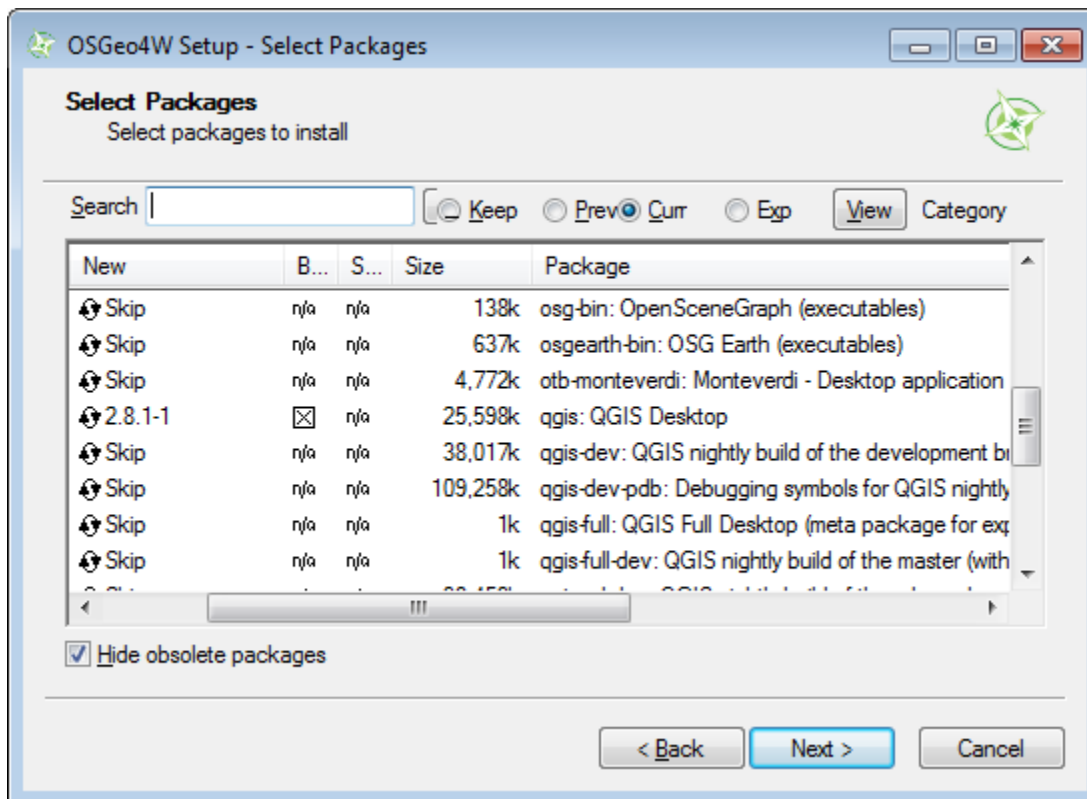
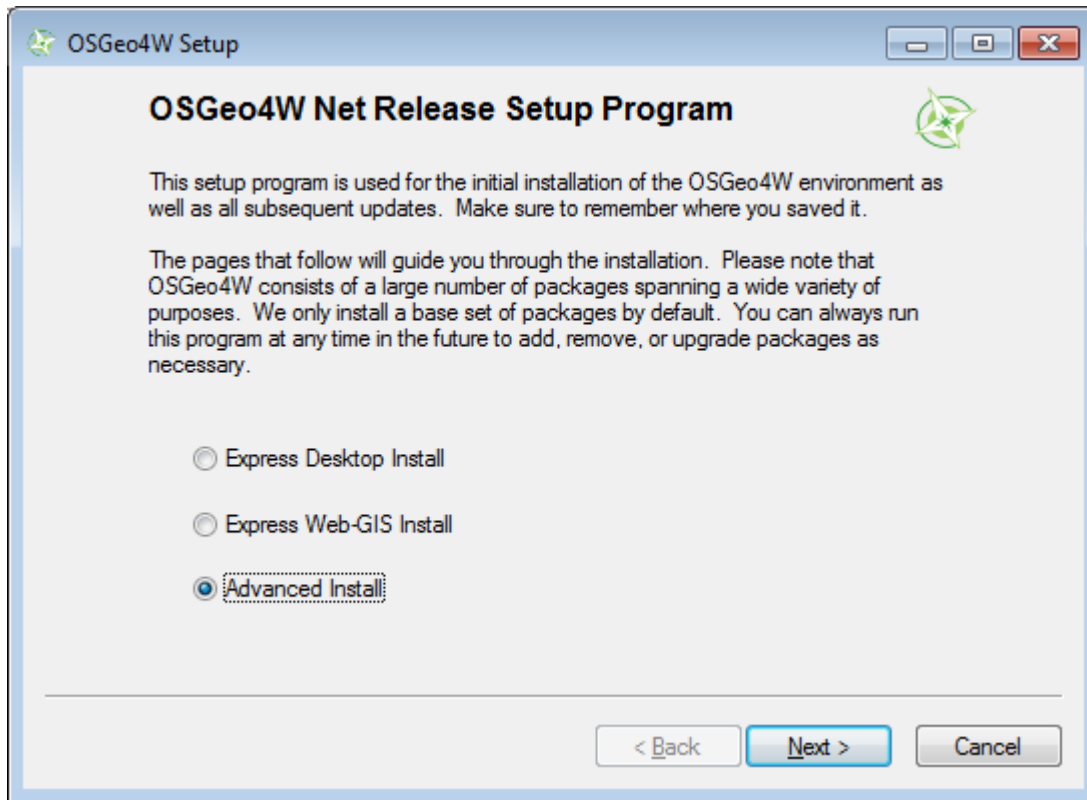
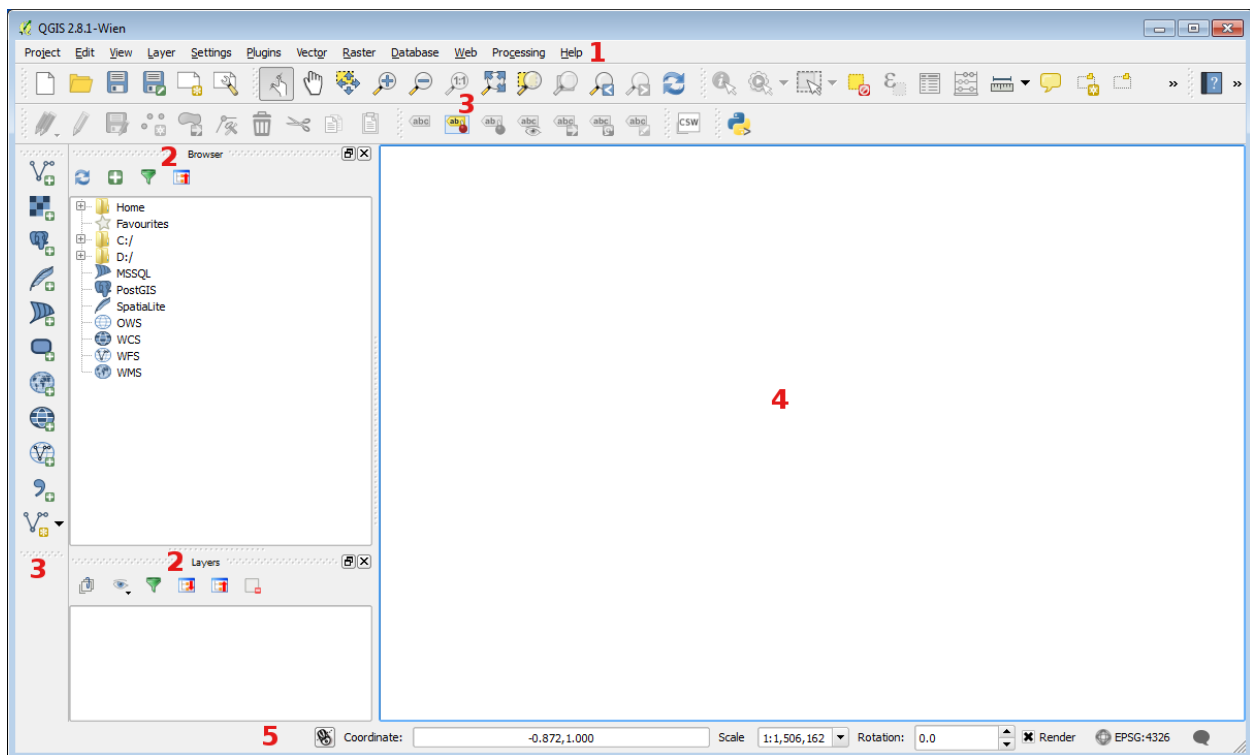
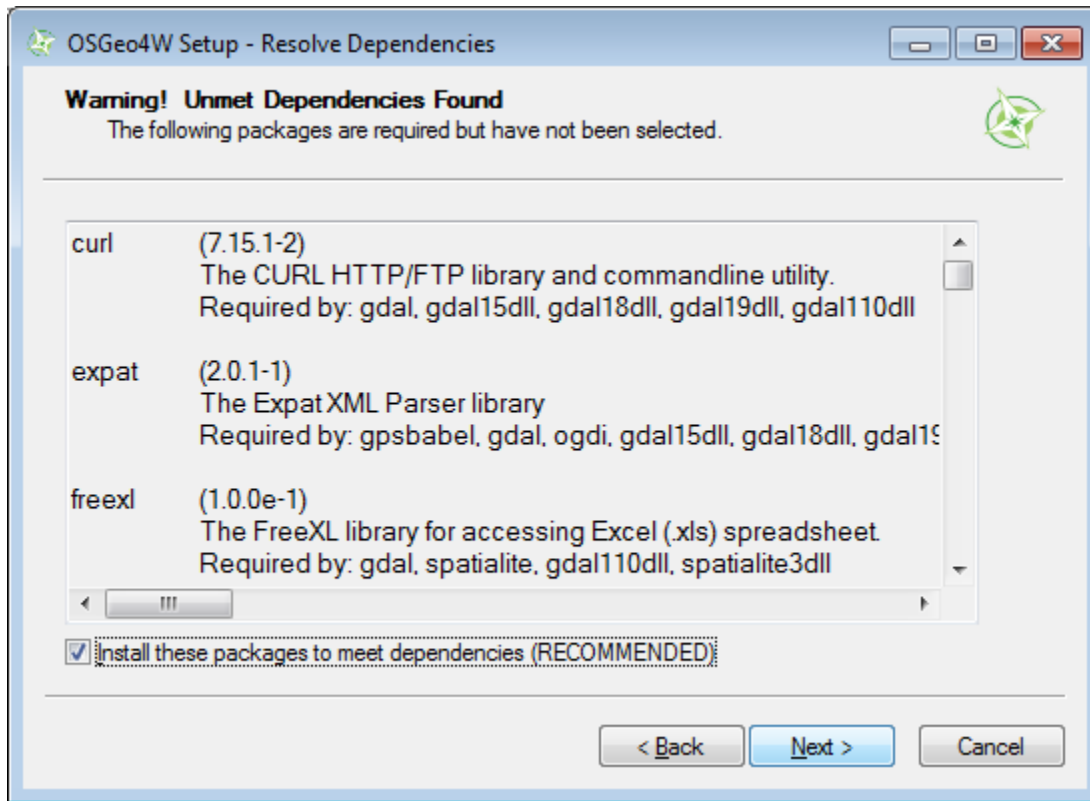
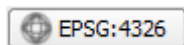
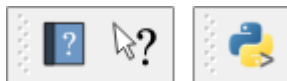
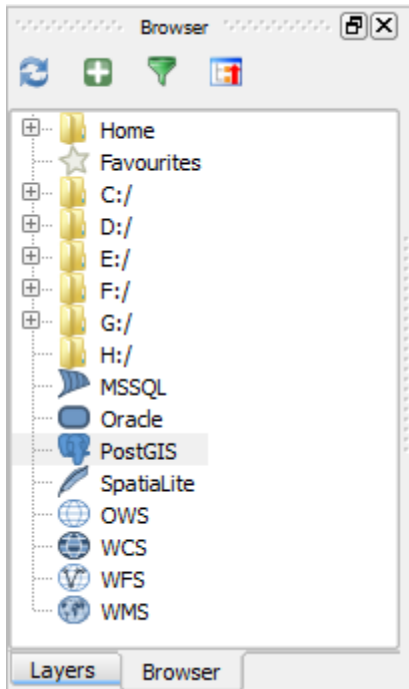


