

How to Dissolve the NHD Waterbodies

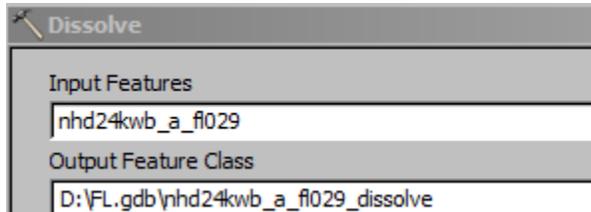
Why are the NHD waterbodies cut into smaller polygons?

The NHD dataset is stored and served from a 2008 SQL Server Spatial Database. Some of the polygons within the waterbody file are too large to process in SQL as a single entity - they exceed 10,000 pts with some of them exceeding 300,000. SQL uses a CLR data type that is converted from plain text every time it's used. This works great for small spatial entities but is problematic for larger entities. Best practices indicate that polygons should be cut as small as possible - ideally less than 1000 points per object. We are only cutting the ones that exceed 10,000 points per object. Less than 3% of the polygons are affected.

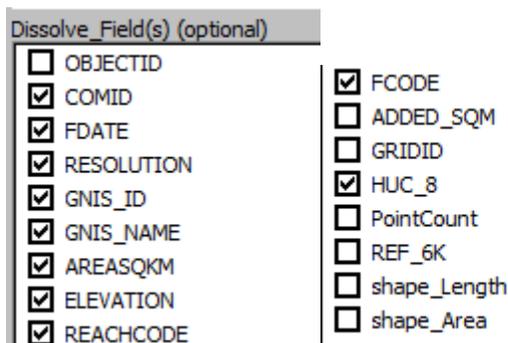
How do I put them back together?

To combine your NHD data back together, simply use the dissolve tool to combine the cut entities into their original configuration. Make sure you only select the attributes shown below to dissolve. Run the dissolve on the entire file that you downloaded from the Data Gateway.

ArcToolbox → Data Management Tools → Generalization → Dissolve



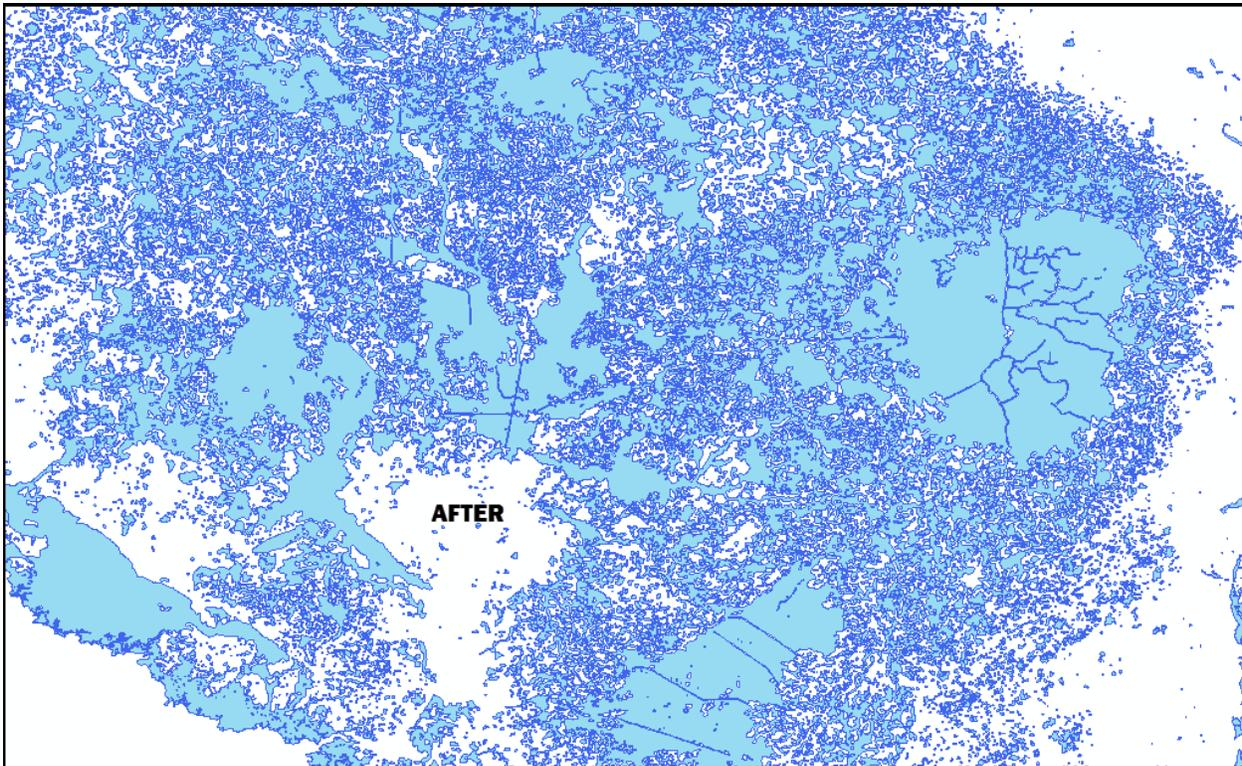
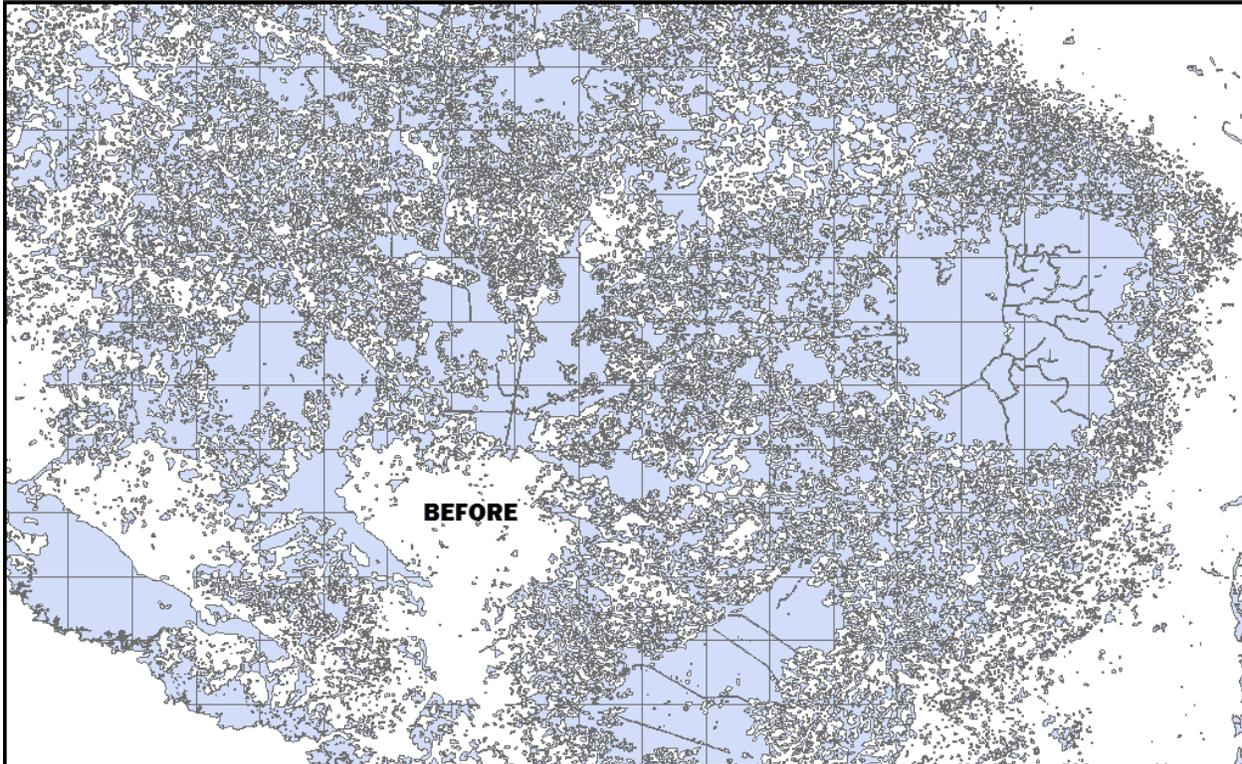
The list of dissolve fields to check:



Tip: Click the **Select All** button and then uncheck the fields as shown above

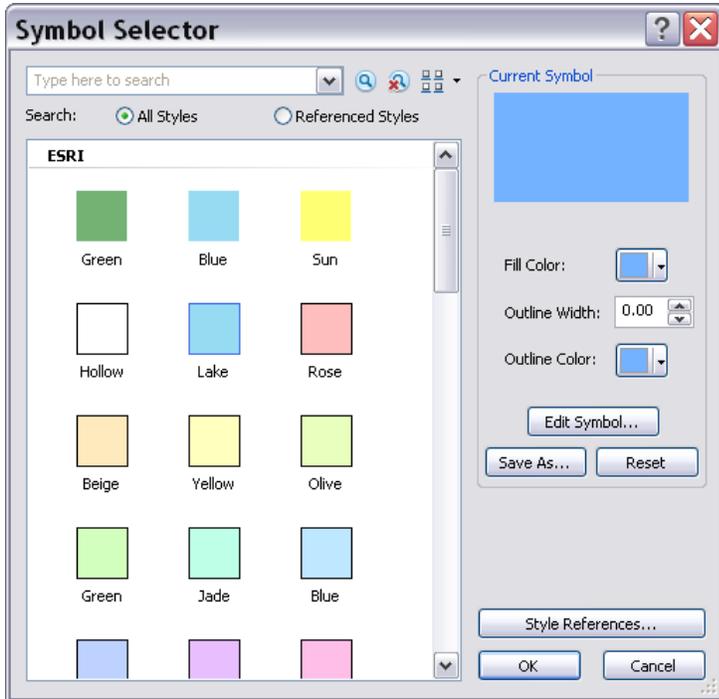


The output should provide results as shown below.



How to Display the waterbodies without cut lines.

For display purposes, the waterbodies can be shown as a solid symbol, without being dissolved, by changing the Outline Width of the polygon to 0 or to a color that matches the fill.



Use the Symbol Selector to change outline of polygons.

The before and after is shown below:

