

Multipage Maps

The key to creating multi-page maps is setting them up early and allowing for growth. This starts with the Grid Index and includes proper annotation and page queries.

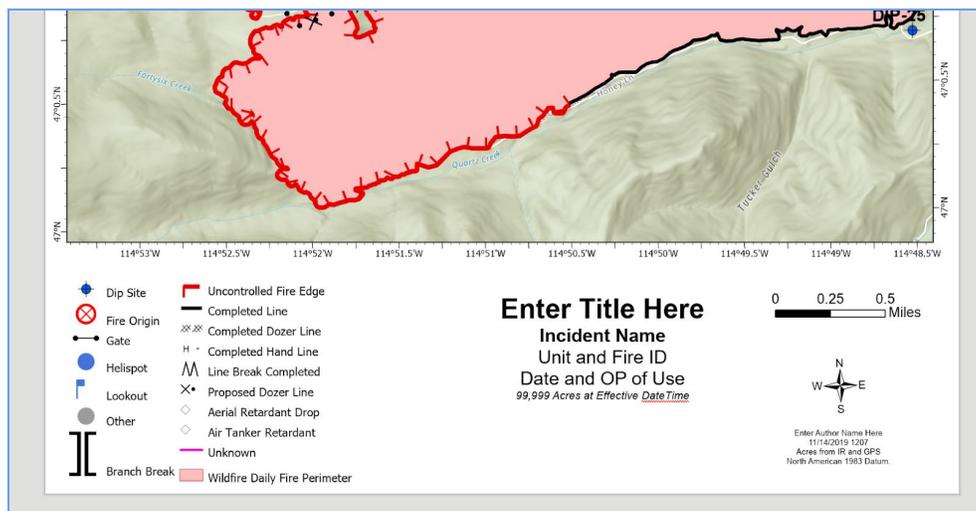
As soon as more than a single page is needed, jump straight into using an index grid, annotation, and page queries. Even if it feels like overkill at first, trying to fake it with dynamic labels or multiple maps will only cause headaches and mistakes down the line.

Create the Layout

Page size will be dictated by the intended use. Multipage IAPs will be letter or tabloid size because they are printed in large quantities and distributed with the rest of the IAP.

However, other maps can also be designed as multipage for ease of production. Division breakouts, for example, will usually be C or D sized to cover an entire division in detail and are often requested by Operations for use by leadership in the field.

Once the page size is set, setting up the layout is the first critical step. Because each page will be automatically generated based on the Grid Index and will have different features, best practice is to use an offset data frame layout (where the data frame is smaller than the page and the other elements are placed in the white space either to the side or above/below). This prevents any layout elements from obscuring data when all the different pages are created.



Adding all map elements (STANDL-SGD) at the beginning is important because the data frame size should not be changed after the Grid Index is created. Any time the data frame size or scale is modified in the layout, the Grid Index should be recreated (so it is best not to change it). Be sure to leave sufficient space to account for anything dynamic like the legend (which will change based on which area of the incident is displayed on each page).

Create the Grid Index

Stay on the Layout View and open the [Grid Index Features tool](#).

1. Set it to cover Event Point and Event Polygon. Usually this is sufficient, but if there are line features that need to be included that extent beyond these, add Event Line. It is easy to delete extra grid features that are not needed.
2. Check the boxes for Generating a Grid that intersects the input dataset and Using the Page Unit and Scale
3. Set the map scale to 24,000 (or whatever scale being used, but 24k is the standard). If the map is already set to 24k, this will populate automatically.
4. By checking the Use Page Unit and Scale box, the Polygon width and height will automatically calculate based on the data frame dimensions in the layout. **This is why setting up the layout first is critical. Do not change this setting.**
5. The number of Rows and Columns may seem odd, ignore it for now. Do not change this setting. If too many index features are created, double-check the other settings.