## Chapter 1









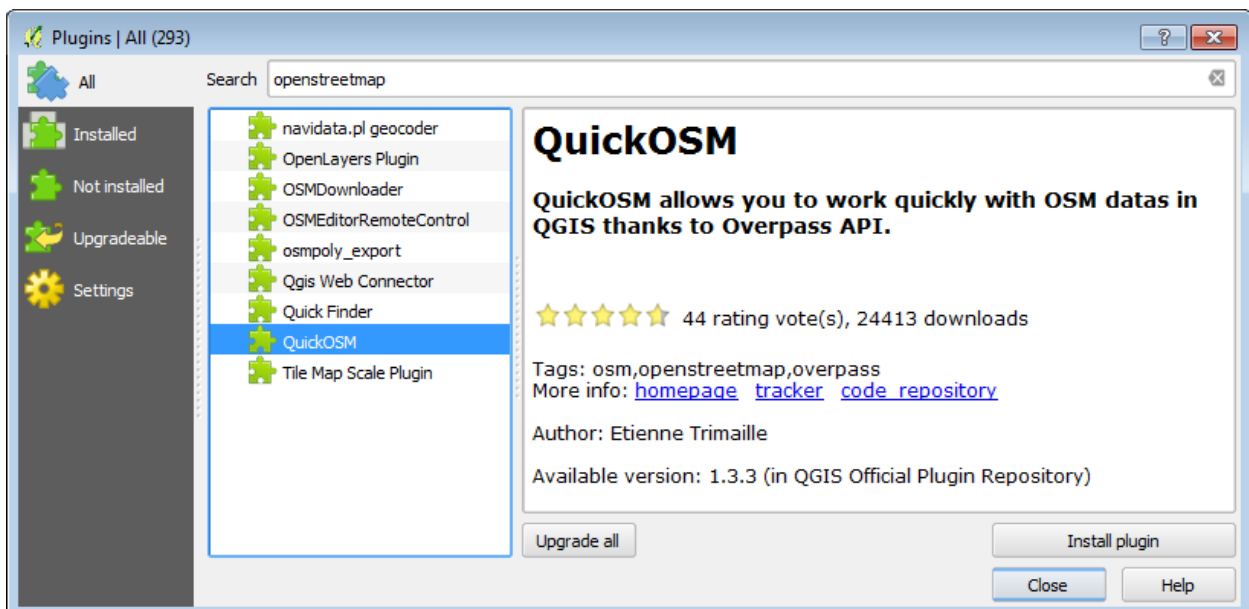
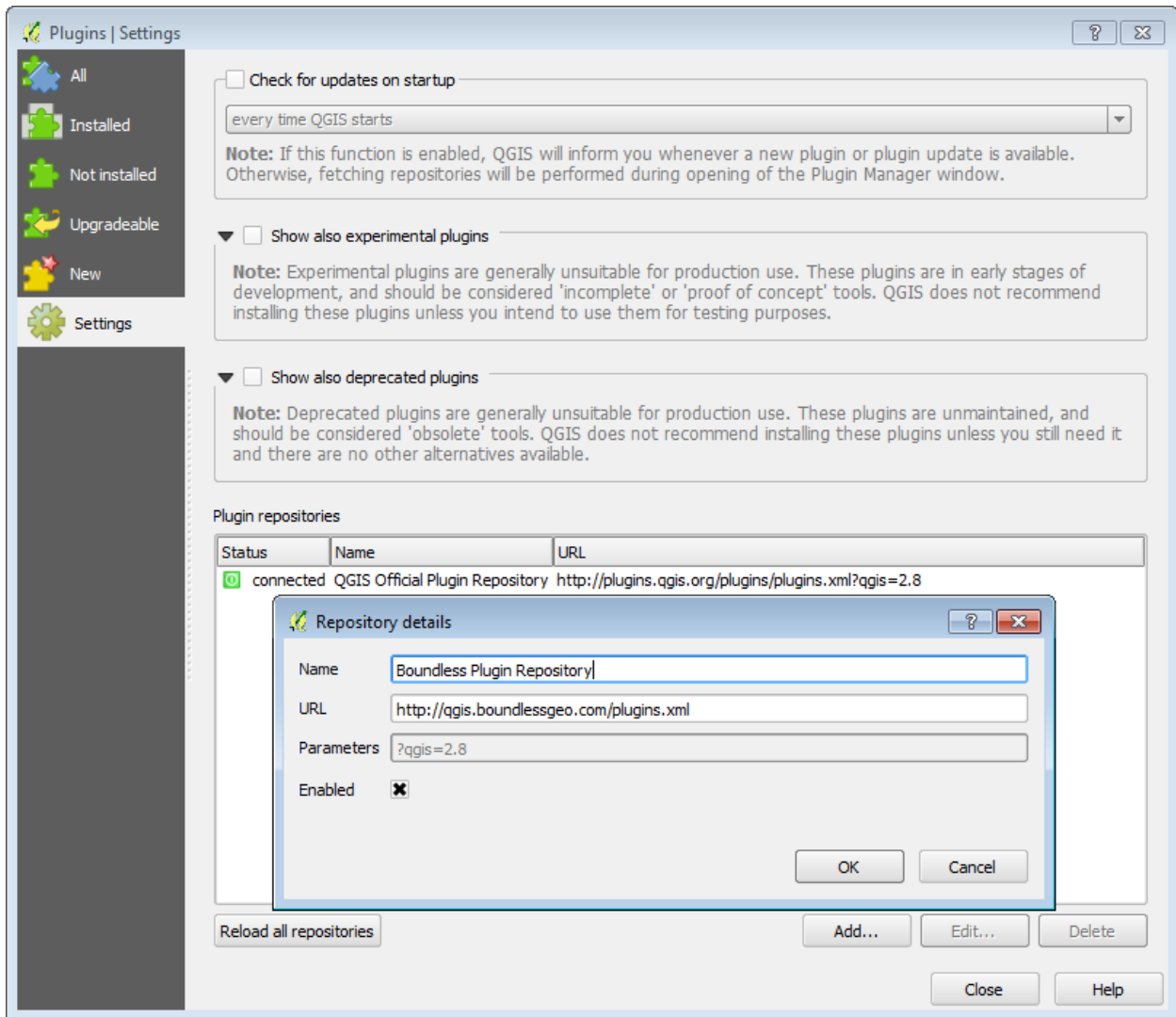
**Customization** [Minimize] [Maximize] [Close]

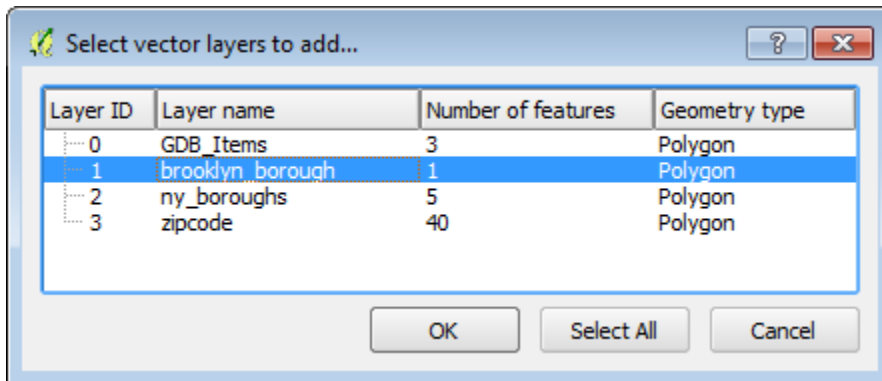
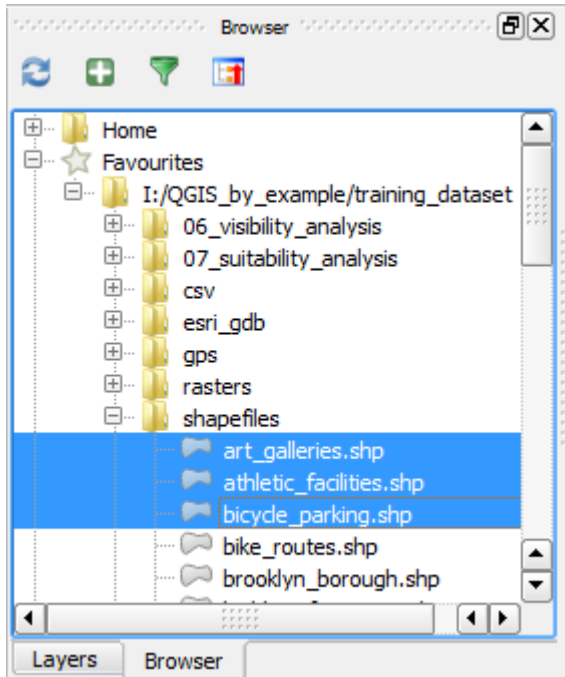
Expand All Collapse All Select All

Enable customization

Object name	Label
<input checked="" type="checkbox"/> mHelpToolBar	Help
<input checked="" type="checkbox"/> mLabelToolBar	Label
<input checked="" type="checkbox"/> mLayerToolBar	Manage Layers
<input checked="" type="checkbox"/> mMapNavToolBar	Map Navigation
<input checked="" type="checkbox"/> mActionDraw	Refresh
<input checked="" type="checkbox"/> mActionPan	Pan Map
<input checked="" type="checkbox"/> mActionPanToSelected	Pan Map to Selected
<input type="checkbox"/> mActionTouch	Touch Zoom and
<input type="checkbox"/> mActionZoomActualSize	Zoom Actual Size
<input checked="" type="checkbox"/> mActionZoomFullExtent	Zoom & Full
<input checked="" type="checkbox"/> mActionZoomIn	Zoom In
<input type="checkbox"/> mActionZoomLast	Zoom Last
<input type="checkbox"/> mActionZoomNext	Zoom Next
<input checked="" type="checkbox"/> mActionZoomOut	Zoom Out

Reset OK Cancel Apply





**Create a Layer from a Delimited Text File**

File Name:

Layer name:  Encoding:

File format:  CSV (comma separated values)  Custom delimiters  Regular expression delimiter

Expression:

Record options: Number of header lines to discard:   First record has field names

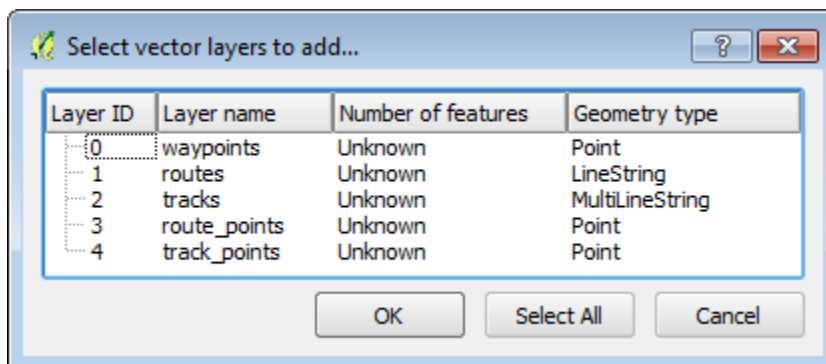
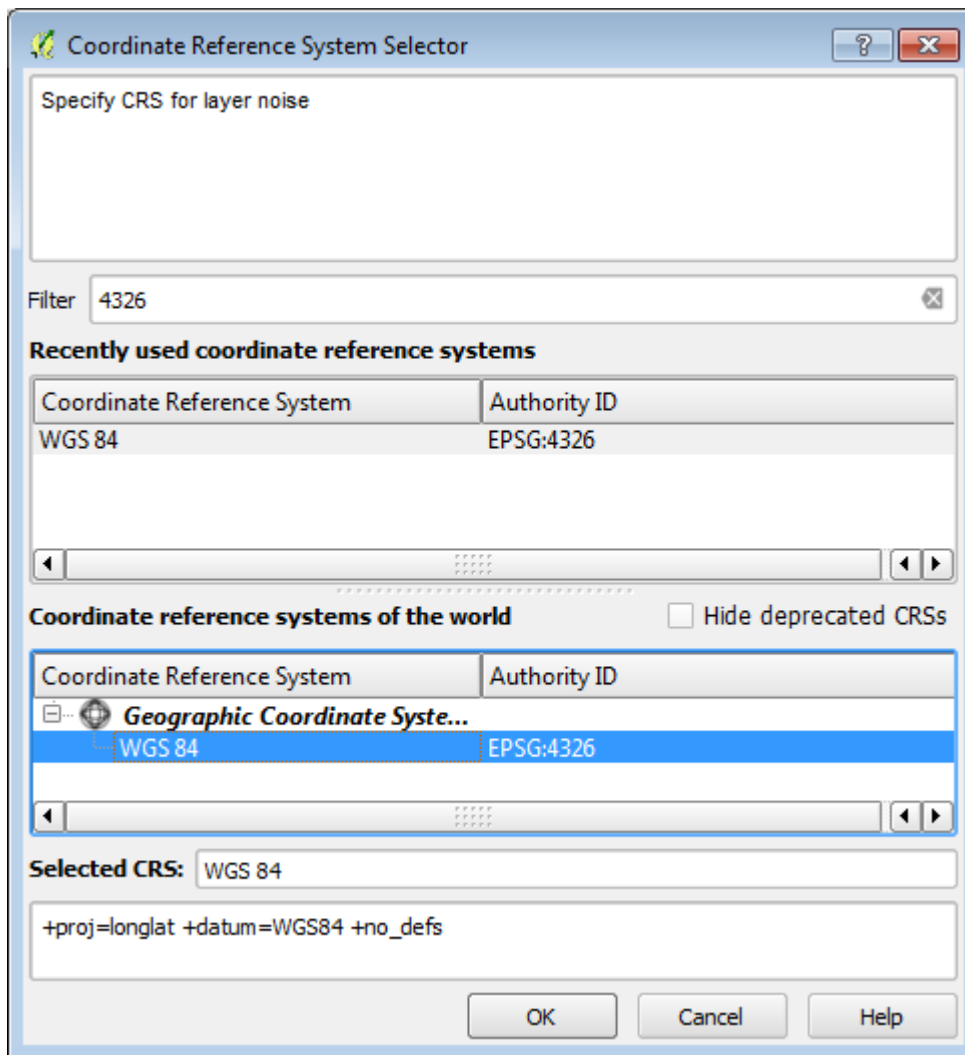
Field options:  Trim fields  Discard empty fields  Decimal separator is comma

Geometry definition:  Point coordinates  Well known text (WKT)  No geometry (attribute only table)

