

Introduction to Election Management

Election Management can be used to manage election day activities, monitor performance, and gauge voter sentiment.

The elections office is often the smallest agency in a government until Election Day, when it becomes the largest. Aging business systems and volunteer workforces that have varying skill levels present unique challenges. Election offices, in communities large and small, respond to Election Day issues and requests from polling places and voting centers. Issues with computer hardware, facilities, or supplies (for example, ballots, pens, and pencils) impact wait times and confidence in the election process. As a result, timely response from elections staff is imperative. Election Management is typically implemented by clerks, election commissions, or secretary of state offices that want to run efficient elections and increase confidence in the voting process.

The Election Management solution delivers a set of capabilities that help you report wait times and request assistance at voting centers and polling places, dispatch field staff to respond to requests, monitor the performance of voting locations, and gauge the satisfaction of voters on Election Day.

Learn more about the Election Management solution.

This ArcGIS Solution can be deployed in your ArcGIS organization.

Deploy now

See Deploy an ArcGIS Solution for more information.

Requirements

Election Management requires the following:

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

Information products

Election Management includes the following information products:

Item	Description	Minimum user type
Election Assistant	A Crowdsourcing Polling app used by poll workers to routinely report wait times and request assistance (for example, additional ballots or computer support) at their assigned voting center or polling place	Editor
Election Manager	An ArcGIS Workforce project used by elections staff to manage election day requests for assistance and track the resolution of each request. Field users access the Election Manager project using the ArcGIS Workforce mobile app.	Field Worker
Voter Satisfaction	An ArcGIS Survey123 form used by elections staff to gauge voter	Not required

Survey	satisfaction and sentiment during an ongoing election	
Election Performance Dashboard	An ArcGIS Dashboards app used by elections staff to monitor wait times, requests for assistance, and voter satisfaction during an ongoing election	Viewer
Election Data Management	An ArcGIS Pro project used by mapping technicians to inventory and maintain electoral districts, precincts, voting centers, and polling places	GIS Professional Basic

When you deploy this solution in your ArcGIS organization, you also get an ArcGIS Solution item that organizes the key information products and summarizes all the ArcGIS items (applications, forms, projects, maps, feature layers, feature layer views, and so on) included with the solution. The ArcGIS Solution item also illustrates any dependencies items have on each other.

Configure Election Management

Learn how to configure the Election Management solution to meet specific needs in your organization.

Manage election data

You will assume the role of a mapping technician responsible for maintaining an inventory of electoral districts, voting locations, and voting precincts. The Election Data Management ArcGIS Pro project includes a series of tasks to help guide you through these workflows.

Get started

To get started with Election Data Management, complete the following steps.

- Sign in to your ArcGIS organization and browse to the Election Data Management Desktop Application Template.
- Open the item page and click **Download**.
- Unzip and open the Election Data Management ArcGIS Pro project.
- On the **View** tab, in the **Windows** group, click **Catalog Pane**.
- In the **Catalog** pane, expand the **Tasks** folder, and double-click the **Election Data Management** task item.
- In the **Tasks** pane, click the **Getting Started** task group to expand the collection of tasks.

Election Data Management is used to load, create, and edit foundational election data used in Election solutions such as My Elected Representative, Election Polling Places, and Election Manager. The solution uses three foundational datasets:

- Voting Locations
- Voting Precincts
- Electoral Districts

Voting Locations contains facilities where voters can cast ballots and is defined by a point layer. They can be either polling places or voting centers, depending on your community's needs. Voting centers can be modified to allow early voting.

Voting Precincts contains areas that define your community's precincts and is defined by a polygon layer. They are related to voting locations by a unique ID and define the unique polling place where voters in a precinct should cast ballots.

Electoral Districts contains geographies that define an elected office's area of representation and is defined by a polygon layer. For example, a mayor's Electoral District is the municipal boundary. Key attributes are used in My Elected Representative solution.

Before proceeding to subsequent tasks, follow the instructions in the **Add election geography layer** task to add the ElectionGeography feature layer deployed with the solution.

Load existing election data

Your election agency may have existing polling place, voting center, voting precinct, or electoral district data, which can be loaded into the ElectionGeography feature layer.

Voting Locations are designated as either Polling Places or Voting Centers using the Voting Facility Type field. Both Voting Centers and Polling Places use a standard for operational days and hours in the Voting Centers and Election Polling Places apps included with the Election Outreach solution. To load existing voting location data, designate the type, and format the operation days and hours, follow the instructions in the **Polling places** and **Voting centers** tasks.