Geoprocessing

← Grid Index Features +

Parameters Environments

Output Feature Class

Input Features

Generate Polygon Grid that intersects input feature layers or datasets

Use Page Unit and Scale

Map Scale

Polygon Width

Polygon Height

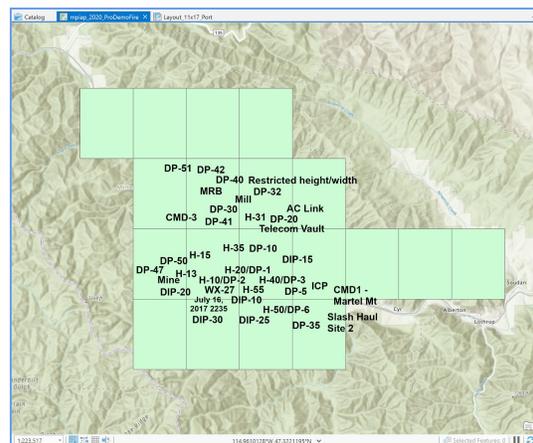
Polygon Grid Origin Coordinate
 X Y

Number of Rows

Number of Columns

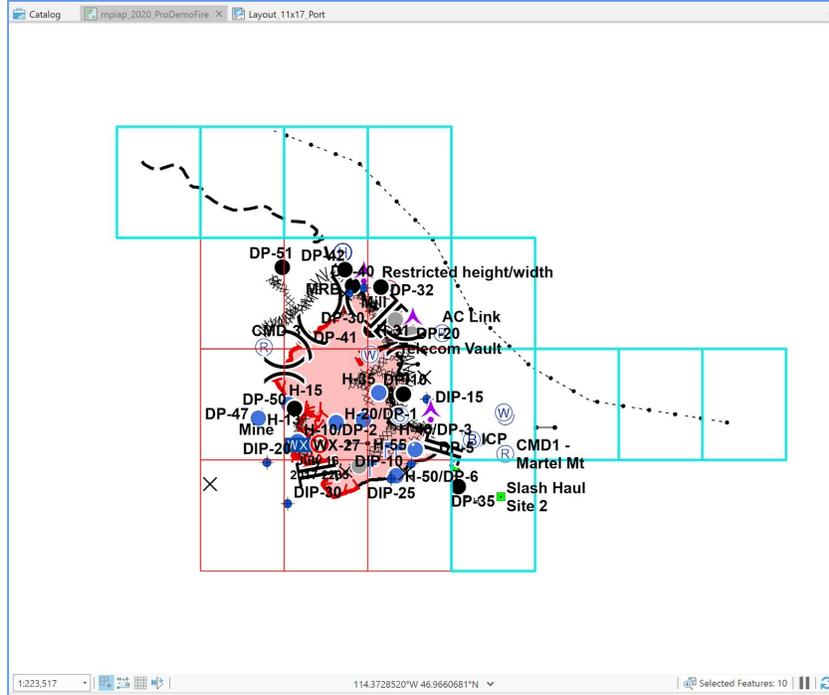
Starting Page Number

Start labeling from the Origin

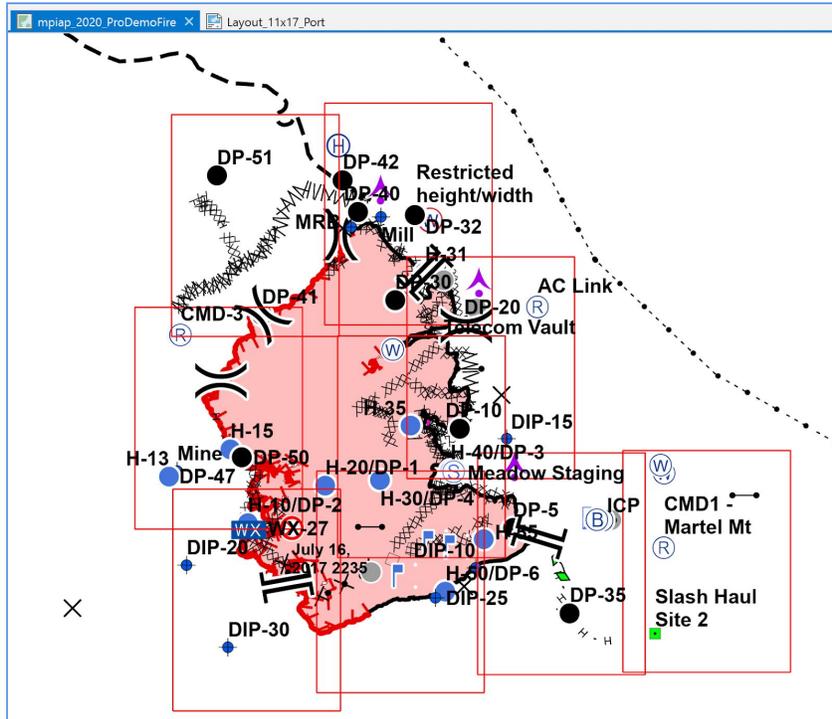


Place the Grid Index

Delete any unnecessary grid features that were created. If unsure, all or some can also be moved off to the side while the rest are positioned.