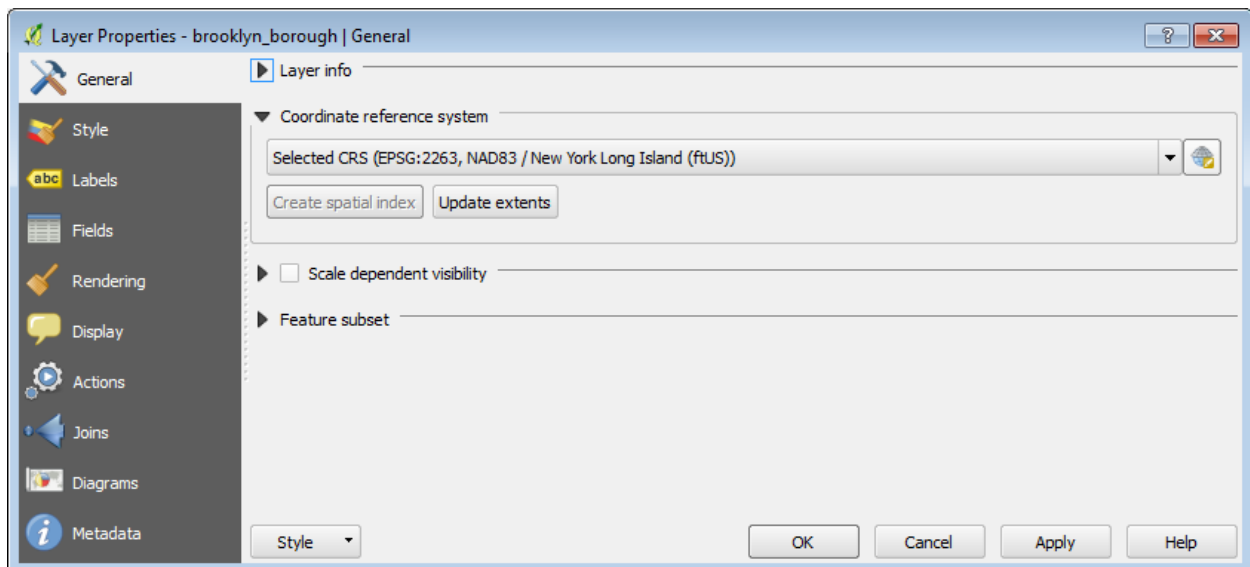
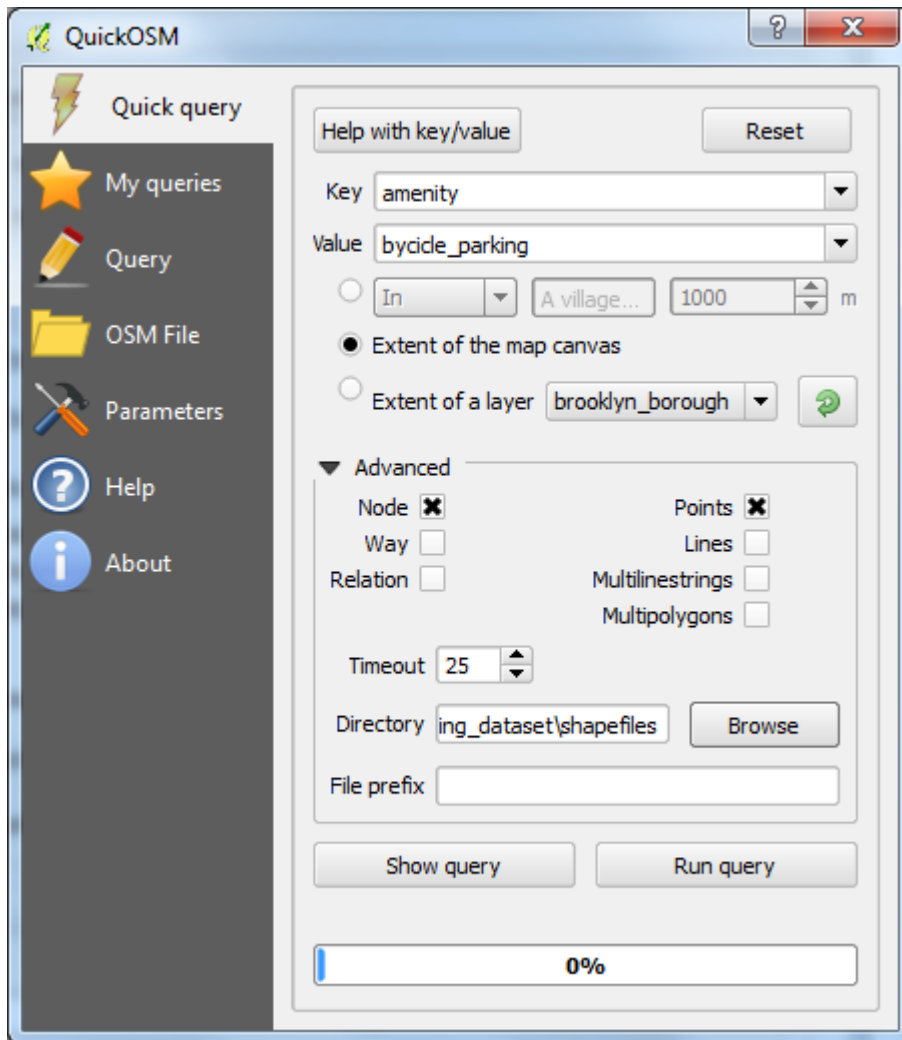
X field:  Y field:   DMS coordinates

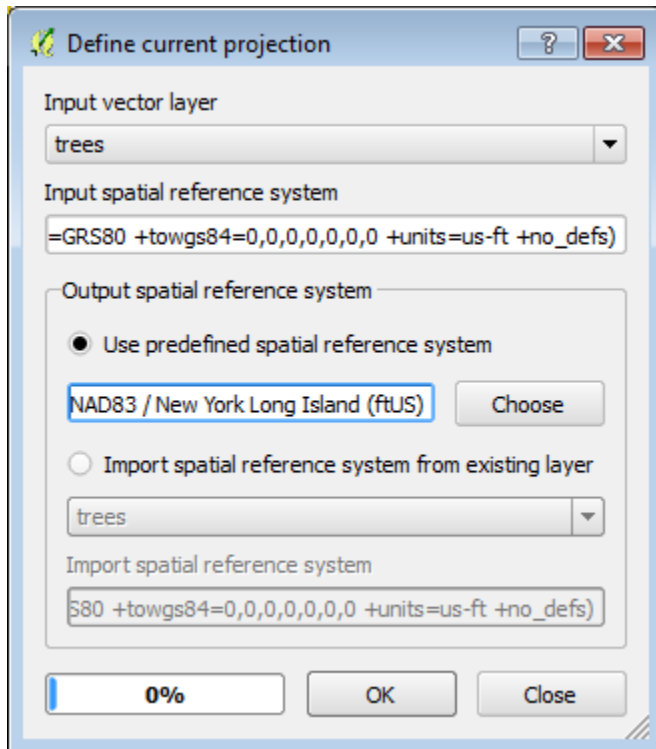
Layer settings:  Use spatial index  Use subset index  Watch file

	created_date	closed_date	agency	agency_name	compla
1	01/21/2015 02:11:27 AM		NYPD	New York City Police Department	Noise - V
2	01/21/2015 01:33:22 AM		NYPD	New York City Police Department	Noise - C
3	01/21/2015 01:24:31 AM	01/21/2015 02:03:49 AM	NYPD	New York City Police Department	Noise - C
4	01/21/2015 12:22:23 AM	01/21/2015 12:44:57 AM	NYPD	New York City Police Department	Noise - C









The screenshot shows the DB Manager application window. The title bar reads "DB Manager". Below the title bar, there are tabs for "Database" and "Table". A toolbar contains icons for refresh, print, download, and upload. A "Tree" view on the left shows a hierarchical structure of databases: "PostGIS", "SpatialLite", and "brooklyn.sqlite". Under "brooklyn.sqlite", a list of tables and views is displayed, including "SpatialIndex", "geom\_cols\_ref\_sys", "geometry\_columns", "geometry\_columns\_auth", "geometry\_columns\_field\_infos", "geometry\_columns\_statistics", "geometry\_columns\_time", "spatial\_ref\_sys", "spatialite\_history", "sql\_statements\_log", "sqlite\_sequence", "vector\_layers", "vector\_layers\_auth", "vector\_layers\_field\_infos", "vector\_layers\_statistics", "views\_geometry\_columns", "views\_geometry\_columns\_auth", "views\_geometry\_columns\_field\_infos", "views\_geometry\_columns\_statistics", "virts\_geometry\_columns", "virts\_geometry\_columns\_auth", "virts\_geometry\_columns\_field\_infos", and "virts\_geometry\_columns\_statistics".

The right pane shows the "Info" tab for the selected database, "brooklyn.sqlite". The title bar of this pane reads "brooklyn.sqlite". Below the title, there are tabs for "Info", "Table", and "Preview".

### Connection details

Filename: C:/Users/alex/Documents/training\_dataset/brooklyn.sqlite

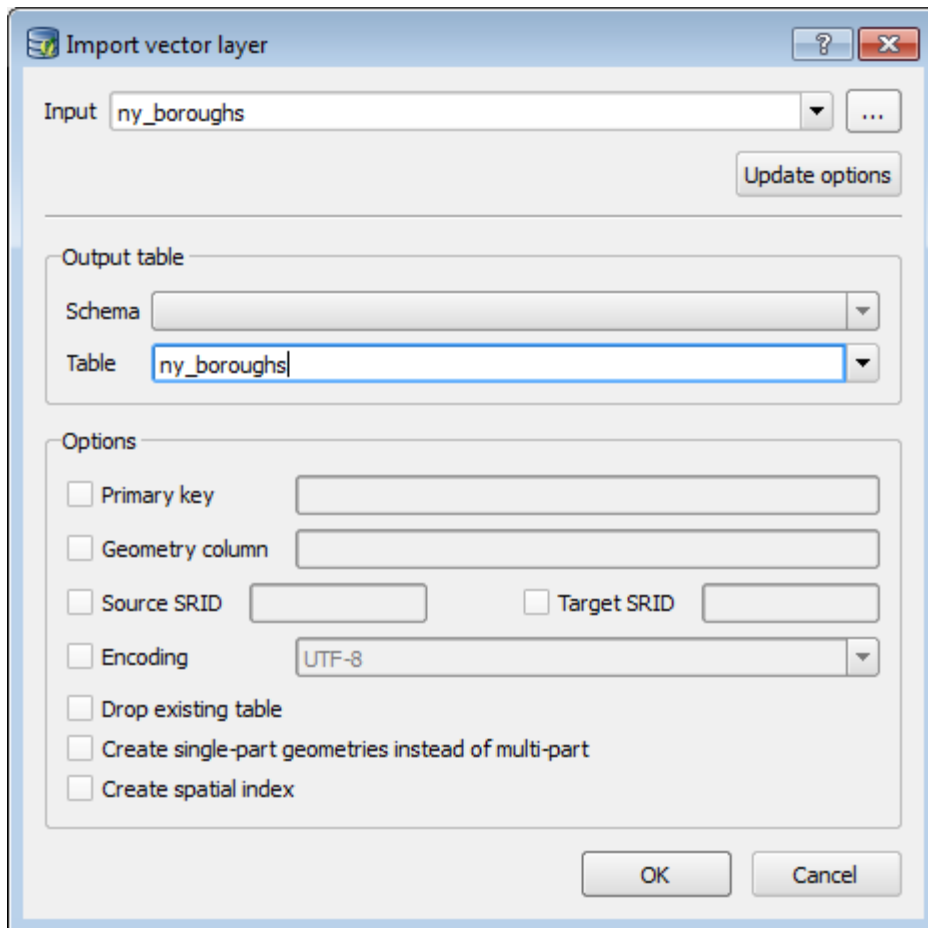
### General info

SQLite version: 3.7.17

### Spatialite

Library: 4.1.1  
GEOS: 3.4.2-CAPI-1.8.2 r3921  
Proj: Rel. 4.8.0, 6 March 2012



The dialog box is titled "Import vector layer" and has a standard Windows-style title bar with a question mark icon and a close button. It is divided into three main sections: "Input", "Output table", and "Options".

**Input:** A text field contains "ny\_boroughs" with a dropdown arrow and an ellipsis button to its right. Below this is an "Update options" button.

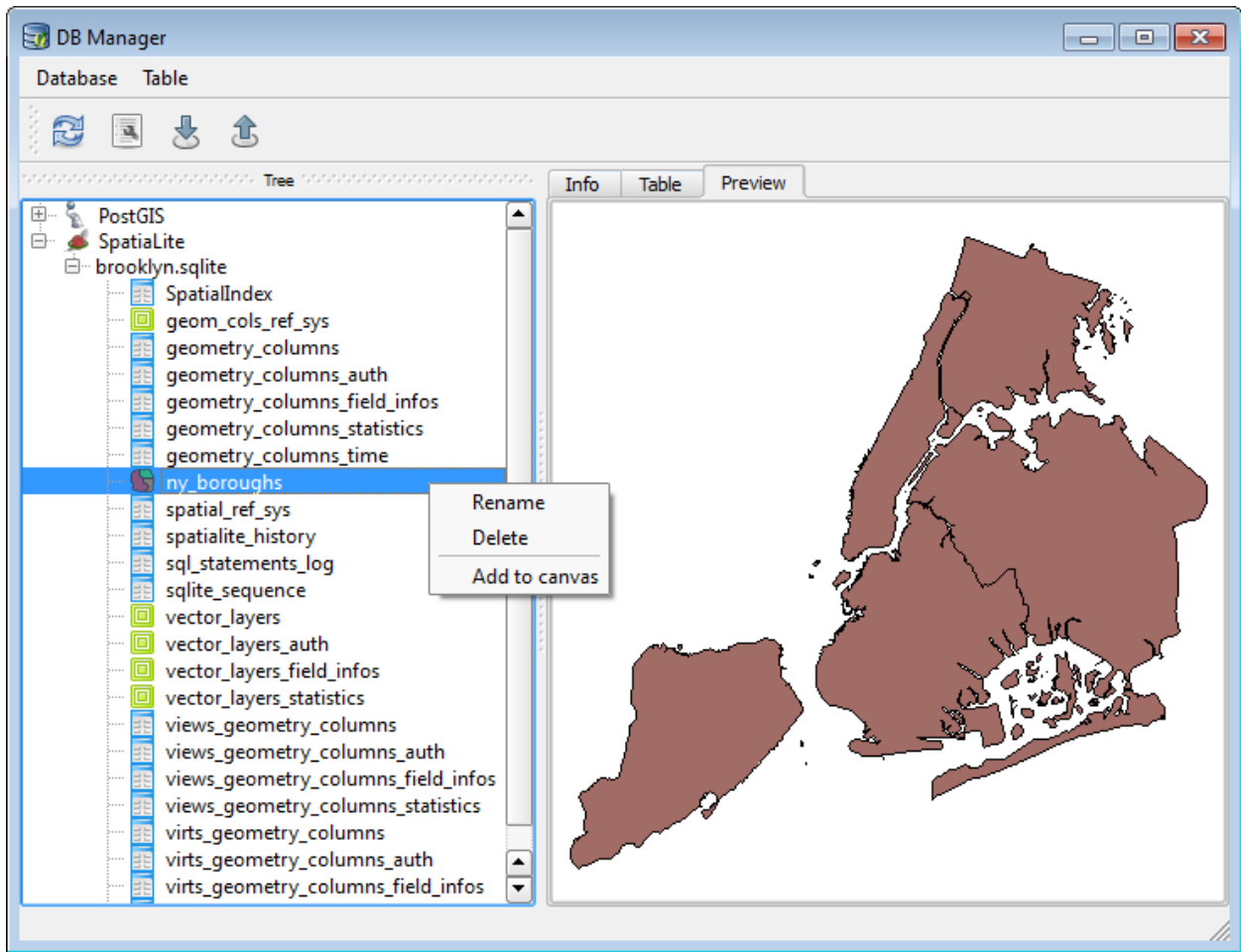
**Output table:** A section with a title "Output table" containing two dropdown menus. The "Schema" dropdown is empty, and the "Table" dropdown contains "ny\_boroughs".

