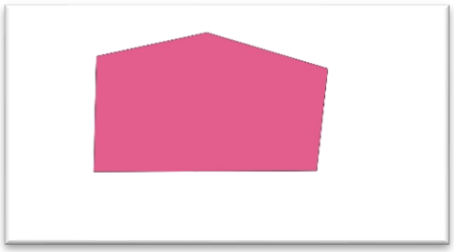
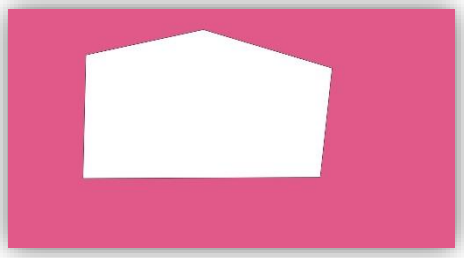
Inverted Polygon is available in QGIS as a Symbology style.

How Inverted Polygons Works:

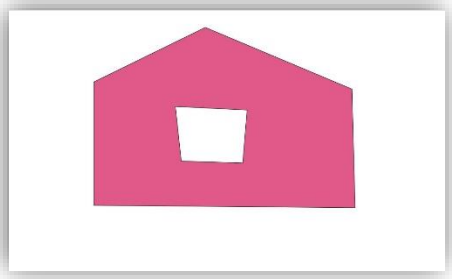


For this Polygon, filled in Pink

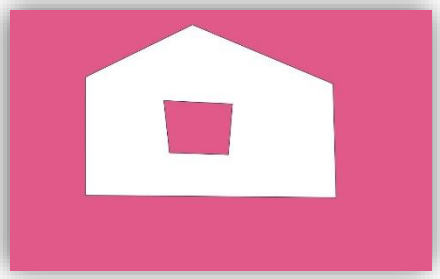


Applying Inverted Polygons will symbolize the exact opposite of the original polygon area

The same applies for more complex polygons, like doughnuts, or layers with multiple polygons



For this polygon, in pink



Inverting will fill in the area outside as well as inside the polygon

Many sub-category symbology effects can be applied simultaneously to an individual layer in QGIS, only one of the topmost classifications can be applied.

This means that two layers may be needed for working with inverted polygons when the original polygons also need to be displayed simultaneously.

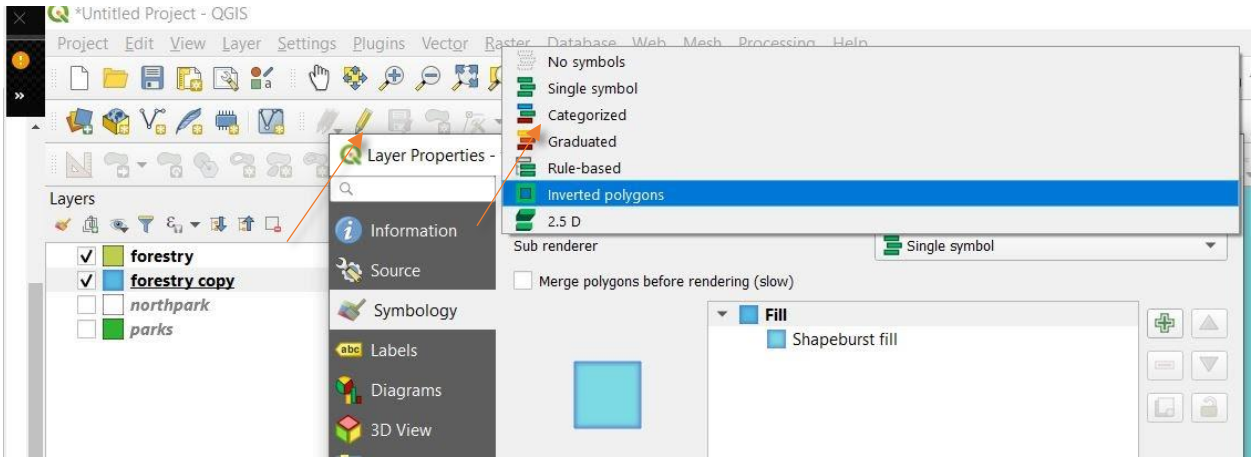
Note: For using the same data file/features for two layers, one regular symbology, and one inverted:
If the two layers will need different features or require data editing, export the layer to a new file.

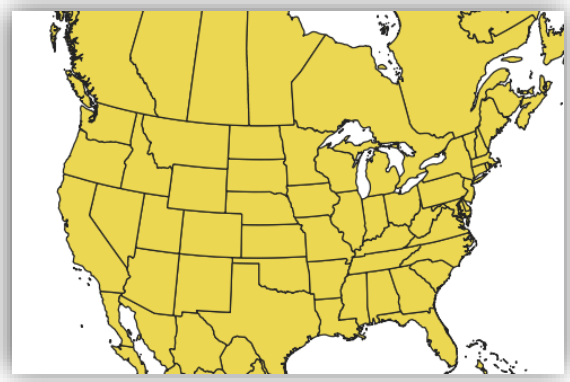
If the two layers will use the same features, simply display the layer in QGIS twice
This may be accomplished by adding the layer a second time, right-clicking in the Table of Contents (TOC) and selecting duplicate layer, or right-clicking the layer in the TOC and using copy & paste.

Applying Inverted Polygons:

Note:
[This tutorial assumes that the user knows how to add layers and locate them in the TOC]

1. Right-click or double click on the layer in the TOC to open the Layer Properties window
2. Select the Symbology tab
3. The layer will default to a Single Symbol symbology, click this drop down (at the top of the window) to open the list of available categories.
4. Select Inverted Polygons and click apply to set the symbology.
    a. The sub renderer will default to single symbol
5. The Fill portion of the window allows the color and style of fill symbol to be defined as usual.
    a. This can be set to a specific color and outline or changed to combine with other symbology effects, such as Shapeburst





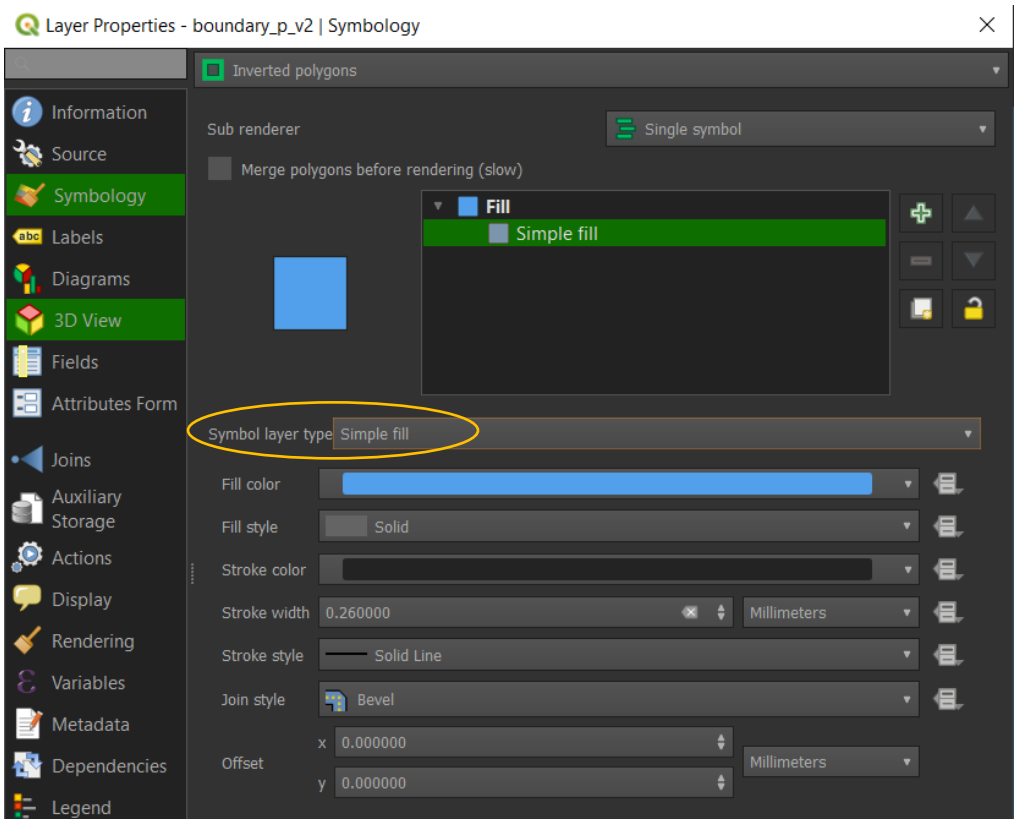
This layer of polygons covering the land of North America