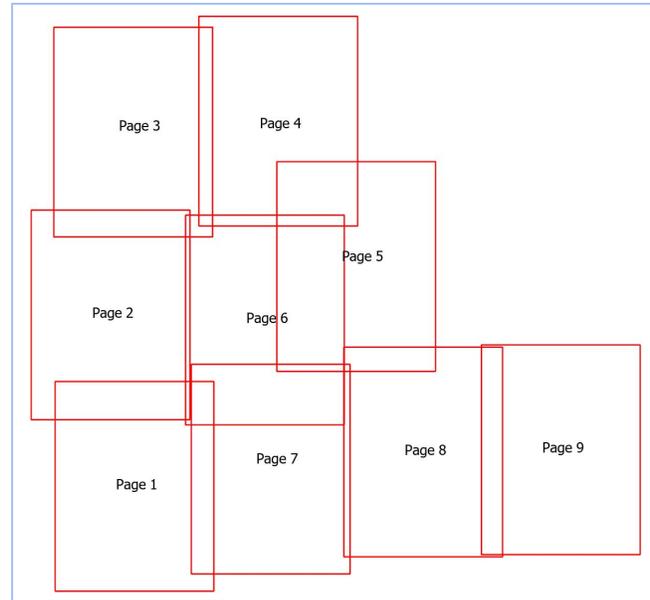


Position the grid features so that the entire incident is covered with a little overlap on each edge.



Update the grid feature attributes so that the Page Name and Number are consistent and understandable. These fields will be used to dynamically subtitle each page in the final product. The name can be either the page number as well or something logical like the Divisions covered by the feature (just be sure that is updated as Divisions change or pages move).

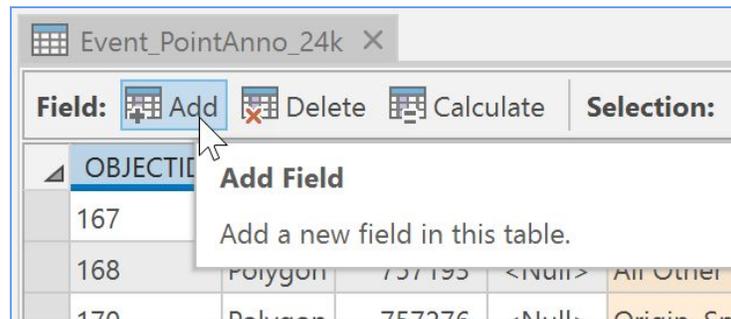
A common numbering standard is clockwise from the Fire Origin, but most important is that it is clear and labeled on the products Index Page.