The polling precinct's relationship with a polling place is defined by populating the Polling Place ID field with the GlobalID from the corresponding polling place. Establishing this relationship allows the Election Polling Places app and the Election Outreach solution to display the appropriate polling place when a user searches by address or defines a location on the map. Follow the instructions in the **Polling precincts** task to load existing data and establish the relationship.

Follow the instructions in the **Load electoral district** to load existing data.

Create new election data

You may need to create new election data if existing data is not available. Follow the instructions in the **Create new election data** task group to create new voting locations, voting precincts, or electoral districts.

Note:


Map layers must be visible to create new data.

Prepare for next election

Election data changes over time as new voting locations are established, precincts are modified, and election cycles are completed. You must update key fields such as the next election date to maintain election data accuracy and ensure that public facing apps included with the Election Outreach solution display the correct information. Use the **Next election date** and **Early voting data** tasks to update key data fields as election cycles are completed. Use the **Modify voting locations**, **Modify precincts**, and **Modify electoral districts** tasks to edit your election data.

Modify election request types

When poll workers create requests using Election Assistant and the Election Requests form, requests are automatically created as assignments in the corresponding Election Manager Workforce project. Using Election Manager, dispatchers can assign requests to field rovers. Additionally, a dispatcher may need to create an assignment directly without a request from a poll worker. Follow the steps below to add additional request types to the Election Manager Workforce project and the Election Requests ArcGIS Survey123 form.

- 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 **Election Manager** project, and click **Configure**.
- Click the **Assignment Types** tab.
- Enter a new assignment type in the text box, and click **+ Type**. Repeat until all new assignment types have been added.

- In your ArcGIS organization, browse to the Election Manager feature layer.
- Open the item page and click **Open in Map Viewer**.
- On the **Contents** (dark) toolbar, click **Tables**.
- Click **Assignment Types** layer.
- 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.
- Expand the **GlobalID** field and copy each new assignment type's ID.
- Paste the copied GlobalID or GlobalIDs into Microsoft Notepad or another text editor for reference.

Update Election Requests form

Update the Election Requests with each new assignment type.

- Install ArcGIS Survey123 Connect.
- Start ArcGIS Survey123 Connect and sign in to your ArcGIS organization.
- Click **Election Requests** to download the survey.
- In the **Download** window, click **Download** and click **OK**.
- Click **Election Requests** to open the survey.
- On the side toolbar, click the **XLSForm** button.
- In the Microsoft Excel spreadsheet, click the **choices** tab.
This tab comprises all the selectable options for survey questions.
- In the **list_name** column type ASSIGN_TYPE.
- In the **name** column, copy and paste the GlobalID, before and after the GlobalID add curly braces (for example, {5b3e80df-aec7-4739-929f-8cb70cddb62c}).
- In the **label** column, type the assignment type.
- Repeat steps 8 through 10 for each new assignment type.
- Save and close the Microsoft Excel spreadsheet and preview your changes in ArcGIS Survey123 Connect.
- In ArcGIS Survey123 Connect, click **Publish** on the side toolbar to publish your changes.
- Click **Publish survey** to publish your changes and click **OK**.

Update voter satisfaction survey

The Voter Satisfaction Survey allows you to solicit feedback from voters to help you gauge voter sentiment during an ongoing election. In some cases, you may want to add or remove questions from the survey.

- Start ArcGIS Survey123 Connect and sign in to your ArcGIS organization.
- Click **Voter Satisfaction Survey** to download the survey.
- In the **Download** window, click **Download** and click **OK**.

- Click **Voter Satisfaction Survey** again to open the survey.
- In the **XLSForm Modified** window, click **Yes**.
- On the side toolbar, click **Open XLSForm Spreadsheet**.
- In the Microsoft Excel spreadsheet, click the **choices** tab.
This tab comprises all the selectable options for survey questions.
- Click the **survey** tab.
This tab comprises all the questions in the survey.
- Revise the survey to reflect your needs.
- Save and close the Microsoft Excel spreadsheet and preview your changes in Survey123 Connect.
- In Survey123 Connect, click **Publish** on the side toolbar.
- Click **Publish survey** to publish your changes and click **OK**.

Create Election Assistant direct URLs

Election Assistant is accessed through a URL in a web browser. To report a wait time or request assistance, election workers then use either the map or list to select their assigned polling place or voting center. Organizations that have many voting locations may want to provide poll workers a direct URL to the Election Assistant app. You can use a web browser URL parameter to help poll workers by opening the Election Assistant app with the proper voting location already selected.

