
3. Edit the .csv file and provide your facilities information.
4. In your ArcGIS organization, browse to the PublicPlaces, Hospitals, EducationalFacilities, or MealSites feature layer.
5. Open the item page and click **Update Data > Append Data to Layer**.
6. Click **Choose File** and browse to your .csv file, and click **Open**.
7. Click **Upload and Continue**.
8. Click the **Choose the layer to update** drop-down arrow and choose the layer to load into.
9. Uncheck **Update existing features**.
10. Click **Show field matching** to map the fields.
11. Map the **Latitude** field to the **y** match field and the **Longitude** field to the **x** match field.

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12. Click **Apply Updates**.

## Load data from a shapefile or file geodatabase

If you already have your public gathering places or meal sites in ArcGIS, you can load them from a shapefile or file geodatabase by following the steps below:

1. Create a .zip file of a shapefile or file geodatabase of your facilities.
2. Verify that you are signed in to your ArcGIS organization and browse to the PublicPlaces, Hospitals, EducationalFacilities, or MealSites feature layer.
3. Open the item page and click **Update Data > Append Data to layer**.
4. Click **Choose File** and browse to your .zip file, and click **Open**.
5. Click **Upload and Continue**.
6. Click the **Choose the layer to update** drop-down arrow and choose the layer to load into.
7. Uncheck **Update existing features**.
8. Click **Show field matching** to map the fields.
9. Click **Apply Updates**.

### Tip:

To make additional updates to a hosted feature layer, see [Append data to layers](#).

## Load COVID-19 reporting areas

The Coronavirus Case Dashboard and Community Impact Dashboard help public health agencies share case metrics for a specified reporting area. The reporting areas can be a county, ZIP Code, state, municipality, or any other geographic area you are using to tabulate results. Once you identify the specific reporting area you want to use, you can use the Case Reporter survey to tabulate COVID-19 cases for the specific reporting area.

## Load data from a shapefile or file geodatabase

Load reporting areas from a shapefile or file geodatabase by following the steps below:

1. Create a .zip file of a shapefile or file geodatabase of your facilities.
2. Verify that you are signed in to your ArcGIS organization and browse to the CoronavirusCases feature layer.
3. Open the item page and click **Update Data > Append Data to layer**.
4. Click **Choose File** and browse to your .zip file, and click **Open**.
5. Click **Upload and Continue**.
6. Click the **Choose the layer to update** drop-down arrow and choose the **Reporting Areas** layer.
7. Uncheck **Update existing features**.
8. Click **Show field matching** to map the fields.



**Note:**

The Reporting Areas layer includes two important fields: Name and Aggregate Area. Name stores the names of the reporting area. Use the Aggregate Area field to report case data by differing jurisdictions. For example, a county may want to share case data tabulated by the entire county as well as broken down by ZIP Code or municipality. In that case, the county has a value of Yes for the Aggregate Area field.

9. Click **Apply Updates**.

**Tip:**

To make additional updates to a hosted feature layer, see [Append data to layers](#).

## Modify Case Reporter reporting area choice list

To modify a Case Reporter survey reporting area choice list, complete the following steps:

1. Install [ArcGIS Survey123 Connect](#).
2. Start ArcGIS Survey123 Connect and sign in to your ArcGIS organization.
3. Click **Case Reporter** to download the survey.
4. In the **Download** window, click **Download** and click **OK**.
5. Click **Case Reporter** again to open the survey.
6. On the side toolbar, click the **Open XLSForm Spreadsheet** button.
7. In the Microsoft Excel spreadsheet, click the **choices** tab.  
This tab comprises all the selectable options for survey questions.
8. Update the reportin\_area list to reflect the reporting areas you loaded into the CoronavirusCases feature layer.
9. Save and close the Microsoft Excel spreadsheet and preview your changes in Survey123 Connect.
10. In Survey123 Connect, click **Publish** on the side toolbar.
11. Click **Publish survey** to publish your changes and click **OK**.

## Load COVID-19 case information

Coronavirus Response can be used by public health agencies and other emergency response agencies to tabulate and monitor COVID-19 cases. The solution includes a Case Reporter survey that you can use to enter updated case information for each day. In some cases, you may find it easier to manage this information in a spreadsheet and load it into the solution as you receive new information.

To load your COVID-19 case information from a spreadsheet, complete the steps below:

1. Verify that you are signed in to your ArcGIS organization and browse to the CoronavirusCaseSources item.
2. Open the item page and click **Download**.
3. Edit the .csv file and provide your COVID-19 case information.
4. In your ArcGIS organization, browse to the CoronavirusCases feature layer.

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5. Open the item page and click **Update Data > Append Data to layer**.
6. Click **Choose File** and browse to your .csv file, and click **Open**.
7. Click **Upload and Continue**.
8. Click the **Choose the layer to update** drop-down and choose the **Cases** table.
9. Uncheck **Update existing features**.
10. Click **Apply Updates**.

**Tip:**

To make additional updates to a hosted feature layer, see [Append data to layers](#).

## Extend response surveys

The Coronavirus Response solution includes a series of surveys (Case Reporter and Meal Site Report) that you can use to tabulate COVID-19 case information and meal site counts.

Review the preconfigured questions and adjust as necessary to remain in compliance with your organizational policies. In addition, ensure that you secure the survey and underlying layers and only share the content with appropriate members of your organization.

## Update feature layer views

The Coronavirus Response solution includes a series of views created from feature layers provided with the solution. Organizations may want to modify the Case Reporter survey by first adding new fields to the feature layers and then configuring the surveys to use the newly created fields. When doing so, you must expose the new fields in the appropriate views. Additionally, some views are created by joining two sources together, and you must re-create these views with the same name and URL after a new field is added.

Organizations may want to modify the Case Reporter survey by adding new survey questions. When adding new questions, begin with the Update feature layer views section below. For changes such as removing questions or formatting the survey, proceed to the Modify response surveys section.

To add one or more fields to a layer and re-create the views, complete the following steps:

1. Verify that you are signed in to your ArcGIS organization.
2. [Add a new field](#) to a layer in the CoronavirusCases hosted feature layer.
3. Browse to the CoronavirusCases\_public or CoronavirusCases\_reporter views.
4. Open the item page and click the **Visualization** tab.
5. Click **More Options** on the appropriate layer or table, and click **Set View Definition > Define Fields**.
6. Scroll to the newly created field and check the box next to the new field or fields.
7. Click **Apply**.  
The new field is added to the view's definition.

To update a join view, complete the following steps:

1. Browse to the join view (for example, CoronavirusCases\_current).

2. Open the item page and scroll to the URL section. Click the **Copy** button.
3. Paste the copied URL into Microsoft Notepad or another text editor for reference.

**Note:**

The feature layer name will be used below when re-creating the join. You can find the name after services in the URL structure. It may also contain a unique GUID—for example, CoronavirusCases\_current\_a45f71a48587425c9b90ee5527cd26d1.

4. Browse to the existing join view (for example, CoronavirusCases\_current).
5. Open the item page and click the **Settings** tab.
6. Click the **Delete Item** button and click **Delete**.
7. Browse to the CoronavirusCases feature layer.
8. Open the item page and click **Open in Map Viewer Classic**.
9. Click the **Analysis** button and click **Summarize Data > Join Features**.
10. When populating the Join Features tool, do the following:
  - a. Click the **Choose target layer** drop-down arrow and choose **Reporting Areas**.
  - b. Click the **Choose layer to join to the target layer** drop-down arrow and choose **Cases**.
  - c. Click **Choose the fields to match** as the type of join.
  - d. Click the **Target field** drop down arrow and choose **name**, and click the **Join field** drop-down arrow and choose **name**.
  - e. Click the **Choose join operation** drop-down arrow and choose **Join one on one**.
  - f. Under the **Define which record is kept** drop-down arrow, click **Order by**, click the **Field** drop-down arrow and choose **Date reported**, and click the **Sort by** drop-down arrow and choose **Newest**.

**Note:**

Ensure the new join view uses the names defined in the table above. If you use the same name, the layers in the map and the existing dashboard widgets do not have to be reconfigured. If your join view contained a unique GUID, you must name the new join view with the unique GUID.

- g. In the **Result layer name** text box, enter CoronavirusCases\_current.
  - h. Uncheck **Use current map extent**, if checked.
  - i. Check **Create results as hosted feature layer view** check box.
11. Update the Coronavirus Case Dashboard or Community Impact Dashboard to account for the new fields you added to the layers.

## Modify response surveys

To modify a Coronavirus Response survey, complete the following steps:

1. Install [ArcGIS Survey123 Connect](#).
2. Start ArcGIS Survey123 Connect and sign in to your ArcGIS organization.
3. Click **Case Reporter** to open the survey.

**Note:**

The Case Reporter survey is an example. The steps below are the same for the Meal Site Report survey.

4. On the side toolbar, click the **Open XLSForm Spreadsheet** button.
5. In the Microsoft Excel spreadsheet, click the **choices** tab.  
This tab comprises all the selectable options for survey questions.
6. Revise the survey to reflect your needs.
7. Save and close the Microsoft Excel spreadsheet and preview your changes in Survey123 Connect.
8. In Survey123 Connect, click **Publish** on the side toolbar.
9. Click **Publish survey** to publish your changes and click **OK**.

## Configure directions

Follow the steps below to connect to a routing service and configure the widget to enable directions in the app.

### Configure widget

To configure an app to use routes and provide directions, complete the following steps:

1. Sign in to your ArcGIS organization and browse to the ArcGIS Web AppBuilder app.
2. Open the item page and click **Edit Application**.
3. Click the **Widget** tab and click **Set the widgets in this controller** to open the page for an in-panel widget.
4. Hover over the **Near Me** widget and click the **Configure this widget** button to open the widget configuration window.
5. Check the **Enable Directions** check box if it is not checked.
6. Click the **Direction Settings** tab, click **Set**, and choose a routing service.
7. Click **Next** and choose one or more route layers, click **OK**, and click **OK** again.
8. Save the app and share it with everyone.
9. Open the app.

### Esri premium content

The app draws routes and provides directions using the [World Route Service](#). This service requires subscriber access because it consumes credits. Before generating routes, click the **Attributes** tab of the configuration of your ArcGIS Web AppBuilder app and configure [Subscriber content access](#) with the URL of the routing service used by the widget.

The app draws routes and provides directions using the World Route Service. This service requires subscriber access because it consumes credits. See [Configure ArcGIS Living Atlas content](#) to enable access to premium content.

[Learn more about credit usage when creating simple routes](#)

# Use Coronavirus Response

The Coronavirus Response solution delivers a set of capabilities that help you monitor coronavirus disease 2019 (COVID-19) cases and response activities, communicate the impact on public places (for example, schools, government buildings, and common places), inventory meal sites, monitor meal programs, and share information with the public.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

## Tabulate and monitor COVID-19 cases

The Coronavirus Case Dashboard and Community Impact Dashboard help public health agencies share case metrics for a specified reporting area. You can quickly tabulate COVID-19 cases with the Case Reporter survey. Current and historical results can then be seen in the Coronavirus Case Dashboard and the Community Impact Dashboard. You can add new case information as frequently as you want.

### Tabulate coronavirus cases

You will start by assuming the role of an epidemiologist. You are asked to use the Case Reporter survey to tabulate COVID-19 cases each morning.

1. Sign in to your ArcGIS organization and browse to the Case Reporter form.
2. Open the item page and click **Open in Survey123 > Open in browser**.
3. Click the **Reporting Area** drop-down arrow and choose the appropriate reporting area.
4. Enter your case information and click **Submit**.
5. Repeat this process for each additional reporting area.

### Monitor COVID-19 cases

Now, you will assume the role of a public health officer or executive in the same government agency. You are asked to monitor the number of COVID-19 cases and are looking to see if your organization has a growing number of cases and how the cases may be distributed across demographic segments of the population. You will view the overall status of COVID-19 cases and then review specific demographic segments and trends.

1. Sign in to your ArcGIS organization and browse to the Coronavirus Case Dashboard app. The Coronavirus Case Dashboard opens with an overview of the current status.  
The overview displays key metrics. This information gives management a quick overview of the number of cases in their community. Source of Exposure, Cases by Gender, and Cases by Age are also shown.
2. Open the item page and click **View Dashboard**.
3. In the filter on the top of the dashboard, click another reporting area.
4. Click the **Over Time** tab in the **Source of Exposure** chart to see a breakdown of exposures over time.
5. Click the **Testing** tab in the **Cases Over Time** chart to see a breakdown of test results over time.

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6. Finally, review the **Cases by Location** chart in the lower right corner to see the breakdown of cases by location.

## Manage status of public places

As the threat of COVID-19 has spread, many public gathering places (for example, schools, government buildings, hospitals, and common places) have altered their hours. You can use the Public Place Manager to communicate the status of impacted places and encourage social distancing. You can then share the status of these public places with the public in the School Closings and Public Gathering Places apps.


### Update status

You will start by assuming the role of an emergency response mapping technician. You are asked to use the Public Place Manager to update the status of public gathering places.

1. Sign in to your ArcGIS organization and browse to the Public Place Manager app.
2. Open the item page and click **View Application**.
3. In the left panel, click the **Schools** map.

#### Tip:

Each item listed allows you to manage facilities of that type.

4. Click the **School Name** column filter.
5. Type the school name in the **School Name contains** text box and press Enter.
6. Highlight the first school in the data table.
7. Click the **Edit** button  in the lower left panel.
8. Click the **Status** drop-down arrow and choose **Closed**.
9. In the **Comment** field, type School suspended until April 17. Please see our website for more information and updates.
10. Click **Save**.
11. Repeat this process for school districts, government facilities, community places, medical facilities, and so on.

### Review school closings

Now, you will assume the role of a resident in the same community. You are asked to start social distancing by the public health officer and want to see if your child's school is impacted.

1. Sign in to your ArcGIS organization and browse to the School Closings app.

#### Tip:

You can use the Community Closings app to review impacts COVID-19 is having on other public places in the community.

2. Open the item page and click **View Application**.
3. In the **Locate School Closing** widget, enter the name of a school in the search box.
4. Select the school from the list and review the overview.

**Tip:**

The overview displays the school, status (for example, Open, Impacted, Closed), and any additional instructions for the community.

## Administer meal programs

As COVID-19 spreads, many organizations are being required to close schools and other sites that typically serve food to children, young adults, seniors, and families. Schools, childcare facilities, and other nonprofit agencies are balancing their role of helping to prevent disease transmission with ensuring access to food for children who rely on the federal nutrition safety net. As a result, organizations are looking for alternative ways to distribute meals to those in need.

### Add meal site

You will start by assuming the role of a school district staff member or emergency response mapping technician. You are asked to use the Meal Sites Manager to add a new meal site that was recently opened in your community.

1. Sign in to your ArcGIS organization and browse to the Meal Sites Manager app.
2. Open the item page and click **View Application**.
3. In the **Edit Meal Sites** widget, click the **Edit Meal Sites** template.
4. Click the map to place the location of a meal site.

**Tip:**

If you have a list of meal sites in a spreadsheet already (for example, FacilitySources.csv), you can use the **Load Meal Sites** widget to load the entire list of meal sites.

5. Enter details about the meal site:
  - Name of Facility
  - Full Address
  - Municipality
  - Groups Served
  - Meals Served
  - Language Services
  - Phone
  - Operational Hours
  - Website
6. Click **Save**, and then click **Close**.



7. Repeat this process for each meal site.
8. Click the **Update Meal Sites** widget and click the **Freehand Polygon Tool** and draw a shape around one or more meal sites..
9. Update the status and any other characteristics and click **Save**.

## Locate meal site

Next, you will assume the role of a resident in the same community. You have children that typically receive a morning meal in the local school lunch program and want to locate the nearest meal site.

1. Sign in to your ArcGIS organization and browse to the Meal Sites Locator app.
2. Open the item page and click **View Application**.
3. In the **Locate Meal Sites** widget, enter your address in the search box or click a location directly on the map.
4. Optionally, click and slide the search buffer by distance to see a larger list of potential meal sites.
5. Click the **Select filters to apply** drop-down arrow and choose a meal or group served.
6. Click the **Select filters to apply** drop-down arrow and select the closest meal site from the list and review the instructions provided.
7. Click the **Directions** tab to view driving directions to the meal site from your defined location.

## Tabulate meals served

Now, you will assume the role of a school district staff member or volunteer in the same community. You have been assigned to a meal site in the community and need to tabulate the number of meals served on a given day.

1. Sign in to your ArcGIS organization and browse to the Meal Site Report form.
2. Open the item page and click **Open in Survey123 > Open in browser**.
3. Click the **Site** drop-down arrow and choose the appropriate meal site.
4. Enter the number of meals served and click **Submit**.
5. Repeat this process each day.

## Monitor meal program

Now, you will assume the role of a school district superintendent in the same community. You are asked to monitor the status of your meal sites and number of meals distributed in your program. You will view the overall status of your meal program and then review specific trends.

1. Sign in to your ArcGIS organization and browse to the Meal Sites Dashboard app.  
The Meal Sites Dashboard opens with an overview of the current status.  
The overview displays key metrics. This information gives the superintendent a quick overview of the number meal sites open, meals served, and the trends for the week.
2. In the filter panel, click **Meal Sites** and choose an individual meal site to get more detailed metrics.
3. Review the list of meal sites and click an individual site in the list to see more detail.



4. Review the chart to see how many meals were served each day of the previous week and total meals served yesterday.
5. Click a filter in the left panel of the dashboard to refine the results in the dashboard.

**Tip:**

You can filter by Groups Served, Meals Provided, Status, Date, and other key metrics to get a better understanding of meals distributed.

## Generate meal site reports

In some cases, you may need to generate a report that summarizes the number of meals served at each site. Follow the steps below to generate a meal site report for interested stakeholders.

1. Sign in to your ArcGIS Online organization.
2. Click the app switcher and select ArcGIS Survey123.
3. Browse to the Meal Site Report survey and open the data page.
4. [Generate](#) a report using the Meal Site Report template that summarizes the total number of meals served at meal sites.

**Tip:**

You can [customize](#) the Meal Sites Report Template to meet your organization's needs.

# Coronavirus Site Safety

This solution documentation has been archived and is no longer updated. Content and links may be outdated.

Mature phase Apr. 2022 – Mar. 2024	Retired phase Apr. 2024
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## Introduction to Coronavirus Site Safety

Coronavirus Site Safety can be used to create coronavirus disease 2019 (COVID-19) health safety plans for their facilities, sites, and campuses and to monitor health safety plans as locations reopen.

As employees return to work and locations reopen to the public, organizations are developing health safety plans to protect individuals in their facilities. The health safety plans mitigate workers' concerns, reduce risk and communicate actions taken to key stakeholders. Location-enabled plans provide an efficient way to document and manage all aspects of a health safety plan (for example, temperature screening locations, handwashing or sanitizer stations, personal protective equipment (PPE) stations, and isolation areas) for a given facility. It improves an organization's ability to effectively execute a plan, mitigate risk at each site, and exercise health safety due diligence for a location. Coronavirus Site Safety is typically implemented by organizations that want to take a proactive, data-driven approach to planning and managing the health and safety of employees, visitors and other stakeholders during the COVID-19 pandemic.

The Coronavirus Site Safety solution delivers a set of capabilities that help you create a COVID-19 health safety plan, estimate crowd capacities and monitor social distancing, track cleaning and disinfecting, monitor restocking of PPE stations, and report coronavirus-related problems and issues.

## Requirements

Coronavirus Site Safety requires the following:

- ArcGIS Online
- ArcGIS AppStudio Player
- ArcGIS Field Maps



## Information products

Coronavirus Site Safety includes the following information products:

Name	Description	Minimum user type
Coronavirus Site Safety Form	A Survey123 form used internally by a health safety officer to define the health safety plan for a given site or location	Editor
Coronavirus Site Safety Manager	A Crowdsourcing Manager app used by a health safety officer to manage the status of health safety plans	Editor
Coronavirus Site Safety Map Editor	A Web AppBuilder app used by a health safety officer to locate health resources and create social distance capacity estimates required for a health safety plan	Editor
Coronavirus Site Safety Map Viewer	A Web AppBuilder app used by stakeholders to review a health safety map for a given location	Viewer  (Not required for public access)
Coronavirus Site Safety Issue Reporter	A Survey123 form used by field staff to report social distancing concerns, potential cases, and other health safety issues	Mobile Worker
Crowd Counter App	An AppStudio app used by staff to count people entering and exiting an area	Mobile Worker
Coronavirus Site Safety Dashboard	An ArcGIS Dashboards app used by a health safety officer to monitor health safety plan operations at a given location	Viewer
Coronavirus Site Safety Mobile Dashboard	An ArcGIS Dashboards app used by a health safety officer on their mobile device to monitor health safety plan operations at a given location	Viewer
Cleaning and Restocking Status Map	A map used in ArcGIS Field Maps to manage the cleaning, disinfecting, and restocking of health safety resources	Mobile Worker

## Release notes

The following are the release notes:

Version	Description
1.3	<ul style="list-style-type: none"><li>A new version of the Coronavirus Site Safety Form that resolves an input mask issue with the Contact Phone field.</li></ul>
1.2	<ul style="list-style-type: none"><li>A new version of the Crowd Counter App that resolves an issue where the app would not load in the AppStudio Player</li></ul>
1.1	<ul style="list-style-type: none"><li>A new Coronavirus Site Safety Issue Reporter that resolves an issue where the form could not be opened in the ArcGIS Survey123 app.</li><li>A new Coronavirus Site Safety Manager map and app that resolves an issue where site plan updates were missing the associated plan identifier.</li><li>A new Coronavirus Site Safety Map Editor app that resolves an issue where site plan updates were missing the associated plan identifier.</li></ul>
1.0	<ul style="list-style-type: none"><li>First release of Coronavirus Site Safety</li></ul>

# Configure Coronavirus Site Safety

You can use the ArcGIS Solutions app to deploy the Coronavirus Site Safety solution in your ArcGIS organization. After deploying the solution to your ArcGIS organization, configure it to meet specific needs in your organization and load your data if needed.

## Define cleaning interval

Implementing coronavirus disease 2019 (COVID-19) health safety policies for your organization requires cleaning or disinfecting high-risk locations at a regular interval. The cleaning, disinfecting, or restocking interval varies according to your organization, the volume of people, or the risk level of the site. Intervals can be set in any increment from hourly to weekly or monthly.

The Coronavirus Site Safety Dashboard solution helps organizations track the cleaning status of high-risk locations to ensure compliance with organizational policies and local regulation. Using the Cleaning and Disinfecting Status map in ArcGIS Field Maps, janitorial staff can report each time they clean, disinfect, or restock a given location.

## Update map

Using the Coronavirus Site Safety Dashboard, an organizational health safety officer can identify any locations that are overdue for cleaning based on the interval determined by their organizational policy. This information helps the health safety officer identify locations that are noncompliant with the organizational policy and immediately respond with dispatch of janitorial staff.

The Coronavirus Site Safety Dashboard can be configured to meet specific needs in your organization. Modify the default cleaning interval (1 hour) to the interval required by your organization.

To configure the map, complete the following steps:

1. Sign in to your ArcGIS organization and browse to the Coronavirus Site Safety Dashboard map.
2. Open the map in Map Viewer Classic.
3. Browse to **Health Points Status\_currentjoin** and click the **Filter** button.
4. Click the **Edit** tab to view the filter: **StatusDate not in the last 1 hours**.
5. Modify the filter to reflect the appropriate interval for your organization.
6. Click **Apply Filter** and save your map.

## Configure dashboard

Once the map has been configured to filter on a new interval, the title of the cleaning and restocking list element in the Coronavirus Site Safety Dashboard and Coronavirus Site Safety Mobile Dashboard needs to be updated to reflect the interval you defined.

To configure the dashboard label to reflect the changes you made to the map, complete the steps below:

1. Sign in to your ArcGIS organization and browse to the Coronavirus Site Safety Dashboard.

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2. On the dashboard item page, click **Edit Dashboard**.
3. Hover over the upper left corner of the **Overdue Locations (>60Min.) Cleaning [Disinfection | Re-stock]** list element and click **Configure**.
4. Click the **General** tab.
5. Click **Edit** to modify the **Title** value, remove the default time interval (for example, >60Min), and update the title to reflect the new cleaning interval.
6. Click **Done**.
7. Click **Save** to save the dashboard.
8. Ensure you repeat steps 2 through 7 for the Coronavirus Site Safety Mobile Dashboard once you have completed the steps for the Coronavirus Site Safety Dashboard.

## Add building floor information

For many sites, health and safety plans include interior floors and exterior spaces. [ArcGIS Indoors](#) is a complete indoor mapping system that can help you incorporate interior floors and floor awareness, and the ability to filter by indoor web layers by floor, into the Coronavirus Site Safety solution. The following apps support floor awareness:

- Coronavirus Site Safety Map Editor
- Coronavirus Site Safety Map Viewer
- Coronavirus Site Safety Dashboard
- Coronavirus Site Safety Mobile Dashboard

To complete this workflow, you must have your local ArcGIS Indoors geodatabase published as web layers into your ArcGIS organization.

## Configure maps for ArcGIS Indoors

To configure the Coronavirus Site Safety solution maps to use ArcGIS Indoors web layers, you'll need to review the Level Name field values defined in your ArcGIS Indoors web layers and ensure the Floor Number field values your health safety officer is using when creating the health safety plan are the same as the values in the ArcGIS Indoors layers.

Using consistent values between Level Name field values and Floor Number field values ensures that the correct building floor information and related health safety plan information are displayed on the map and apps.

Once you have ensured consistency between your layers, add your ArcGIS Indoors web layers to the Coronavirus Site Safety Map Editor map, Coronavirus Site Safety Map Viewer map, and Coronavirus Site Safety Dashboard map.

## Configure web mapping apps

1. Sign in to your ArcGIS organization and browse to the Coronavirus Site Safety Map Editor item page.
2. On the item page, click **Edit Application**.
3. Click **Widget** and click the edit button on the **Filter Safety Plan and Floor** widget.
4. In the **Filter Set Name: Floor Number** filter group, click **Add Layer**.

5. In the newly added row, in the **Layer** column, choose an ArcGIS Indoors web layer, and in the **Field** column, choose **Level Name**.
6. Repeat step 5 for all the remaining ArcGIS Indoors web layers.
7. In the **Use Value** column, choose the ArcGIS Indoors Levels web layer.
8. Click **OK** and click **Save**.

Repeat the process for the Coronavirus Site Safety Map Viewer app.

## Configure dashboards

To configure the Coronavirus Site Safety Dashboard and CCoronavirus Site Safety Mobile Dashboard to use ArcGIS Indoors web layers, complete the following steps:

1. Sign in to your ArcGIS organization and browse to the Coronavirus Site Safety Dashboard.
2. On the dashboard item page, click **Edit Dashboard**.
3. Hover over the upper left corner of a Floor Number selector and click **Configure**.
4. In the **Selector** section, under **Selector Options**, click **Change** and choose your ArcGIS Indoors Levels web layer.
5. In the **Category Field** parameter, choose **Name**.
6. Click **Action**, click **Add Target** and choose an ArcGIS Indoors web layer, and then choose **LEVEL\_NAME** for the **Target Field**.
7. Repeat step 6 for all the remaining ArcGIS Indoors web layers.
8. Click **Done** and click **Save** to save the dashboard.

### Note:

Repeat the process for the Coronavirus Site Safety Mobile Dashboard.

## Extend health planning resources

The Coronavirus Site Safety solution includes dashboards that can be used to monitor health safety plan operations.

On occasion, you may need to configure the dashboard to meet specific needs in your organization. Each solution generally includes one or more feature layers, maps, and apps that can be configured to meet your needs. Review this solution with stakeholders in your organization before defining the specific configurations you will make.

## Update feature layer views

The Coronavirus Site Safety solution includes a series of feature layer join views that are used to display information in the Coronavirus Site Safety Dashboard and Coronavirus Site Safety Mobile Dashboard. Join views are created using the Join Features analysis tool by joining two sources together based on a matching field. The benefit of the join view is that it remains up to date as the source data changes. However, when new fields are added to the source layers, the join views must be re-created with the same name and URL for the dashboards to continue working properly.



To add a field to a layer and the update the join views, complete the following steps:

1. Add a new field to a layer (for example, the Health Points layer in the HealthSafetyPlanning hosted feature layer).
2. Browse to the join view in your contents (for example, Health Points Status\_join).
3. On the item **Overview** page, scroll to the **URL** section. Click the **Copy** button.
4. Paste the copied URL into Microsoft Notepad or another text editor for reference.

**Note:**

The feature layer name will be used below when re-creating the join. The name can be found after services in the URL structure and may also contain a unique GUID, for example, Health\_Points\_Status\_joina45f71a48587425c9b90ee5527cd26d1.

5. Delete the existing join view (for example, Health Points Status\_join).
6. Add the source hosted feature layer to a new web map (for example, HealthSafetyPlanning).
7. Click **Analysis > Summarize Data > Join Features**.
8. Configure the join using the following table:

Name of join	Target layer	Layer to join to the target layer	Fields to match	Join operation	Define which record is kept
Health Points Status_join	Health Points (HealthSafetyPlanning)	Status	GlobalID = Health_Points_GlobalID	Join one to many	
Health Points Status_current_join	Health Points (HealthSafetyPlanning)	Status	GlobalID = Health_Points_GlobalID	Join one to one	Order by created_date/Ne west
Crowd Area CrowdCounts_join	Crowd Areas	CrowdCount	areaname = areaname	Join one to manytransport	

**Note:**

Ensure each new join view uses the names defined in the table. If you use the same names, the layers in the map and the existing dashboard widgets do not need to be reconfigured. If your join view contained a unique GUID, the new join view will need to be named with the unique GUID.

9. If necessary, uncheck **Use current map extent** and check **Create results as hosted feature layer view**.
10. Update the web map and app configurations for Coronavirus Site Safety Dashboard and Coronavirus Site Safety Mobile Dashboard to account for the new fields you added to the layers.

# Use Coronavirus Site Safety

The Coronavirus Site Safety solution delivers a set of capabilities that help you create a coronavirus disease 2019 (COVID-19) health safety plan, estimate crowd capacities and monitor social distancing, track cleaning and disinfecting, monitor restocking of personal protective equipment (PPE) stations, and report coronavirus-related problems and issues.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

## Manage a site

Creating and implementing health and safety plans for sites, facilities, campuses, or locations is an important part of keeping communities and individuals safer, as schools, colleges, businesses, and facilities operate during the COVID-19 pandemic.

Coronavirus Site Safety offers a comprehensive system to manage all sites in one central location. Each site or facility can progress through the site safety planning process, site planning, and operations independently, so you have the flexibility to implement appropriate health safety measures.

In this workflow, you'll learn how to initiate and manage a site safety plan.

## Create a site safety plan

You will start by assuming the role of a health safety officer who needs to initiate the site safety planning process. Using the Coronavirus Site Safety Form, you will document the site where a health safety plan will be created.

1. Sign in, to your ArcGIS organization and browse to the Coronavirus Site Safety Form.
2. Open the item page and navigate to the Coronavirus Site Safety Form.
3. In the Coronavirus Site Safety Form, fill in the following details on the first page:

Parameter	Value
<b>Enter Plan Name</b>	Type plan name
<b>Description</b>	Type description
<b>Start Date</b>	Enter the date and time the plan will become active.
<b>Contact Name</b>	Type your name.
<b>Contact Phone</b>	Type your phone number.
<b>Contact Email</b>	Type your email address.

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<b>Describe location</b>	Type description
<b>Additional Documents</b>	Attach a diagram to describe the setup of a site.
<b>Please locate the property</b>	Type location information

4. At the bottom of the page, click **Submit**.

## Manage and review site safety plans

Now, you will continue the role of a health safety officer using the Coronavirus Site Safety Manager to update the status of a site safety plan for a location.

1. In your ArcGIS organization and browse to the Coronavirus Site Safety Manager app.
2. Open the item page and navigate to the Coronavirus Site Safety Manager app.
3. Choose the Coronavirus Site Safety Manager map.
4. In the Coronavirus Site Safety Manager table, select the plan you created in the Coronavirus Site Safety survey, or another plan.
5. On the **Info** tab, click the edit button and edit the status.  
As a health safety officer, you can update and monitor the status of an event throughout the planning process and identify when site safety maps have been created.
6. For **Status**, choose **Active**, and click **Save**.

## Prepare site safety plans

To protect the people who work in, shop in, study in, and use their facilities, organizations are preparing comprehensive site health safety plans that include prevention, mitigation, and response capabilities. A site health safety plan, and the health safety officer who manages it, represents the front line of pandemic defense for any organization, and an essential component of a safe back-to-work strategy.

Health safety officers need to place preventative health resources, mitigate risk via socially distanced crowd management, identify high-touch surfaces in need of frequent cleaning, and prepare response plans for screening locations and the isolation of potential cases.

The Coronavirus Site Safety Plan Map Editor can be used to locate health resources and create social distance capacity estimates required for a health safety plan. The social distance capacity estimates for areas or lines are based on U.S. Fire Administration guidelines.

In this workflow, you'll learn how to locate and develop a site safety plan map.

## Develop a health and safety plan

You will start by assuming the role of a health safety officer who needs to create a site safety plan map. You are asked to use the Coronavirus Site Safety Manager app to locate a site safety plan location and then the Coronavirus Site Safety Map Editor to create the health and safety plan map for your location.

1. In your ArcGIS organization and browse to the Coronavirus Site Safety Manager app.
2. Open the item page and navigate to the Coronavirus Site Safety Manager app.
3. Choose the Coronavirus Site Safety Manager map.
4. Select the site you created in the Coronavirus Site Safety Form survey, or another site.
5. On the **Info** tab, click **Edit Site Plan**.  
The Coronavirus Site Safety Plan Map Editor app opens and zooms to the event. It also filters all related information, so you will see temporary features for your site plan and floor number, if applicable.
6. Click the **Create Site Safety Plan** widget, search for PPE Station, and enter details of the health asset. For **Floor Number**, type 1.
7. Place a PPE station on the map and enter details for the health and safety asset.
8. Search for a handwashing station, place it on the map, and enter details for the health and safety asset.
9. Search for a high-touch location, place it on the map, and enter details for the health and safety asset.
10. Repeat step 5 for each health and safety asset, route, and area you would like to add to your site plan map.
11. Click **Save**.
12. Select **Social Distancing Crowd Areas** from the drop-down list at the top of the **Create Site Safety Plan** widget.
13. Draw an area on the map and double-click to complete the sketch.
14. For **Area name**, type Waiting Area.

**Note:**

The **Area name** field must be unique

15. Draw an area on the map and double-click to complete the sketch.

**Note:**

The area on the map is labeled with the number of people that can safely enter an area of this size based on U.S. Fire Administration guidelines. Adjust the maximum capacity or area size if necessary.

16. For **Description**, type Crowd Area for Waiting Area.
17. Click **Save**.
18. After completing your Site Safety map, click the **Site Safety Report** button, draw an area on the map, and click **Report**.
19. Click the **Print** button and save a hard copy of your site plan map and summary of your health assets.
20. Close the Coronavirus Site Safety Map Editor.

## Share site safety plans

Employees, students, customers, and other people returning to a facility may be concerned about large crowds or other conditions that increase the likelihood of being exposed to the

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coronavirus. To ease those concerns, health safety officers need to communicate key aspects of their site health safety plans to their stakeholders, such as the locations of entry health screenings, hand sanitizer stations, or personal protective equipment (PPE) stations.

The Coronavirus Site Safety Map Viewer can be used by stakeholders to review a health safety map for a location. In this workflow, you'll learn how to share and view a health and safety plan.

## Share a health and safety plan

You will start by assuming the role of a health safety officer who needs to share a site safety plan. You are asked to use the Coronavirus Site Safety Manager app to locate a site safety plan location and then use the Coronavirus Site Safety Map Viewer to share the health and safety plan map for your location.

1. In your ArcGIS organization and browse to the Coronavirus Site Safety Manager app.
2. Open the item page and navigate to the Coronavirus Site Safety Manager app.
3. Choose the Coronavirus Site Safety Manager map.
4. Select the site you created in the Coronavirus Site Safety Form survey, or select another site.
5. On the **Info** tab, click **Share Site Plan Viewer**.  
The Coronavirus Site Safety Map Viewer app opens and zooms to the site plan. It also filters all related information, so you will only see features for your site plan and floor number, if applicable.
6. Copy the hyperlink, and share it with site staff, cleaning staff, and other interested stakeholders.

## View a health and safety plan

Now, you will assume the role of site staff who need to view the health and safety plan for a location. You are asked to use the Coronavirus Site Safety Map Viewer app to explore the health and safety plan.

1. In your ArcGIS organization and browse to the Coronavirus Site Safety Map Viewer app.
2. Open the item page and navigate to the Coronavirus Site Safety Map Viewer app.
3. In **Filter Safety Plan and Floor**, choose **Floor Number**, choose **1**, and click **Apply**.  
The first floor is displayed.
4. Explore the health and safety map by zooming into the crowd areas and click the health points, lines and areas to see more information about each one.
5. Click the **Filter Resources** button, enable **Filter by Point Type**, and choose **Handwashing Station**.  
Only handwashing stations appear on the map.
6. Optionally, click the **Print** button, choose a layout and format, and click **Print** to create a hard copy of the plan map.
7. Close the Coronavirus Site Safety Map Viewer.

# Conduct health and safety operations

The Coronavirus Site Safety solution provides a complete set of capabilities that improve the efficiency and effectiveness of health safety officers, cleaning staff, and site staff working at a location during the COVID-19 pandemic by enabling staff with tools to capture information from the field to share with health officers in real time.

In this workflow, you'll learn how to use a collection of maps and apps to support health safety officers, cleaning staff, and site staff to visualize, monitor, and communicate real-time status during operational hours.

## Report site safety issues from the field

When health safety issues occur at a site, staff need to be able to report the issues they observe in the field to the health safety officer for immediate response.

You will assume the role of a site employee that needs to report a face mask compliance problem you are observing. You are asked to use the Coronavirus Site Safety Issue Reporter to report the health safety concern.

1. In your ArcGIS organization and browse to the Coronavirus Site Safety Issue Reporter app.
2. Open the item page and navigate to the Coronavirus Site Safety Issue Reporter app.
3. In the Coronavirus Site Safety Issue Reporter, fill in the following details:

<b>Type</b>	Type issue description
<b>Priority Level</b>	Type 2
<b>Narrative</b>	Type narrative
<b>Location</b>	Choose a location on the map.
<b>Location Description</b>	Type location description.
<b>Floor</b>	Type floor level

4. Optionally, add an image or picture of the issue you are reporting.
5. Click **Submit**.

## Download and configure Crowd Counter App

The Crowd Counter App can be used by staff to count people entering and exiting an area. The app uses ArcGIS AppStudio Player on a mobile device to deliver a custom project that combines an ArcGIS QuickCapture project and an ArcGIS Dashboards (Crowd Counter Dashboard) into a single experience to support the crowd counting workflow.

If you have already set up the Crowd Counter App on your mobile device, proceed to the Track crowd capacity section below. If this is the first time you are using the Crowd Counter App on your mobile device, complete the following steps:

1. Download ArcGIS AppStudio Player onto your mobile device.
2. Open the app on your mobile device, and sign in to your ArcGIS organization.
3. Click the **Shared** button and click the Crowd Counter App button to download the app.
4. Click the Crowd Counter App button.  
An ArcGIS QuickCapture screen prompts you to sign in to your ArcGIS organization again.
5. Click the **add** button and choose **Browse Projects**, and then click Crowd Counter App to download the project.
6. When the download is complete, choose Crowd Counter Dashboard, and when prompted, sign in to your ArcGIS organization and choose **Keep me signed in**.

**Note:**

The first time you set up your mobile device with the Crowd Counter App, you are prompted to sign in two separate times. This is expected. After the initial setup, you are only asked to sign in once, after you see the ArcGIS QuickCapture screen.

## Track crowd capacity

You will assume the role of site staff. You are asked to use the Crowd Counter App to count people entering and exiting the area to ensure the number of people admitted does not exceed the maximum capacity allowed for a unique area.

1. Open and sign in to the Crowd Counter App using the ArcGIS AppStudio Player app on your mobile device, if it isn't already open from the previous workflow.
2. Click the edit button to edit the area name and enter the exact area name of the location you are tracking crowd capacity for (use Waiting Area if you completed the Prepare site safety plans workflow).

**Note:**

The area name you type must match exactly with the area name specified in the health safety plan map. If you are unsure of the exact name, click the **Map** tab to see a map of your site containing labels with the exact name of each crowd area.

3. Click **Done**.
4. Choose **Enter** for each person entering the area and choose **Exit** for each person exiting the area.
5. Monitor the gauge on the **Occupancy** tab to understand the current capacity (middle number) relative to the maximum capacity (last number).

**Tip:**

The gauge displays different colors as capacity changes. The color green indicates capacity, orange indicates maximum capacity is near, and red indicates maximum capacity.

6. Continue to allow people to enter and exit the area based on the current capacity.

**Note:**

If the gauge does not display the correct results, click the refresh button in the upper right hand corner of the app, click the edit button to edit the area name, and click **Done**.

**Tip:**

When the Crowd Counter App is used to count high numbers of people, consider deleting or archiving entry and exit records from the Crowd Count layer to ensure better performance of the app.

## Track cleaning and stocking status

You will now assume the role of janitorial staff. You are asked to use the ArcGIS Field Maps mobile app to update the status of locations after you clean, disinfect, or restock them with PPE.

1. Download ArcGIS Field Maps onto your mobile device.
2. Open the app on your mobile device and sign in to your ArcGIS organization.
3. Choose **Cleaning and Restocking Map**.
4. Choose a station for **PPE Station**, choose **Cleaning and Restocking Status** in the pop up, and click the **Add** button.

**Note:**

The space under the **Add** button displays all historical status records for a location, so as a station is restocked with PPE, a user can review this list to see when it was restocked and how much PPE it was restocked with.

5. Choose **status**, choose **Re-stocked**, and add the number of boxes stocked of each PPE type.
6. Choose **Submit**.

## Monitor site safety operations

Health safety officers need real-time information on the location issue reports, status of cleaning and restocking, and crowd capacity information to conduct health and safety operations of sites. The Coronavirus Site Safety Dashboard can be used in the command center on the day of the event.



You will assume the role of a health safety officer. You are asked to use the Coronavirus Site Safety Dashboard to monitor and manage health safety issue reports, site capacity, and cleaning and restocking status.

1. In your ArcGIS organization and browse to the Coronavirus Site Safety Dashboard app.
2. Open the item page and navigate to the Coronavirus Site Safety Dashboard app.
3. At the top of the dashboard, use **Select Site Safety Location** and choose a site.  
The dashboard information updates to reflect only what is visible on the map.
4. View the number of open issue reports in the **Issue Reports** section.
5. Click the **Open Reports** tab at the bottom of the dashboard to see open issues in priority order based on site safety issues reported by staff using the Coronavirus Site Safety Issue Reporter.

**Note:**

Learn how to update the status of issue reports using the Manage issue status workflow in the section below.

6. Click the **Report Log** tab at the bottom of the dashboard to see the last 50 issue reports, regardless of status, listed in order of importance.  
This allows you to compare issue reports, reopen closed issues, and identify any emerging patterns.
7. In the **Capacity Monitoring** section, you will see the real-time total capacity by percentage, as well as total capacity and maximum capacity by count across your site based on information from staff tracking crowd capacity using the Crowd Counter App.
8. On the **Area Capacities** tab at the bottom of the dashboard, click **Waiting Area** or another area in the list.  
The map zooms to the area and a pop-up appears with information about the area. The **Capacity Monitoring** section at the top of dashboard updates to reflect the capacity information for the area.
9. Click the **Live Count** tab at the bottom of the dashboard to see the real-time list of entries and exits from the selected area in the **Area Capacities** list.

**Note:**

If an individual area is not selected in the **Area Capacities** list, you see the total entries and exits from all areas in the Live Count list.

10. Click the **Status List** tab on the bottom of the dashboard to see real-time cleaning and restocking status for PPE stations, high-touch locations, and other health assets.
11. Click the **Status History** tab on the bottom of the dashboard to see historical cleaning and restocking status for PPE stations, high-touch locations, and other health assets.
12. Close the app.

## Manage issue status

Health safety officers need real-time information on reported health safety issues as well as the ability to update status, assignments, and other details of an issue.

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You will assume the role of a health safety officer. You are asked to use the Coronavirus Site Safety Dashboard to locate an issue report at a site and then use the Coronavirus Site Safety Manager to update the status of the report.

1. In your ArcGIS organization and browse to the Coronavirus Site Safety Dashboard app.
2. Open the item page and navigate to the Coronavirus Site Safety Dashboard app.
3. At the top of the dashboard, use **Select Site Safety Location** and choose a site.  
The dashboard information updates to reflect only what is visible on the map.
4. Click the **Open Reports** tab at the bottom of the dashboard to see open issues in priority order, based on site safety issues reported by staff using the Coronavirus Site Safety Issue app.
5. Click the **Update Status** button.  
The Coronavirus Site Safety Manager app opens.
6. Click the **Coronavirus Issue Report Status** map.
7. In the Coronavirus Issue Reports table, select the issue you want to update.
8. On the **Info** tab, click the edit button and edit the status.  
As a health safety officer, you can update and monitor the status of an issue at any time.
9. For **Report Status**, choose **Closed**, and click **Save**.
10. Close the app.

# Coronavirus Small Business Recovery

This solution documentation has been archived and is no longer updated. Content and links may be outdated.

Mature phase Nov. 2022 – Oct. 2024	Retired phase Nov. 2024
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## Introduction to Coronavirus Small Business Recovery

Coronavirus Small Business Recovery can be used to promote small businesses operating during the coronavirus disease 2019 (COVID-19) pandemic and understand the impact of the pandemic on small businesses in their community.

Small businesses are an integral part of the economy. Unfortunately, the pandemic has negatively impacted many businesses and some will not recover. Thankfully, there are programs that attempt to provide direct relief to struggling businesses but keeping up with new programs and regulations can be challenging. Helping small business recover requires a robust and transparent public education campaign that engages local businesses and provides the assistance they need (for example, grants, loans, employment advertisements, etc.). Coronavirus Small Business Recovery is typically implemented by economic development departments and other local government agencies that want to engage small businesses and help them recover from the impacts of the COVID-19 pandemic.

The Coronavirus Small Business Recovery solution delivers a set of capabilities that help you engage local business owners, measure the impact of the pandemic on small businesses, report potential health order violations and their resolution, and promote small business recovery.

## Requirements

Coronavirus Small Business Recovery requires the following:

- ArcGIS Online
- ArcGIS Hub Premium
- Survey123 Connect

## Information products

Coronavirus Small Business Recovery includes the following information products:

Item	Description	Minimum user type
Business Listing	An ArcGIS Survey123 form used by business owners to share business information, including operating hours, services provided, job opportunities, and any special offers	Community Account
Business Listing Manager	A Crowdsourcing app used by business owners to update business information on a regular basis	Community Account
Business Program Manager	A Crowdsourcing app used by economic development staff to manage businesses in the small business recovery program	Editor
Health Violation Dashboard	An ArcGIS Dashboards app used by health department staff to monitor health order violation reports	Viewer
Health Violation Manager	A Crowdsourcing app used by health department staff to manage health order violation reports	Editor
Health Violation Reporter	An ArcGIS Survey123 form used by the general public to report health order violations	Not Required
Small Business Locator	A Nearby app used by the general public to find local businesses and review current operating hours or job opportunities	Not Required
Small Business Impact Dashboard	An Crowdsourcing app used by economic development staff to monitor business impact and track key metrics of the small business recovery program	Viewer
Small Business Impact Survey	An ArcGIS Survey123 form used by business owners to record how their business has been affected by the COVID-19 pandemic	Community Account

# Release notes

The following are the release notes:

Version	Description
1.1	<ul style="list-style-type: none"><li>• The first release of Business Listing, Business Listing, Business Program Manager</li><li>• Small Business Locator has been updated to use the Nearby configurable web app</li><li>• Business designation fields smallbusiness, womanowned, veteranowned, and bipocowned have been added to the BusinessListing layer</li><li>• Multiple fields have been added to the BusinessListing layer to support expanded services and operating hours functionality in web map pop-ups</li><li>• Demographics fields have been added to the BusinessImpactSurvey layer</li><li>• Small Business Listing, Small Business Listing Manager and Small Business Program Manager have been removed</li></ul>
1.0	<ul style="list-style-type: none"><li>• First release of Coronavirus Small Business Recovery</li></ul>

# Configure Coronavirus Small Business Recovery

In this topic, you will learn how to configure the Coronavirus Small Business Recovery solution to meet specific needs in your organization.

## Load data

Coronavirus Small Business Recovery can be used by economic development agencies to connect with and promote local businesses. The solution is designed to allow business owners to be able to list and update their own business details. If needed, existing business listings can be bulk loaded and maintained by economic development staff.

To load your business listing locations into the BusinessListing layer from a spreadsheet, complete the following steps:

1. Sign in to your ArcGIS organization .

### Note:

If you have an existing spreadsheet of business locations you can skip to step 6.

2. Browse to the BusinessListingLocations CSV item.
3. On the item details page, click **Download**
4. Once downloaded, open the BusinessListingLocations.csv and enter in your business location information. Ensure the name of spreadsheet is BusinessListingLocations and do not change any field names. Save your work.
5. In your ArcGIS organization, browse to the BusinessListing hosted feature layer item details page.
6. On the item details page, click **Update Data – Append Data to Layer**.
7. Under **Filename** choose your .csv file.
8. Click **Upload and Continue**.
9. Uncheck **Update existing features**.
10. Click **Show field matching**. Confirm that all fields listed in the Fields column have a corresponding field listed in the Match Field column. If no field is listed in the Match Field column, click the dropdown box for that field, and select the field name from the spreadsheet which reflects the value shown in the Fields column.
11. Map the Latitude field to y column and the Longitude field to the x column.
12. Click **Apply Updates**.

## Populate operational hours

This solution leverages the [Opening Hours Specification](#) to display operating hours for a place or service. When you populate the data fully, Arcade expressions interpret the data and display the operating hours in a human-readable format in the map pop-up. Understanding the data specification and options in the Arcade expressions will help you populate your data and display it in the maps and apps provided with the ArcGIS Solution.

## Operating Hours Specification

The Operating Hours Specification allows you to store a combination of operating hours in a single field but relies on a series of data standards to render the information correctly. To ensure operating hours are displayed correctly, follow the standards below:

- Enter all times using a 24-hour clock without a leading 0—for example, Tu (7:00-19:00).
- Use a two-letter abbreviation for each day, with the first letter capitalized—for example, Mo, Tu, We, Th, Fr, Sa, Su.
- When a location is open 24 hours a day, use 24 Hours—for example, Mo (24 Hours).
- When a location is closed on a specific day, use Closed—for example, Sa-Sun (Closed).
- Enclose all times and closed statuses in parentheses—for example, Tu (7:00-19:00); We-Mo (Closed).
- Separate days and ranges with a semicolon to denote the two (or more) groups—for example, Th-Fr (7:00-19:00); Sa (24 Hours).

Using the standards above, a diverse set of operating hours can be populated for your places and services. Some common examples include the following:

- To specify the place is open from 9:00 a.m. to 5:00 p.m. seven days a week, populate the operating hours field with the following: Mo-Su (9:00-17:00).
- To specify the place is open from 9:00 a.m. to 5:00 p.m. during the week and closed on weekends, populate the operating hours field with the following: Mo-Fr (9:00-17:00); Sa-Su (Closed).
- To specify the place is open one day (Tuesday) a week, populate the operating hours field with the following: Tu (7:00-19:00); We-Mo (Closed).
- To specify the place has operating hours that vary by day, populate the operating hours field with the following: Mo-Tu (9:00-17:00); We (Closed); Th-Fr (7:00-19:00); Sa (24 Hours); Su (Closed).

Operating hours data can be populated all at once for many places and services using [Calculate field values](#) or uniquely entered for each place or service using an application provided with the solution.

## Arcade expressions

The Arcade expressions include several settings that allow you configure the look and feel of the operating hours when they are displayed in the web map pop-up. The expressions work with the operating hours data and web map pop-up configurations to display current operating hours in your map and app.

This solution uses three Arcade expressions: Hours, Days, and Open/Closed. To modify one of these expressions, complete the following steps:

1. Verify that you are signed in to your ArcGIS organization and browse to the Coronavirus Small Business Recovery map.
2. Open the item page and click **Open in Map Viewer Classic**.
3. Click **More Options** and click **Configure Pop-up** on the business listing layer.
4. Under **Attribute Expressions**, double-click the Arcade expression you want to modify. Each Arcade expression has a set of variables that can be configured according to your organization's needs. Review the expression notes and modify the variables as needed. Do not change anything else in the expressions.

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5. Click **OK**.

## Configure the Small Business Locator app

The Small Business Locator app provides a way to promote businesses and employment opportunities. This app has some common configuration options you may want to extend. It can be extended to allow directions from your current location or symbolized to promote specific business types or designations.

The app can be configured to provide directions to the nearest location. To configure the locator app in the Small Business Locator solution, complete the following steps:

1. Sign in to your ArcGIS Online organization, if necessary, and browse to the locator app.
2. Open the item details page and click **Configure App**.  
Close the **Welcome to the App Setup Page** splash page, if necessary.
3. In the left side panel, click **Interactivity**.
4. If you are in Full Setup mode, click **Results** and click the **Show directions** toggle button.
5. If you are in Express Setup mode, click the **Show directions** toggle button.
6. If you are in Full Setup mode, click **About** and click the **Legend** and **Open legend when app loads toggle buttons**.
7. Click **Publish**.
8. Click **Confirm**.  
The **Authorize premium content** window will appear indicating the number of credits consumed.
9. Click **Authorize**.
10. Click **Launch**.

## Configure Business Program Manager

The Business Program Manager app can be used to manage businesses that enroll in the Coronavirus Small Business Recovery or Business Inclusion programs.

The Business Program Manager web map pop-up includes a series of buttons that can be used to send Small Business Impact Survey or Business Inclusion Survey to program participants. Review the pop-up configuration and adjust as necessary to fit the needs of your business program.

### Send Business Inclusion survey

If the Business Program Manager app is deployed with the Coronavirus Small Business Recovery solution, the Send Small Business Impact Survey button will be configured for you when you deploy the solution. If you already deployed the Business Inclusion solution, you can add the Business Inclusion Survey to the Business Program Manager app configuration.

To configure the Send Business Inclusion Survey button, complete the following steps:

1. Verify that you are signed in to your ArcGIS organization and have deployed the Business Inclusion solution.
2. Navigate to the **Business Inclusion Survey** form in your contents.

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3. Copy the item ID.

**Note:**

The item ID can be found in the item's URL immediately following **?id=**. If you double-click the ID in the URL, it will highlight just the ID.

4. Navigate to the **Business Program Manager** web map item details page.
5. Click the **Open in Map Viewer** down arrow, then **Add to new map**.
6. Click the More Options ellipses on the **Local Businesses** layer, then click **Configure Pop-up**.
7. Under Attribute Expressions, scroll to **Business Inclusion Survey Email** expression. Click on the expression and click **Configure Expression**.
8. Replace the item ID on line 3 with the copied ID from step 3. Click **OK**.
9. Click **OK**. **Save** the map.

## Remove Business Inclusion Survey button

To remove the Send Business Inclusion Survey button complete the following steps:

To remove the Send Business Inclusion Survey button, complete the following steps:

1. Navigate to the **Business Program Manager** web map in your contents.
2. Click the **Open in Map Viewer** down arrow, then **Add to new map**.
3. Click the More Options ellipses on the **Local Businesses** layer, then click **Configure Pop-up**.
4. Click **Configure**, highlight and delete the text for the Send Business Inclusion Survey button. Click **OK**.
5. Click **OK**. **Save** the map.

## Modify surveys

The Coronavirus Small Business Recovery solution includes a series of surveys (Business Listing, Small Business Impact Survey, Health Violation Reporter) that can be used to promote, provide business impact feedback, and submit health violation reports.

Review the preconfigured questions and adjust as necessary to fit the needs of your business program.

## Add additional fields

All surveys leverage feature layer views created from the BusinessListing, BusinessImpactSurvey, and HealthViolations feature layers. Organizations may want to modify the Business Listing, Small Business Impact Survey, and Health Violation Reporter surveys by first adding new fields to the feature layers then configuring the surveys to utilize the newly created fields. When doing so, the new fields must be exposed in the appropriate feature layer views.

To add one, or more, fields to a layer and update the feature layer views, complete the following steps:

1. Add a new field to a layer in the **BusinessListing**, **BusinessImpactSurvey**, or **HealthViolations** hosted feature layer.
2. Navigate to the feature layer view in your contents.
3. Click the **Open in Map Viewer** down arrow, then **Add to new map**.
4. Click the **More Options** ellipses on the appropriate layer or table, then click **Set View Definition**.
5. Click **Define Fields**.
6. Scroll to the newly created field, check the box, and click **Apply**.  
The new field is added to the feature layer view's definition.

## Modify surveys

To modify a survey in the Coronavirus Small Business Recovery solution, complete the following steps:

1. Install Survey123 Connect.
2. Start Survey123 Connect and sign in to your ArcGIS organization.
3. Click on **Business Listing** to download the survey.

### Note:

The Business Listing form is an example. The steps below are similar for the Business Inclusion Survey.

4. In the Download window, click **Download** and click **OK**.
5. Click on **Business Listing** again to open the survey.
6. On the side toolbar, click the **XLSForm** button.
7. Revise the survey to reflect your needs.
8. Click the settings tab, in the submission\_url column enter the BusinessListing\_listing hosted feature layer view item URL.

### Note:

To create this URL, concatenate the Item ID with the portal Content Root. The Item ID can be found at the end of the URL immediately following ?id=. For an ArcGIS Online item, the URL looks like:

<https://www.arcgis.com/sharing/rest/content/items/21a6c530b31a4523bdf7gg94c9c5d9a>

9. Save the Microsoft Excel spreadsheet and preview your changes in ArcGIS Survey123 Connect.
10. In Survey123 Connect, click **Publish** in the left pane to publish your changes.

# Activate the ArcGIS Hub initiative

The Coronavirus Recovery ArcGIS Hub initiative can be used to promote coronavirus recovery programs developed for your community. The initiative template includes a responsive and accessible website that can be enhanced with several coronavirus solutions (for example, Wellness Checks, Testing Sites, and Small Business Recovery). The ArcGIS Solutions are designed to educate the public, engage volunteers, and help small business owners.

**Note:**

The Coronavirus Recovery ArcGIS Hub Initiative template is only available in ArcGIS Hub Premium.

## Activate the initiative

To enable the Coronavirus Recovery ArcGIS Hub initiative, complete the steps below:

1. Sign in to your ArcGIS Online organization, click the app switcher, and select **ArcGIS Hub**.
2. In the **Initiatives** panel, click **New** and click **Browse Templates**.
3. Locate Coronavirus Recovery in the gallery and click **Activate Initiative**.
4. After the activation completes, follow the instructions provided on the **How to use this template** hub page.

## Share ArcGIS Solutions

When you activate the Coronavirus Recovery ArcGIS Hub initiative, it creates a site, pages, and two groups (Core Team and Followers) in your ArcGIS organization. Several maps and apps included with Coronavirus Small Business Recovery must be shared with business owners before inventorying small businesses and assessing the impact. Sharing the appropriate maps and apps with the Followers group created with the initiative will allow small business owners to access them after creating a community identity.

To share the Coronavirus Small Business Recovery maps and apps, follow the steps below:

1. In your ArcGIS Online organization content, search for the Business Listing form.
2. Click the **Check Box** next to the Business Listing form and click **Share**.
3. Click **Edit group sharing** and select the Coronavirus Recovery Followers group.
4. Click **OK** and click **Save**.
5. Repeat the process for the following items:

Item	Name	Sharing
Apps	Business Listing Manager	Group: Coronavirus Recovery Followers
Maps	Business Listing Manager	Group: Coronavirus Recovery Followers

Feature Layer (hosted, view)	BusinessListing_listing	Group: Coronavirus Recovery Followers
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6. Share the Small Business Locator app and BusinessListing\_public feature layer view with everyone.
7. Share the Small Business Impact Survey and the BusinessImpactSurvey\_survey feature layer view with everyone.
8. Share the Health Violation Reporter and the HealthViolations\_reporter feature layer view with everyone.

# Use Coronavirus Small Business Recovery

The Coronavirus Small Business Recovery solution delivers a set of capabilities that help you engage local business owners, measure the impact of the pandemic on small businesses, report potential health order violations and their resolution, and promote small business recovery.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

## Note:

Use your organization's data or configured apps to follow these workflows.

## Manage business listings

Providing accurate business listing information to the public as small businesses reopen during the COVID-19 pandemic can be an effective way to support the small business community. The Business Listing form allows small businesses to provide business listing details such as hours of operation, services, social media profiles, and employment opportunities. Business listing information is made available to the public in the Small Business Locator.

In this workflow, you will learn how to create a business listing, manage your business listing, and share economic impact information with economic development staff.

## Submit a business listing

You will begin by assuming the role of a small business owner in a community. You want to share information about your business with economic development staff so they will promote your business during the COVID-19 pandemic.

1. In a browser, from the Coronavirus Small Business Recovery solution, view the Coronavirus Recovery ArcGIS Hub site, and then at the top of the page, click the **Small Business Recovery** tab.

## Note:

For more information, see [Activate the ArcGIS Hub initiative](#).

2. Scroll to the **Join Small Business Program** section, and then click **Join Program**.
3. In the dialog box, click **Create a Hub Community account**.
4. Complete the Hub community account form, and then click **Next**.  
An activation email is sent to the email address you used when setting up the account.
5. Open your email client and locate the email from the ArcGIS Hub community, and then click the link in the email to activate your account.
6. Complete the form, and then click the **Create Account** button.
7. Return to the Coronavirus Recovery ArcGIS Hub site and, if necessary, click the **Small Business Recovery** tab to return to the page.

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**Note:**

Scroll to the **Join the Program** section and, if necessary, click **Join Program**.

8. Scroll to the **Share Your Small Business Information** section, and then under **List Your Business**, click **List Business**.
9. Sign in with your ArcGIS Hub community account credentials.
10. Complete the Business Listing form, and then click **Submit**.

## Update a business listing

Business listing details may change over time as hours of operation expand or employment opportunities become available. The Business Listing Manager app can be used by small business owners to update business listing details.

As a business owner, you want to share new information about your small business and several recent job openings you have.

1. In a browser, from the Coronavirus Small Business Recovery solution, view the Coronavirus Recovery ArcGIS Hub site, and then at the top of the page, click the **Small Business Recovery** tab.

**Note:**

For more information, see [Activate the ArcGIS Hub initiative](#).

2. Scroll to the **Share Your Business Information** section, and then under **Manage Business Listing**, click **Manage listing**.
3. If necessary, sign in with your ArcGIS Hub community account.
4. In the panel on the right, select your business; alternatively, click your business on the map.
5. Review the current business listing details.

**Note:**

Small business owners can only see and edit their business listing. Small business owners can also review comments made by the administering agency in the **Agency Comments** section.

6. Click the **Small Business Listing** link to open the Business Listing form.
7. In the form, update listing details, and then click **Submit**.

## Provide economic impact information

Small business owners can use the Small Business Impact Survey to provide information to the economic development agency and help them understand small business needs and concerns during the COVID-19 pandemic.

1. In a browser, from the Coronavirus Small Business Recovery solution, view the Coronavirus Recovery ArcGIS Hub site, and then at the top of the page, click the **Small Business Recovery** tab.

**Note:**

For more information, see [Activate the ArcGIS Hub initiative](#).

2. Scroll to and click **Take Survey**.
3. Complete the Small Business Impact Survey, and then click **Submit**.

**Note:**

The Small Business Impact Survey can also be sent directly to a small business owner participating in the recovery program by using the Business Program Manager.


## Administer a small business program

As small business owners submit and update business listing details, economic development staff may want to review business listings before promoting a business more broadly.

In this workflow, you will learn how to view small business listings provided by business owners, manage a business's visibility in the Small Business Locator, and send the Small Business Impact Survey.

## Remove a business listing

You will start by assuming the role of an economic development manager in a local community. You want to review business listing details and remove a small business from the Small Business Locator.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Coronavirus Small Business Recovery solution.
2. View the Business Program Manager app.  
Businesses are listed in the table at the top. You can sort and filter the table in various ways by clicking column header filters or arrows.
3. Click a business in the table or on the map.  
The business's details open at the lower left.
4. Review the details.
5. In the report details, click the **Edit Record** button .
6. To remove a small business from the Small Business Locator, for **Visible to Public**, choose **No**.
7. Optionally, in the **Agency Comments** section, add comments to the listing.  
Comments are visible to the small business owner when using the Business Listing Manager
8. Click **Save**.

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## Send a Small Business Impact Survey

The Small Business Impact Survey can be used to gather information from small business owners about how their business has been affected by the COVID-19 pandemic and learn what support businesses need to continue to operate and thrive.

You will continue assuming the role of an economic development manager. You are asked to use the Business Program Manager to collect feedback from small businesses.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Coronavirus Small Business Recovery solution.
2. View the Business Program Manager app.
3. Click a business in the table or on the map.  
The business's details open at the lower left.
4. Review the details.
5. At the bottom of the details, click **Send Small Business Impact Survey**.  
Your email client opens with a formatted email message that includes a link to the **Small Business Impact Survey** to send to the small business owner.
6. Modify the email message as necessary.

### Note:

The link provided in the email message completes several of the fields in the Small Business Impact Survey, such as contact details, location, and business type for the small business owner.

## Monitor small business impact

As the small business community provides information using the Small Business Impact Survey, the Small Business Impact Dashboard can be used by economic development managers to understand the impact of the COVID-19 pandemic.

As an economic development manager, you are asked to use the Small Business Impact Dashboard to understand the impact of the pandemic on the small business community, align resources with needs, and craft programs to support small businesses.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Coronavirus Small Business Recovery solution.
2. View the Small Business Impact Dashboard app.  
The Small Business Impact Dashboard opens with the **Overview** tab active. The **Overview** tab displays infographics of key survey response questions such as special (business) designations and laid off or furloughed staff.
3. At the lower left, click the **Survey Responses** tab.  
The **Survey Responses** tab allows an economic development manager to monitor survey responses along several categories. The page displays survey responses summarized by categories such as operating status, business type, and concerns.
4. On the right, under **Business Impact Surveys**, click a survey response.

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5. Click a chart element.  
Charts on the **Survey Responses** tab are linked. When a category is selected in one chart, related details are filtered and updated in other charts, which enables an economic development manager to find trends that need attention.
6. On the left of the app, click the arrow to display the filter panel.

**Tip:**

To pin the filter panel to the dashboard, click the pin in the upper-right corner.

7. Use filters to refine the results.

## Locate small businesses

Providing accurate business listing information to the public as small businesses reopen during the COVID-19 pandemic can be an effective way to support the small business community. Small Business Locator can be used by the public to find small businesses and listing details such as hours of operation, services, social media profiles, and employment opportunities.

In this workflow, you will learn how to locate a small business in your community and potential job opportunities.

### Locate a small business

You will assume the role of a resident in a local community. You want to support small businesses in your community during the COVID-19 pandemic and need to locate a small business that is open for business.

1. In a browser, from the Coronavirus Small Business Recovery solution, view the Coronavirus Recovery ArcGIS Hub site, and then at the top of the page, click the **Small Business Recovery** tab.

**Note:**

For more information, see [Activate the ArcGIS Hub initiative](#).

2. Scroll to the **Helping Small Businesses** section, and then under **Support Local Businesses**, click **Locate a business**.
3. In the **Small Business Locator** app, search for your address; alternatively, click a location directly on the map.
4. Optionally, adjust the buffer slider to see a larger list of potential businesses.
5. Review business details.
6. Click the **Directions** tab to view driving directions to the business from your defined location.

# Report health violations

As businesses begin to open, there may be a need for the public to report unsafe business practices and potential health violations to an administering agency.

In this workflow, you will learn how to report a potential health violation in your community.

## Report a health violation

You will assume the role of a resident in a local community. You have noticed a potential violation in a local park and want to report it to the local health department.

1. In a browser, from the Coronavirus Small Business Recovery solution, view the Coronavirus Recovery ArcGIS Hub site, and then at the top of the page, click the **Small Business Recovery** tab.

### Note:

For more information, see [Activate the ArcGIS Hub initiative](#).

2. Scroll to **If you see a potential health violation in our community, report it** and click **Report it**.
3. Complete the Health Violation Reporter, and then click **Submit**.


## Manage and monitor health violations

As businesses begin to open, there may be a need for the public to report unsafe business practices and potential health violations to an administering agency. Health officers may then investigate the reports and track their resolution.

In this workflow, you will learn how to manage reported potential violations and visualize violation trends over time.

## Manage health violations

You will assume the role of a health officer reviewing and managing potential violations reported by the public.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Coronavirus Small Business Recovery solution.
2. View the Health Violation Manager app.  
All reports are listed in the table at the top. The table can be sorted and filtered in various ways.
3. In the table, use the column header filters and arrows to filter results.
4. Select a health violation report in the table or on the map.  
The details appear at the lower left.
5. Review the health violation report details.
6. In the report details, click the **Edit Record** button  .

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7. For **Status**, choose a value from the drop-down menu.
8. Use the **Assigned To**, **Resolved On**, and **Resolution** fields to manage the health violation report through its life cycle.
9. Optionally, in the **Agency Comments** field, add comments to the health violation report in the field.
10. Click **Save**.

## Monitor health violations

You will continue assuming the role of a health officer. You have been asked to monitor health violation reports and ensure these reports are being resolved in a timely manner.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Coronavirus Small Business Recovery solution.
2. View the Health Violation Dashboard.  
The Health Violation Dashboard opens with the **Overview** tab active. The **Overview** tab displays key metrics around reported health violation reports. This information gives management a quick overview of the number of reported health violations submitted by the public.
3. At the lower left, click the **Violation Reports** tab.  
The **Violation Reports** tab allows a health officer to monitor how their department is doing when it comes to resolving health violation reports. The page displays violations summarized by status, day submitted, and recurring problems.
4. On the right, under **Health Violation Reports**, click a violation report.  
The map zooms to the business, and a pop-up shows business details.
5. Click a chart element.  
Charts on the **Violation Reports** tab are linked. When a category is selected in one chart, related details are filtered and updated in other charts, which enables a health officer to identify issues and areas that need attention.
6. On the left of the app, click the arrow to display the filter panel.

### Tip:

To pin the filter panel to the dashboard, click the pin in the upper-right corner.

7. Use filters to refine the results.

# Coronavirus Testing Sites

This solution documentation has been archived and is no longer updated. Content and links may be outdated.

Mature phase Nov. 2022 – Oct. 2024	Retired phase Nov. 2024
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## Introduction to Coronavirus Testing Sites

Coronavirus Testing Sites can be used to identify at-risk populations and develop coronavirus disease 2019 (COVID-19) testing site plans.

Preventing the spread of infection is one of the most effective ways to stop the pandemic and reopen communities. Widespread testing helps residents determine if they have been infected and could spread coronavirus to others. Furthermore, testing matters more in communities affected the most. Communities of color and socioeconomically vulnerable communities are disproportionately burdened by the pandemic and the impact is acute. Understanding population demands and where racial and socioeconomic vulnerabilities exist helps communities locate ideal testing sites. Coronavirus Testing Sites is typically implemented by health and human services or public safety agencies that want to optimize the location of coronavirus disease 2019 (COVID-19) testing sites, maximize limited testing resources and ensure communities affected the most have access to coronavirus testing.

The Coronavirus Testing Sites solution delivers a set of capabilities that help you identify at-risk populations, locate optimal testing sites, manage testing site status, and share testing site information with the public.

## Requirements

Coronavirus Testing Sites requires the following:

- ArcGIS Online
- ArcGIS Pro 2.9 (Advanced)
  - ArcGIS Geostatistical Analyst extension

## Information products

Coronavirus Testing Sites includes the following information products:

Item	Description	Minimum user type
Testing Sites Locator	An ArcGIS Web AppBuilder app used by the public to locate the nearest coronavirus testing location	Viewer
Testing Sites Manager	A Crowdsourcing Manager app used by health and human services staff to inventory coronavirus testing locations	Editor
Testing Site Allocation	An ArcGIS Pro project used by health and human services analysts to identify at-risk populations and locate optimal testing sites	GIS Professional Advanced

## Release notes

The following are the release notes:

Version	Description
1.2	<ul style="list-style-type: none"><li>An update to the Testing Site Allocation ArcGIS Pro project to resolve a bug in the Create Ranked Surface tool.</li></ul>
1.1	<ul style="list-style-type: none"><li>Resolved an issue in the Solve Location Allocation with Risk model that prevented it from running properly.</li></ul>
1.0	<ul style="list-style-type: none"><li>First release of Coronavirus Testing Sites.</li></ul>

# Use Coronavirus Testing Sites

The Coronavirus Testing Sites solution delivers a set of capabilities that help you identify at-risk populations, locate optimal testing sites, manage testing site status, and share testing site information with the public.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

## Identify at-risk populations

At-risk populations can be quickly modeled using the Testing Site Allocation project. By default, the risk model helps you identify racial and socioeconomic vulnerability.

Organizations can select specific demographic variables that align with risk factors you are concerned about in your community. The variables will help you create a risk map and allocate testing sites to these areas of need.

You will start by assuming the role of an emergency response GIS analyst. You are asked to use the Testing Site Allocation project to create a community risk surface.

1. Start ArcGIS Pro and open the Testing Site Allocation project.
2. On the **View** tab, in the **Windows** group, click **Catalog**, and click **Catalog Pane**.
3. In the **Catalog** pane, expand the **Tasks** folder, and double-click the Testing Site Allocation task.
4. In the **Task** pane, click the **Testing Site Allocation** task group to expand the collection of tasks.
5. Follow the steps in each task.

## Locate the best testing sites

The best testing sites can be quickly located with the Testing Site Allocation project. Use the previously defined risk map, population demand, and a list of candidate sites to locate the best testing sites in your community.

You will start by assuming the role of an emergency response GIS analyst. You are asked to use the Testing Site Allocation project to select the best testing sites from a list of candidate sites that meet needs defined in the risk map and other population demand.

1. Start ArcGIS Pro and open the Testing Site Allocation project.
2. On the **View** tab, in the **Windows** group, click **Catalog**, and click **Catalog Pane**.
3. In the **Catalog** pane, expand the **Tasks** folder, and double-click the Testing Site Allocation task.
4. In the **Task** pane, click the **Testing Site Allocation** task group to expand the collection of tasks.
5. Open the **Identify candidate sites** task and follow the steps provided.

**Note:**

The [GISCorps COVID-19 Testing Sites feature service](#) is a freely available source of nationwide existing testing sites that can be used in this task.

- Next, open the **Identify best testing sites** task and follow the steps provided.

## Inventory testing sites

Laboratory tests can identify the virus that causes COVID-19 in respiratory specimens. As a result, health and human services officials are establishing testing sites to track the spread of disease and ensure proper treatment and isolation for those infected.

Coronavirus testing sites can be added to your inventory and shared with the public. The Testing Sites Locator app can be used to share status information with the public.

In this workflow, you'll learn how to add a new coronavirus testing site in your community and share this information with the public.

### Add a testing site

You will start by assuming the role of an emergency response mapping technician. You are asked to use the Testing Sites Manager to add a new test site that was recently opened in your community.

- Sign in to your ArcGIS organization, search for **Testing Sites Manager**, and open the app.
- Click **Edit Testing Sites** and place the location of a testing site on the map.

**Tip:**

If you already have a list of testing sites in a spreadsheet, you can use the **Load Testing Sites** widget to load the entire list of testing sites.

- Enter details about the testing site:

Parameter	Value
<b>Name of Facility</b>	Type South Stadium Parking Lot
<b>Full Address</b>	Type 123 Main Street
<b>Phone</b>	Type 555-555-5555
<b>Website</b>	Type https://website.com
<b>Operational Hours</b>	Type 8am - 5pm

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<b>Comments</b>	Type Appointment required
<b>Instructions</b>	Type Multiple lines available with drive-through access
<b>Status</b>	Select <b>Open</b>

4. Click **Save** and click **Clear**.
5. Click an existing testing site to update the operational hours, status, and any other characteristics, and click **Save**.

## Locate a testing site

Now, you will assume the role of a resident in the same community. You have coronavirus symptoms and want to locate the nearest testing site.

1. In a browser, go to the **Testing Sites Locator** app.
2. Type your address in the search box or click a location directly on the map.
3. Optionally, adjust the buffer slider to see a larger list of potential testing sites.
4. Select the closest testing site from the list and review the instructions provided.
5. Click the **Directions** tab to view driving directions to the testing site from your defined location.



# Coronavirus Vaccine Distribution Dashboard

This solution documentation has been archived and is no longer updated. Content and links may be outdated.

Mature phase Mar. 2023 – Feb. 2025	Retired phase Feb. 2025
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## Introduction to Coronavirus Vaccine Distribution Dashboard

Coronavirus Vaccine Distribution Dashboard can be used to tabulate, visualize, and monitor key vaccine distribution metrics and trends that support a phased coronavirus disease 2019 (COVID-19) vaccination plan.

As communities begin to distribute vaccines, maintaining situational awareness is essential. Understanding how vaccine distribution and coverage metrics vary among target populations, and from one geography to another, helps decision makers develop strategic vaccine distribution plans. Coronavirus Vaccine Distribution Dashboard is typically implemented by health and human services agencies that want to visualize key vaccine distribution metrics over time and use the metrics to inform public education campaigns, make vaccine distribution decisions, adapt recommendations made to reach target populations, and ensure a successful vaccination program.

The Coronavirus Vaccine Distribution Dashboard solution delivers a set of capabilities that help you to tabulate vaccine distribution metrics, monitor key trends and performance targets for defined geographies, and communicate progress to interested stakeholders.

## Requirements

Coronavirus Vaccine Distribution Dashboard requires the following:

- ArcGIS Online
- ArcGIS Survey123 Connect

## Information products

Coronavirus Vaccine Distribution Dashboard includes the following information products:

Item	Description	Minimum user type
Vaccine Distribution Dashboard	A responsive ArcGIS Experience Builder app used by health and human services staff to visualize and monitor key vaccine distribution metrics and trends that support a phased vaccination plan	Viewer (required for health and human services personnel only)
Vaccine Distribution Reporter	An ArcGIS Dashboards app used by health and human services staff to tabulate vaccine distribution metrics	Editor

## Release notes

The following are the release notes:

Version	Description
1.1	<ul style="list-style-type: none"><li>A new Vaccine Distribution Reporter that resolves an issue where the location selector fails to load in the new ArcGIS Dashboards app.</li></ul>
1.0	<ul style="list-style-type: none"><li>First release of Coronavirus Vaccine Distribution Dashboard</li></ul>

# Configure Coronavirus Vaccine Distribution Dashboard

Learn how to configure the Coronavirus Vaccine Distribution Dashboard solution to meet specific needs in your organization.

## Load vaccine distribution reporting areas

The Coronavirus Vaccine Distribution Dashboard solution helps public health agencies visualize and share vaccine distribution metrics for a given set of reporting areas. The reporting areas can be a county, ZIP Code, state, municipality, or any other geographic area you are using to tabulate metrics. Once you identify the specific reporting area or areas you want to use, you can use the Vaccine Distribution Reporter to tabulate coronavirus disease 2019 (COVID-19) distribution metrics for the specific reporting area.

The Reporting Areas layer includes several important fields. The Name field stores the names of the reporting area and is used in the Reporting Area Category Selector in the Vaccine Distribution Reporter app. Use the **Aggregate Area** field to report distribution metrics by differing jurisdictions. For example, a county may want to share distribution metrics tabulated by the entire county as well as broken down by ZIP Code or municipality. In that case, the county has a value of **Yes** for the **Aggregate Area** field. The Points of Distribution (POD) field is used to store the number of locations where the vaccine can be accessed per reporting area. This metric is shown on the Vaccine Distribution Dashboard.

Reporting Areas also contains several population fields such as Total population and Healthcare workers population. These fields are used in the Vaccine Distribution Reporter app to calculate vaccine coverage rates. Populating each population field ensures vaccine coverage rates are calculated accurately in the Vaccine Distribution Reporter app and visualized properly in the Vaccine Distribution Dashboard.

To learn about enriching your data with information, for example, demographic data, see [About Data Enrichment](#).

## Load data from a shapefile or file geodatabase

To load reporting areas from a shapefile or file geodatabase, complete the following steps:

1. Create a .zip file of a shapefile or file geodatabase of your reporting areas.
2. Sign in to your ArcGIS organization and browse to the VaccineDistribution feature layer.
3. Open the item page and click **Update Data > Append Data to layer**.
4. Click **Choose File**, browse to your .zip file, and click **OK**.
5. Click the **Contents** drop-down arrow and choose the appropriate file type.
6. Click **Upload and Continue**.
7. Click the **Choose the layer to update** drop-down arrow and choose **Reporting Areas**.
8. Uncheck **Update existing features**.
9. Click **Show field matching** to map the fields.
10. Click **Apply Updates**.

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**Tip:**

To make additional updates to a hosted feature layer, see [Append data to layers](#).

## Load vaccine distribution metrics information

Vaccine Distribution Dashboard can be used by public health agencies and other emergency response agencies to visualize and monitor COVID-19 vaccine distribution metrics. The solution includes a Vaccine Distribution Reporter app that you can use to enter updated vaccine distribution metrics at a regular interval. In some cases, you may find it easier to manage this information in a spreadsheet and load it into the solution as you receive new information.

To load your vaccine distribution information from a spreadsheet, complete the following steps:

1. Verify that you are signed in to your ArcGIS organization and browse to the VaccineDistributionSource item.
2. Open the item page and click **Download**.
3. Edit the .csv file and provide your vaccine distribution metrics information.
4. In your ArcGIS organization, browse to the VaccineDistribution feature layer.
5. Open the item page and click **Update Data > Append Data to layer**.
6. Click **Choose File**, browse to your .csv file, and click **OK**.
7. Click **Upload and Continue**.
8. Click the **Choose the layer to update** drop-down arrow and choose **Metrics**.
9. Uncheck **Update existing features**.
10. Click **Apply Updates**.

**Tip:**

To make additional updates to a hosted feature layer, see [Append data to layers](#).

## Extend the Vaccine Distribution Reporter app

The Vaccine Distribution Dashboard solution includes the Vaccine Distribution Reporter app that you can use to tabulate vaccine distribution information.

Review the preconfigured questions and adjust as necessary to remain in compliance with your organizational policies. In addition, ensure that you secure the app and underlying layers and only share the content with appropriate members of your organization.

## Update feature layer views

The Coronavirus Vaccine Distribution Dashboard solution includes a series of views created from the VaccineDistribution feature layer provided with the solution. Organizations may want to modify the Vaccine Distribution Reporter app by first adding new fields to the feature layer and then configuring the Vaccine Distribution Form to use the newly created fields. When doing so, you must expose the new fields in the appropriate views. Additionally, the

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VaccineDistribution\_current view is created by joining two sources together, and you must re-create it with the same name and URL after a new field is added.

Organizations may want to modify the Vaccine Distribution Form by adding new survey questions. When adding new questions, begin with the Update feature layer views steps below. For changes such as removing questions or formatting the survey, proceed to the Modify response surveys section.

