

## Creating fire datasets in ARCGIS

Needed files:

- Pocket\_6class
- Nuns\_6class
- Tubbs\_6class
- Sonoma\_naip\_2018\_8bit

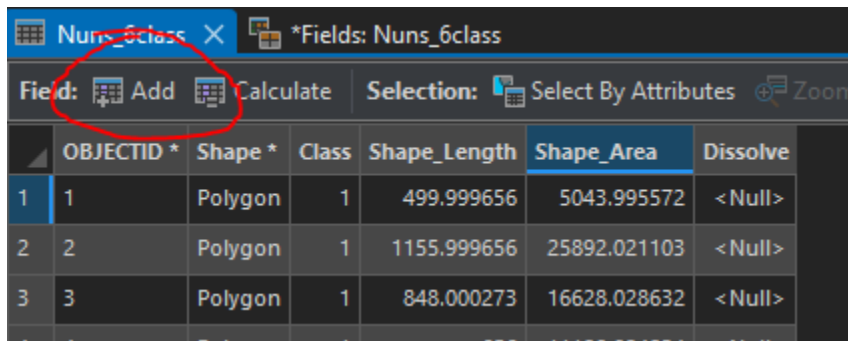
Step 1: Create a mask of each 6class map

1. Right click the selected 6class map and choose attribute table (ctrl + t)

The screenshot displays the ArcGIS interface. On the left, the 'Table of Contents' pane shows a list of layers, with 'Nuns\_6class' selected. The main map area shows a satellite view of a landscape with a grid overlay. Below the map, the 'Attribute Table' for 'Nuns\_6class' is open, showing a table with columns: OBJECTID, Shape, Class, Shape\_Length, and Shape\_Area. The table contains 19 rows of data, all with 'Class' value 1 and 'Shape' type 'Polygon'.

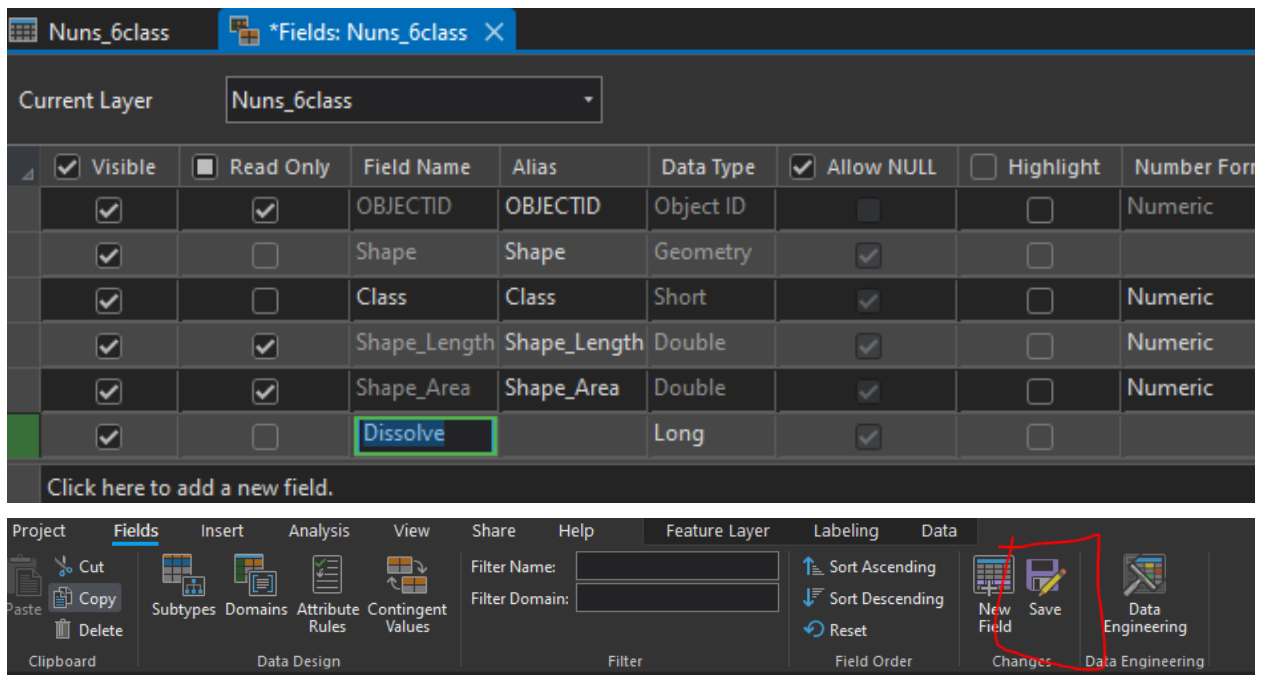
Field:	Add	Calculate	Selection:	Select By Attributes	
OBJECTID *	Shape *	Class	Shape_Length	Shape_Area	
1	1	Polygon	1	499.999656	5043.995572
2	2	Polygon	1	1155.999656	25892.021103
3	3	Polygon	1	848.000273	16628.028632
4	4	Polygon	1	656	11180.024834
5	5	Polygon	1	747.999816	13411.981129
6	6	Polygon	1	940.000088	18111.988575
7	7	Polygon	1	3283.998681	99532.018537
8	8	Polygon	1	1215.99888	37980.00884
9	9	Polygon	1	4283.999306	156804.122783
10	10	Polygon	1	1959.998705	46300.012306
11	11	Polygon	1	2691.999865	57280.05172
12	12	Polygon	1	1928.000737	62188.043242
13	13	Polygon	1	3655.997281	117984.036594
14	14	Polygon	1	1699.999225	35312.024106
15	15	Polygon	1	1264.000753	56700.044196
16	16	Polygon	1	939.999432	17676.013286
17	17	Polygon	1	2760.001698	77568.002063
18	18	Polygon	1	728.000512	11304.015151
19	19	Polygon	1	2192.000209	63867.966312