By adding a facilityid parameter to the app URL, Election Assistant selects the location without user interaction. Ensure each voting location has a unique identifier in the facilityid field in the ElectionGeography feature layer. For example, by adding &facilityid=89 to the app URL, Election Assistant selects facility ID number 89. The full URL is similar to this:

`https://myorganization.maps.arcgis.com/apps/CrowdsourcingPolling/index.html?appid=449f9c890c584c9395a393ad5a541bc6&facilityid=89`

Use Election Management

The Election Management solution delivers a set of capabilities that help you report wait times and request assistance at voting centers and polling places, dispatch field staff to respond to requests, monitor the performance of voting locations, and gauge the satisfaction of voters on Election Day.

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 the links below to try the apps with sample data provided by Esri, or use the workflows as a guide for using your own configured apps.

Report wait times

You will first assume the role of an Election Day poll worker tasked with reporting voter wait times at a regular interval throughout the day.

- In a browser, go to the Election Assistant app.
- Scroll through the list of polling sites and click **Bolingbrook Fire Station #3**.

Note:

You can also select a voting location using the map.

- On the **Bolingbrook Fire Station #3** panel, click the **Report wait time** button.
- In the Election Wait Times form, enter and submit a wait time in minutes.
- Return to the Election Assistant app.

Request assistance

Election officials, in communities large and small, respond to Election Day issues and requests from polling places and voting centers. Issues with computer hardware, facilities, or supplies (for example, ballots, pens, and pencils) are reported by poll workers, triaged by central election office staff, and resolved by field workers. You will assume the role of an Election Day poll worker requesting assistance.

- In a browser, go to the Election Assistant app.
- Scroll through the list of polling sites and click **Bolingbrook Fire Station #3**.

Note:

You can also select a voting location using the map.

- On the **Bolingbrook Fire Station #3** panel, click the **Request assistance** button.
- In the Election Requests form, do the following:
 - In the **Request Type** section, choose **Election Supplies**.
 - In the **How critical is your request** section, click the drop-down arrow and choose **Critical**.

- Add additional details such as **Additional ballots** needed in the **Provide additional details** text box.


Note:

To help the election office understand the request, you can attach images.

- Click **Submit**.

Manage election requests

As requests for assistance are submitted by poll workers, election staff review requests and assign field staff to resolve the request. Now, you will assume the role of a dispatcher who needs to assign field open requests to field staff.

- 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**, click Election Manager to open the project.

Tip:

When implementing the Election Management solution in your organization, add election staff responsible for resolving election requests in the field to the Election Manager ArcGIS Workforce 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 **Election Management** 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.

- In assignments list, click on assignment type header or an election request on the map.
- Review the request details, click **Assign** drop-down arrow and choose a field worker to resolve the issue.
- Click the **Assignments** back button to return to the assignments list.

Resolve election requests in the field

You will now assume the role of a field worker on Election Day. As a field worker, you are responsible for responding to and resolving requests submitted by poll workers. Using the Election Manager Workforce project, you will review and update the status of your assignments.

- Download Workforce for ArcGIS app onto your mobile device.
- Open the Workforce for ArcGIS app and sign in to your ArcGIS organization.
- Tap the Election Manager project.
- Select an assignment by tapping on it in the **To Do** list.
- Tap **Start**.
- Add notes or attachments to the assignment as needed.

- Tap **Finish** to complete the assignment.

Gauge voter satisfaction

You will now assume the role of a voter who wants to help improve the voting experience for the next election by providing feedback on your voting experience.

- In a browser, go to the Voter Satisfaction Survey.
- Click **Yes** to indicate you did vote in the most recent election.
- Click the **Where did you vote** drop-down arrow and choose **Bolingbrook Fire Station #3**
- Complete the remaining questions in the survey and click **Submit**.

Monitor performance

You will now assume the role of a clerk or election official. As an election official, you want to know how Election Day is functioning throughout the community by monitoring requests, wait times, and voter satisfaction.

- In a browser, go to the Election Performance Dashboard app.
- On the **Overview** tab, review the high-level metrics.
- Click the **Requests** tab on the bottom of the dashboard.
- Click the graphs to explore the active and resolved requests.
- Click a request in the **Requests** list to review additional information about a request.
- Click the **Wait Times** tab on the bottom of the dashboard.
- Review the **Average Wait by Hour** graph noting wait time trends throughout Election Day.
- Click the **Survey Results** tab on the bottom of the dashboard.
- Explore the survey responses.
- Click a survey in the **Completed Surveys** list to see additional details.