To add one or more fields to a layer and expose the field to feature layer views, complete the following steps:

1. Verify that you are signed in to your ArcGIS organization.
2. [Add a new field](#) to the Reporting Areas or Metrics layer in the VaccineDistribution hosted feature layer.
3. Browse to the VaccineDistribution\_public or VaccineDistribution\_reporter views in your contents.
4. Open the item page and click the **Visualization** tab.
5. Click **More Options** and click **Set View Definition > Define Fields**.
6. Check the check box next to the new field or fields.
7. Click **Apply**.  
The new field is added to the view's definition.

To update a join view, complete the following steps:

1. Browse to the VaccineDistribution\_current join view.
2. Open the item page and scroll to the URL section. Click the **Copy** button.
3. Paste the copied URL into Microsoft Notepad or another text editor for reference.

**Note:**

The feature layer name will be used below when re-creating the join. You can find the name after services in the URL structure. It may also contain a unique GUID—for example, VaccineDistribution\_current\_a45f71a48587425c9b90ee5527cd26d1.

4. Browse to the existing VaccineDistribution\_current join view.
5. Open the item page and click the **Settings** tab.
6. Click the **Delete Item** button and click **Delete**.
7. Browse to the VaccineDistribution feature layer.
8. Open the item page and click **Open in Map Viewer Classic**.
9. Click the **Analysis** button and click **Summarize Data > Join Features**.
10. When populating the Join Features tool, do the following:
  - a. Click the **Choose target layer** drop-down arrow and choose **VaccineDistribution**.
  - b. Click the **Choose layer to join to the target layer** drop-down arrow and choose **VaccineDistribution-Metrics**.
  - c. Click **Choose the fields to match** as the type of join.
  - d. Click the **Target field** drop down arrow and choose **name**, and click the **Join field** drop-down arrow and choose **name**.
  - e. Click the **Choose join operation** drop-down arrow and choose **Join one on one**.

- f. Under the **Define which record is kept** drop-down arrow, click **Order by**, click the **Field** drop-down arrow and choose **Date reported**, and click the **Sort by** drop-down arrow and choose **Newest**.

**Note:**

Ensure the new join view uses the names defined in the table above. If you use the same name, the layers in the map and the existing dashboard elements do not have to be reconfigured. If your join view contained a unique GUID, you must name the new join view with the unique GUID.

- g. In the **Result layer name** text box, enter VaccineDistribution\_current.
  - h. Uncheck **Use current map extent**, if checked.
  - i. Check **Create results as hosted feature layer view** check box.
11. Update the Vaccine Distribution Desktop and Mobile Dashboards account for the new fields you added to the layers.

## Modify response surveys

To modify the Vaccine Distribution Form survey, complete the following steps:

1. Install [ArcGIS Survey123 Connect](#).
2. Start ArcGIS Survey123 Connect and sign in to your ArcGIS organization.
3. Click **Vaccine Distribution Form** to download the survey.
4. Click **Vaccine Distribution Form** again to open the survey.
5. In the **Download** window, click **Download** and click **OK**.
6. On the side toolbar, click the **Open XLSForm Spreadsheet** button.
7. Revise the survey to reflect your needs.
8. Save and close the Microsoft Excel spreadsheet and preview your changes in ArcGIS Survey123 Connect.
9. In ArcGIS Survey123 Connect, click **Publish** on the side tool to publish your changes.

## Configure vaccination goals

The Vaccine Distribution Dashboard vaccination coverage charts contain preconfigured goals to visualize progress toward vaccination goals. Organizations may want to modify the goals to better reflect their community's vaccination goals.

To modify the vaccination goal, complete the following steps:

1. Verify that you are signed in to your ArcGIS organization and browse to the Vaccine Distribution Desktop Dashboard or Vaccine Distribution Mobile Dashboard item.  
The following steps can be used to configure vaccination goals in both the desktop and mobile dashboards.
2. Open the item page and click **Edit Dashboard**.
3. Hover over the upper left corner of the **Vaccine Coverage by Total Population** serial chart element and click **Configure**.
4. Click the **Guides** tab.

The chart contains a preconfigured goal of 67%.

5. Using a decimal value, change the **Value** to your community's vaccination goal. For example, a goal of 70% would be .7.
6. Change the **Label** to reflect the updated goal and click **Done**.
7. Repeat steps 3 through 6 to modify the goal for the Full Series Coverage Priority Population, Full Series Coverage Age, Full Series Coverage Race & Ethnicity, and Full Series Coverage Gender serial chart elements.
8. Click the **Save** button to save the dashboard.

## Add vaccination coverage categories

The Vaccine Distribution Dashboard solution helps public health agencies and interested stakeholders visualize full series vaccination coverage by priority population, age, race & ethnicity, and gender. Agencies may want to modify or extend the values within those categories. For example, data may be reported using different age ranges than those preconfigured. The VaccineDistribution hosted feature layer contains several custom fields that provide configuration flexibility.

The Reporting Areas layer contains two Custom priority population fields, Custom gender population, Custom age range population, and Custom race population fields. The Metrics layer contains two associated Custom priority population fields, Custom gender population, Custom age range population, and Custom race population fields. Additionally, the Metrics layer contains two Custom priority vaccinated coverage fields, Custom gender vaccination coverage, Custom age range vaccination coverage, and Custom race vaccination coverage fields that can be used to store coverage rates for additional categories.

To utilize a custom field, complete the following steps:

1. Verify that you are signed in to your ArcGIS organization and browse to the VaccineDistribution hosted feature layer.
2. Open the item page and click the **Data** tab. If necessary, choose **Reporting Areas** from the **Layer** drop-down arrow.
3. Click the **Fields** button.
4. Locate and click the **Custom priority population** field.  
In the following steps, the priority1pop and associated fields are used as an example. The same process can be followed to use any of the included custom fields.
5. Click **Edit** to replace Custom priority population's alias with an alias of your choosing. For example, First Responder population.
6. Click **Save**.
7. Click the **Layer** drop-down arrow and choose **Metrics**.  
Locate the associated fields, in this case, priority1 and priority1coverage.
8. Click each field and modify the alias. For example, priority1 would be First Responders vaccinated and priority1coverage would be First Responders (this alias will be used below in the Vaccine Distribution Dashboard serial chart).  
In this example, be sure to populate the priority1pop field in the Reporting Areas layer. These fields are used in the Vaccine Distribution Reporter app to calculate vaccine coverage rates. Populating each population field ensures vaccine coverage rates are

calculated accurately in the Vaccine Distribution Reporter app and visualized properly in the Vaccine Distribution Dashboard.

9. Repeat steps 5 and 6 for each set of custom fields you want to use in the Vaccine Distribution Dashboard.

To modify the Vaccine Distribution Reporter app to use the custom fields configured above, complete the following steps:

1. Start ArcGIS Survey123 Connect and sign in to your ArcGIS organization.
2. Click **Vaccine Distribution Form** to open the survey.
3. On the side toolbar, click **Open XLSForm Spreadsheet**.
4. In the name column, locate the priority1 field. In the type column, click the drop-down arrow to change the type from hidden to integer.
5. Update the label to use the field alias defined in the section above.
6. Repeat step 5 for each custom field you want to use in the Vaccine Distribution Dashboard.
7. Save and close the Microsoft Excel spreadsheet and preview your changes in ArcGIS Survey123 Connect.
8. In ArcGIS Survey123 Connect, click **Publish** on the side toolbar to publish your changes.

To modify the Vaccine Distribution Dashboard to use the custom fields configured above, complete the following steps:

1. Verify that you are signed in to your ArcGIS organization and browse to the Vaccine Distribution Desktop Dashboard or Vaccine Distribution Mobile item.  
The following steps can be used to configure both the Desktop and Mobile dashboards.
2. Open the item page and click **Edit Dashboard**.
3. Hover over the upper left corner of the **Full Series Coverage by Priority Population** serial chart element and click the **Configure** button.
4. If necessary, click the **Data** tab.
5. Click the **+Series** button, and click the **Series 6 Field** drop-down arrow and choose the First Responders decimal field configured above.
6. Click the **Series** tab. Modify the newly created series to match the existing series and according to your needs.
7. Click **Done**.
8. Repeat steps 3 through 7 for additional custom fields configured above to use them in the Full Series Coverage by Priority Population, Full Series Coverage by Age, Full Series Coverage by Race & Ethnicity, and Full Series Coverage by Gender serial charts.
9. Click the **Save** button to save the dashboard.



# Use Coronavirus Vaccine Distribution Dashboard

The Coronavirus Vaccine Distribution Dashboard solution delivers a set of capabilities that help you to tabulate vaccine distribution metrics, monitor key trends and performance targets for defined geographies, and communicate progress to interested stakeholders.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

## Note:

Use your organization's data or configured apps to follow these workflows.

## Tabulate vaccine distribution metrics

The Coronavirus Vaccine Distribution Dashboard solution helps health and human services agencies visualize key vaccine distribution metrics over time. The dashboard displays the most recent reported totals of doses obtained and administered to the public. It also displays the coverage, or percentage of the population that has been vaccinated, broken down by priority populations, age, race, and gender over time.

You will start by assuming the role of an employee in a health and human services agency who has been tasked with reporting the latest vaccine distribution metrics each week.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Coronavirus Vaccine Distribution Dashboard solution.
2. View the Vaccine Distribution Reporter app.
3. Click the **Reporting Area** drop-down menu in the upper right and choose the appropriate reporting area.  
Reporting areas can be a county, public health region, ZIP Code, state, municipality, or any other geographic area you are using to tabulate results.
4. Provide the cumulative total of vaccine doses that have been obtained and administered to the public.
5. Provide the total number of people who have received a partial and full series vaccination.  
As some vaccines require multiple doses, a partial series vaccination would include people who have, for example, received the first dose of a two-dose series.
6. If available, provide the total number of people who have received a full series vaccination by priority populations, gender, age range, and race and ethnicity.  
The coverage or percent of the population that has been vaccinated will be calculated for you if you updated the corresponding population field in the Reporting Areas layer. See [Configure Coronavirus Vaccine Distribution Dashboard](#) for more information on populating your reporting areas.
7. Click **Submit**.
8. Repeat this process for each additional reporting area.

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## Monitor vaccine distribution performance

Now, you will assume the role of a public health officer or executive in the same government agency. You are asked to monitor the current status of vaccine distribution in the community and are looking to see how the vaccine is being distributed across demographic segments of the population.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Coronavirus Vaccine Distribution Dashboard solution.
2. View the Vaccine Distribution Dashboard app.  
The dashboard displays the most recent count of doses obtained and administered and partial and full series vaccination coverage for the selected reporting area. It also contains several time series charts that display vaccination coverage over time for different demographic segments.
3. In the filter on the top of the dashboard, click another reporting area to view the vaccine distribution metrics for a different geography.
4. Click the **Learn More** tab in the Map panel to read the descriptions of the different metrics, how they are calculated, and to view when the metrics were last updated.
5. Click the **Priority Population, Age, Race & Ethnicity, and Gender** tabs to view full series vaccination coverage over time for each demographic segment.

# Coronavirus Vaccine Outreach

This solution documentation has been archived and is no longer updated. Content and links may be outdated. The capabilities have been replaced with [Immunization Outreach](#).

Mature phase Mar. 2023 – Feb. 2025	Retired phase Mar. 2025
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## Introduction to Coronavirus Vaccine Outreach

Coronavirus Vaccine Outreach can be used to communicate vaccination plans, increase public confidence in coronavirus disease 2019 (COVID-19) vaccinations, and ensure the public knows when, and where, they can be vaccinated.

Public opinion is mixed on the safety and efficacy of any vaccine, and misinformation has a direct impact on vaccine coverage. Achieving high vaccination rates requires a robust and transparent public education campaign that provides accurate vaccine information, progress on the distribution plan, and guidance needed to access a vaccination. A key aspect of any campaign is a web destination that helps the public access this important information, ask questions, and request assistance. Coronavirus Vaccine Outreach is typically implemented by health and human services agencies that want to take a transparent and equitable approach, clearly communicate vaccination plans, and increase public confidence.

The Coronavirus Vaccine Outreach solution delivers a set of capabilities that help you to launch a vaccine distribution web destination, provide the public critical information that helps them understand when, and where, they can be vaccinated, and engage medical volunteers that may be needed to support widespread administration of the vaccine.

## Requirements

Coronavirus Vaccine Outreach requires the following:

- ArcGIS Online
- ArcGIS Survey123 Connect

# Information products

Coronavirus Vaccine Outreach includes the following information products:

Item	Description	Minimum user type
Coronavirus Vaccine Distribution	An ArcGIS Hub site used by public health agencies to communicate vaccination plans, increase public confidence in COVID-19 vaccinations, and ensure the public knows when, and where, they can be vaccinated.	Not required
Vaccine Eligibility Survey	An ArcGIS Survey123 form used by the public to determine whether they are eligible for the vaccine.	Not required
Vaccine Locator	A Nearby app used by the public to locate vaccine providers and points of distribution.	Not required
Vaccine Provider Wait Times	An ArcGIS Web AppBuilder app used by participating providers to report wait times.	Editor
My Vaccine Experience	An ArcGIS Survey123 form used by the public to share their experiences with the vaccine and promote this experience in the I Got Vaccinated app.	Not required
I Got Vaccinated	An Attachment Viewer app used by the public to review individual experiences with the vaccine.	Not required
Vaccine Distribution Volunteers	An ArcGIS Survey123 form used by the public to volunteer to help with COVID-19 vaccine distribution.	Not required
Vaccine Outreach Manager	A Crowdsourcing Manager app used by health and human services staff to manage volunteers, I Got Vaccinated contributions, and vaccine points of distribution.	Editor

# Release notes

The following are the release notes:

Version	Description
1.0	<ul style="list-style-type: none"><li>First release of Coronavirus Vaccine Outreach</li></ul>

# Configure Coronavirus Vaccine Outreach

Learn how to configure the Coronavirus Vaccine Outreach solution to meet specific needs in your organization and load your data if needed.

## Load data

Coronavirus Vaccine Outreach can be used by health agencies to share vaccine provider locations, details, and wait times at mass vaccination sites if collected.

To load your vaccine provider locations into the VaccineProviders layer from a spreadsheet, complete the following steps:

1. Sign in to your ArcGIS organization.

### Note:

If you have an existing spreadsheet of provider locations you can skip to step 6.

2. Browse to the VaccineProviderLocations CSV item.
3. Open the item page and click **Download**.
4. Once downloaded, open the VaccineProviderLocations.csv file and enter your vaccine location information.

### Caution:

Do not change the field names or file name.

5. Save and close the file.
6. In your ArcGIS organization, browse to the VaccineProviders hosted feature layer.
7. Open the item page and click **Update Data > Append Data to Layer**.
8. Click **Choose File**, browse to your spreadsheet, and click **OK**.
9. Click **Upload and Continue**.
10. Uncheck **Update existing features**.
11. Click **Show field matching**.  
Confirm all fields listed in the Fields column have a corresponding field listed in the Match Field column. If no fields are listed in the Match Field column, click the drop-down arrow for that field, and choose the field name from the spreadsheet that reflects the value shown in the Fields column.
12. Match the **Latitude** field to the **y** match field and the **Longitude** field to the **x** match field.
13. Click **Apply Updates**.

## Populate operational hours

This solution leverages the [Opening Hours Specification](#) to display operating hours for a place or service. When you populate the data fully, Arcade expressions interpret the data and display the operating hours in a human-readable format in the map pop-up. Understanding the data

specification and options in the Arcade expressions will help you populate your data and display it in the maps and apps provided with the ArcGIS Solution.

## Operating Hours Specification

The Operating Hours Specification allows you to store a combination of operating hours in a single field but relies on a series of data standards to render the information correctly. To ensure operating hours are displayed correctly, follow the standards below:

- Enter all times using a 24-hour clock without a leading 0—for example, Tu (7:00-19:00).
- Use a two-letter abbreviation for each day, with the first letter capitalized—for example, Mo, Tu, We, Th, Fr, Sa, Su.
- When a location is open 24 hours a day, use 24 Hours—for example, Mo (24 Hours).
- When a location is closed on a specific day, use Closed—for example, Sa-Sun (Closed).
- Enclose all times and closed statuses in parentheses—for example, Tu (7:00-19:00); We-Mo (Closed).
- Separate days and ranges with a semicolon to denote the two (or more) groups—for example, Th-Fr (7:00-19:00); Sa (24 Hours).

Using the standards above, a diverse set of operating hours can be populated for your places and services. Some common examples include the following:

- To specify the place is open from 9:00 a.m. to 5:00 p.m. seven days a week, populate the operating hours field with the following: Mo-Su (9:00-17:00).
- To specify the place is open from 9:00 a.m. to 5:00 p.m. during the week and closed on weekends, populate the operating hours field with the following: Mo-Fr (9:00-17:00); Sa-Su (Closed).
- To specify the place is open one day (Tuesday) a week, populate the operating hours field with the following: Tu (7:00-19:00); We-Mo (Closed).
- To specify the place has operating hours that vary by day, populate the operating hours field with the following: Mo-Tu (9:00-17:00); We (Closed); Th-Fr (7:00-19:00); Sa (24 Hours); Su (Closed).

Operating hours data can be populated all at once for many places and services using [Calculate field values](#) or uniquely entered for each place or service using an application provided with the solution.

## Arcade expressions

The Arcade expressions include several settings that allow you configure the look and feel of the operating hours when they are displayed in the web map pop-up. The expressions work with the operating hours data and web map pop-up configurations to display current operating hours in your map and app.

This solution uses three Arcade expressions: Hours, Days, and Open/Closed. To modify one of these expressions, complete the following steps:

1. Verify that you are signed in to your ArcGIS organization and browse to the Vaccine Locator map.
2. Open the item page and click **Open in Map Viewer Classic**.
3. Click **More Options** and click **Configure Pop-up** on the vaccine provider layer.

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4. Under **Attribute Expressions**, double-click the Arcade expression you want to modify. Each Arcade expression has a set of variables that can be configured according to your organization's needs. Review the expression notes and modify the variables as needed. Do not change anything else in the expressions.
5. Click **OK**.

## Configure Vaccine Locator

The Vaccine Locator app can be used by the public to locate vaccine providers and points of distribution. This app has some common configuration options you may want to extend. The app can be extended to allow to directions from your current location or change the appearance of operating hours or current wait times.

### Configure directions and legend

Vaccine Locator can be configured to provide directions to the nearest vaccine location. To configure the locator app, complete the following steps:

1. Verify that you are signed in to your ArcGIS Online organization, and browse to the Vaccine Locator app.
2. From the item page, click **Configure**.  
Close the **Welcome to the App Setup Page** splash page, if necessary.
3. Click **Nearby > Options** and turn on the **Show directions** toggle button.
4. Check the box next to the **Vaccine Providers** layer.
5. Click **About** and turn on the **Legend** and **Open legend when app loads** toggle buttons.
6. Click **Publish**.
7. Click **Confirm**.  
The **Authorize premium content** window appears with information related to authorization.
8. Click **Authorize**.
9. Click **Launch**.

### Symbolize wait times

Staff can use the Vaccine Provider Wait Times at mass vaccination sites to report current wait times. By default, wait times will be displayed in the pop-up for each vaccine provider. You may also want the vaccine locator map to reflect current wait times so users can quickly refer to it when making a decision which site to visit. Before updating the symbology on the map, ensure the vaccine provider Current Wait Times field has been populated.

To configure the symbology on the Vaccine Locator map, complete the following steps:

1. Verify that you are signed in to your ArcGIS Online organization, and browse to the Vaccine Locator map.
2. Open the item page and click **Open in Map Viewer Classic**.
3. Click the **Content** tab.
4. Hover over the Vaccine Providers layer and click **Change Style**.

5. Click the **Choose an attribute to show** drop-down arrow and choose **New Expression** at the bottom of the drop-down menu.
6. Click **Edit** at the top of the window and change the name from Custom to Wait Times and click **Save**.
7. Copy the following code and paste it in the **Expression** editor window:

```
var waittext;  
var wait = $feature.waittime;  
if (wait == null)  
  {waittext = "No wait times reported";}   
else if (wait <=19)  
  {waittext = "Less than 20 minutes";}   
else if (wait <=40)  
  {waittext = "Between 20 and 40 minutes";}   
else if (wait <=60)  
  {waittext = "Between 40 minutes and 1 hour";}   
else {waittext = "Longer than 1 hour";}   
return waittext
```
8. Click **OK**.
9. Optionally, change the symbology based on the wait times you see.
10. Click **Done**.
11. Click **Save**.

The new symbols in the Vaccine Locator map will automatically appear based on the wait time. Optionally, you can label current wait times for each feature.

## Modify surveys

The Coronavirus Vaccine Outreach solution includes a series of surveys that can be used to share vaccine eligibility guidelines, capture vaccination experiences, and enlist volunteers. However, organizations may want to alter these surveys to align with their vaccine distribution program. Review the preconfigured questions in each survey and align with your program as necessary.

To configure the Coronavirus Vaccine Outreach surveys, complete the following steps:

### Configure Vaccine Eligibility Survey and My Vaccine Experience

Modify the Vaccine Locator hyperlink in the Vaccine Eligibility Survey and the I Got Vaccinated hyperlink in the My Vaccine Experience survey to reference apps deployed with the Coronavirus Vaccine Outreach solution. Follow the steps below to update as plans develop and availability expands.

1. Install [ArcGIS Survey123 Connect](#).
2. Start ArcGIS Survey123 Connect and sign in to your ArcGIS Online organization.
3. Click **Vaccine Eligibility Survey** or **My Vaccine Experience** to download the survey.
4. In the **Download** window, click **Download** and click **OK**.
5. Click **Vaccine Eligibility Survey** or **My Vaccine Experience** again to open the survey.
6. On the side toolbar, click the **Open XLSForm spreadsheet** button.
7. In the Microsoft Excel spreadsheet, click the **survey** tab.

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- For Vaccine Eligibility Survey, in the label column, in the eligibility note question, replace the # in the href tag <a href="#"> with the Vaccine Locator app URL.
- For My Vaccine Experience, in the hint column, in the sharestoryq question, enter the I Got Vaccinated app URL between the quotation marks in the href tag <a href="">.
- Click the **Settings** tab, in the submission\_url column, enter the VaccineEligibility\_public or VaccineExperienceSurvey\_survey hosted feature layer item URL to the corresponding survey.

**Note:**

To create this URL, concatenate the Item ID with the portal Content Root. The Item ID can be found at the end of the URL immediately following ?id=. For an ArcGIS Online item, the URL looks like the following:

<https://www.arcgis.com/sharing/rest/content/items/21a6c530b31a4523bdf7gg94c9c5d9a>

- Save and close the Microsoft Excel spreadsheet.
- In ArcGIS Survey123 Connect, click **Publish** on the side toolbar to publish your changes.

## Add fields

The Coronavirus Vaccine Outreach solution includes a series of views created from the VaccineDistributionVolunteers, VaccineEligibility, and VaccineExperienceSurvey feature layers provided with the solution. Organizations may want to modify the Vaccine Eligibility Survey, Vaccine Distribution Volunteers, and My Vaccine Experience apps by first adding new fields to the feature layer and then configuring the surveys to use the newly created fields. When doing so, you must expose the new fields in the appropriate views.

To add one or more fields to a layer and expose the field to feature layer views, complete the following steps:

- Verify that you are signed in to your ArcGIS Online organization.
- [Add a new field](#) to any of the following feature layers: VaccineDistributionVolunteers, VaccineEligibility, or VaccineExperienceSurvey
- Browse to one of the feature layer views: VaccineDistributionVolunteers\_public, VaccineEligibility\_public, or VaccineExperienceSurvey\_public.
- Open the item page and click the **Visualization** tab.
- Click **More Options** and click **Set View Definition > Define Fields**.
- Check the check box next to the new field or fields.
- Click **Apply**.

The new field is added to the view's definition.

## Modify surveys

To modify a Coronavirus Vaccine Outreach survey, complete the following steps:

- Start ArcGIS Survey123 Connect and sign in to your ArcGIS Online organization.
- Click a survey and if prompted, download the survey.

**Note:**

If you have not downloaded the chosen survey, you will be prompted to click **Download** in the **Download** window, then click **OK**. You will also need to click the survey again to open it.

3. On the side toolbar, click the **Open XLSForm spreadsheet** button.
4. Edit the survey to reflect your needs.
5. Click the **settings** tab, and in the submission\_url column, enter a hosted feature layer item URL.

**Note:**

To create this URL, concatenate the Item ID with the portal Content Root. The Item ID can be found at the end of the URL immediately following ?id=. For an ArcGIS Online item, the URL looks like the following:

https://www.arcgis.com/sharing/rest/content/items/21a6c530b31a4523bdf7gg94c9c5d9a

6. Save and close the Microsoft Excel spreadsheet.
7. In ArcGIS Survey123 Connect, click **Publish** on the side toolbar to publish your changes.


## Configure the Coronavirus Vaccine Distribution site

The Coronavirus Vaccine Distribution solution includes the Coronavirus Vaccine Distribution ArcGIS Hub site. This site can be configured with your organization's branding and used to share vaccine distribution information with the public.

### Update with organizational information

After deploying the Coronavirus Vaccine Distribution solution, the Coronavirus Vaccine Distribution site layout only requires a few updates to fit your local context.

To update the site with your organizational information, complete the following steps:


1. Verify that you are signed in to your ArcGIS organization and browse to the Coronavirus Vaccine Distribution site.
2. From the item page, click **Configure**.
3. Scroll to any sections that you want to update, hover over the card, and click the edit pencil  that appears in the horizontal toolbar, and then edit the content with information specific to your organization.
4. In the side panel, click **Footer**.  
A custom footer is provided. In most cases, you will need to update it with your organization's branding, contact information, and social media references.
5. Click the **HTML** text box.  
The **HTML** window appears.
6. Make the necessary changes and click **Apply**.

7. Click **Save**.
8. Click the **Save** drop-down arrow and click **Publish Draft**.

## Add the Coronavirus Vaccine Distribution Dashboard app

The Coronavirus Vaccine Distribution site includes a section that can be used to share key vaccine distribution metrics by linking to an existing dashboard if you have one. You can share a link to an existing dashboard or, if you do not have an existing dashboard, you can deploy the Coronavirus Vaccine Distribution Dashboard solution and use this solution to communicate vaccine distribution metrics and progress made.

To share vaccine distribution metrics, complete the following steps:

1. Verify that you are signed in to your ArcGIS organization and browse to the Coronavirus Vaccine Distribution site.
2. From the item page, click **Configure**.
3. Scroll to the **How Are We Doing?** section, hover over the application card, and click the edit pencil .
4. In the side panel, click **Select Application**.
5. Browse to your dashboard, select it, and click **Save**.

### Tip:

The Coronavirus Vaccine Distribution Dashboard solution includes desktop and mobile versions of a dashboard that can be used to share vaccine distribution metrics. To deploy this solution, go to [Coronavirus Vaccine Distribution Dashboard](#) and click **Deploy the solution**.

6. Click the **Save** drop-down arrow and click **Publish Draft**.

## Share items with the public

Several layer views, maps, and apps included in the Coronavirus Vaccine Outreach solution must be shared with everyone so they can be accessed by the public on the Coronavirus Vaccine Distribution site. The solution includes several feature layer views to prevent sensitive or incorrect data from being shared accidentally.

To share items with the public, complete the following steps:

1. Verify that you are signed in to your ArcGIS organization and browse to the Coronavirus Vaccine Outreach folder.
2. Next to each of the following items, check the check box:

Name	Item type
Vaccine Locator	Web Map
VaccineProviders_public	Feature layer (hosted, view)

Vaccine Eligibility Survey	Form
VaccineEligibility_public	Feature layer (hosted)
My Vaccine Experience	Form
VaccinationExperienceSurvey_survey	Feature layer (hosted)
I Got Vaccinated	Web Mapping Application
I Got Vaccinated	Web Map
VaccinationExperienceSurvey_public	Feature layer (hosted, view)
Vaccine Distribution Volunteers	Form
VaccineDistributionVolunteers_public	Feature layer (hosted)
Coronavirus Vaccine Distribution	Hub Site Application

3. Click **Share**.
4. In the **Share** window, click **Everyone (public)** and click **Save**.  
The **Warning: Sharing editable layers publicly** message appears notifying you that you are sharing editable layers publicly.

# Use Coronavirus Vaccine Outreach

The Coronavirus Vaccine Outreach solution delivers a set of capabilities that help you to launch a vaccine distribution web destination, provide the public critical information that helps them understand when, and where, they can be vaccinated, and engage medical volunteers that may be needed to support widespread administration of the vaccine.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

## Note:

Use your organization's data or configured apps to follow these workflows.

## Review vaccine plans and progress

Achieving high vaccination rates requires a robust and transparent public education campaign that provides accurate vaccine information, progress on the distribution plan, and guidance needed to access a vaccination. A key aspect of any campaign is a web destination that helps the public access this important information, ask questions, and request assistance.

In this workflow, you will assume the role of a resident or member of the public. You are interested in the vaccine distribution plan adopted by your community and progress made vaccinating the public.

1. In a browser, from the Coronavirus Vaccine Outreach solution, view the Coronavirus Vaccine Distribution site.  
The site describes your community's vaccine distribution plan and provides information to assure the public that each COVID-19 vaccine is safe.
2. Review the information on the site.
3. Scroll to the **Vaccine Safety Is a Top Priority** section, and then click **Learn more** to access additional vaccine safety information.  
This information is provided to build confidence in the vaccine approval process.
4. Review key vaccine performance metrics, if provided.

## Explore vaccination stories

The coronavirus vaccine is the best way to protect yourself and your loved ones from getting sick with coronavirus disease 2019 (COVID-19). Some people may be concerned about getting vaccinated for a variety of reasons, and seeing individual stories from people that received the COVID-19 vaccine may encourage widespread adoption of the vaccine. The I Got Vaccinated app is used to review individual experiences with the vaccine.

1. Scroll to the **We Are in This Together** section and review the **I Got Vaccinated** story.
2. Click **Learn more**.  
The I Got Vaccinated app opens to an overview that describes the app's purpose.
3. Click **Explore COVID-19 Vaccination Stories**.

The I Got Vaccinated app includes a collection of stories shared by individuals who have received the COVID-19 vaccine.

4. On the left, click a picture to view a story shared by a community member.

## Determine vaccine eligibility

Initial doses of the vaccine are limited and used to protect priority populations. As doses become more available, additional members of the population will be eligible for the vaccine. The Vaccine Eligibility Survey form is used to determine if you are eligible for a COVID-19 vaccination today.

1. In a browser, from the Coronavirus Vaccine Outreach solution, view the Coronavirus Vaccine Distribution site.
2. Scroll to the **We Are in This Together** section and review the **Am I Eligible** story.
3. Click **Learn more**.  
The Vaccine Eligibility Survey form opens.
4. Complete the survey to determine if you are currently eligible for the vaccine.
5. If you are eligible, click the hyperlink to open the Vaccine Locator app and find a vaccine provider.
6. If you are not eligible for a vaccine, complete the rest of the survey and provide an email address where you can be notified when the vaccine becomes more widely available.
7. Click **Submit**.

## Locate COVID-19 vaccine availability

A growing network of established health care providers can administer the vaccine when supplies increase and you are ready to be vaccinated. The Vaccine Locator app is used to locate vaccine providers and points of distribution.

1. In a browser, from the Coronavirus Vaccine Outreach solution, view the Coronavirus Vaccine Distribution site.
2. Scroll to the **Ready to be Vaccinated** section and review the **Locate Vaccine Providers** story.
3. Click **Locate provider**.  
The Vaccine Locator app opens and shows every vaccine provider in the community.
4. Search for an address or place or click the map to set your location.  
The results highlight vaccine providers near the location you entered and within your search distance.
5. In the left panel, click a result.  
Additional details about the provider appear along with a date that highlights when provider information was last updated.

### Note:

If you do not see any results, search for a new location or drag the slider to increase the search distance.

## Share your vaccination experience

Understanding public perception with the COVID-19 vaccine helps shape public education campaigns and leverage individual experiences to build public confidence. The My Vaccine Experience form is used to collect experiences with the vaccine and promote these experiences in the I Got Vaccinated app.

1. In a browser, from the Coronavirus Vaccine Outreach solution, view the Coronavirus Vaccine Distribution site.
2. Scroll to the **Share Your Experience** section.
3. Click **Share your experience**.
4. Complete the survey, and then click **Submit**.

### Note:

After your submitted survey is reviewed by health and human services staff, your experience will be shared in the I Got Vaccinated app.

## Volunteer to help

As an engaged resident in the community, you want volunteer to help with widespread distribution of the COVID-19 vaccine. You will complete the Vaccine Distribution Volunteers form to provide your experience, skills, and availability so that you can connect with COVID-19 vaccine distribution volunteer opportunities in your community.

1. In a browser, from the Coronavirus Vaccine Outreach solution, view the Coronavirus Vaccine Distribution site.
2. Scroll to the **Volunteer to Help** section.
3. Click **Volunteer now**.
4. Complete the Vaccine Distribution Volunteers form, and then click **Submit**.

## Manage outreach activities


The information shared with the public on the Coronavirus Vaccine Outreach site is dynamic and will change as you carry out your vaccine distribution plans. Ensuring that the information is current and accurate builds public confidence and may increase vaccine uptake.

In this workflow, you are a staff member in the health and human services agency. You have been asked to manage the feedback you are getting on the Coronavirus Vaccine Outreach site and ensure content presented in the Coronavirus Vaccine Outreach apps is current.

## Approve vaccination stories


In this workflow, you will assume the role of a health and human services employee responsible for reviewing vaccination experience stories. As the public shares their experiences with the vaccine, you will review their contributions to the I Got Vaccinated app before promoting the stories more broadly.

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1. In a browser, sign in to your ArcGIS organization, and then browse to the Coronavirus Vaccine Outreach solution.
2. View the Vaccine Outreach Manager app.
3. In the left panel, click **I Got Vaccinated Contributions** to open the map. Contributions are listed in the table at the top.
4. Select a contribution in the table or map. Contribution details open at the lower left.
5. On the **Info** tab, review the details.
6. Click the **Edit record** button .
7. Click the **Status** drop-down arrow and choose a status.
8. Click **Save**.

## Contact volunteers

As volunteers offer to help with widespread distribution of the vaccine, health and human services staff must contact the volunteers to ensure they have the skills required to help with vaccine distribution.


1. In a browser, sign in to your ArcGIS organization, and then browse to the Coronavirus Vaccine Outreach solution.
2. View the Vaccine Outreach Manager app.
3. In the left panel, click **Vaccine Distribution Volunteers** to open the map. Volunteers are listed in the table at the top.
4. Select a volunteer in the table or map. Volunteer details open at the lower left.
5. Review the details that the volunteer provided on the volunteer form.
6. Click the **Edit record** button .
7. Click the **Status** drop-down arrow and choose a status.
8. Optionally, for **Internal Comments**, add comments to the volunteer registration form.
9. Click **Save**.
10. At the bottom of the details, click **Send Volunteer Email**.  
Your email client opens to an email addressed to the specific volunteer. You can format the email message and attach any additional information that you want to share with the volunteer.

## Update vaccine providers

The need to vaccinate large quantities of people will cause providers to alter the hours and flex services that are provided to meet community needs. Sharing current provider and point of distribution information builds public trust and mitigates frustration for those that choose to be vaccinated.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Coronavirus Vaccine Outreach solution.



2. View the Vaccine Outreach Manager app.
3. In the left panel, click **Vaccine Points of Distribution** to open the map. Points of distribution are listed in the table at the top.
4. Select a vaccine provider or point of distribution in the table or map. Points of distribution details open at the lower left.
5. Review current provider information.
6. Click the **Edit record** button  .
7. Update the **Operational Hours** or **Notes** parameters to reflect the most current information that will show in the Vaccine Locator app.
8. Click **Save**.
9. Optionally, at the bottom of the details, click **Share Wait Time App**. Your email client opens with a formatted email message address to the point of contact at the vaccine provider or point of distribution.
10. Review the formatted email and send it to your email address.

## Examine vaccine experience surveys

Responses to the vaccine experience survey and overall sentiment from a collection of responses inform public education and vaccine distribution plans.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Coronavirus Vaccine Outreach solution.
2. Open the My Vaccine Experience form item page.
3. Click **Open in Survey123** and choose **Manage in Survey123 website**.
4. At the upper right, click the **Analyze** tab.
5. Scroll to examine the various survey questions.

### Note:

The results are represented differently depending on the data collected in the survey.

6. At the upper left, click **Filter**.
7. Scroll through the charts that visualize the questions and their answers.
8. At the upper right, click the **Data** tab.
9. Select a record in the table. A panel appears with the survey questions and answers.

### Tip:

If necessary, export the data or create a report.

## Collect vaccination wait times

As vaccine supplies increase and efforts are made to increase the number of people who are vaccinated, health and human services agencies may choose to set up drive-through or curbside vaccination clinics. These clinics are designed to handle large volumes of people and quickly vaccinate members of public. Demand for vaccination may cause large crowds to gather, and communicating wait times to the public will mitigate frustration for those who choose to be vaccinated at the clinic. As you collect wait times at a point of distribution, they can be shared with the public in the Vaccine Locator app.

In this workflow, you are a staff member in the health and human services agency or a volunteer assigned to a vaccine clinic. You have been tasked with reporting wait times at a regular interval throughout the day.

1. Open the email that you sent to yourself previously.
2. Click the hyperlink to open the Vaccine Provider Wait Times app and sign in to your ArcGIS organization, if necessary.  
The app zooms to your vaccine clinic or point of distribution.
3. Select the clinic or point of distribution on the map.
4. In the **Record Wait Time** panel, for **Current Wait Time**, type the appropriate value.
5. Click **Save**.  
The wait time that you entered is displayed in the Vaccine Locator app when a member of the public selects the clinic or point of distribution.
6. Repeat these steps at regular intervals.

# Coronavirus Wellness Checks

This solution documentation has been archived and is no longer updated. Content and links may be outdated. The capabilities have been replaced with [Immunization Outreach](#).

Mature phase Apr. 2022 – Mar. 2024	Retired phase Apr. 2024
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## Introduction to Coronavirus Wellness Checks

Coronavirus Wellness Checks can be used to check on the wellness of vulnerable individuals with an organized set of volunteers from their community.

Physical distancing recommendations are meant to protect everyone from COVID-19, especially older adults. But the resulting isolation can have devastating health effects on homebound individuals. Historically, wellness checks were used to deliver meals, but many agencies are leveraging wellness checks during the pandemic to provide personal assistance to homebound individuals. Having an effective way to engage volunteers and extend the health and human services workforce during this time of need is critical. Using location to assign volunteers to homebound individuals builds a sense of community and improves the efficiency of your wellness program. Coronavirus Wellness Checks is typically implemented by health and human services agencies that want to leverage community volunteers to ensure homebound, or vulnerable individuals, are in good health.

The Coronavirus Wellness Checks solution delivers a set of capabilities that help you register homebound individuals, organize community volunteers, assign those volunteers to wellness checks, and monitor the wellness check program.

## Requirements

Coronavirus Wellness Checks requires the following:

- ArcGIS Online
- ArcGIS Hub Premium

## Information products

Coronavirus Wellness Checks includes the following information products:

Item	Description	Minimum user type
Wellness Check Volunteers	An ArcGIS Survey123 survey form used by the general public to volunteer for the wellness check program	Community account
Wellness Check Registry	An ArcGIS Survey123 form used by homebound individuals to enroll in the wellness check program	Not required
Wellness Check Volunteer Manager	An Crowdsorce Manager app used by emergency response and public health staff to manage volunteers and wellness check requests by homebound individuals	Editor
Wellness Check and Volunteer Assignments	An ArcGIS Workforce Classic project used by emergency response and public health staff to assign volunteers to homebound individuals	Editor
Wellness Check Report	An ArcGIS Survey123 form used by volunteers to report the overall well-being of homebound individuals	Community account
Wellness Check Dashboard	An ArcGIS Dashboards app used by emergency response and public health staff to monitor the wellness check program and outcomes from wellness checks	Viewer

## Release notes

The following are the release notes:

Version	Description
1.0	<ul style="list-style-type: none"><li>First release of Coronavirus Wellness Checks</li></ul>

# Configure Coronavirus Wellness Checks

Coronavirus Wellness Checks solution can be deployed in your ArcGIS Online organization. After deploying the solution to your ArcGIS Online organization, configure it to meet specific needs in your organization and load your data if needed.

## Promote the coronavirus wellness program

The Coronavirus Recovery ArcGIS Hub initiative can be used to promote coronavirus recovery programs developed for your community. The initiative template includes a responsive and accessible website that can be enhanced with several coronavirus solutions (for example, Coronavirus Wellness Checks, Testing Sites, Small Business Recovery). ArcGIS Solutions are designed to educate the public, engage volunteers, and help small business owners.

### Note:

The Coronavirus Recovery template is only available in ArcGIS Hub Premium.

## Activate the ArcGIS Hub initiative

To enable the Coronavirus Recovery ArcGIS Hub initiative, complete the steps below:

1. Sign in to your ArcGIS Online organization, click the app switcher, and select ArcGIS Hub.
2. In the **Initiatives** panel, click **New** and click **Browse Templates**.
3. Locate **Coronavirus Recovery** in the gallery and click **Activate Initiative**.
4. After the activation completes, follow the instructions provided on the **How to use this template** hub page.

## Share ArcGIS Solutions

When you activate the Coronavirus Recovery ArcGIS Hub initiative, it creates a site, pages, and two groups (Core Team and Followers) in your ArcGIS organization. Several maps and apps included in the Coronavirus Wellness Checks must be shared with volunteers before conducting wellness checks. Sharing the appropriate maps and apps with the Followers group created with the initiative allows volunteers to access them after creating a community identity.