**Options:** A section with a title "Options" containing several checkboxes and text fields:

- Primary key: followed by an empty text field.
- Geometry column: followed by an empty text field.
- Source SRID: followed by an empty text field.
- Target SRID: followed by an empty text field.
- Encoding: followed by a dropdown menu showing "UTF-8".
- Drop existing table
- Create single-part geometries instead of multi-part
- Create spatial index

At the bottom right, there are "OK" and "Cancel" buttons.





Chapter 2



Query Builder

Set provider filter on athletic\_facilities

Fields

- system
- name
- primary\_sp
- field\_type
- gispropnum
- parentid
- surface\_ty
- dimensions
- field\_ligh
- field\_num
- for\_permit
- adult\_soft
- adult\_base
- ll\_softbal
- ll\_baseb\_1

Values

- BKB
- BOC
- BSB
- CRK
- FTB
- HDB
- HKY
- MPPA
- NTB
- SCR
- CEP

Sample All

Operators

= < > <= >= != LIKE AND OR NOT IN NOT

Provider specific filter expression

```
"primary_sp" = 'MPPA'
```

Query Result

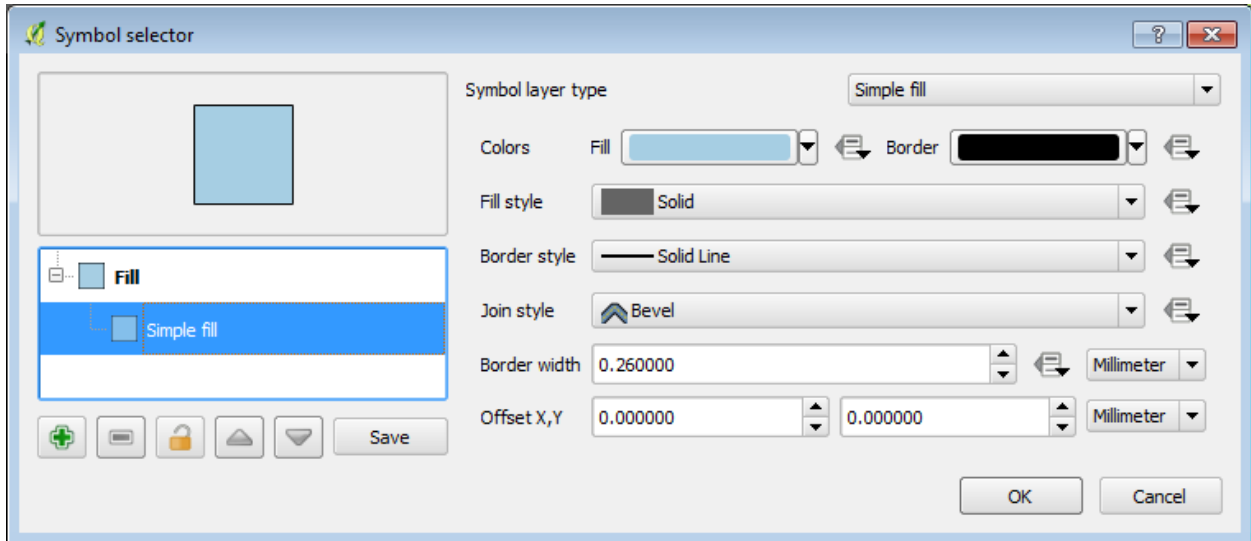
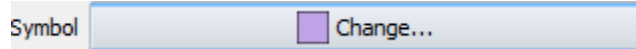
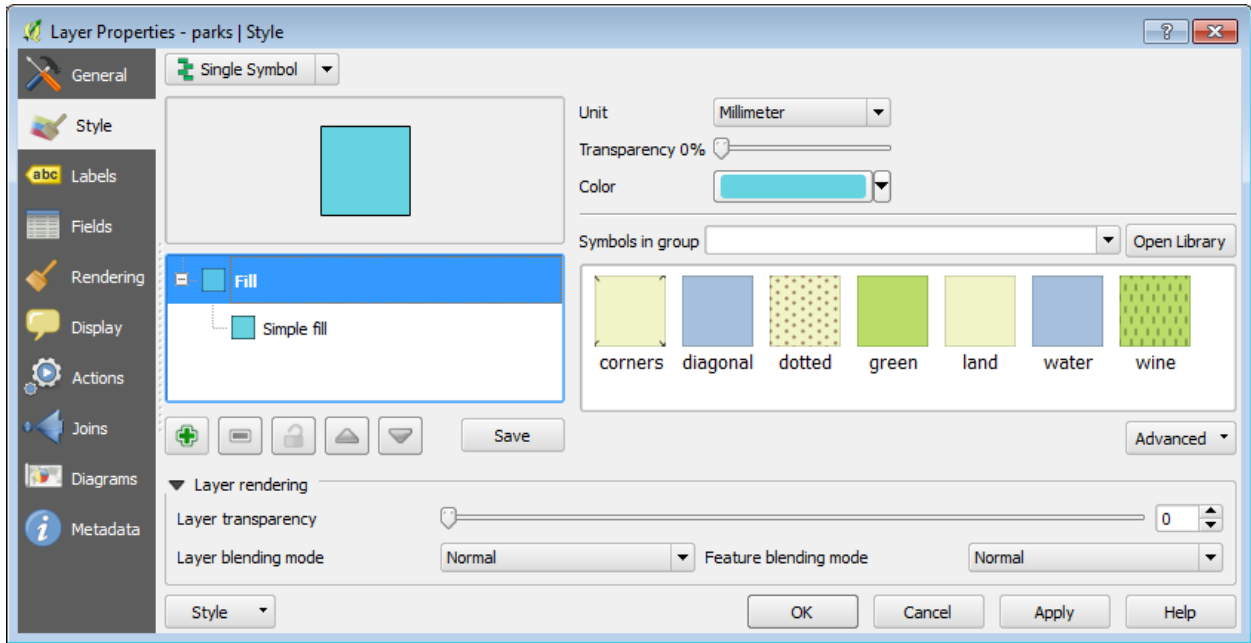
The where clause returned 45 row(s).