Create the Annotation

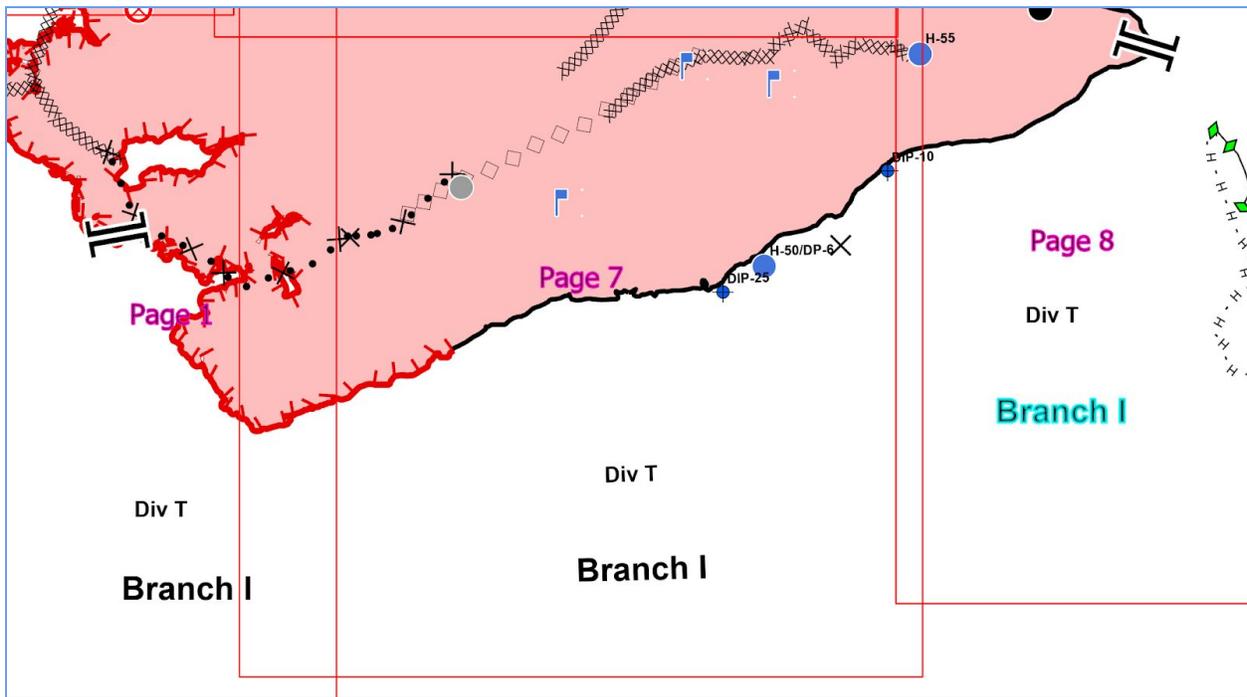
If an annotation layer at the appropriate scale has not already been created, follow the documentation on the [Annotation Page \[LINK\]](#) to create it.

Add a new field to the Annotation layer to use for the Page Queries. This field will set which page the annotation will display on. Name it *PageName* and use *Text* as the type.



Work through the map, page by page, making sure that every Division and Branch visible on the page is labeled. This will entail creating some extra annotation features for most pages. Managing these additional features comes down to personal preference, but it is often easiest to keep things consistent by creating the necessary break labels for each page and attributing

them with the proper page number. Even though labels can sometimes be placed in the overlapping areas of adjacent pages, this can lead to oversights when pages or breaks inevitably change.



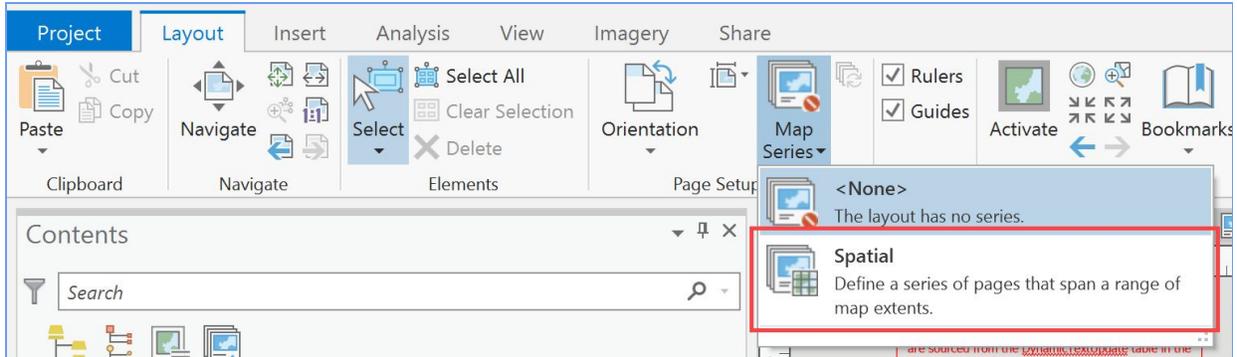
It is critical that each annotation feature be attributed correctly for the Page Query to work. The *PageName* field in the annotation layer must match the corresponding *PageName* field in the Grid Index layer.

OBJECTID	SHAPE	FeatureID	ZOrder	AnnotationClassID	Element	SymbolID	Status	TextString	PageName	FontName
177	Polygon	<Null>	<Null>	Division	Blob	5	Placed	Div T	Page 7	Arial
178	Polygon	<Null>	<Null>	Division	Blob	5	Placed	Div C	Page 2	Arial
184	Polygon	<Null>	<Null>	Division	Blob	5	Placed	Div T	Page 8	Arial
185	Polygon	<Null>	<Null>	Division	Blob	5	Placed	Div T	Page 1	Arial
188	Polygon	<Null>	<Null>	Division	Blob	5	Placed	Div M	Page 8	Arial
189	Polygon	<Null>	<Null>	Division	Blob	5	Placed	Div C	Page 1	Arial

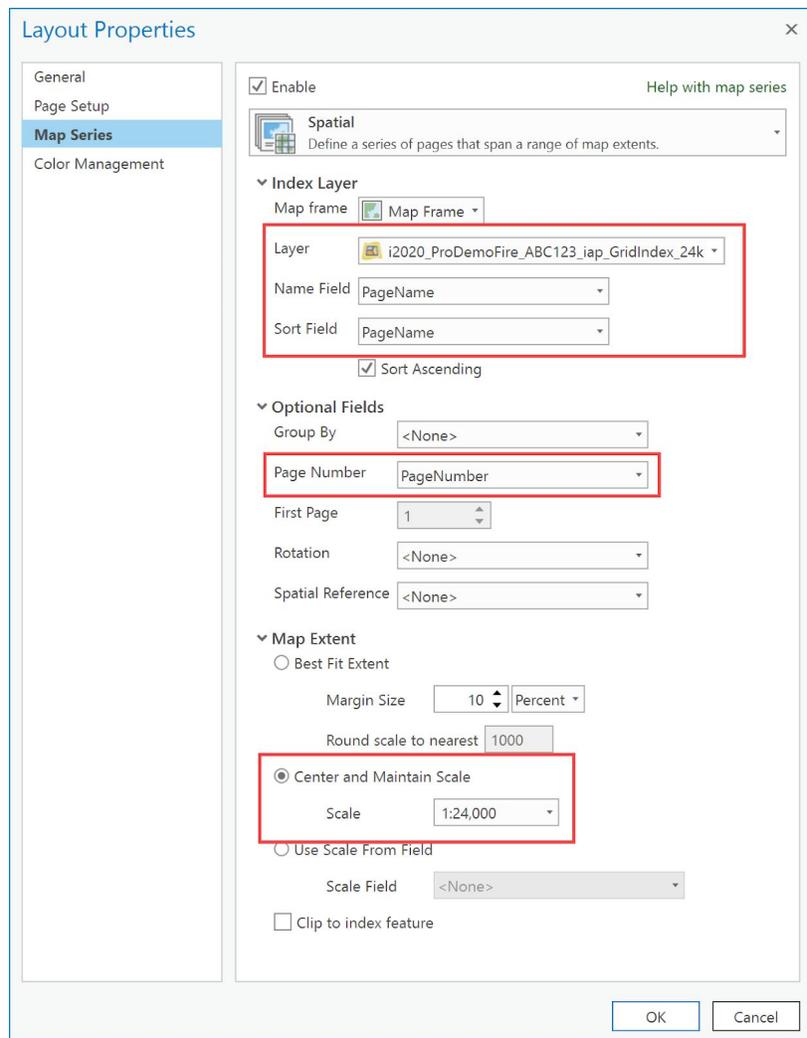
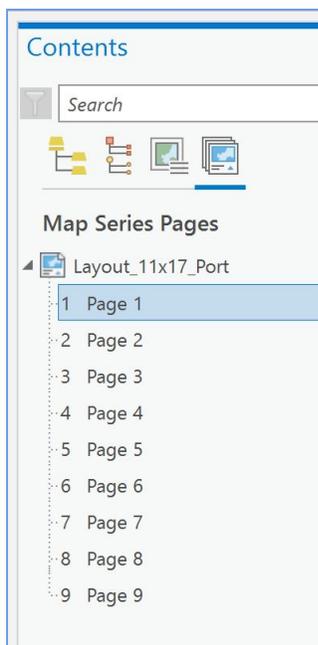
NOTE: In the workflow outlined here, it is only necessary to set the page name for Division and Branch labels as they are typically the only feature that span multiple pages. Other feature labels will bypass the Page Query as shown in a later step.