To share the Coronavirus Wellness Checks maps and apps, follow the steps below:

1. In your ArcGIS Online organization content, search for the Wellness Check and Volunteer Assignments ArcGIS Workforce project.
2. Check the check box and click **Share**. Click **Edit Group** sharing and select **Coronavirus Recovery Followers Group**.
3. Click OK and click **Save**.
4. Repeat the process for the following items:

Item	Name	Sharing
Web Map	WellnessChecks_workers	Group: Coronavirus Recovery Followers
Form	Wellness Check Report	Group: Coronavirus Recovery Followers
Form	Wellness Check Volunteers	Group: Coronavirus Recovery Followers
Feature Layer (hosted)	Assignments	Group: Coronavirus Recovery Followers
Feature Layer (hosted)	Location	Group: Coronavirus Recovery Followers
Feature Layer (hosted, view)	WellnessChecks_report	Group: Coronavirus Recovery Followers
Feature Layer (hosted, view)	Workers_report	Group: Coronavirus Recovery Followers
Feature Layer (hosted)	Workers	Group: Coronavirus Recovery Followers
Hub Site Application	Coronavirus Recovery ArcGIS Hub	Group: Coronavirus Recovery Followers
Hub Initiative	Coronavirus Recovery ArcGIS Hub	Group: Coronavirus Recovery Followers

5. Share the Wellness Check Registry and the Assignments\_report feature layer view with everyone.

# Use Coronavirus Wellness Checks

Coronavirus Wellness Checks delivers a set of capabilities that help you register homebound individuals, organize community volunteers, assign those volunteers to wellness checks, and monitor the wellness check program.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

**Note:**

Use your organization's data or configured apps to follow these workflows.

## Volunteer for a wellness check program

During the coronavirus disease 2019 (COVID-19) pandemic, communities are turning to volunteers and asking them to check the wellness of vulnerable individuals throughout their community. These wellness checks are an effective way to engage volunteers and extend the public health and safety workforce in this time of need.

In this workflow, you will learn how to volunteer for a local wellness check program.

**Note:**

To complete the following steps, you need to have ArcGIS Hub premium and deploy the Coronavirus Recovery ArcGIS Hub initiative.

You will assume the role of a resident in the community. You have decided you would like to volunteer your time during the COVID-19 pandemic and are willing to check in on the wellness of homebound individuals in your neighborhood.

1. In a browser, go to the **Coronavirus Recovery ArcGIS Hub** site and browse to the **Wellness Checks** page.
2. Click **Join Community** and create a community account. On the dialog box, click **Create a Hub Community** account.
3. Complete the Hub Community account form and click **Next**.  
An activation email is sent to the email address you used when setting up the account.
4. Open your email client and complete the account activation by clicking the link in the email you received from the ArcGIS Hub community. Complete the form and click the **Create Account** button.
5. Return to the **Wellness Checks** page on the Coronavirus Recovery ArcGIS Hub site.
6. Click the **Join Community** button and ensure **Leave Community** appears.
7. Click **Volunteer Now** and sign in with the account you created.
8. Complete the Wellness Check Volunteers form and click **Submit**.

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## Register homebound individuals

During the COVID-19 pandemic, many at-risk members of the community are homebound and feeling isolated. They may be anxious and uncertain about how they will get their medications, meals, and other necessary services. With a local wellness check program in place, homebound individuals can be registered, and regular check-ins can be scheduled to minimize the impact of the COVID-19 pandemic.

In this workflow, you will learn how to register yourself or a family member for a wellness check.

You will assume the role of a homebound individual or a resident in the community with a homebound family member. You would like to register yourself or your family member with the wellness check program so regular check-ins will be made during the COVID-19 pandemic.

1. In a browser, go to the **Coronavirus Recovery ArcGIS Hub** site and click **Request assistance**.
2. Complete the **Wellness Check Registry** form and click **Submit**.

## Manage volunteers and wellness checks

Engaging volunteers is one strategy your public health and safety organizations may use to expand capacity during the COVID-19 pandemic. As volunteers join the wellness check program, background checks and other screening questions may be conducted before volunteers can participate fully. Organizations must manage the status of volunteers and be able to remove residents that have registered for the wellness check program if they leave the community for any reason.

In this workflow, you will learn how to manage the status of volunteers and homebound individuals, assign a volunteer to a wellness check, and reassign wellness checks when necessary.

## Manage the status of homebound individuals

You will start by assuming the role of a volunteer manager. You are asked to use the Wellness Check Volunteer Manager to update the status of homebound individuals and remove a homebound individual who no longer lives in the community.

1. Sign in to your ArcGIS organization, search for **Wellness Check Volunteer Manager**, and open the app.
2. Select **Wellness Checks** from the panel on the left.
3. In the **Name** field, click the **Filter** button, type a name of a volunteer, and press **Enter**.
4. Highlight the first volunteer in the table.
5. Click the **Edit Record** button in the lower left panel.
6. Click the **Status** drop-down menu and choose **Cancelled**, and click **Save**.

## Manage the status of volunteers

You will continue assuming the role of a volunteer manager. You are asked to use the Wellness Check Volunteer Manager to update the status of volunteers in your community.

1. Select **Volunteers** from the panel on the left.

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2. In the **Status** field, click the **Filter** icon and choose **Submitted - Not Yet Approved**.
3. Highlight the first volunteer in the table.
4. Click the **Edit Record** button in the lower left panel.
5. Click the **Status** drop-down menu and choose **Active**.
6. Click **Save**.
7. Click the **Send Welcome Email** button.  
A standard email appears that includes links to the apps required to perform wellness checks. You can configure the email and include other content your organization deems necessary.
8. Click **Assign Volunteer**.

## Assign wellness checks

After updating the status of a volunteer, you are asked to assign a volunteer to a homebound individual in their neighborhood (near them). Using location to guide assignments helps volunteers establish a relationship with the homebound individual and makes it easier to deliver food and other essential needs when necessary.

### Note:

The steps below assume you clicked **Assign Volunteer** and the Wellness Check and Volunteer Assignments ArcGIS Workforce project is open.

1. Click **Assignments**.
2. In the **Assignment Type** drop-down list, click **Wellness Check**.

### Note:

You can hover over the callout to see the name of the person requesting the wellness checks.

3. Click the **Assign** drop-down menu and use the map to locate the nearest volunteer and assign the wellness check.
4. In the lower left panel, click the **Workers** tab.

### Note:

Before assigning volunteers, examine their workload. You may want to balance the wellness checks across many volunteers.

5. Select a worker.  
The volunteer receives a notification in the Workforce mobile app.

## Reassign wellness checks

After a volunteer completes a wellness check, the Workforce assignment is completed. However, you will likely want to have the wellness checks at defined intervals (for example,

daily, weekly, or biweekly). Finally, you are asked to update the status of the wellness check assignment, so it is conducted at a later date.

1. In your ArcGIS Online organization, search for **Wellness Check Volunteer Manager**, and open the app.
2. Select **Wellness Checks** from the panel on the left.
3. In the **Status** field, click the **Filter** button.
4. Select **Completed** in the drop-down menu.
5. Press the Ctrl key to select multiple records in the table.
6. Click the **Edit Record** button in the lower left panel.
7. Click the **Status** drop-down menu and choose **Assigned**.
8. Click the **Assigned Date** drop-down menu and choose today's date.
9. Click **Save**.

## Conduct a wellness check

When a volunteer is accepted in the wellness check program, they receive a welcome email with links to a series of apps that will be used to conduct the wellness checks. Volunteers must install the apps on their mobile device before starting a wellness check. Once a wellness check is assigned to a volunteer, the volunteer receives a notification in the Workforce mobile app.

In this workflow, you will assume the role of a volunteer. You are asked to conduct a wellness check and report the status of a homebound individual in your neighborhood.

1. On your mobile device, open the ArcGIS Workforce app.
2. Sign in with the community account you created when applying to volunteer. Open the Wellness Check and Volunteer Assignments project.
3. Select a wellness check in the list.  
You see a map with the location of the homebound individual. Under **Notes**, you see the name of the individual.
4. Select **Start** at the bottom of the screen to start the wellness check.
5. Select the box with an arrow and click **Survey at Assignment**.
6. If necessary, sign in to Survey123 with a community account. You may be prompted to download the Wellness Check Report survey.  
At the top is the name of the homebound individual and their phone number. You can click the phone number to call the individual and conduct the wellness check.
7. Click **Yes** in the **Did you speak with the person** field.  
You can use the remaining questions as a basis to guide conversations during your wellness check. For instance, you should ask if the homebound individual is experiencing COVID-19 related symptoms.
8. Complete the remainder of the form and submit it by clicking **Send Now**.
9. Go back to ArcGIS Workforce.
10. In the **Notes** section, click the edit button to the right. Under the name of the individual, you can enter a quick note and date that you conducted the wellness check.
11. Click **Finish** at the bottom of the screen.
12. Go back to your list, and repeat the process for any additional homebound individuals on your list.

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## Monitor the wellness check program

Volunteers collecting wellness information can help loved ones in a timely fashion should anything go wrong. In addition, collecting multiple wellness checks within your community can also help you see overall indicators if there are symptoms or concerns that are arising over time.

In this workflow, you will assume the role of a volunteer manager or public health official. You are asked to monitor the wellness check program, review key indicators, and get an understanding of the overall well-being of homebound individuals in the community.

1. Sign in to your ArcGIS organization, search for **Wellness Check Volunteer Dashboard**, and open the app.  
The Wellness Check Dashboard opens with an overview of the current status of volunteers, homebound individuals, and wellness checks.
2. Click the tabs at the bottom of each indicator to review performance over time or see a list of specific wellness checks.
3. Click a value in the list of uncompleted checks to see which homebound individuals have not received a wellness check since registering or being reassigned.

### Note:

You can use the link in the pop-up to open ArcGIS Workforce and assign the wellness check to a new volunteer.

4. Click a graph or donut chart to filter the wellness checks. This can be useful to filter COVID-19 related symptoms or individuals who have not received a wellness check over a period of time.
5. At the top of the dashboard, select a name in the **Individual** list or the **Volunteer** list to see where each volunteer is conducting wellness checks.

# Environmental Analysis

This solution documentation has been archived and is no longer updated. Content and links may be outdated. The capabilities have been replaced with [Environmental Review](#).

Mature phase Nov. 2024 – Oct. 2026	Retired phase Nov. 2026
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## Introduction to Environmental Analysis

Environmental Analysis can be used to evaluate and understand environmental impacts of proposed development projects and solicit feedback from stakeholders.

It provides ready-made analysis and reporting tools that help streamline environmental review, solicit feedback from stakeholders, and generate reports for proposed development projects. This improved process decreases the time required for project review and increases communication between all stakeholders involved. Environmental Analysis is typically implemented by government agencies and conservation organizations that want to take a data-driven approach to environmental review of proposed development projects.

The Environmental Analysis solution delivers a set of capabilities that help you evaluate proposed development projects and solicit feedback from stakeholders.

## Requirements

Environmental Analysis requires the following:

- ArcGIS Online
- ArcGIS Pro 2.9 or later

## Information products

Environmental Analysis includes the following information products:

Item	Description	Minimum user type
Environmental Analysis	An ArcGIS Pro project used by natural resource staff to conduct and report on an environmental impact analysis	Creator
Environmental Screening	An ArcGIS Web AppBuilder app used by natural resource staff to conduct an initial environmental impact assessment and share the impact with interested parties	Viewer
Environmental Impact Public Comment	A Crowdsourcing Polling app used by the general public to review projects and comment on the impact to the natural environment	Not required

## Release notes

The following are the release notes:

Version	Description
1.0 (Nov 2020)	<ul style="list-style-type: none"><li>First release of Environmental Analysis</li></ul>

# Configure Environmental Analysis

Environmental Analysis can be used to evaluate and understand environmental impacts of proposed development projects and solicit feedback from stakeholders.

Learn how to configure the Environmental Analysis solution to meet specific needs in your organization.

## Load data from a shapefile or file geodatabase

Environmental Analysis can be used to evaluate and understand environmental impacts of proposed development projects and solicit feedback from stakeholders.

Review the layers provided with the solution and determine what source data you want to load. Then, load your existing data into the layers provided with the solution before sharing the maps or applications.

To load data from a shapefile or file geodatabase, complete the following steps:

1. Create a .zip file of your shapefile or file geodatabase.
2. Sign in to your ArcGIS organization and browse to the feature layer that you want to populate.
3. From the item page, click **Update Data**.

Follow the steps in the **Update data** wizard to load your data.

# Use Environmental Analysis

The Environmental Analysis solution delivers a set of capabilities that help you evaluate proposed development projects and solicit feedback from stakeholders.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

## Note:

Use your organization's data or configured apps to follow these workflows.

## Conduct initial environmental assessment

You will start by assuming the role of a project manager responsible for reviewing proposed development project scenarios. You are asked to use the Environmental Screening app to review several proposed development project scenarios.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Environmental Analysis solution.
2. View the Environmental Screening app.
3. In the app, the **Environmental Screening** widget is open on the right. The widget includes various tools that can be used to define an area of interest.
4. Define an area of interest with one of the provided tools.
5. Adjust the **Buffer** distance.
6. Click **Report** to view results.
7. In the **Environmental Screening** widget, expand the layer that you are interested in to view its details.
8. Optionally, at the top of the widget, click the **Choose units for analysis** button to adjust the search units.
9. Click the **Download** or **Print** button to export the report.

## Conduct detailed environmental assessment

Now you will assume the role of a project review analyst responsible for reviewing proposed development projects. You are asked to use the Environmental Analysis ArcGIS Pro project to review a proposed development project. Follow the defined tasks to create analyses, format layouts, and create reports of your findings.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Environmental Analysis solution.
2. Download the Environmental Analysis desktop application template and unzip the folder.
3. From the unzipped folder, browse to the **MapsandGeodatabase** folder and open the Environmental Analysis.ppkx file in ArcGIS Pro.

**Note:**

The Environmental Analysis ArcGIS Pro project comes preloaded with sample data, geoprocessing tools, models, and layout templates for common analyses.

4. In ArcGIS Pro, in the **Catalog** pane, expand **Tasks**, if necessary, and then double-click the Environmental Analysis Workflows task.

**Note:**

If you do not see the **Catalog** pane, from the **View** tab, in the **Windows** group, click **Catalog Pane**.

5. In the **Tasks** pane, follow the steps of each task to begin your project review.

## Provide stakeholder feedback

As an engaged resident in a community, you want to provide your feedback on several proposed development project scenarios. You will use the Environmental Impact Public Comment app to submit comments on each scenario.

1. In a browser, from the Environmental Analysis solution, view the Environmental Impact Public Comment app.
2. From the list on the right, select the project that you want to comment on.
3. Review the project details and comments.
  - Click the **Vote for this project** button to vote for the project.
  - Click the **Add a comment** button to leave a comment.



# Fire Safety Survey

This solution documentation has been archived and is no longer updated. Content and links may be outdated.

Mature phase Jun. 2024 – May. 2026	Retired phase Jun. 2026
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## Introduction to Fire Safety Survey

Fire Safety Survey can be used to conduct residential dwelling fire safety surveys that are part of a community's risk reduction program.

It provides fire service agencies with a comprehensive inventory of dwellings that have been surveyed and any fire safety issues discovered during an inspection. Fire service agencies can use the inventory to prioritize inspection activities. This approach reduces staff time necessary to perform safety inspections and ultimately increases the effectiveness of risk reduction programs. Fire Safety Survey is typically implemented by fire service agencies that want to take a data-driven approach to risk reduction and safety programming.

The Fire Safety Survey solution delivers a set of capabilities that help you perform fire safety surveys and monitor the progress of firefighters performing routine fire safety surveys.

## Requirements

Fire Safety Survey requires the following:

- ArcGIS Online
- ArcGIS Field Maps

## Information products

Fire Safety Survey includes the following information products.

Item	Description	Minimum user type
Fire Safety Survey Dashboard	An ArcGIS Dashboards app used by fire personnel to monitor fire safety surveys occurring in a community	Viewer
Fire Safety Survey	An ArcGIS Field Maps web map used by fire personnel to conduct dwelling fire safety surveys that are part of a community's risk reduction program	Mobile Worker

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## Release notes

The following are the release notes:

Version	Description
1.1 (Jul 2022)	<ul style="list-style-type: none"><li>• A new Fire Safety Survey Dashboard.</li><li>• A new Fire Safety Survey.</li></ul>
1.0 (Nov 2020)	<ul style="list-style-type: none"><li>• First release of Fire Safety Survey</li></ul>

# Configure Fire Safety Survey

The Fire Safety Survey can be used by fire personnel to conduct and monitor dwelling fire safety surveys that are part of a community's risk reduction program. Some agencies may want to perform additional configuration of the solution to meet their organizational needs. In this topic, you will learn how to modify questions in the Fire Safety Survey and how to incorporate additional filters to the Fire Safety Survey Dashboard.

## Modify Fire Safety Survey

The Fire Safety Survey map for ArcGIS Field Maps is used by firefighters to perform fire safety surveys while inspecting a dwelling. To adjust the survey to the needs of your risk reduction program, add or delete fields from the FireSafetySurveys layer. Fire Safety Survey dashboard leverages a feature layer view that you must also update to reflect field changes.

### Add new survey question

To add one or more fields to the FireSafetySurveys layer, complete the following steps:

1. Sign in to your ArcGIS Online organization and click **Content**, if necessary.
2. On the **My Content** tab, type **firesafety** in the search box.
3. Click the Feature Layer item titled **FireSafetySurveys**.
4. Click the **Data** tab.
5. Click the **Fields** toggle button.
6. Click the **Add** button to create a field.
7. Define the Field Name, Display Name, Field Type, and Length, and click **Add New Field**.
8. Follow the Update feature layer view section below to update your feature layer view to reflect the changes made to the layer.

### Delete survey question

To delete one or more fields from the FireSafetySurveys layer, complete the following steps:

1. Sign in to your ArcGIS Online organization and click **Content**, if necessary.
2. On the **My Content** tab, type **firesafety** in the search box.
3. Click the **FireSafetySurveys** feature layer item and click the **Data** tab.
4. Click the check box next to the display name of the fields to delete.
5. Click the **Delete** button above and to the right of the field list.
6. Follow the Update feature layer view section below to update your feature layer view to reflect the changes made to the layer.

### Update feature layer view

To update the feature layer view to reflect field changes you have made by adding or deleting a field, complete the following steps:

1. Browse to the **FireSafetySurveys\_dashboard** feature layer view item.

2. Click **Visualization**
3. Click the **More Options** button on the layer, click **Set View Definition**, and select the **Define Fields** option.
4. Scroll to the newly created fields and check the boxes.
5. Click **Apply**.
6. The new fields are now added to the view's definition and are visible in the Fire Safety Survey Dashboard.

# Use Fire Safety Survey

The Fire Safety Survey solution delivers a set of capabilities that help you perform fire safety surveys and monitor the progress of firefighters performing routine fire safety surveys.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

## Note:

Use your organization's data or configured apps to follow these workflows.

## Conduct Fire Safety Survey

Fire Safety Survey allows firefighters in the field to conduct fire safety surveys of dwellings using a smartphone or tablet.

In this workflow, you'll learn how to use the Fire Safety Survey map in ArcGIS Field Maps to document a fire safety survey during a dwelling inspection. You will assume the role of a firefighter. You are asked to use the ArcGIS Field Maps mobile app to access your Fire Safety Survey map and document fire safety inspections you perform in the field.

1. If necessary, download ArcGIS Field Maps onto your mobile device.
2. On your mobile device, open the app, and then sign in to your ArcGIS organization.
3. Tap Fire Safety Survey to open the map.
4. Search for an address, and then, in the results list, tap the address to zoom to that location on the map.
5. Tap the plus sign or **Collect Here** to open the survey form.

## Note:

Your interface will vary depending on the type of mobile device that you use.

6. Tap **Yes** to collect survey information.
7. Complete the form with as much information as possible.
8. At the upper right, tap the check mark or **Submit** to submit the form.  
If necessary, a submitted form can be edited.
9. On the map, tap the point to open the form.
10. At the lower left, tap **Edit**, and then make any necessary changes to the form.
11. Tap the check mark or **Submit** to resubmit the form.
12. At the lower right, tap **More Options** to see additional options.
13. At the lower middle, tap **Copy** to complete another survey and add it to the map.

# Monitor Fire Safety Survey inspections

The Fire Safety Survey Dashboard can be used by fire department personnel to monitor the progress of the fire safety program. It allows the viewer to see the locations where surveys were completed. You can also use it to find areas at risk in the community.

You will now assume the role of fire command staff to monitor how many safety inspections have been completed and review the results of those surveys.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Fire Safety Survey solution.
2. View the Fire Safety Survey Dashboard app.  
On the right, in the **Surveys** panel, all submitted inspections are listed. At the top of the panel, the total number of surveys appears.
3. On the left, use filters to refine the results by occupant type, survey status, or date.  
When you filter results, the bar chart and number of surveys in the **Surveys** panel update.
4. On the right, click an inspection address to zoom to that location on the map.
5. Click the point on the map to open a pop-up with information collected for that location.  
This information can be useful in preparing for any necessary follow-up visits.
6. Below the map, review the chart to see the number of smoke detectors installed and batteries provided.  
This information helps you to understand how many smoke detectors may be installed but not working correctly.
7. On the map, close the pop-up, and then in the **Surveys** panel, click the inspection address again to reset the map.
8. On the left, for **Survey Completed**, choose **No**.  
No data appears in the chart area. The locations listed in the **Surveys** panel require follow-up visits to complete the surveys.
9. On the left, in the filter panel, uncheck any **Occupant Type** check boxes and for **Survey Completed**, click **All**.
10. For **Surveyed On**, click the drop-down arrow and choose **Between the dates**.
11. Set start and end dates to filter for all surveys completed within that time frame.
12. Close the app.

# Fusion Center

This solution documentation has been archived and is no longer updated. Content and links may be outdated.

Mature phase Jul. 2022 – Jun. 2024	Retired phase Jul. 2024
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## Introduction to Fusion Center

Fusion Center can be used to conduct threat mitigation on incidents affecting organizational assets from multiple event feeds.

Understanding risk is achieved by using different sources of information to validate threats to each asset. Organizations have operators responsible for using best practices to detect, analyze, and alert others of any incidents that may impact the client's people, products, property, or brand image. These may range from extreme weather conditions, political instability, crime, terror, to technical failures. When a threat has been detected, the process of threat mitigation begins, allowing the organizational leaders to understand the steps that need to be taken or have been taken to remove the detected threat. Fusion Center is typically implemented by organizations that want to manage threats impacting business operations.

The Fusion Center solution delivers a set of capabilities to correlate information from multiple event layers and assess the impact to an organization's assets such as facilities, employee home locations, and travelers.

## Requirements

Fusion Center requires the following:

- ArcGIS Online
- ArcGIS Pro 2.8 - 2.9 (Basic)

## Information products

Fusion Center includes the following information products:

Item	Description	Minimum user type
Facility Manager	An ArcGIS Web AppBuilder app used by organizations to manage their facilities	Editor
Incident Monitor Dashboard	An ArcGIS Dashboards app used to visualize impacted facilities	Editor
Incident Manager	A Crowdsourcing Manager app used to mitigate threats	Editor
Logging Dashboard	An ArcGIS Dashboards app used to display the status of the task running in Windows Task Scheduler	Viewer
Tactical Analysis	An ArcGIS Web AppBuilder app used to create assessment reports based on impacted facilities	Editor
Fusion Center Desktop	An ArcGIS Pro project package used to connect event layers to understand impacted facilities	GIS Professional Basic
FacilitySource	An Excel document that can be used to load and validate an authoritative list of facilities into ArcGIS	Not required



# Release notes

The following are the release notes:

Version	Description
1.5	<ul style="list-style-type: none"><li>• A new Logging Dashboard app to improve visualization of Profiling Tool performance over time.</li><li>• An update to the Fusion Center Desktop ArcGIS Pro project to support event level logging in the Profiling Tool, to enhance event lookup performance and a resolution to an issue where the earthquake layer isn't being processed (BUG-000140886).</li><li>• A new Incident Monitor Dashboard app with minor functional enhancements.</li><li>• Removed Multi Source Data Feeds Desktop, Factual Incidents Dashboard, and Dataminr Alerts Dashboard from the Fusion Center solution.</li></ul>
1.4	<ul style="list-style-type: none"><li>• An update to the Multi Source Data Feeds Desktop project that resolves an issue where Twitter content does not display the source web address (BUG-000139305).</li><li>• An update to the Multi Source Data Feeds Desktop project that improves the configure base layers task.</li></ul>
1.3	<ul style="list-style-type: none"><li>• An enhancement to the Tactical Analysis app to improve performance and report creation.</li><li>• An enhancement to the Incident Manager app to support email updates, for a single event, impacting multiple facilities at one time.</li></ul>
1.2	<ul style="list-style-type: none"><li>• An update to the ArcGIS Pro project, maps and apps to simplify the deployment of the Fusion Center solution.</li></ul>
1.0	<ul style="list-style-type: none"><li>• First release of Fusion Center.</li></ul>

# Configure Fusion Center

In this topic, you will learn how to configure the Fusion Center solution to meet specific needs in your organization.

## Review the Fusion Center project

The Fusion Center solution includes an ArcGIS Pro project. The project is used to configure and deploy the Profiling Tool, a python script that can be scheduled to run at a routine interval to detect threats and hazards occurring within a specified distance of your organizational facilities. The script can be run on any computer with Windows Task Scheduler and ArcGIS Pro. The Profiling Tool script queries user-defined web layers containing event feed from the ArcGIS Living Atlas and, third party sources, creating alerts for any event occurring within a specified distance of your organization's facilities.

### Note:

Fusion Center solution can leverage third party event feeds from the ArcGIS Marketplace or with third party API keys and the configuration of the [Multi Source Data Feeds](#) solution. To implement the Fusion Center solution with third party API keys the [Multi Source Data Feeds](#) solution must be implemented first.

### Caution:

The Profiling Tool in the Fusion Center Desktop ArcGIS Pro project helps organizations get started with spatially enabling their threat awareness and mitigation efforts. The script runs every three minutes, supports up to 11 unique event feeds and is appropriate for organizations with up to 10,000 unique facilities. As the volume of threats, hazards, and monitored facilities increase, additional real-time computing capabilities may be necessary. To learn more about increasing your computing capability and performance contact your Esri representative.

Before configuring the solution and using the workflows with your data, familiarize yourself with the contents of the Fusion Center Desktop project. To review the project, complete the following steps:

1. Start ArcGIS Pro.

### Note:

Ensure you are [signed in to](#) the user name where Fusion Center was deployed.

2. In the lower left corner, click **Open another project**.
3. In the left pane, under **Portal**, click **My Content** and browse to the folder where Fusion Center was deployed. Select Fusion Center Desktop and click **OK** to open.
4. Click the **View** tab along the top of the ribbon.
5. Click **Tasks** in the **Windows** group to open the Fusion Center tasks to configure, manage, and automate the setup and use of the Fusion Center Desktop solution.

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## Extract the environment

The Fusion Center solution uses the Fusion Center Desktop package to set up and configure the solution. In this topic, you will extract the zip file into the folder location where the ArcGIS Pro package was placed.

### Note:

The workflow assumes that you have the task pane open from the Review the Fusion Center project workflow list above.

### Note:

The default location for the ArcGIS Pro package is  
%userprofile%\Documents\ArcGIS\Packages\

1. Click step 1, **Extract the Fusion Center Environment**.  
The group will expand in the task list.
2. Click **Extract the Fusion Center Solution Tools** in the task list.
3. Click **Finish**.  
This will unzip the zip file, adding a new folder named **Profiling**, which will be located in the **Fusion Center Desktop** folder. You can explore in the **Catalog Pane** under **Project > Folders**.

## Create an ArcGIS profile

The Fusion Center solution will need access to your ArcGIS credentials. To create your profile and store that profile in Windows Credentials Manager, complete the following steps:

### Note:

The workflow assumes that you have the task pane open from the Review the Fusion Center project workflow list above.

1. Click **Create An ArcGIS Profile** in the task list.  
The group will expand in the task list.
2. Click **Create ArcGIS Credential Profile** in the task list.
3. Enter the URL of your ArcGIS organization.
4. Enter the ArcGIS user name and password.
5. Enter the profile name that will be used to store the credentials.
6. Click **Finish**.  
When you click finish, the tool will store the credentials in Windows Credential Manager and update the profile script configuration file.

## Configure event feeds

In this workflow, you will define the event feeds that will be used by the Fusion Center solution to detect threats and hazards. The table below lists the event feed sources that can be configured to run in the Profiling Tool using the Fusion Center Desktop project.

Event Feed Number	Feed Name	Description	Default Feed Status	Data Type	Target Layer	Note
1	Dataminr	Dataminr Pulse Real-Time Alerting layer from <a href="#">ArcGIS Marketplace</a> or capabilities of <a href="#">Multi Source Data Feeds</a> solution.	disable	Point	Total Threats	<p>Requires item ID from a source web layer. The default field mapping is configured to work with the Dataminr Alerts layer from <a href="#">Multi Source Data Feeds</a> solution. When using Dataminr Pulse Real-Time Alerting layer from <a href="#">ArcGIS Marketplace</a>, you'll need to review your layer and adjust field mapping to reflect the correct field names.</p> <p><b>Note:</b></p> <p>Field names are subject to change by provider.</p>
2	Factal	Breaking News Feature layer by Factal from <a href="#">ArcGIS Marketplace</a> or capabilities of <a href="#">Multi Source Data Feeds</a> solution.	disable	Point	Total Threats	<p>Requires item ID from a source web layer. The default field mapping is configured to work with the Factal items layer from <a href="#">Multi Source Data Feeds</a> solution. When using <a href="#">ArcGIS Marketplace</a> Breaking News Feature layer, you'll need to review your layer and adjust field mapping to reflect the correct field names.</p>

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						<p><b>Note:</b></p> <p>Field names are subject to change by provider.</p>
3	Hyperion	Geospark Analytics Event Model layer from <a href="#">ArcGIS Marketplace</a> .	disable	Point	Total Threats	<p>Requires item ID from a source web layer. The default field mapping is configured to work with the Geospark Analytics Event Model layer from <a href="#">ArcGIS Marketplace</a>.</p> <p><b>Note:</b></p> <p>Field names are subject to change by provider.</p>
4	NWS-Extreme	Extreme weather alerts from United States National Weather Service via ArcGIS Living Atlas.	enable	Polygon	Total Hazards	<a href="#">Learn more</a> about the feed.
5	NWS-Severe	Severe weather alerts from United States National Weather Service via ArcGIS Living Atlas.	disable	Polygon	Total Hazards	<a href="#">Learn more</a> about the feed.
6	NWS-Moderate	Moderate weather alerts from United States National Weather Service via ArcGIS Living Atlas.	disable	Polygon	Total Hazards	<a href="#">Learn more</a> about the feed.
7	NWS-Minor	Minor weather alerts from United States National Weather Service	disable	Polygon	Total Hazards	<a href="#">Learn more</a> about the feed.

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		via ArcGIS Living Atlas.				
8	NWS-Other	Other weather alerts from United States National Weather Service via ArcGIS Living Atlas.	disable	Polygon	Total Hazards	<a href="#">Learn more</a> about the feed.
9	Earthquake-Shake Intensity	Earthquake events over last 30 days by shake intensity via ArcGIS Living Atlas.	enable	Polygon	Total Hazards	<a href="#">Learn more</a> about the feed.
10	Wildfire Incidents	Current wildfire locations over the last 7 days provided by the Integrated Reporting of Wildland-Fire Information service via ArcGIS Living Atlas.	enable	Point	Total Threats	<a href="#">Learn more</a> about the feed.
11	Hurricane Forecast Track	Hurricane tracks and positions provided by the National Hurricane Center via ArcGIS Living Atlas.	enable	Polygon	Total Hazards	<a href="#">Learn more</a> about the feed.

Complete the following steps to enable the event feeds you want to use and update the Profiling Tool script with item IDs of web layers sourced from your organization. If the field names of your layers do not match the default field name values provided, you will also need to update the field names to reflect the values in your layer.

1. Click **Configure the Event Feeds** in the task list.  
The group will expand in the task list.
2. Click **Setting Event Inputs for the Configuration File** in the task list.
3. Read the overview information and click **Next Step**.
4. In the drop-down menu, click **Select a Section** to choose an event layer and set that event layer to **enabled** if you want to have it as an input.

**Note:**

The configuration file has 11 event inputs with some enabled and some disabled. Choose each event number section and update information from each of these.

5. If you are leveraging a 3rd party event feed such as Dataminr, Factual, or Geospark Analytics then you will need to choose event section 1, 2, or 3 to set feed status and item ID.

**Note:**

If you are accessing Dataminr or Factual event feeds via API keys with the [Multi Source Data Feeds](#) solution, and the solution was just deployed, this section should be configured with the proper **Item ID**. If you are using ArcGIS Marketplace to access Dataminr and Factual event feeds then you'll need to use the **Item ID** of the layer provided from the ArcGIS Marketplace. If you are using the Geospark Analytics Hyperion event feed then it is configured to use the ArcGIS Marketplace **Item ID** by default.

## Add additional event feeds

**Note:**

This workflow is optional and doesn't need to be completed in order to work with the solution.

To configure additional event feeds or configure a feed not listed in the default configuration complete the following steps:

1. Close the Fusion Center Desktop project.
2. Navigate to the location of the config.ini file of the Profiling tool script and open it in a text editor.  
For example: %userprofile%\Documents\ArcGIS\Packages\Fusion Center Desktop<item\_id>\Profiling\Profiling\config.ini
3. Navigate to the bottom of the file, copy the configuration for Event 11 and paste it underneath.
4. Update the configuration you copied by changing the name to Event 12 and modify the values to reflect the event feed you wish to add, including the item id of the layer to be used, the layer id of the service, and the field names in the layer that correspond to the required values for the Profiling Tool.
5. Save the config.ini file.
6. Open the Fusion Center Desktop project and resume at the **Load Facility Data** task group.

## Load data

There are a few options when loading facility data, depending on the format of your facility data. To load facilities data, complete the following steps:

1. Click **Load Facility Data** in the task list.

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The group will expand in the task list.

2. There are three choices that allow the loading of facility data. Choose how you would like to load data:
  - Validate Data and Append to a feature service - Use this option if you want to validate your facility data before importing. This includes ensuring unique **Facility IDs**.
  - Append Data - Use this option if you have facility data in a feature class and an existing hosted feature layer.
  - Append Data through ArcGIS Online - Use this option if you want to use the **Update Data** option in ArcGIS Online.

Once the steps have been finished, the facilities will be loaded and you can move on to creating geofences.

## Create geofences

Once you have facilities loaded into the facility data, you can create geofences around those locations.

1. Click **Creating Geofenced Boundaries** in the task list.  
The group will expand in the task list.
2. Click **Create Geofence Boundaries** in the task list.
3. Read the overview in the first step on how geofences are created. Then click **Run**.
4. Click the folder icon on the first input to add the facilities layer as an input.  
A window will appear to allow you to add content from your ArcGIS organization.
5. Click **My Content** under the portal directory.
6. Select the folder where Fusion Center was deployed.
7. Select the **Facilities** feature service and click **Open**.  
This will navigate you to the layers part of the facilities layer.
8. Select the **Facilities** layer and click **Open**.  
Repeat steps 2 through 8 to add geofences to the **Facility Geofence Boundary** layer as the second input.
9. Input a desired distance.
10. Choose a unit of measure for the desired distance.

## Deploy the profiling tool

This set of tasks will help deploy the profiling tool as a scheduled task that, at default, will run every three minutes. This tool will identify new incidents from event layers that intersect the geofence boundaries surrounding each facility.

1. Click **Deploying the Profile Tool** in the task list.  
The group will expand in the task list.
2. Click **Configuring Windows Task Scheduler** in the task list.
3. Read the overview information and click **Next Step**.
4. Click **Finish**.

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The profile tool has been deployed as a task in Windows Task Scheduler.

## Maintaining Fusion Center

Fusion Center requires maintenance activities in order to work correctly and ensure optimal performance over time. If maintenance is not performed, solution performance will be impacted. Maintenance activities include manual triage of incident status and deleting features from layers and tables. Learn how to perform maintenance in the following sections:

### Manual triage of incident status

The Incident Manager app and Incident Monitor Dashboard display only incidents with an **Incident Review Status** value of **Open or Under Review**. If incidents are not regularly set to **Closed** or **Out of Scope**, the number of records displayed in these apps will continue to grow, impacting the performance of these applications and the system. As a best practice, the number of incidents with a status of Open or Under Review should not exceed 3000 at any given time. To change the status of incidents, use the Incident Manager, select the records of interest, select the pencil icon, and set the **Incident Review Status** value to **Closed** or **Out of Scope**. [Learn more](#) about how to use Fusion Center solution.

#### Note:

You will need to update status in both the Hazards and Threats sections of the Incident Manager app. How often you are required to manually triage incident status in the Incident Manager app will depend on the number of daily threats and hazards you see in your organization. If you are seeing 3000 incidents in a day or more, you should be performing manual triage of those incidents at least once a day.

Failure to perform manual triage on those incidents will mean that performance of the solution will decrease.

### Delete features from Total Threats, Total Hazards, and Total Incidents

The two main solution layers, Total Threats, and Total Hazards, accumulate new records rapidly. Total Incidents is a standalone table that contains all records from both the Total Threats and Total Hazards layers. Once incidents have been reviewed by analysts and given a status of Closed or Out of Scope, they are no longer needed in the solution but continue to be stored in the layers (and the table) and analyzed by the Profiling Tool script when it runs. Over time, large volumes of these historical incidents increase the amount of time required to run the Profiling Tool script, which can lead to performance problems, script failures, or missed incidents.

#### Caution:

Conducting the following steps will permanently delete the closed and out of scope records from the total threats layer, total hazards layer, and total incidents table. Before using the following steps to delete records, your organization may require local copies of historical data. Learn more how to [export data from hosted feature layers](#) into a local file

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geodatabase to create a local copy of your data. If you choose to archive data, pause the profiling tool before conducting an export to ensure a complete copy of your data.

Failure to perform maintenance on Total Threats layer, Total Hazards layer and Total Incidents table will mean that performance of the profiling tool will decrease and eventually fail because of the way the tool is designed.

To permanently delete historical incidents with a status of Closed or Out of Scope from the Total Threats layer, complete the following steps:

1. Navigate to Windows Task Scheduler and pause the Profiling Tool script.
2. Log in to your ArcGIS organization.
3. Choose **Content**, and navigate to the Total Threats layer item.
4. Choose Total Threats Layers section, click Total Threats.
5. In URL section, click **View**.  
The ArcGIS REST API service directory will open.
6. In the ArcGIS REST API service directory, scroll down to **Supported Operations**, and click **Delete Feature**.  
This option is only available if editing has been enabled for the feature service.
7. In the **Where** parameter, type the following:  
ObjectID>0 AND incident\_review\_status IN ('Closed','Out of Scope')  
If there are no records in your layer with the incident review status field value of Closed or Out of Scope, type the following:  
ObjectID>0
8. Set the **ASync** parameter as TRUE.
9. Click **Delete Features** button.  
This process can take several minutes when many features are present.

10. Repeat steps 2-9 for the Total Hazards layer.

After you have deleted Closed or Out of Scope records from the Total Threats and Total Hazards layers, complete the following steps to delete Closed or Out of Scope records from the Total Incidents table:

1. Click **Content**, and navigate to the Total Incidents table item.
2. On the item page of the Total Incidents table, click **Settings**.
3. In the **Editing** section, click on **Enable editing**, then click **Save**.
4. Click **Overview**.
5. In the **Tables** section, click Total Incidents.
6. In the URL section, click **View**.  
The ArcGIS REST API services directory will open.
7. In the ArcGIS REST API service directory, scroll down to **Supported Operations**, and click **Delete Feature**.  
This option is only available if editing has been enabled for the feature service.
8. In the **Where** parameter, type the following:  
ObjectID>0 AND incident\_review\_status IN ('Closed','Out of Scope').

If there are no records in your layer with the incident review status field value of Closed or Out of Scope, type the following:

ObjectID>0

9. Set the **ASync** parameter as TRUE.
10. Click **Delete Features** button.  
This process can take several minutes or more when many features are present.
11. Restart Profiling Tool script in Windows Task Scheduler.

## Identify the maintenance frequency

Maintenance should be performed on the layers and table based on a variety of factors, including the number of records in your Facilities layer, the size of the geofence boundary you have configured in your Profiling Tool, and the number of unique event feeds configured in your Profiling Tool. These factors contribute the total number of features that will exist in your total hazard, total threat, and total incidents layers. A large number of features in these three layers will impact performance of the script over time.

To determine how frequently to perform the maintenance given your unique configuration of the Profiling Tool script, consider the following:

1. Navigate to the Logging Dashboard and monitor when the Profiling Tool script experiences consistently above average runtimes then choose one of the following approaches:
  - Identify how many days (or weeks) the script ran before experiencing above-average runtimes. Perform future maintenance by deleting records from the Total Threats layer, Total Hazards layer and Total Incidents table according the day interval where the runtimes increased.
  - When above-average script run times are experienced, review the number of records in the Total Hazards layer, Total Threats layer, and the Total Incidents table. Perform future maintenance by deleting records when each layer reaches the record size observed when script times increased.

## Review Logging

When the Profiling Tool runs, it generates a detailed message log about the processing of event feeds and corresponding threats and hazards. By default the Profiling Tool is scheduled to run every 3 minutes. If you experience problems with execution or performance of the Profiling Tool, the log can be used to troubleshoot causes of the problem behavior. The message log can be found at the following location:

%userprofile%\Documents\ArcGIS\Packages\Fusion\_Center\_Desktop<item\_id>\Profiling\Profiling\Logs

The log captures the following types of messages which can be used to address issues with the event feed import process:

Level	Numeric Value	Description
ERROR	40	This level of logging provides information about events that prevented the script from executing successfully.