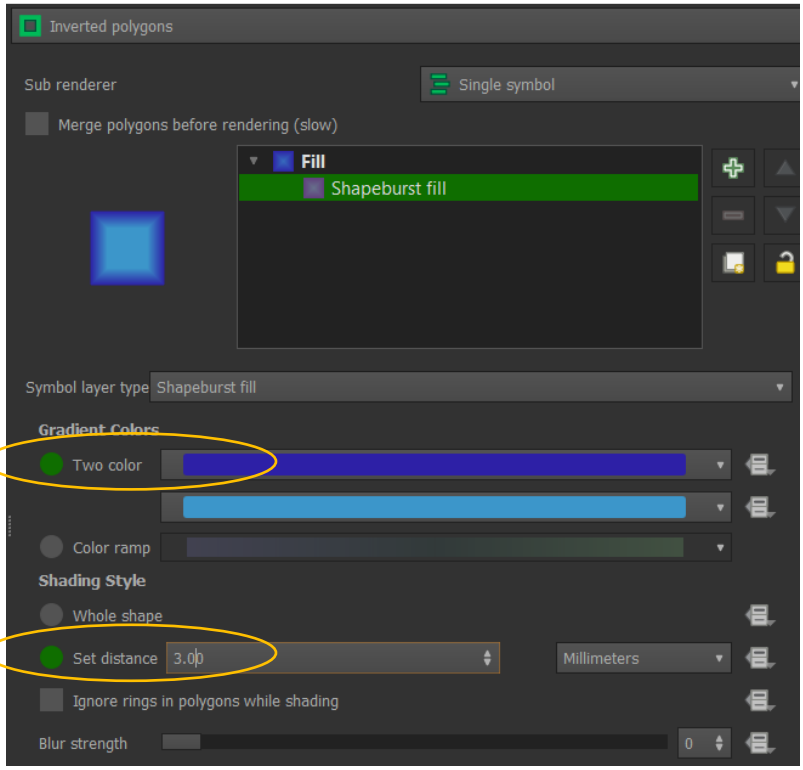
A second layer of the same dataset,

inverted

When both layers are displayed on the map, this easily allows the water to be symbolized without having a separate file or digitizing another layer.

In the sub-menu for Fill. Additional effects can be added, such as Shapeburst


Layer Properties - boundary_p_v2 | Symbology
Inverted polygons
Information
Source
Symbology
Labels
Diagrams
3D View
Fields
Attributes Form
Joins
Auxiliary Storage
Actions
Display
Rendering
Variables
Metadata
Dependencies
Legend
Sub renderer
Single symbol
Merge polygons before rendering (slow)
Fill
Simple fill
Symbol layer type
Simple fill
Fill color
Fill style
Solid
Stroke color
Stroke width
0.260000
Millimeters
Stroke style
Solid Line
Join style
Bevel
Offset
x
0.000000
y
0.000000
Millimeters