Enable and Configure the Map Series

Return to the Layout View and select the Spatial option under Map Series on the Layout ribbon.



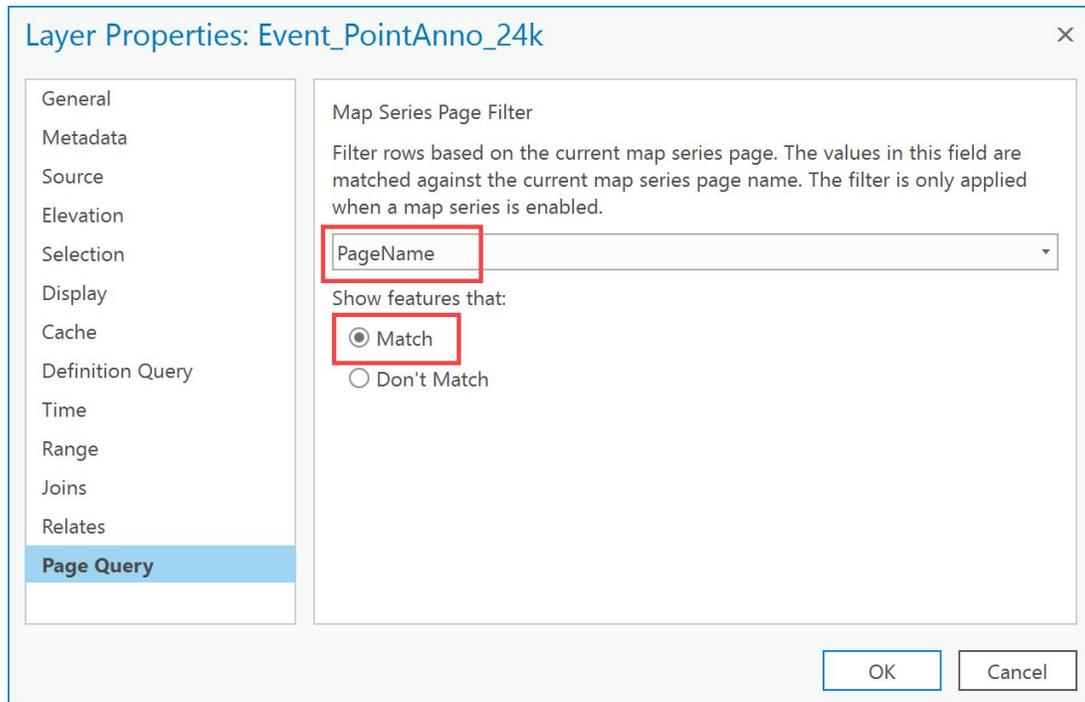
1. Set the Index Layer to the Grid Index.
2. Set the Page Name and Number fields.
3. Set the Map Extent to to *Center and Maintain Scale* and make sure the scale is set to 24k (or whatever scale the Grid Index was created at if using a different scale)



This will enable each page's view on the Map Series tab of the Table of Content.