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WARNING	30	This level of logging provides information about events that were unexpected but did not stop the script from running. This is the default setting.
INFO	20	This level of logging provides additional information about successful execution of individual processing steps.
DEBUG	10	This level of logging provides detailed information about the execution of individual processing steps that can be helpful in determining the causes of errors or unexpected results.

**Note:**

By default, the Profiling Tool is configured to report all events with a value of 30 and above. Additional logging can be configured for debugging purposes if required, but will result in longer runtimes for the Profiling Tool. To enable full debugging logging, go to the above location and edit the log\_config file. Change the level parameter from 30 to 10.

# Use Fusion Center

Fusion Center delivers a set of capabilities that allows an organization to mitigate threats to their organization. This is achieved by combining a variety of event layers into threat and hazard layers, to understand what facilities have been impacted.

In this topic, you'll learn how to use the Fusion Center solution by assuming the role of various users in the Global Security Operations Center (GSOC) and perform the following workflows.

## Assess the threat status

You will assume the role of a security analyst responsible for assessing the incident impact on the organizational footprint.

1. In a browser, open the Incident Monitor Dashboard.
2. Click a facility from the **Impacted Facilities** list.

**Note:**

This will filter the list of incidents to the incidents that are affecting the selected facility.

3. Click the **Incident List** tab in the lower left corner of the dashboard.

**Note:**

This list shows all the incidents that are affecting the facility that was selected in the **Incident List**, and the map shows only those incidents as well.

4. Click the **Incident Overview** tab at the bottom of the dashboard.

**Note:**

The dashboard displays a complete breakdown of incidents by status **Incident List**, and the map shows only those incidents as well.

## Change the incident status

When an incident has been identified as a threat to a facility, an analyst in the GSOC must gather information about the incident. This process is called threat mitigation.

1. In a browser, open the Incident Monitor Dashboard.
2. Click a facility from the **Impacted Facilities** list.

**Note:**

This will filter the list of incidents to the incidents that are affecting the selected facility.

3. Click the **Incident List** tab in the lower left corner of the dashboard.

**Note:**

This list shows all the incidents that are affecting the facility that was selected in the **Incident List**, and the map shows only those incidents as well.

4. Click an incident in the **Incident List** to pan to the incident.

**Note:**

The pop-up for this incident will appear, providing more information about the incident.

5. Click the **Incident Source** button in the pop-up to access the raw information from this event feed.

**Note:**

The button will open a new tab to help you understand all information about the incident. Close the tab when finished and return to the Incident Monitor Dashboard.

6. Click the **Triage Incident** button in the incident pop-up.

**Note:**

The button will open the Incident Manager application in a new tab. The incident that was selected in the Incident Monitor Dashboard will be selected in the application.

7. Click the edit button in the lower left quadrant to change the status of this incident to **Under Review**.
8. Type any notes needed for others to understand the status in depth in the **Notes** section.
9. Click the **Save** button.

**Note:**

This status change will persist in the ArcGIS system.

## Conduct Tactical Analysis

Throughout the threat mitigation process, further analysis may be necessary to better understand the potential impact. The Tactical Analysis app can be used to glean further information by creating reports and visualize the extent of the incident to enhance decision support.

In this workflow, you will learn how to access the Tactical Analysis app from Incident Manager and generate a set of reports that can be shared with key decision makers.

### Perform Tactical Analysis

1. In a browser, open the Incident Manager application.

2. Select either **Hazards** or **Threats** to view active incidents.
3. Click an incident in the incident table.
4. Click the **Perform Tactical Analysis** button.  
The Tactical Analysis app opens in a separate tab that filters all active impacts based on the facility from the selection in Incident Manager. The **Impact Summary** tool on the right displays details on the impacted facilities.
5. Click on one of the impacted facilities in the list.
6. In the pop-up, click **Click here to send email to Facility Administrator** to open your default email client.  
This email will allow reports to be shared to the facility manager.
7. Minimize the email client and use any of the tools included in the app to share reports with those in your organization.  
The section below provides additional guidance on creating reports that can be shared with key stakeholders.

## Create Infographics and Reports

The Business Analyst tool allows you to gain social, demographic, or economic context of the community surrounding a facility, threat, or hazard in order to enhance decision support in operational response. Selecting a feature from the map enables you to generate contextual reports or infographics for your location of interest.

1. In the **Impact Summary** tool, select a feature from **Impacted Facilities** list to select the feature on the map.
2. In the upper right corner, click the **Business Analyst** tool to open it.  
When opened, the currently selected feature is set as the active feature for analysis.
3. Select rings, drive time, or walk time and specify desired value to create an analysis area.

### Note:

If a hazard is selected, you do not need to supply a value as it will use the area extent of the feature.

4. Select a type of infographic or report and click the respective **Run** button to download a report for the analysis area.

## Create Impact Reports

The **Understand Impact** tool allows you to view information and generate reports based on the impacted facilities, threats, and hazards layers.

1. In the **Impact Summary** tool, select a feature from **Impacted Facilities** list to select the feature on the map.
2. In the pop-up, click the more information button in the bottom right corner to see a list of feature actions, and choose **Set Location**.

The **Understand Impact** tool opens. By default, the tool draws a 5-mile buffer around your selected location.

In an area along the bottom of the browser, displays a series of tabs displaying information about threats, hazards, and facilities within this area.

3. Click the **Create Report** button to download the summarized information as a report.
4. Click the **Download** button to download the information in a series of csv files.
5. Click the **Create Snapshot** button to save the features within the buffer area as a series of standalone layers.

## Maintain facility information

Facility Manager can be used by operators to maintain facility information, ad hoc areas of interest, and review or create geofences.

### Create facilities

1. In a browser, open the Facility Manager app.
2. In the upper right corner, click the **Facility Editor** tool to open it.
3. Click **New Facility** and click anywhere on the map to add a new facility feature. A new window appears where you can fill in facility information.

**Note:**

At a minimum, a unique **Facility ID** and **Facility Name** are required.

4. Click **Save**.

### Edit an existing facility

1. In the upper right corner, click the **Facility Editor** tool to open it.
2. Select a facility from the map. A new window appears where you can fill facility information.
3. Make the desired changes and click **Save**.

### Add a new facility geofence boundary

1. In the upper right corner, click the **Facility Editor** tool to open it.
2. Click **Facility Geofence Boundary** and optionally select a drawing option from the drop-down list.
3. Draw a geofence around your facility of interest.

**Note:**

Only one geofence boundary can be drawn per facility. This boundary is used to identify whether a threat or hazard is within proximity.

4. A new window appears with the attributes for the geofence feature automatically populated based on the facility it covers.



**Note:**

If the geofence covers multiple facilities, you have the option to select which attributes to keep.

The geofence is linked to the facility based on the Facility ID. Ensure that the Facility ID field of the geofence is populated with the facility of interest.

5. Click **Save** to apply.

## Edit an existing facility geofence boundary

1. In the upper right corner, click the **Facility Editor** tool to open it.
2. Select a geofence from the map.  
A new window appears where you can update the geofence attributes. Ensure **Edit Geometry** is checked if you want to update the geometry.

**Note:**

To create a geofence from scratch, click **Delete** and follow the steps for adding a new facility geofence boundary.

3. Make the desired changes and click **Save**.

# Homelessness Outreach

This solution documentation has been archived and is no longer updated. Content and links may be outdated.

Mature phase Mar. 2024 – Jan. 2026	Retired phase Mar. 2026
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## Introduction to Homelessness Outreach

Homelessness Outreach can be used to educate the public and help individuals experiencing homelessness find available resources.

It allows you to manage homelessness information and services in the community for the general public and allows public health agencies to maintain that information. This collaborative approach helps ease the burden on communities that are dealing with increasing service demands, limited access to technology, and real-time data. Homelessness Outreach is typically implemented by health and human services agencies that want to take an active role in reducing homelessness.

The Homelessness Outreach solution delivers a set of capabilities that help you inventory available homelessness services, communicate the severity of homelessness, and promote resources available to those in need.

## Requirements

Homelessness Outreach requires the following:

- ArcGIS Online

# Information products

Homelessness Outreach includes the following information products:

Name	Description	Minimum user type
Reduce Homelessness	An ArcGIS Hub site used by the general public to access information about homelessness in their community and where to find related services	Not required
Homelessness Outreach Volunteer	An ArcGIS Survey123 form used by the general public to volunteer with assisting people experiencing homelessness in their community	Not required
Homelessness Resource Inventory	An ArcGIS Web AppBuilder app used by homelessness program leads to inventory homelessness service providers in a community	Editor
Homelessness Service Locator	A Nearby app used by the general public to locate facilities in the community providing assistance to those individuals and families experiencing homelessness	Not required

# Release notes

The following are the release notes:

Version	Description
2.1 (Mar 2023)	<ul style="list-style-type: none"><li>• A new Reduce Homelessness Hub site.</li><li>• A new Homelessness Outreach Volunteer survey that uses a feature layer view to define access.</li></ul>
2.0 (Apr 2022)	<ul style="list-style-type: none"><li>• Name changed from Homeless Outreach to Homelessness Outreach.</li><li>• All layers, map, apps, and projects updated to use the term homelessness instead of homeless.</li></ul>
1.1 (Feb 2021)	<ul style="list-style-type: none"><li>• An update to the Homelessness Resource Inventory app, map, and layer to support integration with the Community Health Outreach solution</li></ul>
1.0 (Nov 2020)	<ul style="list-style-type: none"><li>• First release of Homeless Outreach</li></ul>

# Configure Homelessness Outreach

Learn how to configure the Homelessness Outreach solution to meet specific needs in your organization by leveraging other solutions.

## Reference point-in-time count data


You can use the Reduce Homelessness hub site to give insight about homelessness in your community. A common dataset of interest is the Homeless Point-in-Time data conducted by volunteers during annual surveys. This dataset is included in the Homelessness Point-in-Time Counts solution.

## Deploy the Homelessness Point-in-Time Counts solution

To deploy the Homelessness Point-in-Time Counts solution, complete the following steps:

1. Sign in to your ArcGIS organization, click the app switcher, and select ArcGIS Solutions.
2. Deploy the Homelessness Point-in-Time solution.
3. Browse to the Homelessness Count public feature layer (hosted view) and share it with everyone.

## Reference Point-in-Time Count data in the Reduce Homelessness hub site

1. Verify that you are signed in to your ArcGIS organization and browse to the Reduce Homelessness site.
2. From the item page, click **Configure**.
3. If necessary, click the **Edit** button  to open the site editor.
4. Under **How are we doing**, click the gear box to edit the Sheltered Homeless indicator.

### Note:

When you first deploy the solution, numbers are shown from sample data. The following steps describe how you can reference your own point-in-time count data.

5. Click the edit button and browse to the **Homelessness Count\_public** dataset you deployed from the Homelessness Point-in-Time count solution.
6. Click **Select**.
7. For **Statistic Field**, choose **Sheltered**. Ensure **Count** is listed under **Statistic Type**.
8. Repeat the above steps for Un-Sheltered Homeless and Number of Children.
9. Click **Save**.
10. Under **Save**, click the drop-down menu and choose **Publish Draft**.


# Configure Reduce Homelessness site

The Homelessness Outreach solution includes the Reduce Homelessness ArcGIS Hub site. This site can be configured with your organization's branding and used to share information with the public.

## Update with organizational information

After deploying the Homelessness Outreach solution, the Reduce Homelessness Hub site layout requires a few updates to fit your local community.

To update the site with your organizational information, complete the following steps:

1. Verify that you are signed in to your ArcGIS organization and browse to the Reduce Homelessness site.
2. From the item page, click **Configure**.
3. Scroll to any sections that you want to update, hover over the card, and click the edit pencil  that appears in the horizontal toolbar, and then edit the content with information specific to your organization.
4. In the side panel, click **Footer**.
5. A custom footer is provided. In most cases, you will need to update it with your organization's branding, contact information, and social media references.
6. Click the **HTML** box.
7. The **HTML** window appears.
8. Make the necessary changes and click **Apply**.
9. Click **Save**.
10. Click the **Save** drop-down arrow and click **Publish Draft**.

## Share items with public

Several layer views, maps, and apps included in the Homelessness Outreach solution must be shared with everyone so they can be accessed by the public on the Reduce Homelessness site.

To share items with the public, complete the following steps:

1. Verify that you are signed in to your ArcGIS organization and browse to the Homelessness Outreach folder.
2. Next to each of the following items, check the check box:

Name	Item type
Homelessness Outreach Volunteer_public	Feature layer (hosted, view)
HomelessnessServices_public	Feature layer (hosted, view)

Homelessness Service Locator	Web Map
Homelessness Outreach Volunteer	Web Map
Homelessness Outreach Volunteer	Form
Homelessness Service Locator	Instant App
Reduce Homelessness	Hub Site Application
Homelessness Outreach	Hub Initiative

**Note:**

You will only have a Hub Initiative item if your organization has ArcGIS Hub Premium.

3. Click **Share**.
4. In the **Share** window, click **Everyone (public)** and click **Save**.
5. The **Warning: Sharing editable layers publicly** message appears notifying you that you are sharing editable layers publicly.
6. Click **Update**.

## Configure directions

Optionally, you can configure Homelessness Outreach to provide directions to the nearest homelessness service location.

Follow the steps below to connect to a routing service and configure the app to enable directions.

1. Sign in to your ArcGIS organization and browse to the Homelessness Service Locator app.
2. From the item page, click **Configure**.
3. Close the **Welcome to the App Setup Page** splash page, if necessary.
4. Click **Nearby > Options** and turn on the **Show directions** toggle button.
5. Check the check box next to the **Homelessness Services** layer.
6. Click **Publish**.
7. Click **Confirm**.
8. The **Authorize premium content** window appears with information related to authorization.
9. Click **Authorize**.
10. Click **Launch**.

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# Use Homelessness Outreach

The Homelessness Outreach solution delivers a set of capabilities that help you inventory available homelessness services, communicate the severity of homelessness, and promote resources available to those in need.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

## Note:

Use your organization's data or configured apps to follow these workflows.

## Inventory homelessness resources

Health and human services agencies can use the Homelessness Resource Inventory app to inventory homelessness, drug treatment, and other service providers in a community. Select a service provider project entered previously and refine the facility details. Locate a new service provider and add relevant facility details to help community members find an appropriate service provider.

You'll assume the role of a homelessness program lead that wants to inventory homelessness, drug treatment, and other service providers in the community. The steps below describe how to enter information, but you can enter the information as you see fit to examine the different dependencies in questions.

### Add resources to the map

To add resources to the map, complete the following steps:

1. In a browser, go to the **Homelessness Resource Inventory** app.
2. In the **Resource Editor** widget, in the **Search Templates** field, type Homeless.
3. Click the **Homelessness Services** template, and then click the map to add a location to the map.
4. A **Homelessness Services** form opens in the widget
5. Complete the form with details about the new location.
6. Scroll to the bottom of the form and click **Save**.

## Volunteer to assist with homelessness

You'll assume the role of a member of the general public that wants to find information about homelessness in your community and volunteer to assist.

1. In a browser, go to **Reduce Homelessness Site** app and review the sections.
2. Scroll down and click the **Volunteer now** button.
3. Fill in the survey with your information.

The hosting organization can now compile this information and reach out to volunteers for the appropriate services.

## Locate homelessness services

Education and connecting people with resources are critical in helping those in need. The **Homelessness Service Locator** app can be used by the general public and engaged organizations to locate facilities providing homelessness services to individuals or families. Search for an address or click the map to locate a homelessness service provider near the location.

### Find a service

You'll assume the role of a member of the general public who wants to locate facilities providing assistance to individuals experiencing homelessness.

1. In a browser, go to **Reduce Homelessness Site** app and review the sections.
2. Scroll down to the **Need Help** section.
3. Click the **Homelessness Services Locator** link.
4. The Homelessness Service Locator shows all homelessness service facilities in the community.
5. In the **Find Address or place** field, type an address or click a location on the map.
6. The results appear and show several types of services.
7. Click the **Homelessness Resource** result.



# Homelessness Risk Reduction

This solution documentation has been archived and is no longer updated. Content and links may be outdated.

Mature phase Mar. 2024 – Jan. 2026	Retired phase Mar. 2026
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## Introduction to Homelessness Risk Reduction

Homelessness Risk Reduction can be used to identify where regular reports of homelessness activity may originate and address regular reports of homelessness activity in a community.

It provides the ability to leverage continual reports of individuals experiencing homelessness and encampments in the community and identify which areas are at risk for generating homelessness. This collaborative approach between the public and local government agencies help determine where resources can be deployed to assess the situation, offer services to persons experiencing homelessness, and determine if additional steps are required. Homelessness Risk Reduction is typically implemented by health and human services agencies that want to proactively address homelessness and connect individuals experiencing homelessness with available resources.

The Homelessness Risk Reduction solution delivers a set of capabilities that help you understand where homelessness may originate in your community and actively monitor regular reports of homelessness so assistance can be offered to individuals in need.

## Requirements

Homelessness Risk Reduction requires the following:

- ArcGIS Online
- ArcGIS Pro 2.9 or later (Advanced)
  - ArcGIS Geostatistical Analyst extension

# Information products

Homelessness Risk Reduction includes the following information products:

Item	Description	Minimum user type
Homelessness Activity Reporter	An ArcGIS Survey123 form used by public safety staff, or the public, to report the locations of individuals experiencing homelessness and encampments in the community	Mobile Worker
Homelessness Activity Manager	A Crowdsense Manager app used by homelessness program leads to manage reports of individuals experiencing homelessness and encampments in the community	Editor
Homelessness Activity Dashboard	An ArcGIS Dashboards app used by health and human service agency and CoC directors to monitor reports of individuals experiencing homelessness and encampments in the community	Viewer
Homelessness Risk Reduction	An ArcGIS Pro project used by GIS analysts to learn which areas in their community are at risk for generating homelessness and how to prioritize and site intervention programs	GIS Professional Basic

# Release notes

The following are the release notes:

Version	Description
1.2 (Apr 2022)	<ul style="list-style-type: none"><li>Name changed from Homeless Risk Reduction to Homelessness Risk Reduction.</li><li>All layers, map, apps, and projects have been updated to use the term homelessness instead of homeless.</li><li>A new version of the Homelessness Risk Reduction ArcGIS Pro project that leverages an updated Create Risk Surface tool.</li></ul>
1.1 (Feb 2021)	<ul style="list-style-type: none"><li>A new version of the Homeless risk Reduction ArcGIS Pro project that leverages the Enrich geoprocessing tool.</li></ul>
1.0 (Nov 2020)	<ul style="list-style-type: none"><li>First release of Homeless Risk Reduction</li></ul>

# Configure Homelessness Risk Reduction

Homelessness Risk Reduction can be used to identify where regular reports of homelessness activity may originate and address regular reports of homelessness activity in a community.

In this topic, you'll learn how to configure the Homelessness Risk Reduction solution to meet specific needs of your organization.

## Extend homelessness activity reporter survey

The Homelessness Risk Reduction solution includes a Homelessness Activity Reporter survey that can be used to record homelessness activity. However, you can extend this survey with your own questions or extend the domain to record additional types of activity observed. Review the preconfigured questions and adjust as necessary to remain in compliance with your organizational policies. In addition, ensure that you secure the survey and underlying layers and only share the content with appropriate members of your organization.

### Update feature layer views

When adding new questions, begin with the steps listed below. For changes such as removing questions or formatting the survey, proceed to the Modify homelessness activity reporter form survey section.

To add one or more fields to a layer and recreate the views, complete the following steps:

1. Sign in to your ArcGIS Online organization and search for the Homelessness Activity Reporter hosted feature layer.
2. Add a new field or domains to the Homelessness Activity Reporter hosted feature layer.

### Modify homelessness activity reporter form

To modify the Homelessness Activity Reporter survey, complete the following steps:

1. Install ArcGIS Survey123 Connect.
2. Start ArcGIS Survey123 Connect and sign in to your ArcGIS Online organization.
3. Click Homelessness Activity Reporter to download the survey.
4. Click Homelessness Activity Reporter again to open the survey.
5. In the left pane, click **Open XLSForm Spreadsheet**.
6. In the Microsoft Excel spreadsheet, click the **choices** tab.  
This tab comprises all the selectable options for survey questions.
7. Revise the survey to reflect your needs.
8. Save the Microsoft Excel spreadsheet and preview your changes in ArcGIS Survey123 Connect.
9. In ArcGIS Survey123 Connect, click **Publish** in the left pane to publish your changes.

# Use Homelessness Risk Reduction

The Homelessness Risk Reduction solution delivers a set of capabilities that help you understand where regular reports of homelessness activity may originate in your community and actively monitor regular reports of homelessness so assistance can be offered to individuals in need.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

**Note:**

Use your organization's data or configured apps to follow these workflows.

## Report homelessness activity

You will assume the role of public safety staff, or a member of the public, that wants to report homelessness activity observed in a community.

Follow these steps to report homelessness activity.

1. In a browser, go to the **Homelessness Activity Reporter** survey.
2. In the Homelessness Activity Reporter , provide the following information:

Parameter	Value
<b>Activity Observed</b>	<b>Individual</b>
<b>Details</b>	Type Observed new individual in the park with a tent and dog.
<b>Observed On</b>	Select a date
<b>Photo</b>	Add a photo
<b>Would you like to be contacted for more information?</b>	Select <b>Yes</b>
<b>Your Name</b>	Type your name
<b>Phone Number</b>	Type your phone number
<b>Email</b>	Type your email address

<b>Observed at</b>	Type location information of where you observed the activity.
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3. Click **Submit**.

**Note:**

While using the app in the field, you can use ArcGIS Survey123 mobile app to use your current location from your mobile device GPS.

## Manage homelessness reports

Health and human services personnel, public safety, and nonprofit organizations can use Homelessness Activity Manager and Homelessness Activity Dashboard to monitor, verify, and assign homelessness reports to agencies responsible for resolving health and safety concerns or providing aid to individuals and families experiencing homelessness.

You'll assume the role of a homelessness program lead that wants to manage reports of homelessness in the community.

1. In a browser, go to the **Homelessness Activity Manager**.  
The Homelessness Activity Manager shows a list of all reports that were made.
2. In the table, highlight the first record in the table. Verify this is the record you just submitted via the Homelessness Activity Reporter .
3. On the dialog box, in the lower left, click the **Edit** record button.
4. Change the **Status** to Submitted, if necessary.
5. In the Assigned To field, select **Health and Human Services**.

**Note:**

In many cases, individual follow up may be needed to further document and add to ensure you are capturing an accurate representation of homelessness in your community.

6. Scroll down, if necessary, and click **Save**.

**Note:**

If you want to automate this process more, you can automatically send emails to individuals that are assigned. Refer to the [Survey 123 Webhooks](#) document to learn more.

## Visualize homelessness

You'll assume the role of a health and human service agency, or CoC, director that wants to view the current state of homelessness activity in your community.

1. In a browser, go to the **Homelessness Activity Dashboard** app.

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2. On the left under Type, check **Individual**. Explore the various filtering capabilities.
3. On the left under Date Observed, choose **Last 7 days**.

**Note:**

You see the report you submitted in the first workflow.

4. Close the dashboard when you are done exploring the Homelessness Reports.

## Identify risk of homelessness

Data analysts can use the Homelessness Risk Reduction ArcGIS Pro project to learn which areas in their community are at risk for generating homelessness and how to prioritize site intervention programs. It leverages authoritative data and uses indicators such as unemployment rate, rental prices, public assistance, health insurance coverage, minority population, and number of veterans to compute a vulnerability to homelessness layer. The resulting risk surface is then used to prioritize intervention program siting. The results of this tool can be used as a foundation for public education and awareness campaigns, operational improvements, and policy discussions across an entire community.

### Identify areas at risk

You'll assume the role of a GIS analyst in a health and human service agency that wants to evaluate where homelessness may originate in a community and use the results to guide policy discussions.

1. Open the Homelessness Risk Reduction ArcGIS Pro project and sign in to your ArcGIS organization.
2. On the **View** tab, in the **Windows** group, click **Catalog**, and click **Catalog Pane**.
3. In the **Catalog** pane, expand **Tasks** and double-click the **Homelessness Risk Reduction** task.
4. Open the **Identify areas at risk of generating homelessness** task.  
This task contains steps to help you define the homelessness risk criteria.
5. In the **Add risk factor point data** step, select the following information.
  - In the **Target Features** parameter, select **Census Naperville**.
  - In the **Join Features** parameter, select **Assault**.
  - In the **Output Feature Class** parameter, browse to **Databases** to open the HomelessnessRiskReduction.gdb and type JoinedAssaults for the feature class in the **Name** text box.
6. Click **Run**
7. Click **Next Step**.
8. Click the **Contents** tab.
9. Right-click the output layer from the Spatial Join tool and choose **Attribute Table**.
10. Right-click Join\_Count and choose **Fields**.
11. Change Join\_Count field name and field alias to AssaultCount.
12. Delete the TARGET\_FID field the tool created.
13. On the **Fields** tab, in the **Changes** group, click **Save**.

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14. Close the attribute table and fields table.
15. Click the **Tasks** tab.
16. Click **Next Step** to continue.
17. In the **Add key demographic data** step, fill out the information below.
  - In the **Input Features** parameter, click the drop-down menu and choose `JoinedAssaults`.
  - In the **Output Feature Class** parameter, browse to **Databases** to open the `HomelessRiskReduction.gdb` and type `EnrichedDemographicData` for the feature class in the **Name** text box.
18. Click **Save**.
19. To add additional variables, click the **Add** button and browse to your variable of interest.
20. Click **OK**. Repeat this step to add the remaining variables.
21. Click the **Remove variables** button.
22. Click **Run**.
23. Click **Next Step**.
24. In the **Create homelessness risk surface** step, fill out the information below.
  - In the **Input Features** parameter, click the drop-down menu and select `EnrichedDemographicData` or your own data set.
  - In the **Output Feature Class** parameter, browse to **Databases** to open `HomelessnessRiskReduction.gdb` and type `HomelessnessRiskSurface` for the feature class in the **Name** text box.
25. Click **Save**.
26. In **Risk Factors (High Value)**, click the drop-down menu and choose all your high to low ranking variables.
27. In **Risk Factors (Low Value)**, click the drop-down menu and choose all your low to high ranking variables.
28. Click **Run**.

**Note:**

The `AssaultCount` field was created in a previous step after performing the join.

Based upon the factors you specified, you will see a new Risk layer appear that ranks the polygons from high to low. You can run the previous task multiple times ranking values differently. In many cases you may want to provide more inputs for data you are tracking in addition to assaults, such as known individuals that your organization has perhaps been assisting, or areas of renting issues.

29. Click the **Prioritize prevention program locations task**.
30. In **Program Design** step, fill out the information below.
  - In the **Input Features** parameter, click the drop-down menu and choose `HomelessnessRiskSurface`.
  - In the **Output Feature Class** parameter, browse to **Databases** to open `HomelessRiskReduction.gdb` and type `VulnerableSurvivorsPrograms` for the feature class in the **Name** text box.
31. Click **Save**.
32. In the **Contributing factors** parameter, click the drop-down menu and choose **AssaultCount** and **ACS HHs w/Public Assist Income:Percent**.

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33. Type Assist Vulnerable Survivors in the **Program Name** text box.
34. Type a value in the **Number of Results** text box.
35. Click **Run**.  
Repeat the above for any other programs. Use the output from your previous run as the Input Features.
36. Click **Next Step**.  
The result is prioritized locations where a new program can be placed, such as a woman's shelter.

**Note:**

The next step allows you to finalize the program rankings. You may have many specific programs you want to act upon. Prioritizing helps you better focus your efforts.

37. Share the map as a web layer.  
This allows others in your organization to see the prioritized risk factors.



# Hospitalization and PPE Inventory

This solution documentation has been archived and is no longer updated. Content and links may be outdated.

Mature phase Jun. 2022 – May 2024	Retired phase Jun. 2024
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## Introduction to Hospitalization and PPE Inventory

Hospitalization and PPE Inventory can be used to inventory hospital bed capacity and available personal protective equipment (PPE) such as ventilators, face masks, medical gowns, and gloves.

Many hospitals have been overwhelmed by a surge in COVID-19 patients and are dealing with shortages of intensive care unit beds and limited bed availability is impacting the ability to separate COVID-19 patients from other patients. The surge in patients has also increased the use of personal protective equipment (PPE), taxed supplies and threatened to impact staff safety. Access to timely hospitalization information and PPE utilization can help mitigate equipment shortages and improve the quality of patient care. Hospitalization and PPE Inventory is typically implemented by emergency management and public safety agencies that want to take a data-driven approach and understand the current capacity of health resources in their community.

The Hospitalization and PPE Inventory solution delivers a set of capabilities that help you solicit daily hospitalization and PPE reports and monitor the capacity of hospitals and PPE availability.

## Requirements

Hospitalization and PPE Inventory requires the following:

- ArcGIS Online

## Information products

Hospitalization and PPE Inventory includes the following information products:

Item	Description	Minimum user type
Hospitalization and PPE Dashboard	An ArcGIS Dashboards app used by emergency response staff to monitor hospitalization and personal protective equipment (PPE) inventories	Viewer
Hospitalization and PPE Report	An ArcGIS Survey123 form used by a hospital or acute care center to report hospitalization status and PPE inventory	Mobile Worker

## Release notes

The following are the release notes:

Version	Description
1.1	<ul style="list-style-type: none"><li>A new Hospitalization and PPE Dashboard.</li></ul>
1.0	<ul style="list-style-type: none"><li>First release of Hospitalization and PPE Inventory</li></ul>

# Configure Hospitalization and PPE Inventory

## Extend hospitalization and PPE survey

The Hospitalization and PPE Inventory solution includes a survey, the Hospitalization and PPE Report, that can be used to understand the capacity of hospitals and status of their PPE inventory.

### Note:

Many organizations may want to modify the survey, remove the hospitalization questions, and only inventory PPE available for essential personnel. If that is the case, you can hide the hospitalization questions in the survey and modify the Hospitalization and PPE Dashboard.

Review the preconfigured questions and adjust as necessary to remain in compliance with your organizational policies and any applicable laws. In addition, ensure you secure the survey and underlying layers and only share the content with appropriate members of your organization.

Organizations may want to modify the Hospitalization and PPE Report survey by adding new survey questions. When adding new questions, begin with the Update feature layer views section below. For changes such as removing questions or formatting the survey, proceed to the **Modify Hospitalization and PPE survey** section.

## Add new fields

The Hospitalization and PPE Inventory solution includes a series of views created from the HospitalizationPPEs feature layer. Organizations may want to modify the Hospitalization and PPE Report survey by first adding new fields to the feature layers and then configuring the survey to utilize the newly created fields.

To add one or more fields to a layer and re-create the views, complete the following steps:

1. Add a new field to a layer in the Facilities hosted feature layer.
2. Browse to the view in your contents.
3. Click the **Open in Map View** arrow and click **Add to new map**.
4. Click the **More Options** button on the appropriate layer or table, and click **Set View Definition**. Click **Define Fields**.
5. Scroll to the newly created field and check the box. Click **Apply**.

The new field is added to the view's definition.

## Update feature layer views

To update a join view, complete the following steps:

1. Browse to the join view in your contents (for example, HospitalizationPPEs\_current).
2. On the item details page, scroll to the URL section. Click the **Copy** button.
3. Paste the copied URL into Microsoft Notepad or another text editor for reference.

**Note:**

The feature layer name will be used below when re-creating the join. The name can be found after services in the URL structure and may also contain a unique GUID, for example, HospitalizationPPEs\_current\_a45f71a48587425c9b90ee5527cd26d1.

4. Delete the existing join view (for example, HospitalizationPPEs\_current).
5. Add the source hosted feature layer to a new web map (for example, HospitalizationPPEs).
6. Click **AnalysisSummarize Data, Join Features**.
7. Configure the join using the parameters listed below:
  - a. Name of join—Choose **HospitalizationPPEs\_current**.
  - b. Target layer—Choose **Facilities**.
  - c. Layer to join to the target layer—Choose **Hospitalization and PPE Reports**.
  - d. Fields to match—Choose **name = name**.
  - e. Join operation—Choose **Join one to one**.
  - f. Define which record is kept—Choose **Order by create\_date/Newest**.

**Note:**

Ensure each new join view uses the names listed above. If you use the same names, the layers in the map and the existing dashboard widgets do not need to be reconfigured. If your join view contained a unique GUID, the new join view needs to be named with the unique GUID.

8. If necessary, uncheck **Use current map extent**. Check **Create results as hosted feature layer view**.
9. Update the Hospitalization and PPE Dashboard to account for the new fields you added to the layers.

## Modify the Hospitalization and PPE survey

To modify a Hospitalization and PPE Report survey, complete the following steps:

1. Install ArcGIS Survey123 Connect.
2. Start ArcGIS Survey123 Connect and sign in to your ArcGIS organization.
3. Click Hospitalization and PPE Report to download the survey.
4. Click Hospitalization and PPE Report again to open the survey.
5. In the left pane, click **Open XLSForm Spreadsheet**.
6. In the Microsoft Excel spreadsheet, click the **choices** tab. This tab contains all the selectable options for survey questions.
7. Revise the survey to reflect your facility management needs.
8. Save the Microsoft Excel spreadsheet and preview your changes in ArcGIS Survey123 Connect.
9. In ArcGIS Survey123 Connect, click **Publish** in the left pane to publish your changes.

**Note:**

To view your changes in ArcGIS Survey123, on the **Download Surveys** page, click **Download** to download the updated survey.

# Use Hospitalization and PPE Inventory

The Hospitalization and PPE Inventory solution delivers a set of capabilities that help you solicit daily hospitalization and PPE reports and monitor the capacity of hospitals and PPE availability.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

## Note:

Use your organization's data or configured apps to follow these workflows.

## Monitor hospitalization and PPE capacity

The Hospitalization and PPE Inventory solution includes a Hospitalization and PPE Report survey that collects hospitalization and personal protective equipment (PPE) information from hospitals and acute care centers. Organizations deploying Hospitalization and PPE Inventory should review the preconfigured questions and adjust as necessary to remain in compliance with organizational policies and applicable laws. In addition, ensure that you secure the survey and underlying layers and only share the content with appropriate members of your organization.

## Complete the Hospitalization and PPE Report

You will start by assuming the role of an employee at a hospital. You are asked by local emergency response staff to use the Hospitalization and PPE Report to share hospitalization information and the status of your PPE inventory each morning.

## Monitor hospitalization and PPE capacity

Now, you will assume the role of an incident commander in a local government. You are asked to monitor the capacity of local hospitals and their PPE. You are looking to see if hospitals in your community may be close to capacity or lacking the PPE required to protect health care workers. You will view the overall status of hospitals and then review specific locations.

1. In a browser, go to the Hospitalization and PPE Dashboard.
2. The Hospitalization and PPE Dashboard opens with an overview of the current status. The overview displays key metrics, giving management information about the number of hospitals reporting, overall bed capacity, ventilators, and occupancy rates. Any COVID-19 hospitalizations are also shown.
3. Review the list of hospitals and click an individual hospital in the list to see more detail.
4. Click a filter in the top panel of the dashboard to refine the results in the dashboard.
5. You can filter by area or by hospital.
6. Click the **Personal Protective Equipment** tab to review the status of equipment.
7. Review the list of hospitals again and click an individual hospital in the list to see exactly how many days left of supply the hospital has.

# Market Development

This solution documentation has been archived and is no longer updated. Content and links may be outdated.

Mature phase Mar. 2023 – Feb. 2025	Retired phase Mar. 2025
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## Introduction to Market Development

Market Development can be used to understand market characteristics and performance.

Executives and retail analysts need to understand the performance of the market landscape based on location. Organizations strive to increase profits by using market indicators to drive the decisions on where to close locations and open new locations. Understanding market performance based on regional and market breakdown is critical in enhancing the business strategy for decision makers. Market Development is typically implemented by organizations that want to take a data-driven approach to understand market characteristics and the performance of their business.

The Market Development solution delivers a set of capabilities that helps you visualize the overall market landscape and communicate key business metrics with decision makers.

## Requirements

Market Development requires the following:

- ArcGIS Online

## Information products

Market Development includes the following information products:

Item	Description	Minimum user type
Market Explorer Dashboard	An ArcGIS Dashboards app used by analysts to understand the overall performance of retail stores in an organization from various geographies	Viewer
Sales Performance Dashboard	An ArcGIS Dashboards app used by analysts to understand the overall performance of each retail store in an organization	Viewer
AssetSource	An Excel document that can be used to load and validate an authoritative list of assets into ArcGIS	Not required
SalesdataSource	A .csv file that can be used to load an authoritative dataset of sales data into ArcGIS	Not required

## Release notes

The following are the release notes:

Version	Description
1.2	<ul style="list-style-type: none"><li>General schema update to the joined layer view.</li></ul>
1.0	<ul style="list-style-type: none"><li>First release of Market Development</li></ul>



# Configure Market Development

In this topic, you will learn how to configure the Market Development solution to meet specific needs in your organization.

## Load data

Information must be loaded before using the Market Explorer Dashboard and Sales Performance Dashboard. The AssetSource and SalesdataSource can be used to organize your business information before loading into ArcGIS the accompanying sales data in your organization.

### Note:

Ensure you populate the Asset\_ID column in the AssetSource with unique values.

You may need to load existing assets or sales data from a spreadsheet. Review the maps or applications provided with the solution and determine what, if any, source data you would like to load.

If you do not have an inventory of assets and sales data in ArcGIS, you may have them in a spreadsheet or another system you can export to a spreadsheet. If you don't have a spreadsheet already, you can use the sample .csv files included with the solution (AssetSource, SalesdataSource) to inventory your assets and sales data.

To load your assets or sales data from a spreadsheet, complete the following steps:

1. Sign in to your ArcGIS organization and browse to the AssetSource item.
2. Open the items details page.
3. Click **Download**.
4. Edit the CSV file and populate your facility information in the document.

### Note:

At a minimum, you must provide a unique Asset\_ID and the latitude and longitude for each facility in the FacilitySource. If you don't have a unique ID, you can edit the CSV file in Excel and copy this formula into the first row of the facilityid column: `=CONCATENATE("Asset-", TEXT(ROW(A1),"00000"))`. You can then drag the right corner of the cell to fill the formula down for all facilities, giving each a unique ID.

5. In your ArcGIS organization at the top of the site, click **Content**.
6. Browse to the **Assets** feature layer.
7. On the item details page, click **Update Data** and select **Append Data to Layer**.
8. Under **Filename**, choose your .csv file.
9. Click **Upload and Continue**.
10. Uncheck **Update existing features**.
11. Click **Show field matching** to map the fields.
12. Click **Apply Updates**.

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13. Repeat steps 1 through 12 by downloading the SalesdataSource CSV file and updating the **Asset Sales Data** table.

To load your data for Region Overlay, Subregion Overlay, and Competitors from a shapefile or file geodatabase, complete the following steps:

1. Create a .zip file of your shapefile or file geodatabase.
2. In your ArcGIS organization, browse to the feature layer you want to populate.
3. On the feature layer item details page, click **Update Data** and select **Append Data to Layer**.
4. Under **Filename**, click **Choose File**.
5. Browse to your .zip file and click **Open**.
6. Under **Contents**, select **Shapefile** or **File Geodatabase**.
7. Click **Upload and Continue**.
8. Choose the layer that you want to load data into and the layer that contains the updated data.
9. Uncheck **Update existing features**.
10. Click **Show field matching** and map the fields between the two layers.
11. Click **Apply Updates**.

# Use Market Development

The Market Development solution delivers a set of capabilities that helps you visualize the overall market landscape and communicate key business metrics with decision makers.

In this topic, you will learn how to use the Market Development solution and the set of capabilities and features that it provides.

## Note:

Use your organization's data or configured apps to follow these workflows.

## Investigate market characteristics

The Market Explorer Dashboard application includes your organization's assets overlaid with demographic information such as median disposable income, retail goods spending, and population growth. The application allows you to conduct a series of key exploratory functions that support the visualization of markets in and around your business by region, market, or store.

## Note:

Assets may represent your retail establishments, businesses you sell into, or distributors.

## Visualize market characteristics

In this workflow, you'll assume the role of a business analyst who is assigned the task of exploring a particular market. You will assume that this is a market that your organization is considering extending operations within and examine the potential likelihood of growth, and communicate this with key leadership.

1. In a browser, go to the Market Explorer Dashboard application.
2. In the **Select a Region** drop-down list, select a region.  
Filtering will zoom in to that specific region and automatically updates the set of metrics along the bottom of the application and the locations in the list on the right side.

## Note:

The competitor indicator panel represents the number of features within the map view.

3. In the **Select a Sub-Region** drop-down list, select a sub-region.
4. In the upper right corner of the map are a set of [map settings](#). Click the layer visibility button to reveal operational layers that can be switched on or off.
5. Switch on the layer labeled USA Population growth.
6. Zoom in to a particular market to start exploring in more detail.  
Notice as you zoom in or pan around, the metrics along the bottom as well as the list on the right side update. This map-driven capability provides context into what is within your

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view, in and around areas of interest. Also note how the USA population growth layer dynamically updates to more granular level of detail depending on the scale.

**Note:**

Holding the Shift key on your keyboard enables the area selection tool in the map. This will zoom in to the extent of the selected area.

## Explore the performance of your business

The Sales Performance Dashboard contains your organization's assets, with panels that represent your business sales data broken down by category and sales for each store. The application is designed to digest key information about the financial performance of your organization's assets. The functionality of the Sales Performance Dashboard is used to explore and visualize retail stores and sales information for each retail store and overall financial performance of your business by region, market, or store. The map-driven metrics provide an overview of key financial business metrics that provide insight into the market potential.

**Note:**

Assets may represent your retail establishments, businesses you sell into, or distributors.

## Understand store performance

In this workflow, you'll assume the role of a business analyst who is assigned the task of understanding the sales performance in a particular market. You will assume that this is a market that your organization is considering extending operations within and examine the potential likelihood of growth, and communicate this with key leadership.

1. In a browser, go to the Sales Performance Dashboard
2. In the **Select a Region** drop-down list, select a region.  
Filtering to the Middle Atlantic will zoom in to that specific region and automatically updates the set of metrics and locations in the list along the left side of the application.
3. In the **Select a Sub-Region** drop-down list, select a sub-region.
4. Zoom in to a specific market to start exploring in more detail.  
Notice as you zoom in or pan around, the metrics and the list along the left update. This map-driven capability provides context into what is within your view, in and around areas of interest.

**Note:**

Holding the Shift key on your keyboard enables the area selection tool in the map. This will zoom in to the extent of the selected area.

5. In the **Select a Category** drop-down list, select a category.  
Notice the metrics along the left are now only showing overall sales for that specific category, based on the assets within the map view.

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6. Select an asset from the list. This will zoom to the selected feature and open the pop-up for additional sales. The metrics will also reflect the currently selected feature.
7. Optionally, to filter the assets in the list to a specific area of interest, click the button in the upper left corner of the map to enable the layer selection mode.
8. To change the selection method, click the drop-down arrow and click the lasso tool.
9. Hold the left mouse button and dynamically draw around an area of features to be selected.

Notice that the metrics and the list along the left update based on the selected features.

This selection-driven capability provides an additional level of focusing based on an area of interest.

## Add premium content

Esri Demographics is a global collection of authoritative demographic data for over 170 countries and regions, supplying context and adding insight to the maps and location-based analyses of organizations worldwide.

Market Development is configured by default with a set of information-rich demographic layers that can be used to visually explore key market characteristics.

In this workflow, you will assume the role of a business analyst who is tasked with adding new demographic content to help enhance the ability to make decisions with new context.

1. In a browser, sign in to your ArcGIS organization and click the **Content** tab.
2. On the left side, under **Folders**, click **Market Development**.
3. Click **Market Explorer (map)** to open into the item description page, then click **Open in Map Viewer Classic**.
4. Above the contents pane, click the **Add** button, then click **Browse Living Atlas Layers**.
5. Under **Search for Layers** are a set of buttons to filter and sort layers by relevance. Click the filter button to show additional options.
6. Under the **Categories** group are a set of themes that can be selected to filter from over 4,500 layers of ArcGIS Living Atlas content. Select a theme to explore layers and select a layer to view more details.
7. Once a layer has been identified, click **Add to Map**.
8. Click the **Save** button along the upper middle of the map and click **Save**.
9. If necessary, repeat steps 1 through 8 for **Sales Performance (map)**.

# Multi Source Data Feeds

This solution documentation has been archived and is no longer updated. Content and links may be outdated.

Mature phase Jul. 2022 – Jun. 2024	Retired phase Jul. 2024
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## Introduction to Multi Source Data Feeds

Multi Source Data Feeds solution can be used to visualize global incidents in ArcGIS.

Businesses need access to critical information with confidence, to enable organizational response to incidents at different levels and across different business units. This is needed to allow organizations to see beyond the horizon and react to real-time incidents across the globe. Round-the-clock access to incident data is at the cornerstone of this need. Multi Source Data Feeds is typically implemented by organizations that rely on event feeds to understand incidents across the globe.

The Multi Source Data Feeds solution delivers a set of capabilities that provides awareness in near real time to incidents around the globe. This access is enabled by Esri business partners that curate event information into one location and allow consumption through the business partner APIs.

## Requirements

Multi Source Data Feeds requires the following:

- ArcGIS Online
- ArcGIS Pro 2.8 - 2.9 (Basic)

## Information products

Multi Source Data Feeds includes the following information products:

Item	Description	Minimum user type
Dataminr Alerts Dashboard	An ArcGIS Dashboards app used to visualize and interact with incidents from Dataminr	Viewer
Factal Incidents Dashboard	An ArcGIS Dashboards app used to visualize and interact with incidents from Factal	Viewer
Multi Source Data Feeds Desktop	An ArcGIS Pro project package used to connect and ingest data feeds from a variety of data providers	GIS Professional Basic

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## Release notes

The following are the release notes:

Version	Description
1.2	<ul style="list-style-type: none"><li>• An update to the Multi Source Data Feeds Desktop project that resolves an issue where Twitter content does not display the source web address (BUG-000139305).</li><li>• An update to the Multi Source Data Feeds Desktop project that improves the configure base layers task.</li></ul>
1.1	<ul style="list-style-type: none"><li>• Shortened the field length for all fields to cut down on storage.</li><li>• Added support to store credentials in Credential Manager.</li></ul>
1.0	<ul style="list-style-type: none"><li>• First release of Multi Source Data Feeds</li></ul>

# Configure Multi Source Data Feeds

In this topic, you will learn how to configure the Multi Source Data Feeds solution to meet specific needs in your organization.

## Review the Multi Source Data Feeds project

The Multi Source Data Feeds solution includes an ArcGIS Pro project. Before configuring the solution and using the workflows with your data, familiarize yourself with the contents of the Multi Source Data Feeds Desktop project.

To review, complete the following steps:

1. Start ArcGIS Pro.

**Note:**

Ensure that you are [signed in to](#) the user name with which Multi Source Data Feeds was deployed.

2. In the lower right corner, click **Open another project**.
3. In the left pane under **Portal**, click **My Content** and browse to the folder where Multi Source Data Feeds was deployed. Select Multi Source Data Feeds Desktop and click **OK** to open.
4. Click the **View** tab along the top of the ribbon.
5. Click **Tasks** in the **Windows** group to open the Multi Source Data Feeds Tasks to configure, manage, and automate the data feeds.



# Use Multi Source Data Feeds

The Multi Source Data Feeds solution delivers a set of capabilities that provides awareness in near real time to incidents around the globe. This access is enabled by Esri business partners that curate event information into one location and allow consumption through the business partner APIs.

## Note:

To view content from premium providers, API keys must be acquired from the data provider.

In this topic, you will learn how to use the Multi Source Data Feeds solution and the set of capabilities and features that it provides.

## Explore the Dataminr dashboard

1. In a browser, sign in to your ArcGIS organization and click the **Content** tab.
2. On the left side, under **Folders**, click Multi Source Data Feeds.
3. Click the Dataminr Alerts Dashboard to open into the item description page, then click **View Dashboard**.
4. Zoom in to an area of interest in the United States.

## Note:

Holding the Shift key on your keyboard enables the area selection tool in the map. This will zoom in to the extent of the selected area.

Notice as you zoom in or pan around, the set of metrics along the bottom of the application and the alerts in the list on the left side dynamically update. This map-driven capability provides context into what is within your view.

5. Along the bottom of the map are a set of tabs; click **Data Overview**.  
This tab contains a set of metrics to provide context into the magnitude of alerts over time and by category. The metrics are based on alerts within your view.
6. Switch to the **Map Overview** tab and in the **Publisher Category** drop-down list, select a value.  
Notice that with this filter enabled, the set of metrics along the bottom of the application, the alerts in the list on the left side, and the map automatically update.
7. Click an incident in the list. This will zoom to the selected feature and open the pop-up with additional alert details.
8. Scroll to the bottom of the pop-up and click the link to view more details on this alert in Dataminr by signing in to your Dataminr account.

## Explore the Factual dashboard

1. In a browser, sign in to your ArcGIS organization and click the **Content** tab.

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2. On the left side, under **Folders**, click Multi Source Data Feeds.
3. Click the Factual Incidents Dashboard to open into the item description page, then click **View Dashboard**.
4. In **Filter Incidents by**, click **This Week**.  
Notice that with this filter enabled, the inset map and the set of metrics along the right side of the application, the locations in the list on the left side, and the map automatically update.
5. Zoom in to an area of interest in the United States.

**Note:**

Holding the Shift key on your keyboard enables the area selection tool in the map. This will zoom in to the extent of the selected area.

Notice as you zoom in or pan around, the set of metrics along the right side of the application and the locations in the list on the left side dynamically update. This map-driven capability provides context into what is within your view.

6. Along the bottom of the map are a set of tabs; click **Data Overview**.  
This tab contains a set of metrics to provide context into the magnitude of incidents over time. The metrics are based on incidents within your view.
7. Switch to the **Map Overview** tab and click on an incident in the list. This will zoom to the selected feature and open the pop-up with additional incident details.  
Notice the inset map on the right side of the application zooms in and centers on the incident. This map provides regional context and awareness of where other incidents have appeared.
8. Scroll to the bottom of the pop-up and click the link to view more details on this incident in Factual by signing in to your Factual account.

# Neighborhood Early Warning

This solution documentation has been archived and is no longer updated. Content and links may be outdated. The capabilities have been replaced with [Neighborhood Stabilization](#).

Mature phase Nov. 2023 – Oct. 2025	Retired phase Nov. 2025
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## Introduction to Neighborhood Early Warning

Neighborhood Early Warning can be used to identify neighborhoods trending in a positive or negative direction and ultimately measure the fragility of neighborhoods over time.

It leverages authoritative data and key indicators (for example, blight violations, demolitions, crime, utility shutoffs, sales, rental units) to identify tipping neighborhoods. The resulting maps are a foundation for public education and awareness campaigns, operational improvements, and community-based policy discussions. Neighborhood Early Warning is typically implemented by planning departments, building officials, health and human services agencies, blight task forces, and other local government agencies that monitor neighborhood change over time, investing in stabilization programs and need to evaluate whether their investments are effective.

The Neighborhood Early Warning solution delivers a set of capabilities that help you create a neighborhood change index, measure the fragility of neighborhoods over time and share the results with key stakeholders.

## Requirements

Neighborhood Early Warning requires the following:

- ArcGIS Online
- ArcGIS Pro 2.6 -2.9 (Basic, Standard, or Advanced)

## Information products

Neighborhood Early Warning includes the following information products:

Item	Description	Minimum user type
Neighborhood Early Warning	An ArcGIS Pro project used by data analysts to identify neighborhoods trending in a positive or negative direction and ultimately measure the fragility of neighborhoods over time	GIS Professional Basic

## Release notes

The following are the release notes:

Version	Description
1.0	<ul style="list-style-type: none"><li data-bbox="391 373 1029 407">• First release of Neighborhood Early Warning</li></ul>

# Use Neighborhood Early Warning

The Neighborhood Early Warning solution delivers a set of capabilities that help you create a neighborhood change index, measure the fragility of neighborhoods over time and share the results with key stakeholders.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

## Identify neighborhood change

The Neighborhood Early Warning project can be used to understand neighborhoods trending in a positive or negative direction and ultimately measure the fragility of neighborhoods over time.

You will start by assuming the role of a data analyst in a neighborhood revitalization task force responsible for organizing key neighborhood indicators. You are asked to use the Neighborhood Stabilization project to identify neighborhoods trending in a positive or negative direction.

1. From the Neighborhood Stabilization solution, click the Neighborhood Stabilization item under Solution Contents to open the item details of the desktop application template.
2. Click **Download** and place the contents on your computer.
3. Using Explorer, browse to the NeighborhoodEarlyWarning.zip folder and extract it.
4. Open the Neighborhood Stabilization ArcGIS Pro project.
5. On the **View** tab, in the **Windows** group, click **Catalog**, and click **Catalog Pane**.
6. In the **Catalog** pane, expand **Maps** and review the maps provided.

### Note:

The map provided in this project is used by data analysts to identify neighborhoods trending in a positive or negative direction and ultimately measure their fragility over time.

7. In the **Catalog** pane, expand the **Tasks** folder, and double-click the Neighborhood Early Warning task.
8. In the **Tasks** pane, click the **How to Use Neighborhood Early Warning** task group to expand the collection of tasks.
9. Follow the steps in each task.

# Configure Neighborhood Stabilization

Neighborhood Stabilization can be used to understand current property conditions, return blighted properties to productive use, and engage the public in neighborhood stabilization conversations.

In this topic, you will learn how to configure the Neighborhood Stabilization solution to meet specific needs in your organization.

## Load data from a shapefile or file geodatabase

Neighborhood Stabilization can be used to understand current property conditions, return blighted properties to productive use, and engage the public in neighborhood stabilization conversations.

Review the layers provided with the solution and determine what source data you want to load. Then, load your existing data into the layers provided with the solution before sharing the maps or applications.

To load data from a shapefile or file geodatabase, complete the following steps:

1. Create a .zip file of your shapefile or file geodatabase.
2. Sign in to your ArcGIS organization and browse to the DemolitionSites feature layer.

### Note:

Prior to loading data, ensure you populate the Status field in DemolitionSites with values represented in the layer: Planned Demolition, Contracted Demolition, or Completed Demolition.

3. From the item page, click **Update Data**.
4. Follow the steps in the **Update layer** wizard to load your data.
5. Repeat these steps to load data into the MortgageCounselingFacilities feature layer.

## Configure property surveys

Blighted and vacant structures can have a significant impact on property value and may have substantial remediation costs associated with them. Property Condition Survey can be used by local governments to publish street-level photo collections, conduct property surveys, and automate the classification of property condition using ML/AI.

### Publish a property survey app

The Property Condition Survey app consumes the map you authored during the publish map step in the ArcGIS Pro project.

To configure the Photo Survey app, complete the following steps:

1. Using Windows Explorer, browse to the \Documents\ArcGIS\Packages\PropertyConditionSurvey\commondata\userdata\PhotoSurvey folder and unzip it.
2. Open the configuration.json file in Microsoft Notepad or another text editor.
3. Enter the web map ID for your photo survey map, for example, "webmap": daa3eeae86954f4cba87c044466c4c2f.

**Note:**

The web map ID can be found at the end of the map URL in ArcGIS Online. For example, in <http://myorganization.maps.arcgis.com/home/item.html?id=2ef11dad8ff04178b2b236e867e9c952>, the web map ID is 2ef11dad8ff04178b2b236e867e9c952.

4. Save and close the file.
5. Copy the PhotoSurvey folder to your web server so it can be accessed as a website or virtual directory. In IIS, the default web server directory is <your directory>\inetpub\wwwroot\.
6. Browse to **Start > Control Panel > Administrative Tools > Internet Information Services (IIS) Manage.**
7. Click <your server> > **Sites > Default Web Sites.**
8. Right-click the web server directory folder for the app and choose **Convert to Application.**
9. Choose the **DefaultAppPool** application pool.
10. Click **OK.**
11. Begin using Property Condition Survey by browsing to <http://<your server>/PhotoSurvey/default.htm>.

## Configure the property survey app

Use the configuration.json file to configure the Photo Survey app to your organization's needs. Photo randomization, guest access, thumbnail image display, and Twitter credentials can all be configured by modifying the following parameters:

Parameter	Description
randomizeSelection	<p>Controls how the Photo Survey app will display photos.</p> <ul style="list-style-type: none"> <li>• True for random photo display (default)</li> <li>• False for ordered photo display</li> </ul>
allowGuestSubmissions	<p>Specifies if the Photo Survey app will allow guest or anonymous survey submissions.</p> <ul style="list-style-type: none"> <li>• True to allow guests (anonymous) to submit survey submissions</li> <li>• False to disallow guests (anonymous) to submit survey submissions</li> </ul>

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showGuest	<p>Specifies if the Photo Survey app will allow guest or anonymous access.</p> <ul style="list-style-type: none"> <li>• True to allow guest (anonymous) access</li> <li>• False to disallow guest (anonymous) access</li> </ul>
thumbnailLimit	<p>Sets the maximum number of thumbnails displayed in the Photo Survey carousel. If the number of photos for a given property exceeds this number, the photo carousel will not be displayed in the app.</p>
includeOverviewMap	<p>Specifies if the Photo Survey app will include an overview map.</p> <ul style="list-style-type: none"> <li>• True to show overview map</li> <li>• False to remove overview map</li> </ul>
showSkip	<p>Specifies if the Photo Survey app will include a skip button. This requires all surveys to be submitted.</p> <ul style="list-style-type: none"> <li>• True to show skip button</li> <li>• False to remove skip button</li> </ul>

## Configure survey questions

There are several options available regarding the types of survey responses that can be displayed in the survey panel. Choose from the options below based on the structure of your data as well as the desired user experience.

Once you have determined which response type to use, choose the appropriate options in the Survey Questions table.

Field	Description	Required information
Field name in Photo Points	Field name in the Photo Points layer that the survey response will be stored in.	Field name
Question Type	Survey question type. Choose from the drop-down list.	Parent, Child
Parent OBJECTID	If the question should be dependent on the response to a parent question, add the parent ObjectID of this question.	ObjectID
Display Condition(s)	Value required to display this question.	Value
Question Text	Text displayed for each survey question.	Text
Question UI Type	Available question types. Choose from the drop-down list.	Button, List, Drop-down list, Text, Number

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Image URL	To display images on the survey panel, add the image URL.	URL
Image Position	Position of image in the survey panel. Choose from the drop-down list.	Before, After
Required?	If the question is required for the survey, choose from the drop-down list.	Yes, No
Question Order	Order of the questions as they appear in the survey form.	Numeric value


## Configure the Neighborhood Stabilization site

The Neighborhood Stabilization solution includes the Neighborhood Stabilization ArcGIS Hub site. This site can be configured with your organization's branding and used to share information with the public.

### Update with organizational information

After deploying the Neighborhood Stabilization solution, the Neighborhood Stabilization Hub site layout requires a few updates to fit your local context.

To update the site with your organizational information, complete the following steps:

1. Sign in to your ArcGIS organization and browse to the Neighborhood Stabilization site.
2. From the item page, click **Configure**.
3. Scroll to any sections that you want to update, hover over the card, and click the edit pencil  that appears in the horizontal toolbar, and then edit the content with information specific to your organization.
4. In the side panel, click **Footer**.  
A custom footer is provided. In most cases, you will need to update it with your organization's branding, contact information, and social media references.
5. Click the **HTML** box.  
The **HTML** window appears.
6. Make the necessary changes and click **Apply**.
7. Click **Save**.
8. Click the **Save** drop-down arrow and click **Publish Draft**.

### Share items with the public

Several layer views, maps, and apps included in the Neighborhood Stabilization solution must be shared with everyone so they can be accessed by the public on the Neighborhood Stabilization site.

To share items with the public, complete the following steps:

1. Verify that you are signed in to your ArcGIS organization and browse to the Neighborhood Stabilization folder.

2. Next to each of the following items, check the check box:

Name	Item type
MortgageCounselingFacilities_public	Feature layer (hosted, view)
DemolitionSites_public	Feature layer (hosted, view)
BlightProblems_dashboard	Feature layer (hosted, view)
Mortgage Counseling Locator	Web Map
Demolition Tracker	Web Map
Blight Dashbaord	Web Map
Mortgage Counseling Locator	Web Mapping Application
Demolition Tracker	Web Mapping Application
Tax Liability Calculator	Form
Blight Status Dashboard	Dashboard
Neighborhood Stabilization	Hub Site Application
Neighborhood Stabilization	Hub Initiative

**Note:**

You will only have a Hub Initiative item if your organization has ArcGIS Hub Premium.

3. Click **Share**.

# Park Infrastructure Management

This solution documentation has been archived and is no longer updated. Content and links may be outdated. The capabilities have been replaced with [Parks and Grounds Management](#).

Mature phase Jun. 2023 - May 2025	Retired phase Jun. 2025
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## Introduction to Park Infrastructure Management

Park Infrastructure Management can be used to inventory park assets, understand asset condition, and communicate changing asset conditions that impact park services.

Parks improve quality of life, protect natural resources, and enhance local economies. Unfortunately, park agencies are increasingly burdened with overuse and many times the first agency to receive funding cuts during an economic downturn. As a result, they are continuously balancing park asset maintenance needs with available funding. The first and most critical step park agencies must take to prioritize asset needs is to create a park asset inventory. Park Infrastructure Management is typically implemented by park agencies that want to understand what assets they have, plan improvements, and ensure guest safety.

The Park Infrastructure Management solution delivers a set of capabilities that help you inventory park assets, understand asset condition, and communicate changing asset conditions that impact park services.

## Requirements

Park Infrastructure Management requires the following:

- ArcGIS Online
- ArcGIS Workforce
- ArcGIS Field Maps
- ArcGIS Survey123
- ArcGIS Survey123 Connect

# Information products

Park Infrastructure Management includes the following information products:

Item	Description	Minimum user type
Park Assignments	An ArcGIS Workforce project used by maintenance supervisors to manage inspection and maintenance assignments.	Editor
Park Field Map	An ArcGIS Field Maps map used by park rangers to inventory, inspect and maintain park assets.	Mobile Worker
Park Request Manager	A Crowdsourcing Manager app used by park operations staff to triage submitted problem reports and update the status of each report.	Editor
Park Request Dashboard	An ArcGIS Dashboards app used by park operations staff to monitor park requests submitted by the general public and internal staff	Viewer
Park Asset Inventory	A Sidebar app used by used by mapping technicians to create, edit, and review park assets.	Editor
Recreation Closure Manager	An ArcGIS Web AppBuilder app used by public information staff to create and update recreation closures.	Editor
Create Park Assignment	An ArcGIS Survey123 form used by park operations staff to create park assignments.	Editor
Park Request Internal	An ArcGIS Survey123 form used by park rangers to submit service requests.	Mobile Worker
Park Request	An ArcGIS Survey123form used by park visitors to submit service requests.	Not required

## Release notes

The following are the release notes:

Version	Description
1.0	<ul style="list-style-type: none"><li>First release of Park Infrastructure Management</li></ul>

# Configure Park Infrastructure Management

Park Infrastructure Management can be used to inventory park assets, understand asset condition, and communicate changing asset conditions that impact park services.

In this topic, you'll learn how to configure the Park Infrastructure Management solution to meet specific needs in your organization.

## Load data from a shapefile or file geodatabase

Park Infrastructure Management can be used to inventory park assets, understand asset condition, and communicate changing asset conditions that impact park services.

Review the layers provided with the solution and determine what source data you want to load. Then, load your existing data into the layers provided with the solution before sharing the maps or applications.

To load data from a shapefile or file geodatabase, complete the following steps:

1. Create a .zip file of your shapefile or file geodatabase.
2. Sign in to your ArcGIS organization and browse to the feature layer that you want to populate.
3. Open the item page and click **Update Data**.
4. Follow the steps in the **Update data** wizard to load your data.

### Tip:

For more information about uploading data, see [Manage hosted feature layers—Append data to layers](#).

## Modify inspection and maintenance types

The Park Infrastructure Management solution helps you assess park asset condition and record maintenance activities. Inspection and maintenance types are defined on the ParkAssets feature layer and appear in the Park Field Map when park rangers are recording their work. In some cases, you may want to modify inspection and maintenance types to meet your organization's needs

1. Verify that you are signed in to your ArcGIS organization and browse to the ParkAssets feature layer.
2. Open the item page and click the **Data** tab.
3. Click the **Layer** drop-down and select **Trails Inspection**.
4. Click **Fields**.
5. Click the **Inspection Type** display name.
6. Click **Create List**.
7. Type the new inspection type into the **Displayed Value** and **Stored Value** text boxes.
8. Optionally, click **Add** to create additional inspection types.
9. Optionally, click the **Delete** button to remove an inspection type from the list.

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10. Repeat steps 8 and 9 to add the remaining inspection types.
11. Optionally, drag the category to a new location in the list to reorder them.
12. Click **Save**.
13. Click the **Layer** drop-down and select **Trails Maintenance**.
14. Click the **Maintenance Type** display name.
15. In the **List of Values (Domain)** section, repeat steps 6-12 to add maintenance types.
16. Repeat this process for the remaining inspection and maintenance tables (Barriers, Gates, Roads, Structures).

## Administer field assignments

The Park Infrastructure Management solution can be used to manage work such as data collection, routine and ad-hoc inspections, and maintenance assigned to park rangers. Types of assignments appear in the Park Assignments app used by park rangers as well, the Park Assignments ArcGIS Workforce project and the Create Park Assignment ArcGIS Survey123 form.

The Park Infrastructure Management solution includes several assignment types. In some cases, you may want to modify inspection and maintenance types to meet your organization's needs. Park rangers and dispatchers also need to be assigned roles in the Park Assignments ArcGIS Workforce project.

## Administer park assignments

1. Sign in to your ArcGIS organization and click the **Apps** button  in the header of the site.
2. From the app launcher, click **Workforce** to open the app.
3. Under **Projects**, hover over the **Park Assignments** project, and click **Configure**.
4. At the bottom of the pane, click the **Assignments** tab.
5. Type a new assignment type in the **Enter a new type** text box then click **+ Type** button.
6. To remove assignment types, click the **X** button.
7. Click the **Users** tab.
8. From the **Project Role** menu, assign the user either the dispatcher role or mobile worker role.
9. Click **+User**.
10. Click the **Advanced** tab.
11. In the ArcGIS Field Maps, click **Edit** on any of the existing Park Field Map integrations.
12. Click the **Done** button.

## Update create park assignment form

1. In your ArcGIS organization, browse to the Park Assignments feature layer.
2. Open the item page and click **Open in Map Viewer**.
3. On the **Contents** (dark) toolbar, click **Tables**.
4. Click **Assignment Types** layer.
5. Click **Tools** in the table header and check the **GlobalID** field to show (unhide) in the table. Click **Done** to close the pop-up window.

6. Expand the **GlobalID** field and copy each new assignment type's ID.
7. Paste the copied GlobalID or GlobalIDs into a text editor for reference.
8. Install [ArcGIS Survey123 Connect](#).
9. Start ArcGIS Survey123 Connect and sign in to your ArcGIS organization.
10. Click **Create Park Assignment** to download the survey.
11. In the **Download** window, click **Download** and click **OK**.
12. Click Create Park Assignment to open the survey.
13. On the left, from the side toolbar, click the **XLSForm** button.
14. At the bottom of the Microsoft Excel spreadsheet, click the **choices** tab.  
This tab comprises all the selectable options for survey questions.
15. In the **list\_name** column type ASSIGN\_TYPE.
16. In the **name** column, copy and paste the GlobalID, before and after the GlobalID add curly braces.  
For example, {5b3e80df-aec7-4739-929f-8cb70cdbc62c}.
17. In the **label** column, type the assignment type.
18. Repeat steps 15 through 17 for each new assignment type.
19. Save and close the Microsoft Excel spreadsheet and preview your changes in ArcGIS Survey123 Connect.
20. In ArcGIS Survey123 Connect, in the left toolbar, click **Publish** to publish your changes.
21. Click **Publish survey** to publish your changes, and then click **OK**.

## Modify service request types

The Park Infrastructure Management solution can be used to solicit park requests for service from park rangers as well as the general public. Service request types appear in the Park Request Internal and Park Request ArcGIS Survey123 forms.

The Park Infrastructure Management solution includes several service request types. In some cases, you may want to modify service request types to meet your organization's needs, for example you may want some requests to be available to park rangers using the Park Request Internal form that are not available to the general public using the Park Request form.

1. Start ArcGIS Survey123 Connect and sign in to your ArcGIS organization.
2. Click **Park Request** to download the survey.
3. In the **Download** window, click **Download** and click **OK**.
4. Click Park Request to open the survey.
5. On the left, from the side toolbar, click the **XLSForm** button.
6. At the bottom of the Microsoft Excel spreadsheet, click the **choices** tab.  
This tab comprises all the selectable options for survey questions.
7. In the **list\_name** column type reqtype.
8. Type the new service request type into the **name** and **lable** columns.
9. Repeat steps 7 and 8 for each new service request type.
10. Save and close the Microsoft Excel spreadsheet and preview your changes in ArcGIS Survey123 Connect.
11. In ArcGIS Survey123 Connect, in the left toolbar, click **Publish** to publish your changes.
12. Click **Publish survey** to publish your changes, and then click **OK**.

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13. Click **Park Request Internal** to download the survey.
14. Repeat steps 3 through 12 to add new service request types to the **Park Request Internal** form.



# Use Park Infrastructure Management

The Park Infrastructure Management solution delivers a set of capabilities that help you inventory park assets, understand asset condition, and communicate changing asset conditions that impact park services.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

## Inventory and assess park assets in the field

In many cases, a field assessment of existing park assets may be the most efficient way to develop a park asset inventory. The information collected in the field can then be augmented with other descriptive information that helps park staff or the general public view park information easily.

You will assume the role of a park ranger in a park agency. In this workflow, you are asked to use the ArcGIS Field Maps mobile app to access your Park Field Map and inventory park assets.

### Collect park assets in the field

1. Download ArcGIS Field Maps onto your mobile device.
2. Open ArcGIS Field Maps and sign in to your ArcGIS organization.
3. Tap the **Park Field Map** to open it.
4. Browse to the collection location.
5. Tap **Add** and tap **Restrooms**.
6. Swipe up on the form and tap **Name** to enter the name of the restroom.
7. Tap **Park** to enter the name of the park.
8. Tap **Amenity Details** to expand the form.
9. Tap **Condition** and choose a value.
10. Tap **Owned By** and choose a value.
11. Tap **Maintained By** and choose a value.
12. Swipe down and tap **Take Photo**, and then take a photo and tap **Use Photo**.
13. When you're finished, at the top right, tap the check mark or **Submit**.

#### Note:

Your interface may vary depending on the type of mobile device that you use.

14. Repeat steps 6 through 14 for each park asset.

### Assess park assets in the field

1. Tap a trail in the Park Field Map.
2. Swipe up on the form to review the trail information.
3. Swipe up on the form to the **Related** section.

4. Tap **Trails Maintenance**.  
Previously recorded maintenance activities are displayed. When present, tap the maintenance record and swipe up on the form to review the information.
5. Tap **Add**.
6. Swipe up on the form to expand the form.
7. Tap **Maintenance Type** to enter the type of maintenance activity completed.
8. Tap **Maintenance Status** and choose **Completed**.
9. Tap **Date finished** and choose today's date.
10. Optionally, tap **Notes** to enter maintenance notes.
11. When you're finished, at the top right, tap the check mark or **Submit**.

**Note:**

Your interface may vary depending on the type of mobile device that you use.

12. Swipe up on the form to review the recorded maintenance information.
13. In the **Related** section, tap **Trails** to return to the Trail feature.
14. Swipe up on the form to the **Related** section.
15. Tap **Trails Inspection**.  
Previously recorded inspections are displayed. When present, tap the inspection record and swipe up on the form to review the information.
16. Tap **Add**.
17. Swipe up to expand the form.
18. Tap **Condition** and choose a value.
19. Tap **Inspection Type** and enter a value.
20. Tap **Needs Maintenance** and choose **Yes**.
21. Tap **Inspection Date** and choose today's date.
22. Swipe down and tap **Take Photo**, and then take a photo and tap **Use Photo**.
23. When you're finished, at the top right, tap the check mark or **Submit**.

**Note:**

Your interface may vary depending on the type of mobile device that you use.




24. Swipe up on the form to review the recorded inspection information.
25. In the **Related** section, tap **Trails** to return to the Trail feature.
26. Swipe up on the form and tap the **Create service request** button.
27. Complete the **Park Request** form to report a request for service.
28. When you're finished, at the top right, tap the check mark or **Submit**.

**Note:**

Your interface may vary depending on the type of mobile device that you use.

## Complete field assignments

Park Rangers will often receive work through assignments that help organize tasks to be completed and communicate the status of work to maintenance supervisors. In this workflow, you are asked to use the ArcGIS Workforce app on your mobile device to track the status of your work in the field.

1. Download ArcGIS Workforce onto your mobile device.
2. Open ArcGIS Workforce and sign in to your ArcGIS organization.
3. Tap the **Park Assignments** map.
4. In the **To do** list, tap an assignment to view its location on the map and see details about the assignment.
5. In the assignment details, tap **Directions** to see a list of installed navigation apps, and then tap the app you want to use and allow ArcGIS Workforce to open it.  
The app opens, generating a route to your assignment.
6. In the assignment details, tap **Start** to begin working on an assignment.
7. Optionally, tap **Add Note** to enter information for the maintenance supervisors. Tap **Done**.
8. Optionally, tap **Take Photo** to take and attach a photo.
9. Optionally, tap **Attach** to record video and audio and to attach other photos from your device.
10. Swipe up and tap **Open in Field Maps**.  
The Park Field Map opens in ArcGIS Field Maps.
11. After you have finished collecting data or recording work in the Park Field Map return to the ArcGIS Workforce app.
12. To pause, decline, or reset the assignment, tap the **Overflow** button  and tap the appropriate status, or tap **Cancel**.
13. In the assignment details, tap **Finish** when you have completed the assignment.
14. Optionally, tap **To Do** and tap **Completed** to view your completed assignments.
15. Optionally, tap **Sync**  ( if you have edits that aren't synced) and tap **Sync Now** to sync them.  
Changes to the status of your assignments automatically syncs with your ArcGIS organization at the default interval of every 15 minutes.

## Develop park asset inventory

The Park Asset Inventory app can be used by mapping technicians to create, edit, and review park assets. Existing park assets collected in the field can be reviewed and information added to help park staff and the general public find information about a park. New park assets can also be added to a park asset inventory using imagery and record documents.

You will assume the role of a mapping technician in a park agency. In this workflow, you are asked to review park assets collected by field staff and add new park assets. The steps below provide guidance; however, you can enter information as you see fit and examine the different dependencies in the form.

## Review park assets collected in the field

1. Sign in to your ArcGIS organization and browse to the Park Asset Inventory app.
2. Open the item page and click **View Application**.
3. Open the **Filter** panel and click the **Trailheads: Needs Review** filter to display trailheads that need to be reviewed.
4. Open the **Edit** panel and click **Edit feature**.
5. Select a trailhead on the map.
6. In the panel, review the attribute information and enter the remaining details for the trailhead.
7. Set **Status** to **Open**, **Publicly Visible** to **Yes**, and **Reviewed** to **Yes**.
8. When you're finished, click **Update**.

## Add a new park asset

1. In the Park Asset Inventory app, open the **Edit** panel, and click **Add feature**.
2. Type Trails into the **Filter types** search box, and click the **Trails** feature template.
3. Add a new trail to the map.
4. Enter the following trail details:

Parameter	Value
<b>Asset ID</b>	Type T1-0004.
<b>Name</b>	Type McDowell Grove Trail.
<b>Park Name</b>	Type McDowell Park.
<b>Trail System</b>	Type McDowell Park.
<b>Status</b>	Choose <b>Open</b> .
<b>Reviewed</b>	Choose <b>Yes</b> .
<b>Seasonal</b>	Choose <b>No</b> .
<b>Hiking</b>	Choose <b>Yes</b> .
<b>Mountain Biking</b>	Choose <b>Yes</b> .
<b>eBikes</b>	Choose <b>No</b> .

<b>Dogs Allowed</b>	Choose <b>Yes</b> .
<b>Surface Type</b>	Choose <b>Native</b> .
<b>Publicly Visible</b>	Choose <b>Yes</b> .
<b>Install Date</b>	Choose today's date.
<b>Owned By</b>	Choose <b>Our Agency</b> .
<b>Managed By</b>	Choose <b>Our Agency</b> .

5. Scroll to the bottom of the form and click **Add**.
6. Repeat all of the steps for each park asset.

## Update recreation closure information

Communicating the status of recreation opportunities helps visitors plan trips and reduces congestion and overuse of resources. The Recreation Closure Manager app can be used by public information staff to create and update recreation closures.

### Create recreation closure

1. Sign in to your ArcGIS organization and browse to the Recreation Closure Manager app.
2. Open the item page and click **View Application**.  
The **Manage Recreation Closures** widget is opened by default, which allows you to create and edit existing recreation closures.
3. In the **Search** widget, type an address.
4. In the **Manage Recreation Closures** widget, click the **Closures** template and add a new recreation closure to the map.
5. Enter the following recreation closure details:

Parameter	Value
<b>Name</b>	Type Trail Maintenance.
<b>Type</b>	Choose <b>Temporary Closure</b> .
<b>Reason</b>	Choose <b>Maintenance</b> .
<b>When</b>	Type Winter 2021 to Spring 2022.

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<b>Comment</b>	Type Trail closed Winter 2021 to Spring 2022.
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6. Click **Save**.

## Update asset status

1. Open the **Update Public Status** widget.
2. Select the **Freehand Polygon** selection tool, and select the assets associated with the recreation closure.
3. For **Status**, choose **Closed**.
4. Click **Save**.


### Note:

When you create recreation closures and update asset status information using the Recreation Closure Manager app, the recreation locators deployed with the [Recreation Outreach](#) solution will automatically be updated with the new information.

## Manage operations

You will now assume the role of a maintenance supervisor responsible for organizing routine and ad-hoc inspections and maintenance activities. In this workflow, you are asked to monitor field activities and conditions, manage requests for service, and assign work.

## Respond to requests for service

1. Verify that you are signed in to your ArcGIS organization and browse to the Park Request Manager app.
2. Open the item page and click **View**.
3. Click the **Status** column filter.
4. Click the **Status is** drop-down arrow and choose **Submitted** to view requests for service with a submitted status.
5. Click the **Submitted On** column and choose **Sort in descending order**.
6. Click one of the service request features to view its details.
7. On the **Details** tab, click the **Edit** button .
8. Click the **Status** drop-down arrow and choose **Received**.
9. Click **Save**.  
You will create an assignment so the request for service can be addressed by park rangers.
10. Click the service request feature in the table to view its details.
11. On the **Details** tab, click the **Create Park Assignment** button.  
The **Create Park Assignment** form opens.
12. Complete the form to create an assignment that you will assign to park rangers.


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13. When you're finished, click **Submit**.

## Monitor requests for service

1. Verify that you are signed in to your ArcGIS organization and browse to the Park Request Dashboard.
2. Open the item page and click **View Dashboard**.
3. Use the graphs to filter and explore active and resolved requests for service. Dashboard charts are linked. As you click and select a category in one chart, related details are filtered and updated in other charts on the service request to allow a manager to identify issues and areas that need attention.

## Manage field assignments

1. Sign in to your ArcGIS organization and click the **Apps** button  in the header of the site.
2. From the app launcher, click **Workforce** to open the app.
3. Under **Projects**, hover over the **Park Assignments** project, and click **Open** to open the project.

### Tip:

When implementing the Park Infrastructure Management solution in your organization, you must add everyone responsible for verifying park assignments in the field to the Park Assignments ArcGIS Workforce project with a Mobile Worker role. You can add users and assign roles in the configuration settings of the project. To access the configuration settings, hover over the **Park Assignments** project and click **Configure**. Click the **Users** tab. For the purposes of this exercise, ensure that your named user account is assigned as a dispatcher and as a mobile worker. Click the **My Projects** tab to return to your projects.

4. At the bottom of the pane, click the **Assignments** tab.
5. If present, click on an assignment from the list of assignments.
6. Click the **Assign** drop-down and select a mobile worker who will complete the work.
7. Optionally, click the **Edit** button to modify the **Priority**, **Description** or other assignment details. When you're finished, click **Save**.
8. Click the back button.
9. On the map, select a park asset. Review the asset information then click **+ Create Assignment**.  
You can also use the search box on the map to search by address, place, or park asset ID.
10. Choose an **Assignment Type** and assign a mobile worker.
11. Click **Create Assignment**.

# Racial Equity Community Outreach

This solution documentation has been archived and is no longer updated. Content and links may be outdated. The capabilities have been replaced with [Social Equity Analysis](#).

Mature phase Nov. 2023 – Oct. 2025	Retired phase Nov. 2025
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## Introduction to Racial Equity Community Outreach

Racial Equity Community Outreach can be used to communicate progress made on racial equity initiatives or programs to the public and other interested stakeholders.

Many local communities have developed equity plans, cocreated with employees and community partners, that serve as a road map for action and change. They serve as a guide for pro-equity policies, planning, services, and work practices that advance equity in a community and address institutional racism to ensure opportunities exist for all constituents. Promoting the plans and communicating progress on key initiatives or programs is critical to any pro-equity agenda. Racial Equity Community Outreach is typically implemented by local government agencies that want to take action and implement change in their communities.

The Racial Equity Community Outreach solution delivers a set of capabilities that help you communicate key racial equity initiatives or programs, visualize workforce diversity metrics, gauge public sentiment, and share authoritative information about racial equity with the community.

## Requirements

Racial Equity Community Outreach requires the following:

- ArcGIS Online



## Information products

Racial Equity Community Outreach includes the following information products:

Item	Description	Minimum user type
Racial Equity Community Outreach	An ArcGIS Hub site used by the general public to learn more about progress made on racial equity initiatives or programs	Not required
Workforce Workforce	An ArcGIS Hub page used by organizations to communicate workforce diversity metrics and programs designed to create a representative workforce	Not required
Racial Equity and Inclusion Community Survey	An ArcGIS Survey123 form used by the public to provide feedback on racial equity initiatives or programs	Not required
Workforce Diversity Dashboard	An ArcGIS Dashboards app used by the public to monitor workforce diversity metrics	Not required

## Release notes

The following are the release notes:

Version	Description
1.0	<ul style="list-style-type: none"><li>First release of Racial Equity Community Outreach</li></ul>

# Configure Racial Equity Community Outreach

Racial Equity Community Outreach can be used by government agencies to communicate progress made on racial equity initiatives or programs to the public and other interested stakeholders.

In this topic, you will learn how to configure the Racial Equity Community Outreach solution to meet specific needs in your organization.

## Load data from a shapefile or file geodatabase

Workforce or employee information must be loaded into the workforce feature layer before using the Workforce Diversity Dashboard. This information is typically sourced from a government organization's human resources (HR) system and can be loaded from a spreadsheet into ArcGIS Online. If you do not have this information in an HR system, you can enter your workforce information directly into the ArcGIS Online feature layer.

Review the layers provided with the solution and determine what source data you would like to load. Then, determine how you may source this information from a spreadsheet that you have exported from your HR system.

To load data from a shapefile or file geodatabase, complete the following steps:

1. Create a .zip file of your shapefile or file geodatabase.
2. Sign in to your ArcGIS organization and browse to the feature layer that you want to populate.
3. From the item page, click **Update Data**.
4. Follow the steps in the **Update layer** wizard to load your data.

## Modify the racial equity survey

The Racial Equity Community Outreach solution includes a Racial Equity and Inclusion Community Survey that can be used to gather feedback on racial equity initiatives or programs from the public. Review the preconfigured questions and align the survey with your organizational policies and desired outcomes.

To modify the Racial Equity and Inclusion Community Survey, complete the following steps:

1. Sign in to your ArcGIS Online organization and browse to the Racial Equity and Inclusion Community Survey.
2. Open the item page, click **Open in Survey 123** and select **Manage in Survey123 website** from the drop-down list.
3. Click the **Design** tab.
4. Make your edits to the survey and save the changes.
5. Click **Publish**.


# Configure the Racial Equity Community Outreach site

The Racial Equity Community Outreach solution includes the Racial Equity Community Outreach ArcGIS Hub site. This site can be configured with your organization's branding and used to share information with the public.

## Update with organizational information

After deploying the Racial Equity Community Outreach solution, the Racial Equity Community Outreach Hub site layout requires a few updates to fit your local context.

To update the site with your organizational information, complete the following steps:

1. Verify that you are signed in to your ArcGIS organization and browse to the Racial Equity Community Outreach site.
2. From the item page, click **Configure**.
3. Scroll to any sections that you want to update, hover over the card, and click the edit pencil  that appears in the horizontal toolbar, and then edit the content with information specific to your organization.
4. In the side panel, click **Footer**.  
A custom footer is provided. In most cases, you will need to update it with your organization's branding, contact information, and social media references.
5. Click the **HTML** box.  
The **HTML** window appears.
6. Make the necessary changes and click **Apply**.
7. Click **Save**.
8. Click the **Save** drop-down arrow and click **Publish Draft**.

## Share items with the public

Several layer views, maps, and apps included in the Racial Equity Community Outreach solution must be shared with everyone so they can be accessed by the public on the Racial Equity Community Outreach site.

To share items with the public, complete the following steps:

1. Verify that you are signed in to your ArcGIS organization and browse to the Racial Equity Community Outreach folder.
2. Next to each of the following items, check the check box:

Name	Item type
Racial Equity and Inclusion Community Survey_public	Feature layer (hosted, view)

Workforce_dashboard	Table (hosted, view)
Racial Equity and Inclusion Community Survey	Form
Workforce Diversity Dashboard	Dashboard
Workforce	Hub Page
Racial Equity Community Outreach	Hub Site Application
Racial Equity Community Outreach	Hub Initiative

**Note:**

You will only have a Hub Initiative item if your organization has ArcGIS Hub Premium.

3. Click **Share**.  
 In the **Share** window, click **Everyone (public)** and click **Save**.  
 The **Warning: Sharing editable layers publicly** message appears notifying you that you are sharing editable layers publicly.
4. Click **Update**.

# Use Racial Equity Community Outreach

The Racial Equity Community Outreach solution delivers a set of capabilities that help you communicate key racial equity initiatives or programs, visualize workforce diversity metrics, gauge public sentiment, and share authoritative information about racial equity with the community.

## Note:

Use your organization's data or configured apps to follow these workflows.

## Review equity programs

Racial equity programs develop goals and outcomes that will result in improvements for all groups, but the strategies are targeted based on the needs of a particular group. Many communities have developed equity plans, cocreated with employees and community partners, that serve as a roadmap for action and change. They serve as a guide for pro-equity policies, planning, services, and work practices that advance equity in a community. Promoting equity plans and communicating progress on key initiatives or programs is critical to any pro-equity agenda.

In this workflow, you will assume the role of a resident or member of the public. You are interested in equity programs or initiatives adopted by your community and progress made toward creating a more equitable community.

1. In a browser, from the Racial Equity Community Outreach solution, view the Racial Equity Community Outreach ArcGIS Hub site.
2. Review the message from leadership, community focus, and performance metrics.
3. Scroll to the **Tell Us How We're Doing** section, and then click **Share your feedback**.  
The Racial Equity and Inclusion Community Survey form opens in a new browser tab.
4. Complete the survey and click **Submit**, and then close the browser tab.
5. Return to the Racial Equity Community Outreach site.
6. Scroll to the **Key Program Areas** section.
7. Review the **Workforce** program information, and then click **Learn more**.  
The **Workforce** program page opens to the Workforce Diversity Dashboard. The **Overview** tab displays key diversity metrics.
8. In the upper-right corner of the dashboard, click the drop-down arrow and choose a department or agency.  
The diversity metrics update with diversity metrics specific to your selection.
9. In the lower-left corner of the dashboard, click the **Details** tab.
10. Review the **Featured Events** and **Workforce Diversity Resources** parameters on the page. Click **One Community** in the upper left corner of the page when you're done reviewing.

# Road Network Data Management

This solution documentation has been archived and is no longer updated. Content and links may be outdated. The capabilities have been replaced with [Roadway Management](#).

Mature phase Nov. 2023 – Oct. 2025	Retired phase Nov. 2025
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## Introduction to Road Network Data Management

Road Network Data Management can be used to maintain an authoritative inventory of roads, intersections, and physical road characteristics and track legal agreements executed with a public works agency.

It provides a series of workflows and standard road layers that streamline the maintenance of a public road repository, their physical characteristics, and legal agreements defining maintenance services provided by the organization. Road Network Data Management is typically implemented by public works and transportation departments that want to develop and maintain a public road repository that supports a variety of maintenance functions.

The Road Network Data Management solution delivers a set of capabilities that help you maintain a standard set of public road layers, streamline road data management workflows, track maintenance agreements, and continuously improve the quality of public road information.

## Requirements

Road Network Data Management requires the following:

- ArcGIS Online
- ArcGIS Pro 2.5 or later (Standard or Advanced)

## Information products

Road Network Data Management includes the following information products:

Item	Description	Minimum user type
Road Network Data Management	An ArcGIS Pro project used by mapping technicians to maintain an authoritative inventory of public roads, road intersections, and physical road characteristics	GIS Professional Standard
Road Maintenance Agreements	An ArcGIS Web AppBuilder app used by engineers and operations staff to track legal agreements executed with a public works agency	Editor

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## Release notes

The following are the release notes:

Version	Description
1.0	<ul style="list-style-type: none"><li data-bbox="375 373 1078 407">• First release of Road Network Data Management</li></ul>

# Use Road Network Data Management

The Road Network Data Management solution delivers a set of capabilities that help you maintain a standard set of public road layers, streamline road data management workflows, track maintenance agreements, and continuously improve the quality of public road information.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

**Note:**

Use your organization's data or configured apps to follow these workflows.

## Manage road network data

You will start by assuming the role of a mapping technician responsible for maintaining an inventory of public roads, road intersections, and physical road characteristics. The Road Network Data Management ArcGIS Pro project includes a series of tasks to help guide you through these workflows.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Road Network Data Management solution.
2. Download the Road Network Data Management desktop application template, and then unzip the folder.
3. From the unzipped folder, open the Road Network Data Management ArcGIS Pro project in ArcGIS Pro.
4. In the **Catalog** pane, expand the **Tasks** folder, and then double-click the Road Network Data Management task item.

**Note:**

If you do not see the **Catalog** pane, from the **View** tab, in the **Windows** group, click **Catalog Pane**.

5. In the **Tasks** pane, expand the **How to use Road Network Data Management** task group to see the collection of tasks.

## Add roads

Roads are line segments representing centerlines of all public roadways or carriageways that support asset management and mapping. Typically, this information is compiled from authoritative road centerlines maintained for addressing purposes.

1. To add new public roads, follow the steps in the **Add roads** task.



## Add intersections

When creating new roads, existing roads are split at intersections along the new road. An inventory of road intersections with the names of relevant crossroads is often required by 911 systems and to manage right-of-way assets.

1. To add new road intersections, follow the steps in the **Add intersections** task.

## Add road characteristics

A series of map layers is used to track the characteristics (for example, ownership, functional classification, speed limit, physical characteristics, and special routes) of each public road. The feature classification and type schema for the roads is based on a functional classification of roads provided by the Federal Highway Administration (FHWA). Specific attributes and default values vary for each feature type.

1. To add new road characteristics, follow the steps in the **Add road characteristics** task.

## Track maintenance agreements

You will now assume the role of an engineer or operations staff at a public works agency. You are responsible for managing the legal agreements defining maintenance services provided by the agency for assets within the public right-of-way.

1. In a browser, from the Road Network Data Management solution, view the Road Maintenance Agreements app.  
The app opens with the **Create Maintenance Agreement** open on the right.
2. In the **Create Maintenance Agreement** widget, choose a template.
3. Click the map to start a sketch.
4. Click the map to add additional vertices and double-click to finish the sketch.  
After you finish the sketch, the **Road Maintenance Agreements** legal agreement form opens in the **Create Maintenance Agreement** widget.
5. Complete the details of the legal agreement.
6. Click **Save**.
7. At the top right, click the **Filter Maintenance Agreement** button to open the widget.
8. Filter for the asset type that you just added.
9. On the map, select an agreement to view its details.

# Transit Outreach

This solution documentation has been archived and is no longer updated. Content and links may be outdated.

Mature phase Nov. 2024 – Oct. 2026	Retired phase Nov. 2026
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## Introduction to Transit Outreach

Transit Outreach can be used to share information about planned service changes and solicit feedback from riders and the general public on their experience with public transit.

It provides 24/7 access to an organization, and the location-enabled reports help efficiently triage reports to the correct person or department responsible for their resolution. Through effective public engagement, transit agencies identify and understand the needs of the community as a whole and incorporate those needs into transportation plans and programs. Transit Outreach is typically implemented by transit agencies that want to become more transparent and responsive and ultimately provide better transit service.

The Transit Outreach solution delivers a set of capabilities that help you solicit feedback from riders, manage the transit agency's response, share information about upcoming service changes, and allow the public to provide feedback on proposed changes.

## Requirements

Transit Outreach requires the following:

- ArcGIS Online
- ArcGIS Pro 2.9 or later

## Information products

Transit Outreach includes the following information products:

Item	Description	Minimum user type
Transit Service Change	A Crowdsourcing Polling app used by the general public to obtain information about planned service changes and, optionally, comment on proposed changes	Not required
Transit Rider Reporter	An ArcGIS Survey123 form used by the general public to submit compliments, problems, questions, and suggestions related to their experience on public transit	Not required
Transit Rider Reporter Manager	A Crowdsourcing Manager app used by transit staff to triage rider feedback and update the status of each report	Contributor
Transit Rider Reporter Dashboard	An ArcGIS Dashboards app used by transit staff to monitor feedback submitted by the general public	Viewer
Transit Data Management	An ArcGIS Pro project used by transit staff to convert a GTFS public transit dataset to route and stop features and manage service change communication	Creator

## Release notes

The following are the release notes:

Version	Description
1.0 (Nov 2020)	<ul style="list-style-type: none"><li>First release of Transit Outreach</li></ul>

# Configure Transit Outreach

In this topic, you will learn how to configure the Transit Outreach solution to meet specific needs in your organization.

## Load transit system

The Transit Outreach solution includes an ArcGIS Pro project used to convert your GTFS public transit dataset to route and stop features that are used as base layers in the maps and apps included in the solution.

To load your transit routes and stops in the solution, complete the following steps:

1. Sign in to your ArcGIS organization and browse to the Transit Data Management Project Package.
2. Open the item page and click **Download**.
3. Start the ArcGIS Pro application and open the Transit Data Management project.
4. On the **View** tab, in the **Windows** group, click **Catalog Pane**.
5. In the **Catalog** pane, expand the **Tasks** folder, and double-click the **Transit Data Management** task.
6. In the **Tasks** pane, click the **How to Use Transit Data Management** task group to expand the collection of tasks.
7. Double-click the **Load transit routes and stops** task and follow the steps provided.

## Manage service change commenting

Some transit agencies offer riders the ability to provide their feedback on proposed service changes before they are implemented. This information is used by the transit agency to help decide if they should move forward with the change.

The Transit Service Change app allows riders to view upcoming service changes and by default allows riders to add a comment on the change. Transit agencies can also control when the commenting period is open or closed or disable commenting completely.

## Close commenting period

To close the commenting period, complete the following steps:

1. Verify that you are signed in to your ArcGIS organization and browse to the Transit Service Change app.
2. Open the item page and click **Configure App**.
3. Click the **Options** tab.
4. Under **Feedback period**, click **Feedback period closed** and provide an appropriate window title and message in the **Feedback period closed window title** text box.
5. Click **Save** to save the app configuration.
6. Click **Close**.

## Disable comments

To disable comments, complete the following steps:

1. Verify that you are signed in to your ArcGIS organization and browse to the Transit Service Change app.
2. Open the item page and click **Open in Map Viewer Classic**.
3. Click **Details** and click the **Contents** button.
4. On the Comments layer, click **More Options** and click **Remove**.
5. Click **Yes, remove table**.
6. Click **Save**.

## Add route name pick list

The Transit Rider Reporter survey can be used by the public to submit compliments, problems, questions, and suggestions related to their experience on public transit. Adding accurate names to the routes pick list ensures data consistency and ensures that Transit Rider Reporter functions properly with other apps included in the Transit Outreach solution.

To add your list of route names to the pick list, complete the following steps:

1. Install ArcGIS Survey123 Connect.
2. Start ArcGIS Survey123 Connect and sign in to your ArcGIS organization.
3. Click **Transit Rider Reporter** to download the survey.
4. In the **Download** window, click **Download** and click **OK**.
5. Click **Transit Rider Reporter** again to open the survey.
6. In the **XLSForm Modified** window, click **Yes**.
7. On the side toolbar, click the **Open XLSForm Spreadsheet** button.
8. In the Microsoft Excel spreadsheet, click the **choices** tab. This tab comprises all the selectable options for survey questions.
9. Update the name and label for routes with your route names. Add additional route names and rows as needed, and if necessary, delete all placeholder information.
10. The **choices** tab includes Rail, Streetcar, and Bus route types. This allows the Transit Rider Reporter to present the appropriate pick list based on the rider's category selection.
11. Save and close the Microsoft Excel spreadsheet and preview your changes in ArcGIS Survey123 Connect.
12. In ArcGIS Survey123 Connect, click **Publish** on the side toolbar.
13. Click **Publish survey** to publish your changes and click **OK**.

# Use Transit Outreach

The Transit Outreach solution delivers a set of capabilities that help you solicit feedback from riders, manage the transit agency's response, share information about upcoming service changes, and allow the public to provide feedback on proposed changes.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

## Note:

Use your organization's data or configured apps to follow these workflows.

## View service changes

First, you'll assume the role of a transit rider. You use the same transit routes on your daily commute. You will use the Transit Service Change app to learn about upcoming changes to service and how it may impact your commute.

1. In a browser, from the Transit Outreach solution, view the Transit Service Change app.
2. All routes are listed in the panel on the right. They are also marked on the map.
3. Click a route in the list or on the map.
4. Review the details about when the service change is effective, how it will impact riders, and why the change is being made.
5. The Transit Service Change app can also be used by riders to comment on proposed changes.
6. On the right, at the bottom of the route details, click the **Add a comment** button.
7. Provide your name, address, and comments.
8. Click **Submit**.

## Manage service changes

Next, you'll assume the role of a transit mapping technician who manages service change communication. You will use the Transit Data Management project to manage the routes and service change details visible to the public in the Transit Service Change app.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Transit Outreach solution.
2. Download the Transit Data Management project package.
3. Open the Transit Data Management project in ArcGIS Pro.
4. In the **Catalog** pane, expand the **Tasks** folder, and double-click the **Transit Data Management** task.

**Note:**

If you do not see the **Catalog** pane, from the **View** tab, in the **Windows** group, click **Catalog Pane**.

5. In the **Tasks** pane, expand the **How to Use Transit Data Management** task group to see the collection of tasks.
6. Double-click **Manage transit service changes** task and follow the steps provided.

## Submit rider feedback

Now, you'll assume the role of a transit rider. While riding a bus, you noticed a problem and want to report it to the transit agency. You will use Transit Rider Reporter to submit feedback.

1. In a browser, from the Transit Outreach solution, view the Transit Rider Reporter app.
2. For **I would like to**, choose the reason that you are submitting the survey.
3. For **Related to**, choose the response that best describes what your report is about. Depending on the category selected, additional questions appear. For example, clicking **Bus** adds questions about the route and vehicle number.
4. Answer any additional questions, if necessary.
5. For **Details**, type additional information about the issue.
6. For **When did it occur**, choose the date and time that you made your observation.
7. For **Where did it occur**, search for the address and press Enter.
8. In the **Contact Information** section, choose the type of response that you want.


**Tip:**

To submit feedback anonymously, choose **No, for your information only**.

9. Click **Submit**.

## Manage rider reports

You will now assume the role of a transit agency employee who monitors customer feedback. You will use Transit Rider Reporter Manager to view and manage rider feedback.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Transit Outreach solution.
2. View the Transit Rider Reporter Manager app. All reports are listed in the table at the top. The table can be sorted and filtered in various ways.
3. In the table, use the column header filters and arrows to filter results.
4. From the table, select a report with a status of **Submitted**. The report details open at the lower left, and the map zooms to the report's location.
5. After reviewing the details, you decide to assign the report for follow-up.
6. In the report details, click the **Edit Record** button  .

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7. Click the **Assigned To** drop-down arrow and choose a group.
8. Change the status to **In Progress**.
9. Optionally, to add comments to the rider report, click the **Comments** tab, and then click **Add Record**.
10. Click **Save**.  
In the table, the record's status updates to **In Progress**. On the map, the symbol also changes.  
You have received a message from the group that you assigned the report to. The message states that the rider report has been communicated to the appropriate team and the report can be closed.
11. If necessary, in the table, click the report.
12. In the report details, click the **Edit Record** button.
13. Change the status to **Completed**.
14. Click **Resolved On** and choose a date.
15. Optionally, for **Resolution**, type details about how the report was resolved.
16. Click **Save**.  
In the table, the record's status updates to **Completed**. On the map, the symbol also changes.

## Monitor rider reports

As rider reports are submitted, resolved, and closed, you are interested in noting trends and the overall feedback received. You will continue your role as a transit agency employee, this time looking to gain insight into the feedback received through the Transit Rider Reporter app. You will use Transit Rider Reporter Dashboard to view feedback and key metrics.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Transit Outreach solution.
2. View the Transit Rider Reporter Dashboard app.  
The Transit Rider Reporter Dashboard app opens with the **Overview** tab active.  
The **Overview** tab displays infographics of categories of reports. This information gives management a quick overview of the number of reports submitted by the public.
3. Click the **Rider Reports** tab.  
The **Rider Reports** tab allows a transit manager to monitor their department's progress with responding to reports. The tab displays the top problem types and categories and summarizes reports by month with details.  
Charts are linked, so when you click a category in one chart, related charts and lists are filtered and updated to allow a manager to identify issues and areas that need attention.
4. On the left side of the app, click the arrow to display the side panel.

### Tip:

To pin the side panel to the dashboard, click the pin in the upper right.

The side panel allows you to apply several survey and feedback filters. You can filter by **Report Type**, **Submission Date**, **Occurrence Date**, and **Route**.



# Transportation 511

This solution documentation has been archived and is no longer updated. Content and links may be outdated.

Mature phase Mar. 2024 – Feb. 2025	Retired phase Mar. 2025
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## Introduction to Transportation 511

Transportation 511 can be used to share road conditions and closures that may impact travel throughout a community or state.

Established in July 2000 by the Federal Communications Commission, 511 is the nationally designated, three-digit telephone number for traveler information. 511 provides a simple number travelers can use to access road and traffic information from within the jurisdiction they are traveling. Many 511 systems now include a map-based application that includes real-time incident and weather information. The application provides 24/7 access to critical information, and the location-enabled search allows travelers to quickly find traffic incidents, travel restrictions, road conditions, closures, live traffic camera feeds, and other transportation information. Transportation 511 is typically implemented by public works or transportation agencies that want to provide the public with current road conditions and traffic information.

The Transportation 511 solution delivers a set of capabilities that help you import critical information from your incident management system and share roadway information with the public so they can make informed decisions before they travel.

## Requirements

Transportation 511 requires the following:

- ArcGIS Online

## Information products

Transportation 511 includes the following information products:

Item	Description	Minimum user type
Transportation 511	An ArcGIS Web AppBuilder for the general public to understand roadway conditions and closures that may impact travel throughout a state.	Not required
Overwrite Features	A Python script and sample file geodatabase that you can schedule to update the Transportation 511 app with real-time traffic and roadway condition information.	Creator

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## Release notes

The following are the release notes:

Version	Description
1.0 (Feb 2021)	<ul style="list-style-type: none"><li data-bbox="560 426 1063 457">• First release of Transportation 511</li></ul>

# Configure Transportation 511

In this topic, you will learn how to configure the Transportation 511 solution to meet specific needs in your organization.

## Add a real-time traffic layer


Add additional context to your Transportation 511 app by including World Traffic Service from ArcGIS Living Atlas. Part of a larger collection of Esri curated content, World Traffic Service presents historical and near real-time traffic information for different regions of the world. This dynamic traffic map service is updated every 5 minutes, includes traffic incidents and provides visualizations for different traffic speeds relative to the free flow of traffic.

### Note:

[World Traffic Service](#) is licensed under the Esri Master License Agreement and is exclusive content for Esri subscribers. Use of this service requires an ArcGIS Online organization subscription or an ArcGIS developer account. ArcGIS Living Atlas subscriber content does not consume ArcGIS Online credits.

## Configure map

To leverage Esri's World Traffic Service in your Transportation 511 app, you first must add the service to your map.

1. Sign in to your ArcGIS organization and browse to the Transportation 511 map.
2. Open the item page and click **Open in Map Viewer Classic**.
3. Click **Add > Browse Living Atlas Layers**.
4. Type traffic in the search text box.
5. Click the **Add** button  World Traffic Service to add it to the map.

### Tip:

You may determine you do not want to display the Traffic Incidents layers from World Traffic Service as this is already a layer you will provide. Before proceeding to the next step, click the **Back** button and in the **Contents** pane, expand the World Traffic Service group layer. Uncheck the North America Traffic Incidents (or your region if outside North America) layer group to ensure these layers are not visible in the Transportation 511 app.

6. Click **Save**.

## Configure the app

Once the World Traffic Service layer is added to your map, additional steps are needed to configure the service to properly display in your Transportation 511 app.

## Enable subscriber content access


ArcGIS Web AppBuilder provides configuration options to allow public access through your organization to ArcGIS Living Atlas subscriber content. Follow the steps below to enable subscriber content in your Transportation 511 app.

1. Verify that you are signed in to your ArcGIS organization and browse to the Transportation 511 app.
2. Open the item page and click **Edit Application**.
3. Click the **Attribute** tab.
4. Click **Subscriber content access**.
5. Under **Map layers**, click to ensure **World Traffic Service** has been enabled.
6. Click **Save**.

When all items related to the Transportation 511 app are shared publicly, World Traffic Service will be available to the public through your app.

## Configure World Traffic Service Incidents with the Road Conditions widget

Optionally, you can display traffic incidents from World Traffic Service in the Transportation 511 app the same way as Road Condition layers are displayed from your feature collection.

1. Verify that you are signed in to your ArcGIS organization and browse to the Transportation 511 app.
2. Open the item page and click **Edit Application**.
3. Click the **Widget** tab.
4. Click **Set the widgets in this controller**.
5. Hover over the **Road Conditions** widget and then click the **Configure this widget** button .
6. Click **Add Layer** three times.

Each time you click **Add Layer**, the following layers are added to the Road Conditions widget: Traffic Incidents Overview, Traffic Incidents Intermediate, and Traffic Incidents Detailed.

### Note:

The World Traffic Service Traffic Incident layers are scale dependent. If you want your app to display Traffic Incident information and counts at all scales, you must add all three layers to the Road Conditions widget configuration.

7. Provide a label for each of the layers added, for example: World Traffic Service Incidents.
8. Click **OK**.
9. Click **Save**.

## Troubleshoot Overwrite Hosted Features script errors

The table below describes common errors that can occur when running the Overwrite Hosted Features script and how to resolve each.

Script error	Resolution
Unable to find feature service with ID: {ID}	Verify the Item ID for your feature service and the baseURL entered for your ArcGIS organization.
Unable to find feature collection with ID: {ID}	Verify the Item ID for your feature collection and the baseURL entered for your ArcGIS organization.
File GDB: {path to zipped file geodatabase} could not be found	Verify the path and file name for your zipped file geodatabase.
Cannot add the item	Verify that the user name used in the configuration does not already own a file geodatabase item with the same name as input to the fgdb parameter.
IOError: [Errno 2] No such file or directory: {Log File Path}	Verify that the script can write to the file path location configured for the log.
Error Processing table data – check file format, supported data types and data license	Verify that each layer in the feature service has an associated feature class in the geodatabase and that the published feature service and zipped file geodatabase contain the same number of layers.
URLOpen Error [Errno11001] getaddrinfo failed URLOpen Error [Errno11004] getaddrinfo failed	Verify that baseURL parameter contains a forward slash at the end of the address, for example, <a href="http://myorganization.maps.arcgis.com/">http://myorganization.maps.arcgis.com/</a> .

# Use Transportation 511

The Transportation 511 solution delivers a set of capabilities that help you import critical information from your incident management system and share roadway information with the public so they can make informed decisions before they travel.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

## Note:

Use your organization's data or configured apps to follow these workflows.

## View road conditions

You will assume the role of a motorist planning travel to your next destination in search of information about road conditions prior to driving across state. You will use the Transportation 511 app to discover current roadway conditions, restrictions and closures, and other alerts to help plan a safer trip.

1. In a browser, from the Transportation 511 solution, view the Transportation 511 app. The **Road Conditions** widget is open by default. Road Conditions categories are presented in a list with corresponding total counts.

## Note:

Information shown in the **Road Conditions** list automatically updates as you pan and zoom the map to different extents or when searching for a location by address.

2. Click a category to expand it.  
After expanding a category, you may notice that it includes expandable lists that are specific to a particular road or highway.
3. If necessary, in the category, expand a list.
4. Click one of the listed reports.  
On the map, a pop-up displays at the location of the incident. The pop-up includes details about the incident, and, for some types of incidents, it provides a link to additional information.
5. In the **Road Conditions** widget, to the left of a category, click the button to turn the layer on and off.

## Configure data updates

The Overwrite Hosted Features script is meant to be scheduled as a task to run regularly to keep road condition information current in the app. The script takes a zipped file geodatabase and overwrites the published feature collection with the current road condition information. The script can run on a machine without ArcGIS installed. You will now assume the role of a

employee in the transportation agency responsible for keeping the Transportation 511 app up to date with the latest information on road conditions across the state.

## Configure script parameters

To configure the Overwrite Hosted Features script, complete the following steps:

1. Sign in to your ArcGIS organization and browse to the Transportation 511 solution item.
2. Open the item page and click **Overwrite Features**.
3. On the item page, click **Download**.
4. Unzip the OverwriteFeatures folder.
5. Download and install [Python version 2.7 or version 3.4](#) if you do not have it installed on your machine.
6. Browse to and open the `overwrite_hosted_features.cfg` file in a text editor, and update the following inputs:

Parameter	Description
featureServiceItemID	The item ID for your Transportation 511 feature service.
featureCollectionItemID	The item ID for your Transportation 511 feature collection. <b>Note:</b> Item IDs are found at the end of the URLs when viewing item details, for example, <code>http://myorganization.maps.arcgis.com/home/item.html?id=d7c57317a0564cafae28cdc464d63ff9</code> .
fgdb	The path to the provided zipped file geodatabase, for example, <code>C:\Transportation511\RoadConditions.zip</code> . <b>Tip:</b> A sample schema geodatabase is provided in the Overwrite Features .zip file.
baseURL	Your organization's URL, for example, <code>https://myorganization.maps.arcgis.com</code> .
username	Your ArcGIS username.
pw	Your ArcGIS password.
maxAllowableOffset	To optimize performance of the data in the application, it is recommended that you generalize complex line and polygon

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	<p>features. Enter the maximum amount of simplification you want for the features in the feature collection.</p> <p><b>Note:</b> This is defined in the units of the spatial reference of the service, by default, in meters.</p>
nameMapping	<p>To ensure that features in your feature collection are updated with data from the correct feature class in the file geodatabase, enter a layer mapping to match layers in the published feature layer with the file geodatabase feature class in this parameter following this pattern: Feature Service Layer 1, Database Feature Class 1; Feature Service Layer 2, Database Feature Class 2</p> <p><b>Note:</b> The defaults provided in the configuration file work against the provided sample geodatabase and the deployed feature service.</p>
path (Optional)	The path and file name where you want the log to be written.
isVerbose (Optional)	True or false. To disable logging, leave this parameter blank.

7. Save your edits to the configuration file.
8. Run the Overwrite Hosted Features script, `overwrite_hosted_features.py`, to test your configuration. If necessary, refer to the troubleshooting guide below.

### Schedule data updates

You can use the Overwrite Hosted Features script (`overwrite_hosted_features.py`) with Windows Task Scheduler to overwrite feature collections at a regular interval. Scheduled updates ensure that users have access to current information to support more timely decision-making when traveling.

To update the Transportation 511 feature collection on a schedule, complete the following steps:

1. Open Task Scheduler on the computer hosting the scripts.
2. Click **Action > Create Task** and name your task.
3. Click the **Action** tab and click **New**.
4. Set **Action** to **Start a Program**.
5. Click **Browse** and go to the location of your Python installation (for example, `<default directory>\Python27\python.exe`), and click **Open**.



6. In the **Add Arguments** text box, type the path and name of the script (`overwrite_hosted_features.py`) and path and name of the configuration file (`overwrite_hosted_features.cfg`), and click **OK**.
7. Click the **Trigger** tab, click **New**, and set a schedule for your task.
8. Click the **Settings** tab, click the **If the task is already running, then the following rule applies** drop-down arrow, and choose **Do not start a new instance**.
9. Click **OK**.

# Shelter Locator

This solution documentation has been archived and is no longer updated. Content and links may be outdated. The capabilities have been replaced by [Emergency Management Operations](#).

Mature phase Nov. 2023 – Oct. 2025	Retired phase Nov. 2025
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## Introduction to Shelter Locator

Shelter Locator can be used to share emergency shelters activated during an incident or event.

It provides continuous access to an organization, and the location-enabled search helps residents quickly find shelter information. This transparent approach improves communication with the public and promotes efficient use of transportation and shelter resources. Shelter Locator is typically implemented by emergency management agencies that want to avoid unnecessary travel when conditions require residents to seek protection outside of their homes.

The Shelter Locator solution delivers a set of capabilities that help you share shelter locations and promote the current operating status of shelters when an incident or event occurs.

## Requirements

Shelter Locator requires the following:

- ArcGIS Online

## Information products

Shelter Locator includes the following information products:

Item	Description	Minimum user type
Shelter Locator	A Nearby app used by the general public to locate emergency shelters activated during an incident or event and understand their current operating status	Not required

## Release notes

The following are the release notes:

Version	Description
1.0	<ul style="list-style-type: none"><li data-bbox="446 373 909 405">• First release of Shelter Locator</li></ul>

# Configure Shelter Locator

Shelter Locator can be used to share emergency shelters activated during an incident or event.

In this topic, you'll learn how to configure the Shelter Locator solution to meet specific needs in your organization.

## Load data from a shapefile or file geodatabase

You can upload existing emergency shelter data to the Shelter Locator solution.

To load data from a shapefile or file geodatabase, complete the following steps:

1. Create a .zip file of your shapefile or file geodatabase.
2. Sign in to your ArcGIS organization and browse to the Emergency Shelters feature layer.

### Note:

Some of the feature layers have a suffix added, such as **public**. These are layer views of the original source feature layer. These layer views are used to share information with the public without showing all the details or allowing the public to edit the layers. The original source layers do not have a suffix.

3. From the item page, click **Update Data**.
4. Follow the steps in the **Update layer** wizard to load your data.

### Tip:

When the Emergency Management Operations solution and the Shelter Locator solution are deployed by the same user, the EmergencyShelters layer is shared between the solutions. This allows the emergency shelter status to be updated using the Operations Response app. The shelter status is then visible in the Shelter Locator and other apps that are part of the Emergency Management Operations solution.

## Configure directions (optional)

You can configure Shelter Locator to provide directions to the nearest shelter. Enabling directions will consume credits.

Follow the steps below to connect to a routing service and configure the app to enable directions.

1. If necessary, sign in to your ArcGIS organization and browse to the Shelter Locator app.
2. From the item page, click **Configure**.  
Close the **Welcome to the App Setup Page** splash page, if necessary.
3. Click **Nearby > Options** and turn on the **Show directions** toggle button.
4. Check the check box next to the **Open Shelters** layer.
5. Click **Publish**.
6. Click **Confirm**.

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The **Authorize premium content** window appears with information related to authorization.

7. Click **Authorize**.
8. Click **Launch**.

# Use Shelter Locator

The Shelter Locator solution delivers a set of capabilities that help you share shelter locations and promote the current operating status of shelters when an incident or event occurs.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

**Note:**

Use your organization's data or configured apps to follow these workflows.

## Locate an emergency shelter

You will assume the role of a resident in the community and want to learn more about available shelters in your area.

Follow the steps below to locate a shelter using the sample data.

1. In a browser, from the Shelter Locator solution, view the Shelter Locator app.
2. Review the information about locating open emergency shelters, and then click the **Close** button.
3. In the **Shelter Locator** pane, for **Find address or place**, type an address.
4. In the **Shelter Locator** pane, drag the buffer distance slider to set a distance of 3 miles. The slider allows a user to define a distance after an address is entered or a location is identified on the map.
5. In the **Shelter Locator** pane, in the **Open Shelters** search results, review shelter information, such as address, hours of operation, status, and contact information.

# Special Event Permitting and Operations

This solution documentation has been archived and is no longer updated. Content and links may be outdated. The capabilities have been replaced with [Special Event Permitting](#) and [Special Event Operations](#).

Mature phase Nov. 2024 – Oct. 2026	Retired phase Nov. 2026
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## Introduction to Special Event Permitting and Operations

Special Event Permitting and Operations can be used to manage special event permits, protect event attendees, and promote special events occurring in the community.

It provides a way to collaborate in a geographic context to simplify the permitting and operations workflows. These integrated apps ensure that permits are routed to the correct person for approval, operation and field staff are coordinated, and necessary event information remains current. Special Event Permitting and Operations is typically implemented by planning, public works, public safety, and other organizations that want to improve event permitting workflows and health and safety planning and to protect participants and the public.

Special Event Permitting and Operations delivers a set of capabilities that help you collect and organize permit apps, develop event site maps and health and safety plans, coordinate the permit review process, share event information with the public, monitor public health and safety operations, and create after-action reports.

## Requirements

Special Event Permitting and Operations requires the following:

- ArcGIS Online
- ArcGIS Survey123
- ArcGIS Survey123 Connect
- ArcGIS Workforce
- ArcGIS Hub

## Information products

Special Event Permitting and Operations includes the following information products:

Item	Description	Required user type
Special Event Permit	An ArcGIS Survey123 form used by event organizers and sponsors to apply for a community or special event permit	Not required
Special Event Permit Manager	A Crowdsourcing Manager app used by event coordinators to facilitate the special event permit process and manage the status of a permit app	Creator
Special Event Site Map	An ArcGIS Web AppBuilder app used by event coordinators to create site maps (temporary structures, routes, and so on) that accompany permit apps	Contributor
Special Event Site Map Viewer	An ArcGIS Web AppBuilder app used by the general public and other interested parties to view event site maps	Not required
Special Event Permit Review	An ArcGIS Web AppBuilder app used by departments or agencies to review permit apps and offer comments during the permit review process	Contributor
Special Event Permit Dashboard	An ArcGIS Dashboards app used by government executives to monitor the status of special event permits	Viewer
Special Event Calendar	An ArcGIS Experience Builder app used by the public to discover festivals, shows, concerts, and other events occurring in a community	Not required
Promoting Special Events	An ArcGIS Hub site used by the general public to access special event information and destinations in their community	Not required
Special Event Operations Notebook	An ArcGIS Notebooks app used by public safety event planners to create unique public safety operations maps and apps for each event	Creator
Copy Previous Site and Operations Maps	An ArcGIS Notebooks app used by event coordinators and public safety event planners to create a copy of site and operations maps	Creator
Special Event Operations Map	An ArcGIS Web AppBuilder app used by public safety event planners to create operations maps of public safety resources and conduct a high-level threat analysis	Contributor
Special Event Field Reporter	An ArcGIS Field Maps form used by public safety staff to report lost children, suspicious activity, field observations, and health- and safety-related issues	Mobile Worker
Special Event Field Manager	An ArcGIS Workforce project used by public safety event dispatchers to manage field reports and event assignments	Contributor

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Special Event Command Center	An ArcGIS Experience Builder app used by public safety command staff to monitor operations, weather, traffic, and health and safety issues during a special event	Contributor
Special Event After Action	An ArcGIS Web AppBuilder app used by public safety command staff to visualize historical event operations and support event after-action reports	Viewer
Special Event Operations App	A Category Gallery app used to organize the operations apps after running the Special Event Operations Notebook	Contributor

# Release notes

The following are the release notes:

Version	Description
2.3 (Mar 2024)	<ul style="list-style-type: none"> <li>The Special Event Permit Manager map, Special Event Permit Manager app, and Special Event Permit Manager group have been updated to resolve a bug where clicking the Copy Previous Site and Operations Maps button in the Special Event Permit Manager app failed to open the Copy Previous Site and Operations Maps notebook. These updates address a previously reported and solved issue (BUG-000163389).</li> </ul>
2.2 (Nov 2023)	<ul style="list-style-type: none"> <li>A new Special Event Command Center app updated with a new National Weather Service radar layer.</li> <li>A new Special Event Operations Notebook.</li> <li>A new Copy Previous Site and Operations Maps notebook.</li> </ul>
2.1 (Jul 2022)	<ul style="list-style-type: none"> <li>A new Special Event Command Center app.</li> <li>A new Special Event Operations Notebook.</li> <li>A new Special Event Operations app that uses the Category Gallery.</li> <li>Removed the Crowd Counter App.</li> <li>Removed the Field Personnel spreadsheet to improve the management of mobile workers.</li> </ul>
2.0 (Nov 2021)	<ul style="list-style-type: none"> <li>A new Special Event Field Reporter that leverages ArcGIS Field Maps.</li> <li>A new Special Event Field Manager that leverages ArcGIS Workforce.</li> <li>A new Special Event Calendar that leverages ArcGIS Experience Builder.</li> <li>A new Special Event Permit dashboard.</li> <li>A new Special Event Permit Manager app.</li> <li>A new Special Event Operations Map app.</li> <li>A new Special Event Command Center app that contains the Special Event Field Manager, the Special Event Operations, and dashboards.</li> </ul>
1.2 (Jun 2021)	<ul style="list-style-type: none"> <li>A new Special Event Operations Notebook that adds support for ArcGIS Tracker with the Field Worker user type, incorporates schema updates made to the location tracking layer, and a resolution to an issue where Dispatchers needed additional licensing.</li> </ul>
1.1 (Feb 2021)	<ul style="list-style-type: none"> <li>A new version of the Crowd Counter App that resolves an issue where the app would not load in the AppStudio Player</li> </ul>
1.0 (Nov 2020)	<ul style="list-style-type: none"> <li>First release of Special Event Permitting and Operations</li> </ul>

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# Configure Special Event Permitting and Operations

The ArcGIS Solutions app can be used to deploy the Special Event Permitting and Operations solution in your ArcGIS organization. After deploying the solution, configure it to meet specific needs in your organization, and load your data if needed.

## Extend an event permit survey

### Note:

This workflow is optional and doesn't need to be completed in order to work with the solution.

The Special Event Permitting and Operations solution includes a survey that can be used by event organizers to apply for a special event permit. Review the preconfigured questions and adjust as necessary to remain in compliance with your organizational policies. In addition, ensure that you secure the survey and underlying layers and only share the content with appropriate members of your organization.

## Modify event permit survey

To modify the Special Event Permit survey, complete the following steps:

1. Install ArcGIS Survey123 Connect.
2. Start ArcGIS Survey123 Connect and sign in to your ArcGIS organization.
3. Click Special Event Permit to download the survey.
4. Click Special Event Permit again to open the survey.
5. In the left pane, click **Open XLSForm Spreadsheet**.
6. In the Microsoft Excel spreadsheet, click the **choices** tab. This tab comprises all the selectable options for survey questions.
7. Revise the survey to reflect your special event permit needs.
8. Save the Microsoft Excel spreadsheet and preview your changes in ArcGIS Survey123 Connect.
9. In ArcGIS Survey123 Connect, click **Publish** in the left pane to publish your changes.

### Note:

On the **Download Surveys** page, click **Download** to view your changes in ArcGIS Survey123 Connect.

## Notify reviewers

The Special Event Permit Review app allows departmental reviewers to provide input on each event. The Special Event Permit Manager has a button that opens an email to send to these

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reviewers. Often these reviewers are the same for every event, so rather than typing the same emails for each departmental reviewer every time an event is ready for review, you can populate the email so it always includes their email addresses.

1. Sign in to your ArcGIS organization.
2. Click **Content** and browse to the folder where you deployed the Special Event Permitting and Operations solution.
3. Search for the Special Event Permit Manager web map and open it.
4. In the layer list, highlight **Special Event Permits**, click the more options button, and click **Pop-ups**.
5. Under **Attribute Expressions**, scroll down to **Notify Reviewers Email Link**.
6. Find the following line of code: `var emailRecipient = ""`
7. Enter the email addresses of the reviewers separated by semicolons between the empty quotation marks.
8. Click **Done** to close the **Arcade** window.
9. Click **Save** to save the Special Event Permit Manager.
10. Click **Content** and browse to the folder where you deployed the Special Event Permitting and Operations solution.
11. Search for the Special Event Permit Manager app and open it.
12. Find an event that has the **Status** parameter set to **Under Review** and **Site Map Complete** set to **Yes**.
13. Click the **Notify Reviewers** button. Verify that the emails are now populated as part of the email.

## Add event assets

### Note:

This workflow is optional and doesn't need to be completed in order to work with the solution.

The Special Event Permitting and Operations solution includes several layers that can be used to locate event assets and develop health and public safety plans. These layers include several domains to help you get started with the event permitting and planning process. Each of these domains can be configured to include any additional features you want to capture.

To add a new event asset and update the symbology, complete the following steps:

1. Sign in to your ArcGIS organization.
2. Click **Content** and browse to the folder where you deployed the Special Event Permitting and Operations solution.
3. Search for SpecialEventAssets and open the item details page.
4. Click the **Data** tab, then click **Fields** and click **Event Asset Type**.
5. Next to **List of Values**, click **Edit**.
6. Add your additional asset types and click **Save**.
7. Click the **Visualization** tab.
8. In the Layers panel, for each layer click **Edit Layer Style** and update the style for each new asset you added to the list.

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9. Repeat steps 7 and 8 and update the style for SpecialEventAssets\_approved and SpecialEventAssets\_operations.

**Tip:**

You can use the same steps to modify the SafetyPlanning and HealthSafetyPlanning layers and associated views.


## Configure the Promoting Special Events site

The Special Event Permitting and Operations solution includes the Promoting Special Events ArcGIS Hub site. This site can be configured with your organization's branding and used to share event information with the public.

### Update with organizational information

After deploying the Special Event Permitting and Operations solution, the Promoting Special Events Hub site layout requires a few updates to fit your local context.

To update the site with your organizational information, complete the following steps:

1. Verify that you are signed in to your ArcGIS organization and browse to the Promoting Special Events site.
2. From the item page, click **Configure**.
3. Scroll to any sections that you want to update, hover over the card, and click the edit pencil  that appears in the horizontal toolbar, and then edit the content with information specific to your organization.
4. In the side panel, click **Footer**.  
A custom footer is provided. In most cases, you will need to update it with your organization's branding, contact information, and social media references.
5. Click the **HTML** box.  
The **HTML** window appears.
6. Make the necessary changes and click **Apply**.
7. Click **Save**.
8. Click the **Save** drop-down arrow and click **Publish Draft**.

### Enable public data collection

The Special Event Permitting and Operations solution includes a survey form that allows event organizers and sponsors to apply for a community or special event permit. The SpecialEvents feature layer needs to be made accessible to the public to allow the Special Event Permit app survey to work.

To enable public data collection, complete the following steps:

1. Verify that you are signed in to your ArcGIS organization and browse to the Promoting Special Events site.
2. Click **Content** and browse to the folder where you deployed the Special Event Permitting and Operations solution.
3. Search for the SpecialEvents feature layer and open the View item details page.
4. Click the **Settings** tab. Turn on Public Data Collection by checking the box.
5. Click **Save**.

## Share items with the public

Several layer views, maps, and apps included in the Special Event Permitting and Operations solution must be shared with everyone so they can be accessed by the public on the Promoting Special Events site.

To share items with the public, complete the following steps:

1. Verify that you are signed in to your ArcGIS organization and browse to the Special Event Permitting and Operations folder.
2. Next to each of the following items, check the check box:

Name	Item type
Special Event Site Map Viewer	Web mapping app
Special Event Calendar	Web Experience
Special Event Permit	Form
Special Event Site Map Viewer	Web map
Special Event Calendar	Web map
SpecialEvents	Feature layer (hosted)
SpecialEvents_approved	Feature layer (hosted, view)
SpecialEventsAssets_approved	Feature layer (hosted, view)
SpecialEventsRoutes_approved	Feature layer (hosted, view)
SpecialEventsAreas_approved	Feature layer (hosted, view)
RoadClosures_public	Feature layer (hosted, view)

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Promoting Special Events	Hub Site Application
Promoting Special Events	Hub Initiative

**Note:**

You will only have a Hub Initiative item if your organization has ArcGIS Hub Premium.

3. Click **Share**.
4. In the **Share** window, click **Everyone (public)** and click **Save**.  
The **Warning: Sharing editable layers publicly** message appears notifying you that you are sharing editable layers publicly.
5. Click **Update**.

## Configure After Action app

**Note:**

This workflow should only be completed after running the Special Event Operations Notebook for a specific event.

Incident commanders are responsible for the health and safety of participants during an event. The Special Event After Action app provides useful visualization tools to see both how incidents occurred and how field personnel responded. This information can be used to further examine specific incidents and help plan for future events.

Use the below workflow after you run the Special Event Operations Notebook to create an After Action application to configure time and additional settings.

1. In your ArcGIS organization, navigate to the folder created for you event and open the Special Event After Action app item and **Edit Application**.
2. Click **Widget**.
3. Click **Time Slider** and click **Configure this Widget**.
4. Click Configure time settings and adjust as appropriate.
5. Click on Header Controller then choose the **After Action Report** widget and update the layer to the **<Event Name Date> - Assignments**.
6. Staying in the Header Controller, choose the **Find Personnel** widget and update the layer to the **<Event Name Date> - Tracks**.
7. **Save** and then **Launch** the application.

The application is a historical archive of the special event and can be used to animate assignments and track locations. Repeat this workflow for each event.

# Use Special Event Permitting and Operations

Special Event Permitting and Operations can be used by local governments to collect and organize permit apps, develop event site maps and health and safety plans, coordinate the permit review process, share event information with the public, monitor public health and safety operations, and create after-action reports.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

**Note:**

Use your organization's data or configured apps to follow these workflows.

## Manage event permits

Special events start with private or nonprofit organizations that request an event permit from the local authorities. Typically, this permit request is submitted in hard copy or a fillable form that is received by a special event coordinator. The coordinator is then often responsible for delegating the review process to stakeholders from many departments. Often this process is further encumbered by paper or email delays.

In this workflow, you'll learn how to create and manage special event permits.

### Apply for a special event permit

You will start by assuming the role of an event organizer who needs to submit a permit app to a local government for approval. You are asked to use the Special Event Permit survey to apply for an event permit and submit a site map along with your app.

1. In a browser, go to your Special Event Permit survey.
2. In the Special Event Permit survey, fill in the following details on the first page:

Parameter	Value
<b>Enter the name of the special event</b>	Type 5K for the Local Animal Shelter.
<b>Select an event type</b>	Type Competition or Race.
<b>Description of Event</b>	Type A great event to be had by everyone benefiting animals in need.
<b>Open to the public</b>	Select <b>Yes</b> .
<b>Estimated Attendance</b>	Type 1000.

3. At the bottom of page 1, click **Next**.



4. Complete the remaining event permit pages. Select an event start date one week from today in the morning and ending in the evening of the same day. On page 8 of the event survey, provide the following information:
  - For **Event location**, type a name of a local park.
  - For **Locate the event on a map**, type the name and city of the local park and zoom to the location.
  - For **Event Site Map**, Browse to a local file and attach a diagram an event organizer would use to describe the setup of an event.
5. At the bottom of the page, click **Next**.
6. On page 9, sign the permit app.
7. Click **Submit**.

## Submit an internal event

In some cases, an event may be hosted by your own organization, so there is no need to fill out the full permit. In that case, you can use a shortened version of the permit that represents the internal submission.

1. In a browser, go to your Special Event Permit survey.
2. At the end of the URL, add `&field:submittype=Internal`.  
Your URL parameter should look like the following:  
`https://survey123.arcgis.com/share{YourItemID}?portalUrl={YourPortalURL}&field:submittype=Internal`  
The internal event permit will not contain as much detail as a sponsored event.
3. Fill out the survey with a new event and submit it.

## Coordinate a permit review

Now, you will assume the role of an event organizer in the same local government. You are asked to coordinate the review process and notify other government departments when a special event permit has been submitted. You will review the permit app and update the status of the permit.

1. In a browser, go to the Special Event Permit Manager app.
2. Click the **Permit Status** column filter and select **Submitted**.
3. Select the event you created in the Special Event Permit survey.
4. In the **Info** panel, scroll down and click **Review Permit Application**.  
The permit app that was submitted by the organizer opens, which allows further review of the app, permit updates, and email communication with the organizer.
5. Close the **Special Event Permit** survey.
6. On the **Info** tab, click the edit button and click **Edit** to edit the event status.

### Note:

As a special event coordinator, you can track the permit status throughout the review life cycle and identify when site and operations maps have been created.

7. For **Permit Status**, choose **Under Review**, and click **Save**.

## Prepare site plans

The event site map is the foundation of the event. It provides a common reference for planning, operating, and promoting each event. It can also include the event location, event assets, designated areas, and routes required to conduct the event. The Special Event Site Map allows coordinators or safety planners to quickly add these assets to the map for an event.

In many cases, events are reoccurring and have similar setups year after year. The Copy Previous Site and Operations Maps notebook allows you to create a new event using a previous site map as a starting point. Modifications can then be made and added to the site map for the new event.

In this workflow, you'll learn how to create and copy site maps as well as notify others when maps are ready to be reviewed.

## Create a site map

You will start by assuming the role of an event organizer who needs to create an event site map for a permit app. You are asked to use the Special Event Permit Manager to locate a permit app and the Special Event Site Map to create a site map.

1. In a browser, go to the Special Event Permit Manager app.
2. Click the **Permit Status** column filter and select **Under Review**.
3. Select the event you created in the Special Event Permit survey.
4. In the **Info** panel, scroll down and click **Edit Site Map**.

This opens the Special Event Site Map app and zooms to the submitted event permit's location. It also filters all related information, so you see temporary features for your event.

5. On the **Create Site Map** dialog box, click **Food Concessions**, and enter the name of a food concession in the Description field below the templates.
6. Click a location on the map within the park.

### Note:

The Event Identifier field is passed automatically from your filter selection in the Select Event widget and cannot be edited.

7. Click **Save**.
8. Repeat steps 6 and 7 for each event asset, route, and area you want to add to your site map.
9. After completing your site map, click **Save**, and close the Special Event Site Map.

## Copy event maps from the previous year (optional)

Many times, reoccurring events will use similar site and operations maps from one year to the next. For instance, an annual 5k run will have a similar route, food concessions, and public safety support locations. Re-creating the site map every year can be time-consuming. In this workflow, you will learn how to copy event maps from a previous year and update the maps when necessary.

You will continue assuming the role of an event organizer. You are asked to use the Special Event Permit Manager and the Copy Previous Site and Operations Maps script to create a copy of the previous year's site map and operations maps.

### Note:

To execute the Copy Previous Site and Operations Maps script, the event organizer must have access to the ArcGIS Notebooks item. In addition, you need at least two events (see the Create a special event section). The first event's status must be set to **Archived** and should have an associated site map. The new event should have the status set to **Under Review**. Do not use the event you have already approved above as it will be used in the subsequent steps.

1. In a browser, go to the Special Event Permit Manager app.
2. Click the **Permit Status** column filter and select **Under Review**.
3. In the Special Event Permits table, select the event you created in the Special Event Permit survey.
4. In the **Info** panel, scroll down and click **Copy Previous Site/Operations Maps**. An ArcGIS Notebooks app appears in a new tab and may prompt you to sign in.
5. Click **Cell** and choose **Run All**.
6. In the **Archived** drop-down list, choose a previous event that already has a site map.
7. In the **New Event** drop-down list, choose the new event that does not have an associated site map.
8. Click **Copy Previous Site/Operations Maps**.
9. When the script completes, return to the Special Event Permit Manager and select the event in the Special Event Permits table.
10. Click **Edit Site Map** and verify the new site map is complete.

### Note:

You may also want to verify that the Special Event Operations Map is complete.

11. Make any required modifications to the site map and click **Save**.

## Notify permit reviewers

You will continue assuming the role of an event organizer. You are asked to use the Special Event Permit Manager to update the permit app and notify internal stakeholders that the proposed event is ready for review.

1. In a browser, go to the Special Event Permit Manager app if you do not have it open already.
2. Click the **Permit Status** column filter and select **Under Review**.
3. In the Special Event Permit table, select the event you created in the Special Event Permit survey.
4. In the **Info** panel, scroll down and click **Edit**.
5. Locate the **Site Map Complete** field, choose **Yes**, and click **Save**.
6. On the **Info** tab, click **Notify Reviewers**.
7. Copy the hyperlink from the email and paste it in a new tab in your browser.

### Note:

You will send this email to the permit review staff members who participate in your permit review process.

8. Close your email client.

### Note:

If your email client does not open when you click the **Notify Reviewer** button, ensure that your default email client is configured.

## Inform stakeholders

As the number and size of local special events increase, so does the impact on public infrastructure and resources. Executives from a local government need to see a comprehensive impact to the community. Key indicators, such as events serving alcohol, displaying fireworks, or requiring road closures can show the impact on public safety or public works resources. The Special Event Permitting and Operations solution provides a Special Event Permit Dashboard to allow executives to see a historical context of all events and where they are in the approval process, and filter by event type.

Public attendance to an event can be dependent on how well it is promoted. The Promoting Special Events ArcGIS Hub site allows your community to have a branded destination to promote events as well as other places to visit, such as museums or popular restaurants. A member of the general public can view the Special Event Calendar to find a specific event of interest to them, with an associated detailed site map of the event.

In this workflow, you'll learn how to update and monitor special event permits as well as view the special events in your community.

## Gather feedback from internal stakeholders

Event permits are typically reviewed by several different government departments or agencies. Incorporating feedback from the internal stakeholders before the permit is approved is critical. In this workflow, you will learn how to review a permit app and offer comments. You will also learn how to review a summary of all comments provided during the review process.

You will start by assuming the role of a permit review staff member (for example, public works director, planning director, or incident commander). You are asked to use the Special Event Permit Review app to review an event permit app and the site map and offer any comments.

1. In a browser, go to the Special Event Permit Review app.
2. In the list of special events, select the event you created in the Special Event Permit survey, or select another special event.

The Special Event Permit Review app should specify the event from the email in the Notify permit reviewers section in the Prepare site plans workflow.

3. Click **View Permit Application** to review details found in the permit app. Close the Special Event Permit survey after you have finished reviewing the app.
4. Click the **Add a comment** button and fill in the following details:

Parameter	Value
<b>Organization</b>	Select <b>Public Works</b> .
<b>Comments</b>	Type Concerned that additional roads need to be blocked.
<b>Any Instructions</b>	Type Approved contingent on additional road blocks.
<b>Action</b>	Select <b>Approved</b> .

5. Click **Submit** and close the Special Event Permit Review app.

Now you will assume the role of an event coordinator. You are asked to use the Special Event Permit Manager app to review comments provided by the permit review staff to approve or deny the permit app.

1. In a browser, go to the Special Event Permit Manager app if you do not have it open already.
2. Click the **Permit Status** column filter and select **Under Review**.
3. Select the event you created in the Special Event Permit survey or select another event.
4. In the **Info** panel, click the **Comments** tab.

Comments may be provided by the permit review staff. In some cases, the comments may require you to update the site and operations maps or contact the event organizer to alter their plans for the event.

5. Click **Edit** in the **Info** panel and scroll down to **Permit Status**.
6. Select **Approved** and click **Save**.
7. On the **Info** tab, click **Notify Organizer**.

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The email is directed to the person who originally applied for the permit and the event organizer. The email includes a link to the original permit app and the site map that can be viewed for reference.

8. Close your email client.

## Monitor event permit applications

Many organizations are seeing a growing number of events in their community. As a result, event executives need to monitor the status of the event permit process and understand which events are occurring throughout the community.

In this workflow, you will assume the role of an event executive. You are asked to use the Special Event Permit Dashboard to monitor the special event permit program, review key indicators, and get an understanding of the type of events scheduled in the community.

1. In a browser, go to the Special Event Permit Dashboard.
2. In the left panel, click the **Status** filter and select **Under Review**.
3. Review the list of permits and indicators.
4. Select an event from the list and review additional event information.
5. Click the graph to filter events by month.

This filter can be useful to review a list of events planned for a given month (for example, October).

## Share events with the public

Special events have become an important factor in local economies by attracting participants and spectators from outside the community to events such as 5k fun runs, marathons, outdoor concerts, and arts and crafts festivals. In some cases, local governments hosting similar special events are competing with each other for event participants that help support the local economy. Therefore, promoting and marketing local events is important.

Finally, you will assume the role of a resident or member of the public. You are interested in events happening in your community and will use an ArcGIS Hub destination on your community's website along with the Special Event Calendar app to discover upcoming events.

1. In a browser, go to the Promoting Special Events ArcGIS Hub site. In the **Things to Do** section, click **Learn more** to open the Special Event Calendar app.
2. If you know the name of the event you are interested in, you can search for it by name in the left panel. Otherwise, click the **Date** filter and enter the date range you are interested in.  
Select a date range that aligns with the event you entered in the Special Event Permit survey.
3. Click an event type to further refine the results.
4. Review the list of events occurring in the community.
5. Select an event from the list and review additional event information.
6. Click the **View Event Map** link and review assets (for example, entrances, road blocks, and vendors) placed for the event.

**Note:**

For larger events, it may be useful to search for an event asset.

7. After reviewing the Special Event Site Map Viewer, close it and return to the Special Event Calendar.

## Prepare operations plans

The Special Event Operations Map allows safety planners to add all relevant health and safety resources and perform high-level risk assessments. It can be used to locate isolation areas or set up plexiglass barriers at ticket counters or food vending booths. In addition, it can be used to calculate the number of people allowed in each space using Centers for Disease Control and Prevention (CDC) guidelines. Event staff can use a real-time counter at entrances and exits for each venue to maintain a safe environment for everyone.

In addition, public safety staff can add resource assignments, road closures, traffic restrictions, and estimates of crowd sizes to guide field personnel assignments. Optionally, planners can create a reference grid for field staff supporting the event, conduct a visibility assessment for high-risk locations, or identify areas impacted by a potential bomb explosion or chemical spill.

In this workflow, you'll learn how to create operations maps and copy events from previous years.

## Coordinate with public safety event planners

You will start by assuming the role of an event organizer who needs to coordinate with public safety event planners. You are asked to use the Special Event Permit Manager to locate a permit application and notify the public safety event planners that a health and safety plan is needed for this event.

1. In a browser, go to the Special Event Permit Manager app.
2. Click the **Permit Status** column filter and select **Under Review**.
3. Select the event you created in the Special Event Permit survey, or select another event.
4. On the **Info** tab, click **Edit Operations Map**.  
A new email message opens with the link to the event operations map.
5. Copy the link from the email and paste it in a new tab in your browser.

**Note:**

For larger events, it may be useful to search for an event asset. You will send this email to public safety event planners who participate in your permit review process.

6. Close your email client.
7. Once the Special Event Operations Map is complete, scroll down and click **Edit**.
8. Locate the Special Event Operations Map **Complete** field and choose **Yes**.



## Develop a health and safety plan

Next, you will assume the role of a public safety event planner who needs to develop a health and safety plan for an event. You are asked to use the Special Event Operations Map to create an operations map of public safety resources and conduct a high-level threat analysis.

1. In a browser, go to the Special Event Operations Map app.

### Note:

When the public safety event planner opens the email sent by the event organizer, the event identifier and the plan identifier fields are passed automatically to the **Select Event** widget and should not be edited.

2. Click the **Basemap** widget and select **Imagery**.
3. Click the **Create Operations Map** widget and search for PPE Station.
4. Place a personal protective equipment (PPE) station on the map and enter details for the health and safety asset.
5. Search for Hand washing Station, place it on the map, and enter details for the event asset.
6. Repeat step 5 for each health and safety asset, route, and area you want to add to your operations map.
7. Search for Road Blocks, place two on the map, and enter details for each of the road blocks.
8. Click **Save**.
9. Select **Social Distancing Crowd Areas** from the drop-down list at the top of the **Create Operations Map** widget.
10. Draw an area on the map and double-click to complete the sketch.
11. For **Area name**, type Vendor Area.  
The **Area name** value must be unique.
12. For **Max Capacity**, type 100 and click **Save**.

### Note:

The area on the map will be labeled with the number of people who can safely enter an area of this size based on CDC social distancing guidelines. Adjust the maximum capacity or area size, if necessary.

13. Select **Crowd Estimates** from the drop-down list at the top of the **Create Operations Map** widget.

### Note:

Crowd estimation is determined by the Jacobs method. The high, medium, and low values of crowd estimation appear on the map.

14. Draw an area on the map and double-click to complete the sketch.

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15. For **Description**, type Crowd Area for Concert.
16. Click **Save**.
17. Search for Medical Tent, place it on the map, and enter details for the event asset.
18. Finally, search for On Foot, place three public safety resources on the map, and enter the following details for each resource:

Parameter	Value
<b>Point of Contact</b>	Type an officer's name.
<b>Point of Contact Phone</b>	Provide a unique phone number for each officer.
<b>Comments</b>	Type Public Safety support for Humane Shelter Event.

19. After completing your health and safety operations map, click **Save**.

## Conduct high-level threat analysis (optional)

The Special Event Operations Map includes a series of tools that can be used to define the impact of an incident (chemical or other threat) on event assets and resources. As you complete the health and safety plan, you may be asked to conduct a high-level threat analysis and identify the impact on your event operations plan.

1. In a browser, go to the Special Event Operations Map app.
2. Click the **Gridded Reference Graphic** widget to create a reference grid that can be used in large outdoor events. Define the location of the grid from a point or area. Click **Create GRG**.
3. To identify the impact of a chemical incident and create a potential evacuation area, click the **Emergency Response Guide** widget. Select the location, material, and size of the accident along with the wind direction and time. Click **Create Zones**.
4. Click the **Threat Analysis** widget to identify the impact of other threats. Select the location, type of threat, and size of the accident. Click **Create Zones**.
5. Finally, to identify the impact of an incident on event assets and resources, click the **Situational Awareness** widget. Select the location and the distance impacted, and click a location on the map.

After using the **Gridded Reference Graphic**, **Emergency Response Guide**, or **Threat Analysis** widgets and publishing the derived layers, you can associate the layers with the event so they can be used in other event operations apps.

6. Select a health and safety resource you added earlier and copy the event identifier.
7. Click the **Assign Event Identifier** and select the features generated by the previously identified widgets. Enter the event identifier and click **Save**.

# Conduct health and safety operations

The Special Event Permitting and Operations solution provides a complete set of capabilities that improve the efficiency and effectiveness of public safety personnel working at special events by enabling public safety personnel with tools to capture information from the field to share with commanders in a synthesized operational picture in real time.

In this workflow, you'll learn how to use a collection of maps and apps to support incident commanders and site staff to visualize, monitor, and communicate real-time status during an event as well as visualize incident response after an event has occurred.

## Deploy event operations apps

Public safety event planners and incident commanders need a unique set of maps and apps for each event. The unique maps and apps allow them to manage personnel assignments, activities, and incidents during an event and conduct after-action reviews that help them improve planning for future events. Each event requires the following:

- Unique apps for incident commanders, firefighters and emergency medical technicians, law enforcement officers, event dispatchers, health and safety officers, cleaning staff, and site staff
- The ability to monitor the location field personnel assigned to an event
- An incident tracking and assignment system that can be used onsite at the event
- Maps that show relevant event assets and public safety resources assigned to an event

You will assume the role of a public safety event planner. You are asked to use the Special Event Operations Notebook to create a copy of the event operations apps for a unique event.

### Note:

This workflow requires you to sign in to your ArcGIS organization, and the Special Event Permitting and Operations solution must be deployed.

### Note:

You must be assigned a role of Administrator or custom role which includes the privilege to Create and edit notebooks in order to run an ArcGIS Notebooks and complete the following steps.

1. In a browser, go to the Special Event Operations Notebook and review the instructions provided with ArcGIS Notebooks.
2. Click the **Cell** menu and click **Run All**.
3. Under **Select a Special Event to deploy Operations applications**, click the **Select an Event** drop-down arrow, and choose your event.
4. Click **Deploy Special Event Operations**.

The creation of the event operations apps takes a few minutes to complete.

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- When the progress bar is complete, click **View Deployed Event Operations**.  
A collection of new event operations apps opens.

## Report activity and track locations from the field

During an event, public safety staff and site staff collect field observations that are used to protect the health and safety of event attendees. In addition, the ability to quickly identify the location of field personnel is critical during the event. Dispatchers and incident commanders need to see a map with the location of their staff to determine who should respond to specific incidents.

You will assume the role of a firefighter, emergency medical technician, or law enforcement officer who needs to report suspicious activity or a safety concern observed at the event. You are asked to use the Special Event Field Reporter map to report the suspicious activity or safety concern. Your location will also be tracked so dispatch has the ability to see resources as they receive calls.


- Download ArcGIS Field Maps onto your mobile device.
- Open the app on your mobile device, and sign in to your organization.
- Tap **{Event Name} Special Event Field Reporter** to open it.
- Tap **Add** and tap **Suspicious Activity**.
- Fill in the following details:


Parameter	Value
<b>Description</b>	Select <b>Suspicious Activity</b> .
<b>Notes</b>	Type Backpack left at location with no owner to be seen for 20 minutes.
<b>Enter address, or generic description.</b>	Type Behind bbq vendor tent..

- Optionally, add an image or picture.
- Locate the field report on the map.
- Click **Submit**.

## Assign mobile personnel

Public safety staff working at the event can use the mobile apps in the next steps to track their locations and collect field operations. To accomplish this, they will need a named user login and access to the applications utilized later in the workflow. The following steps will grant users access so they can utilize the apps and share their location. Note, before proceeding, make sure all users have the [ArcGIS account requirements](#) for location tracking.

- Verify that you are signed in to your ArcGIS organization and click the **Apps** button  in the header of the site.
- From the app launcher, click Workforce to open the app.
- Under **Projects**, hover over the {Event Name} Special Event Manager and click **Configure**.

4. Click the **Users** tab.
5. Follow the instructions to either manually add Mobile Workers or Add workers from a file.
6. Optionally, add additional Dispatchers to the Workforce Project.  
Users added to the Workforce Project will now be able to open the Workforce app on their mobile device to receive assignments from the dispatcher as described later.
7. When finished, return to your ArcGIS organization and click the **Apps** button  in the header of the site.
8. From the app launcher, click **Track Viewer** to open the app.
9. Under **Projects**, hover over the {Event Name}\_track view and click **Configure**.
10. Click the **Select to add mobile users dropdown**. Under Workforce project (import workers), select **{Event Name} Special Event Field Manager**.
11. Click **Add**.
12. Optionally, add additional Track Viewers that can view the location of mobile personnel in the Command Center application described later.  
Users added to the track view, will now be able to share their location when using the Field Maps app on their mobile device described later. Repeat the above process as you have additional personnel added to support the event.

## Manage field assignments

It's common for minor incidents such as traffic accidents, medical calls, or disorderly spectators to occur during a special event. Often these incidents are reported by radio or 911 calls to a dispatcher in the event command center.

Now, you will assume the role of an event dispatcher who needs to assign field reports or other incidents to field staff. You are asked to use the Special Event Command Center to assign the suspicious activity or safety concern to a firefighter, emergency medical technician, or law enforcement officer.

### Note:

This workflow requires you to be signed in to your ArcGIS organization and have the Special Event Permitting and Operations solution deployed.

1. In a browser, go to the **Special Event Operations Gallery** and click the Special Event Command Center for your event name and date.
2. Click **Dispatch** to create assignments.
3. Click the **Suspicious Activity** assignment in the list.
4. Select **Assign** and choose a mobile worker from the drop-down menu.
5. Click the **Search** bar and type an address or name of a special event asset such as a concession stand.
6. Click **Special Event Assets: 1 Result feature** and click **Create assignment**.
7. In the new assignment, fill in the following details:

Parameter	Value

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<b>Assignment Type</b>	Select <b>Medical Response</b> .
<b>Assign</b>	Choose a mobile worker from the drop-down list.
<b>Description</b>	Type Citizen reporting heat exhaustion and has collapsed.
<b>Priority</b>	Choose <b>High</b> from the drop-down list.
<b>Due Date and Time</b>	Select a time on the same day of the event.

8. Click **Create Assignment**.

Field personnel can open the ArcGIS Workforce app on their mobile device and see their assignments.

In many cases field personnel will be too busy to examine their assignments on their phone and communication will be done via radio. In this case, the dispatcher may want to close the assignments to take them off the active list.

9. In the Special Event Command Center click **Dispatch > Update Status**.

10. Click **Freehand Polygon** and draw a polygon to select some Assignments.

11. In the **Update Assignment Status** dialog change the Status to Completed.

This will mark the assignments as Closed and not appear as an active assignment for the field personnel to work. You will see the assignment status in the Dispatch console and dashboards later in the workflow.

## Track cleaning and stocking status

You will now assume the role of janitorial staff. You are asked to use the ArcGIS Field Maps mobile app to update the status of locations after you clean, disinfect, or last restocked them with PPE.

1. Download ArcGIS Field Maps onto your mobile device.
2. Open the app on your mobile device and sign in to your ArcGIS organization.
3. Choose **Cleaning and Restocking Map**.
4. Choose a station for **PPE Station**, choose **Cleaning and Restocking Status** in the pop up, and click the **Add** button.

**Note:**

The space under the **Add** button displays all historical status records for a location, so as a station is restocked with PPE, a user can review this list to see when it was last restocked and how much PPE it was restocked with.

5. Choose **status**, choose **Re-stocked**, and add the number of boxes stocked of each PPE type.
6. Choose **Submit**.

## Monitor event operations

Incident commanders need real-time information on the location of incidents and staff as well as incoming weather and traffic information to make informed decisions during an event. The Special Event Operations Dashboard can be used in the command center on the day of the event.

1. In a browser, go to the Special Event Operations gallery app.
2. Click the name and date of your event Special Event Command Center.
3. On the **Monitor** tab, **Tracked Units**, **Units on assignment**, and **Last Known Locations** provide up-to-date location information of staff and assignments.
4. Click **Open incidents within the last hour** and choose an incident.
5. Click the **Post Locations** dropdown under Monitor to see post location versus the actual location of staff.
6. Click the **Weather** dropdown under Monitor to see real-time weather radar information.
7. Click the **Traffic** dropdown under Monitor to see real-time traffic and road closure information.
8. Click the **Sanitation** dropdown under Monitor to see real-time cleaning and restocking status for PPE stations, high-touch locations, and other health assets.
9. Close the app.

## Conduct after action briefings

Incident commanders are responsible for the health and safety of participants during an event. The Special Event After Action app provides useful visualization tools to see where incidents occurred and how field personnel responded. This information can be used to further examine specific incidents and help plan for future events.

You will assume the role of an incident commander. You are asked to use the Special Event Operations Notebook. This uses the tracks captured from ArcGIS Field Maps app, which includes the site map, operation plans, assignments, incidents, and historical staff locations from the event.

1. In a browser, go to the Special Event Operations Notebook and review the instructions provided with ArcGIS Notebooks.

### Note:

If ArcGIS Field Maps has not been used to create tracks, the notebook will not be able to create the After Action app.

2. Click the **Cell** menu and click **Run All**.
3. Under **Select a past Special Event to deploy After Action application**, click the **Select an Event** drop-down arrow and choose your event.
4. Click **Deploy After Action application**.

**Note:**

The creation of the event operations apps takes a few minutes to complete.

When you deploy this app, you create an instance of the Special Event After Action app displaying information for the selected event only and create a historical tracks of field personnel and workforce assignments for the event.

5. When the progress bar is complete, click **View Deployed Event After Action** and choose your event.
6. In the Special Event After Action app for your event, hover your mouse pointer over the time slider at the bottom of the map and click the pause button.
7. Adjust the time slider to see when and where incidents occurred and when and where staff responded.

**Note:**

If the map does not animate based on time, the incidents may be outside the time extent of the event. For more information see the [Configure After Action app](#) topic.

8. Click the **After-Action Report** button, click the rectangle, draw the reporting area, and click the **Report** button.
9. Click the **Print** button, choose the print layout, and click the **Print** button again to create a report containing the visible map and incidents during the event.
10. Click the **Download** button, choose **CSV**, and click the **Download** button again to create a CSV file containing the incidents during the event.

# Vaccine Coverage Analysis

This solution documentation has been archived and is no longer updated. Content and links may be outdated. The capabilities have been replaced with [Immunization Outreach](#).

Mature phase Mar. 2023 – Feb. 2025	Retired phase Mar. 2025
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## Introduction to Vaccine Coverage Analysis

Vaccine Coverage Analysis can be used to identify underserved populations and optimize plans for disease vaccination sites.

Comprehensive vaccination coverage is one of the most effective ways to stop a pandemic and reopen communities. Communities of color and socioeconomically vulnerable areas are disproportionately burdened when vaccinations are available but underutilized. Identifying areas of low vaccination rates and vulnerable populations can help ensure equitable vaccine distribution. Vaccine Coverage Analysis is typically implemented by health and human services or public safety agencies that want to optimize the location of vaccination sites, maximize limited resources, and ensure communities affected the most have access to vaccines.

The Vaccine Coverage Analysis solution delivers a set of capabilities that help you identify priority and underserved populations, locate optimal vaccination sites, and share vaccine site information with internal and external stakeholders.

## Requirements

Vaccine Coverage Analysis requires the following:

- ArcGIS Online
- ArcGIS Pro 2.7–ArcGIS Pro 2.9 (Advanced)
- ArcGIS Geostatistical Analyst extension

## Information products

Vaccine Coverage Analysis includes the following information products:

Item	Description	Minimum user type
Vaccine Coverage Analysis	An ArcGIS Pro project used by health and human services analysts to identify priority and underserved populations, locate optimal vaccination sites, and share vaccine site information with internal and external stakeholders	GIS Professional Advanced

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## Release notes

The following are the release notes:

Version	Description
1.2	An update to the Vaccine Coverage Analysis ArcGIS Pro project to resolve a bug in the Create Ranked Surface tool.
1.1	Added support for single dose vaccines and revised vaccination rate calculation.  Resolved an issue in the Configure Existing Sites model that prevented the Append tool from functioning properly in ArcGIS Pro 2.8.
1.0	First release of Vaccine Coverage Analysis

# Use Vaccine Coverage Analysis

The Vaccine Coverage Analysis solution delivers a set of capabilities that help you identify priority and underserved populations, locate optimal vaccination sites, and share vaccine site information with internal and external stakeholders.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

## Identify coverage gaps

Priority populations and vaccine rates can be used to identify underserved populations quickly using the Vaccine Coverage Analysis project. Current vaccination statistics collected from vaccination sites and priority populations will help you identify areas that have low vaccination rates and high-priority populations.

You will start by assuming the role of a health and human services analyst. You are asked to use the Vaccine Coverage Analysis project to identify underserved populations.

1. Sign in to your ArcGIS organization and browse to the Vaccine Coverage Analysis Desktop Application Template.
2. Open the item page and click **Download**.
3. Unzip and open the Vaccine Coverage Analysis ArcGIS Pro project.
4. On the **View** tab, in the **Windows** group, click **Catalog Pane**.
5. In the **Catalog** pane, expand the **Tasks** folder, and double-click the **Vaccine Coverage Analysis** task.
6. In the **Tasks** pane, click the **Identify underserved populations** task group to expand the collection of tasks.
7. In the **Tasks** pane, double-click the **Prepare vaccination and priority population** task and follow the steps provided.
8. Double-click the **Create coverage map** task and follow the steps provided.
9. Double-click the **Evaluate current vaccine distribution by drive time** task and follow the steps provided.

## Locate vaccination sites

The best vaccination sites can be quickly located with the Vaccine Coverage Analysis project. Use the previously identified coverage gaps and a list of candidate sites to locate new sites in your community.

You will continue to assume the role of a health and human services analyst. You are asked to use the Vaccine Coverage Analysis project to select the best vaccination sites from a list of candidate sites that meet needs defined in the vaccine gap analysis.

1. Open the Vaccine Coverage Analysis ArcGIS Pro project.  
On the **View** tab, in the **Windows** group, click **Catalog Pane**.
2. In the **Catalog** pane, expand the **Tasks** folder, and double-click the **Vaccine Coverage Analysis** task.
3. In the **Tasks** pane, click the **Locate vaccination sites** task group to expand the collection of tasks.

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4. In the **Tasks** pane, double-click the **Identify potential distribution sites** task and follow the steps provided.
5. Double-click the **Select new points of distribution** task and follow the steps provided.

# Warming and Cooling Centers

This solution documentation has been archived and is no longer updated. Content and links may be outdated. The capabilities have been replaced by [Emergency Management Operations](#).

Mature phase Nov. 2023 – Oct. 2025	Retired phase Nov. 2025
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## Introduction to Warming and Cooling Centers

Warming and Cooling Centers can be used to inventory temporary shelters that are established when extreme cold or heat becomes dangerous to public health and share this information with the public.

It provides a comprehensive inventory of temporary shelters, including public, nonprofit, and private shelters, that can be shared with the public. This collaborative approach provides a single inventory of facilities that provide relief from potentially dangerous conditions and ensures there are facilities available to meet community demand. Warming and Cooling Centers is typically implemented by emergency management agencies that want to develop a comprehensive inventory of shelters available in a community and share available resources with the public.

The Warming and Cooling Centers solution delivers a set of capabilities that help you source the locations of warming and cooling centers from community partners, review each center to ensure they meet health and safety requirements, and share the locations of the temporary shelters with the public.

## Requirements

Warming and Cooling Centers requires the following:

- ArcGIS Online

## Information products

Warming and Cooling Centers includes the following information products:

Item	Description	Minimum user type
Warming and Cooling Center Reporter	A Crowdsource Reporter app used by community members to identify the location of warming and cooling centers used during extreme weather conditions.	Not required
Warming and Cooling Center Manager	A Crowdsource Manager app used by health and safety agencies to manage warming and cooling center locations submitted by community members.	Editor
Warming and Cooling Center Locator	A configuration of the Nearby app used by the general public to locate designated warming and cooling centers near a given location.	Not required

## Release notes

The following are the release notes:

Version	Description
1.0	First release of Warming and Cooling Centers

# Configure Warming and Cooling Centers

Warming and Cooling Centers can be used to inventory temporary shelters that are established when extreme cold or heat becomes dangerous to public health and share this information with the public.

In this topic, you'll learn how to configure the Warming and Cooling Centers solution to meet specific needs of your organization.

## Load data from a spreadsheet

If you already have a list of warming and cooling facilities that you want to use in your Warming and Cooling Centers solution, you can load them into the feature service provided.

To load data from a spreadsheet, complete the following steps:

1. Sign in to your ArcGIS organization and browse to the feature layer that you want to populate.
2. From the item page, click **Update Data**.
3. Follow the steps in the **Update layer** wizard to load your data.

## Configure directions (optional)

Warming and Cooling Center Locator app can be configured to provide directions to the nearest warming and cooling centers. When directions are configured the routing service will consume credits.

Complete the following steps to connect to a routing service and configure the app to enable directions:

1. If necessary, sign in to your ArcGIS organization and browse to the Warming and Cooling Center Locator app.
2. From the item page, click **Configure**.
3. Close the **Welcome to the App Setup Page** splash page, if necessary.
4. Click **Nearby > Options** and turn on the **Show directions** toggle button.
5. Check the check box next to the **Cooling Centers** and **Warming Centers** layers.
6. Click **Publish**.
7. Click **Confirm**.
8. The **Authorize premium content** window appears with information related to authorization.
9. Click **Authorize**.
10. Click **Launch**.

# Use Warming and Cooling Centers

The Warming and Cooling Centers solution delivers a set of capabilities that help you source the locations of warming and cooling centers from community partners, review each center to ensure they meet health and safety requirements, and share the locations of the temporary shelters with the public.

In this topic, you'll learn how to use the solution by assuming the role of a user and performing the workflows below.

## Note:

Use your organization's data or configured apps to follow these workflows.

## Report warming and cooling centers

The Warming and Cooling Center Reporter app can be used by community organizations to identify warming and cooling centers in public facilities such as libraries, schools, churches, or community centers.

In this workflow, you will assume the role of a community member who is reporting a facility to be used as a warming or cooling center.

### Add centers to the map

1. In a browser, from the Warming and Cooling Centers solution, view the Warming and Cooling Center Reporter app.
2. Click **Proceed as Guest**.
3. At the lower right, click **Report a Center**.
4. For **Location**, click the map or type a valid address to add a new center.
5. Complete the report with as much information as possible.
6. Click **Report It**.


## Manage warming and cooling centers

Since some of the locations may be temporary, you may need to change operational days or hours. In addition, you may want to inspect newly reported centers before sharing them with the public.

### Manage locations

Next, you'll assume the role of the health and human services employee who is in charge of managing warming and cooling centers and their availability in the community.

1. In a browser, sign in to your ArcGIS organization, and then browse to the Warming and Cooling Centers solution.
2. View the Warming and Cooling Center Manager app.
3. Warming and cooling centers are listed in the table at the top.

4. From the table, select the center that you created in the previous step. The center's details open at the lower left.
5. In the details, click the **Edit record** button .
6. For **Public View**, choose **Yes**.
7. Scroll down and click **Save**.

## Locate warming and cooling centers

The Warming and Cooling Center Locator app can be used by the public and engaged organizations to locate warming and cooling centers. Search for an address or click the map to locate a center near this location.

### Find a service

Now, you'll assume the role of a person who needs a warming or cooling center.

1. In a browser, from the Warming and Cooling Centers solution, view the Warming and Cooling Center Locator app.
2. The Warming and Cooling Center Locator app shows all centers in the community.
3. On the left, in the search field, search for a location.  
Warming and cooling centers closest to that address appear.

**Tip:**

To see more results, move the slider to increase the search radius.

4. On the left, expand **Cooling Centers** or **Warming Centers** to see specific results.
5. In the panel, point to a result to see it highlighted on the map or click a point on the map to jump to the center's information in the panel.
6. If applicable, click **Directions** to show directions to the facility.