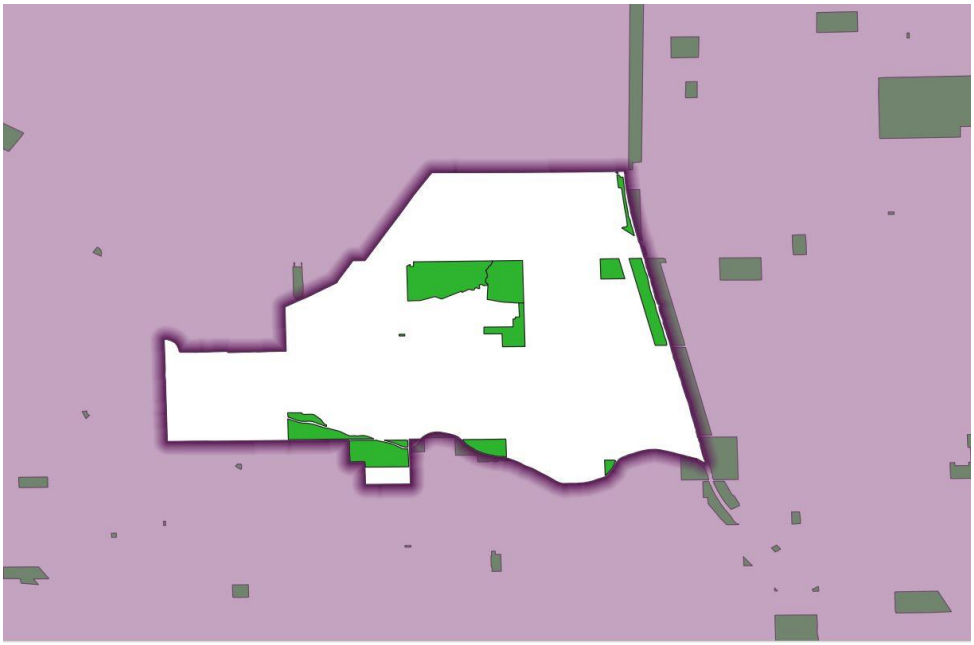
The effect can be used with a two-tone color scheme or color ramp effect.
The top color will be like the outline of the polygon, while the second color will be in inner portions

The distance value can be changed to set how wide the first color is from the edge and blue can be edited to blend the colors sharply or more gradually.

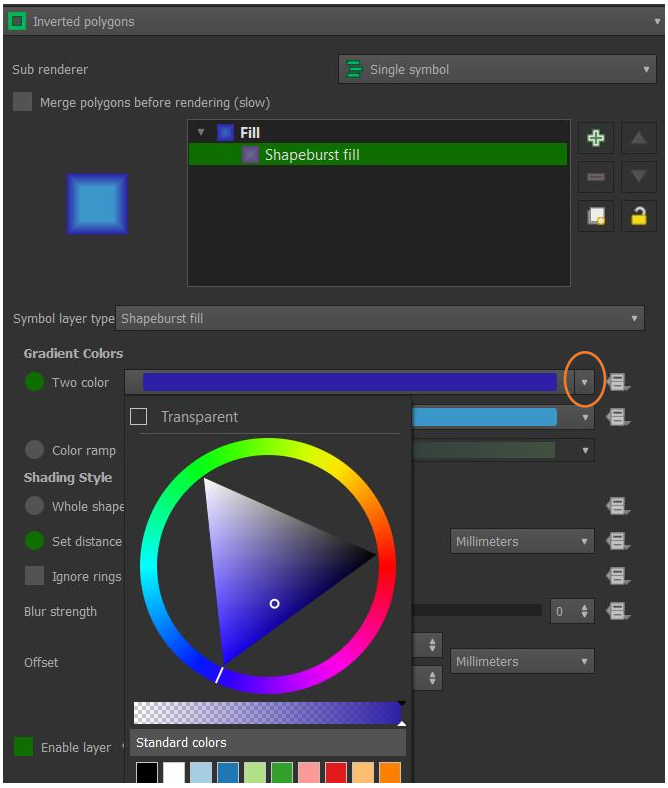
This can be used to create the effect of coastlines, assuming your polygons do not overlap water boundaries.

Invert Polygon can also be used to highlight a study area or other boundary on a map.

Below a polygon of a neighborhood boundary was inverted and symbolized with a transparent color scheme. Here, Shapeburst was also used to give the two-tone effect and pop, but is not necessary.



The transparent option is found in the color selection menu popup.
This way the areas outside the emphasized area are still visible for reference


Inverted polygons
Sub renderer
Single symbol
Merge polygons before rendering (slow)
Fill
Shapeburst fill
Symbol layer type
Shapeburst fill
Gradient Colors
Two color
Transparent
Color ramp
Shading Style
Whole shape
Set distance
Ignore rings
Blur strength
Offset
Millimeters
Millimeters
0
Enable layer
Standard colors

Limitations:

The inversion will fill in the exact opposite of the polygon, generally outwards, and will go infinitely outwards which may not always be desirable.

This means that this effect may not be useful if applied to multiple layers on one map (i.e. highlighting a study area and a water feature) as the overlapping inversions may cover up other features.

There may also be rendering issues with inverted polygons when combined with Shapeburst effect for 3D map views or with certain projection types.