Set the Page Query

Open the annotation layer properties from the Map View and set the Page Query to *Match* on *PageName*.

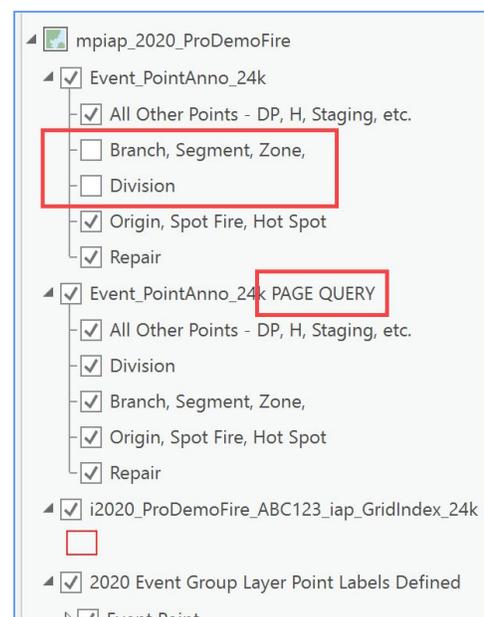


NOTE: This will affect which features display in both the Layout *and* Map View. The query will be applied based on which page is selected in the layout but will also affect which features display when switched back to the Map View.

At this point, only the Division and Branch labels for the active page should be visible.

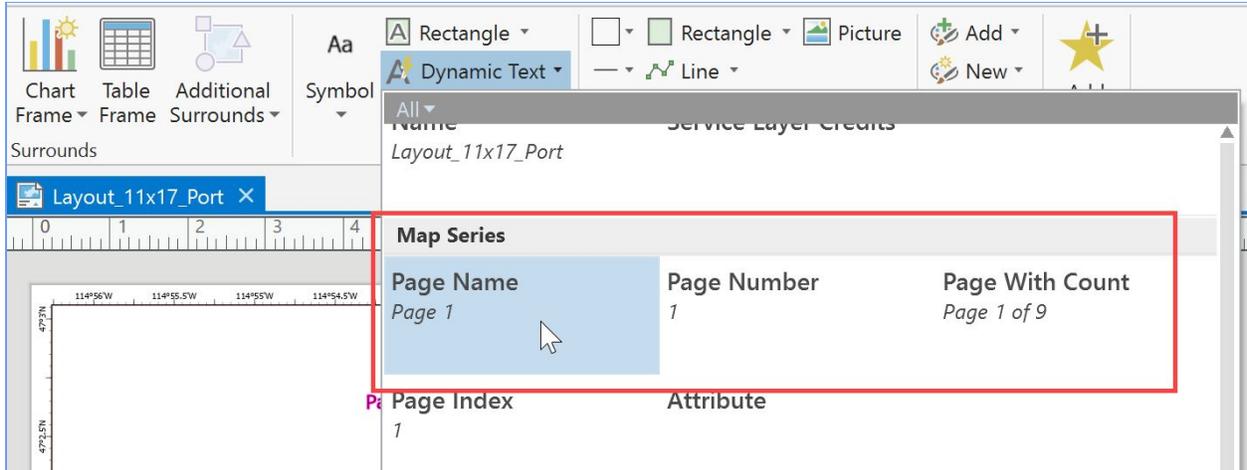
To display the rest of the labels without worrying about their page, add a second copy of the annotation layer to the Map View and turn off the Division and Branch classes.

To help differentiate between the two layers, add an identifier to the name of the layer with the Page Query.