2. In the top right corner select add new field



	OBJECTID *	Shape *	Class	Shape_Length	Shape_Area	Dissolve
1	1	Polygon	1	499.999656	5043.995572	< Null >
2	2	Polygon	1	1155.999656	25892.021103	< Null >
3	3	Polygon	1	848.000273	16628.028632	< Null >

3. Then create a new field labeled dissolve. At the top of the field panel hit Save



<input checked="" type="checkbox"/> Visible	<input type="checkbox"/> Read Only	Field Name	Alias	Data Type	<input checked="" type="checkbox"/> Allow NULL	<input type="checkbox"/> Highlight	Number Form
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	OBJECTID	OBJECTID	Object ID	<input type="checkbox"/>	<input type="checkbox"/>	Numeric
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Shape	Shape	Geometry	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Class	Class	Short	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Numeric
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Shape_Length	Shape_Length	Double	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Numeric
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Shape_Area	Shape_Area	Double	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Numeric
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Dissolve		Long	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Click here to add a new field.

Project Fields Insert Analysis View Share Help Feature Layer Labeling Data

Clipboard Data Design Filter Field Order Changes Data Engineering

4. Go back and right click the new Column labeled dissolve and select calculate field

5. Set dissolve to 1 in the calculate field function

The screenshot shows the QGIS interface with a map of a city. The 'Calculate Field' dialog box is open, showing the 'Nuns\_6class' input table. The 'Field Name (Existing or New)' is set to 'Dissolve'. The 'Expression Type' is 'Python 3'. The 'Expression' is set to '1'. The 'Code Block' is empty. The 'Enable Undo' checkbox is checked. The 'Apply' and 'OK' buttons are visible.

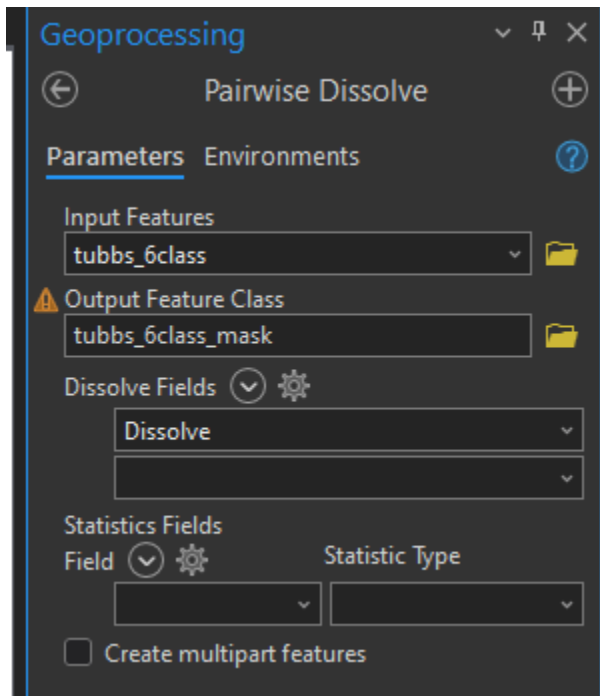
The attribute table for 'Nuns\_6class' is also shown, with columns: OBJECTID, Shape, Class, Shape\_Length, Shape\_Area, and Dissolve. The 'Dissolve' column contains '<Null>' for all rows.