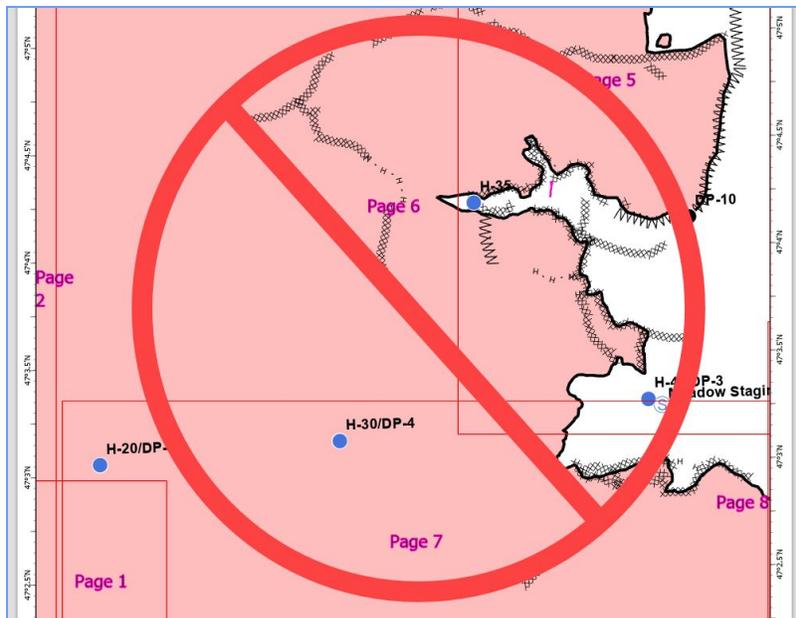
Final Layout and Review

Add the Page Name as Dynamic Text to the Layout Title Block. This will update automatically for each page generated.



Turn off the Index Grid before exporting the Map Series. The grid **should not** be displayed on any of the individual pages, only on the Index Page.

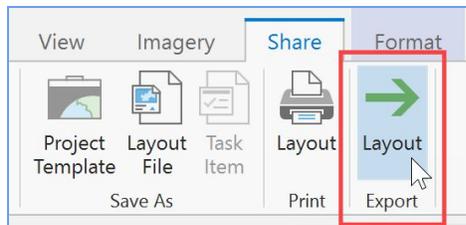
Turn off, or set to highly transparent, the Fire Polygon. Event Polygon should not obscure the base topography or any other information.



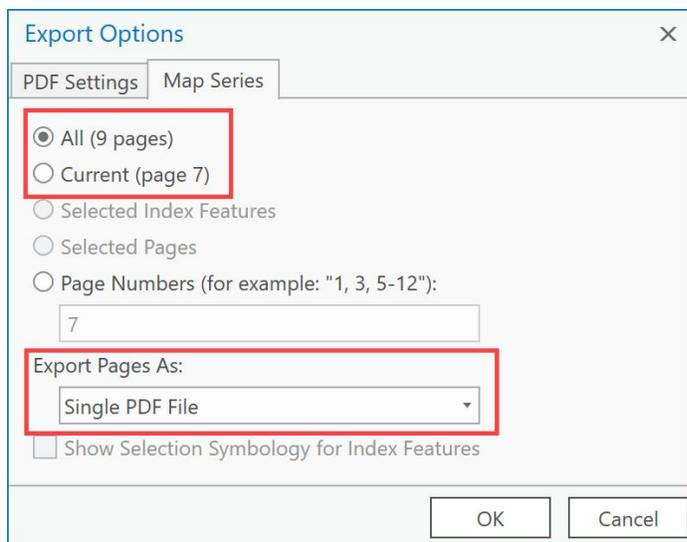
Walk through each page from the Layout View to double-check that no labels are missing and all the other standard elements are correct.

Export the Map Series

From the Share tab on the Ribbon, export the Layout.



The Export Option will allow the export of all, one, or some of the pages and whether they will be saved as a single PDF or individual pages.



Always use the GeoOps standard naming convention.

{product}_{size}_{orientation}_{pages}_{currentDate}_{currentTime}_{incidentName}_{incidentID}_{useDate&OP}.pdf

Eg. iap_11x17_port_MPal1_20200617_2120_ProDemoFire_ABC123_0618Day.pdf