	OBJECTID *	Shape *	Class	Shape_Length	Shape_Area	Dissolve
1	1	Polygon	1	499.999656	5043.995572	<Null>
2	2	Polygon	1	1155.999656	25892.021103	<Null>
3	3	Polygon	1	848.000273	16628.028632	<Null>
4	4	Polygon	1	656	11180.024834	<Null>
5	5	Polygon	1	747.999816	13411.981129	<Null>
6	6	Polygon	1	940.000088	18111.988575	<Null>
7	7	Polygon	1	3283.998681	99532.018537	<Null>
8	8	Polygon	1	1215.99888	37980.00884	<Null>
9	9	Polygon	1	4283.999306	156804.122783	<Null>
10	10	Polygon	1	1959.998705	46300.012306	<Null>
11	11	Polygon	1	2691.999865	57280.05172	<Null>
12	12	Polygon	1	1928.000737	62188.043242	<Null>
13	13	Polygon	1	3655.997281	117984.036594	<Null>
14	14	Polygon	1	1699.999225	35312.024106	<Null>

6. Now go to analysis and click tools type in pairwise dissolve

The screenshot shows the QGIS interface with the 'Analysis' menu open. The 'Tools' option is circled in red. The 'Pairwise Dissolve' tool is selected, showing the description: 'Aggregates features based on specified attributes using a parallel processing...'. The 'Geoprocessing' panel is also visible.

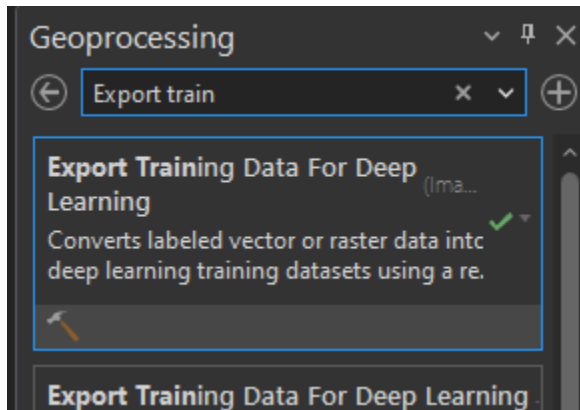
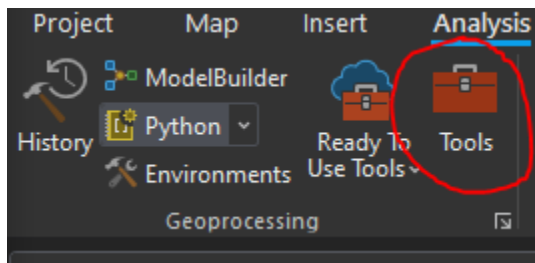
7. Fill in the parameters of the pairwise Dissolve function



- a. Select the 6class map you are working with as the Input features
  - b. The output feature class is what you want to name the mask
  - c. Dissolve fields should be dissolve
  - d. Everything else is blank
8. Hit run in the bottom right corner and this will create the mask of the 6class map. Do this for all three fires.

## Step 2: Generating the chips

1. Go to analysis and click tools, type in export training data for deep learning



2. Fill the in the parameters of the Function:
  - a. Input Raster: sonoma\_naip\_2018\_8bit
  - b. OutputFolder: What you want to name the folder the chips are in
  - c. Input Feature class or classified raster or table: the 6class map ie tubbs\_6class
  - d. Class Value Field: Class
  - e. Input Mask Polygons: The mask of the 6class map you are using
  - f. Image Format: Tiff
  - g. Tile size x and y : 128
  - h. Stride x and y: 64
  - i. Reference system: map space
  - j. Processing mode: as mosaicked image
  - k. Metadata format: Classified Tiles
3. Hit run and this should generate our dataset. This can take a few hours to run