OK

OK Test Clear Cancel Help

Layers







Layer Properties - Brooklyn borough boundaries | Style

General | **Style** | Labels | Fields | Rendering | Display | Actions | Joins | Diagrams | Metadata

Single Symbol

Symbol layer type: Outline: Simple line

Color: [Black] [Color Picker]

Pen width: 1.000000 [Spinners] [Millimeter]

Offset: 0.000000 [Spinners] [Millimeter]

Pen style: --- Dash Line [Dropdown]

Join style: Bevel [Dropdown]

Cap style: Square [Dropdown]

Use custom dash pattern [Change] [Millimeter]

Draw line only inside polygon

Fill: [List: Fill, Simple line, Simple line]

[Add] [Remove] [Lock] [Unlock] [Save]

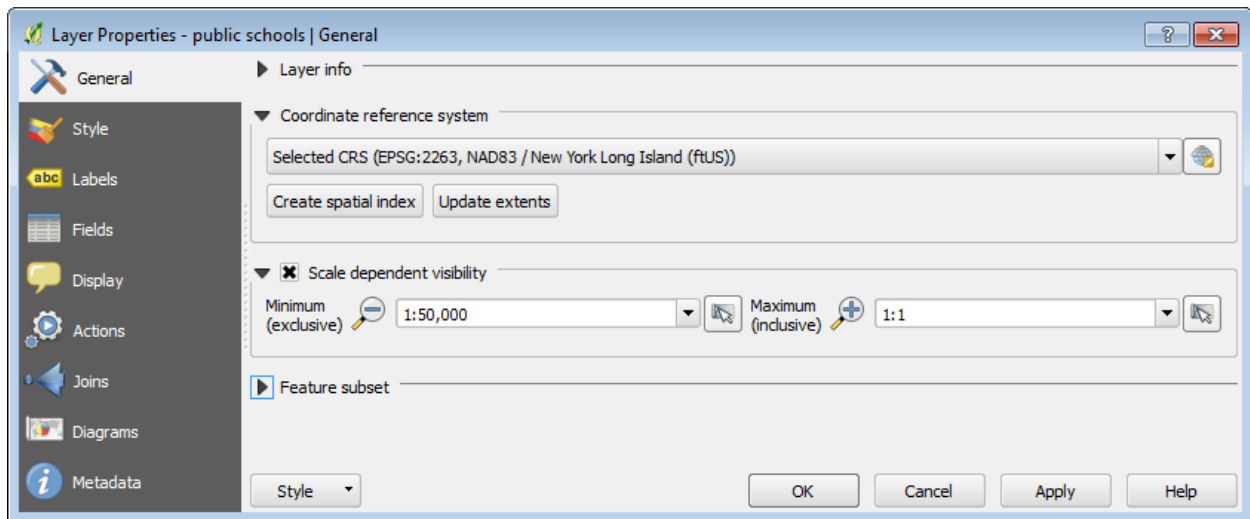
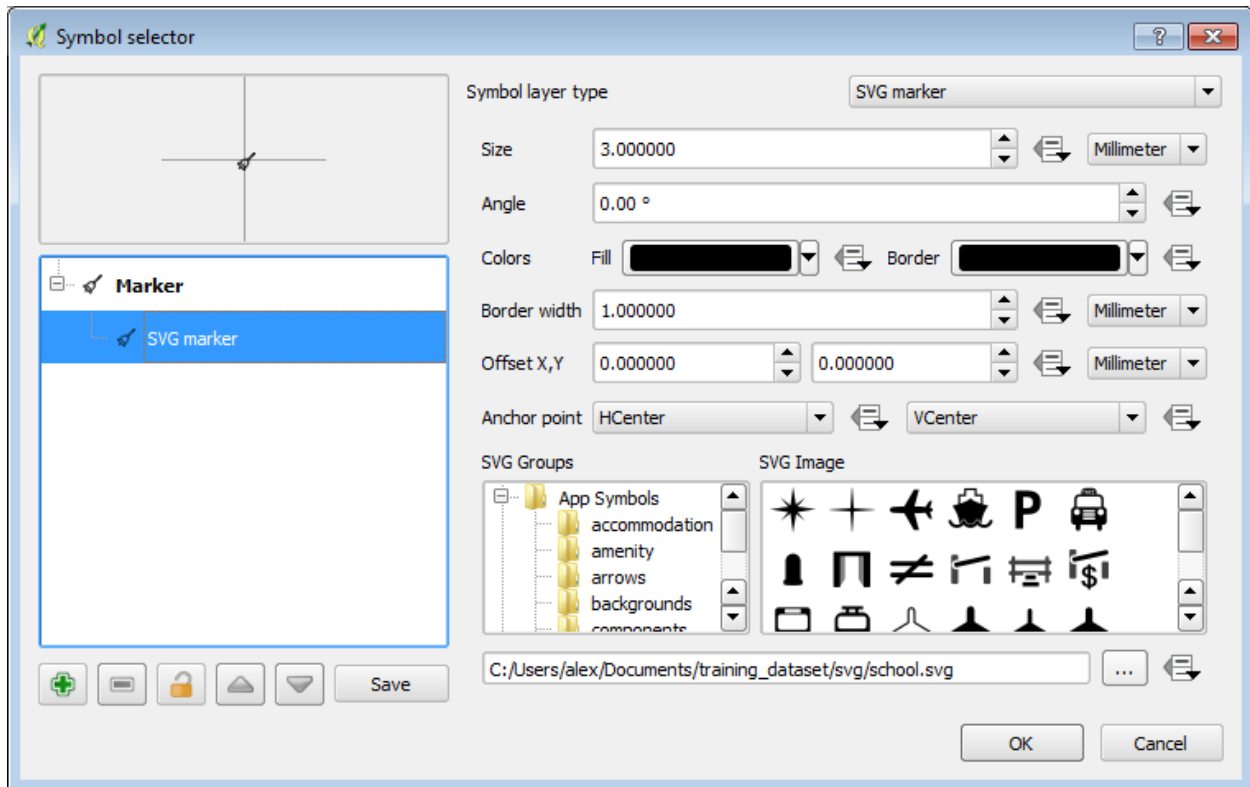
Style [Dropdown]

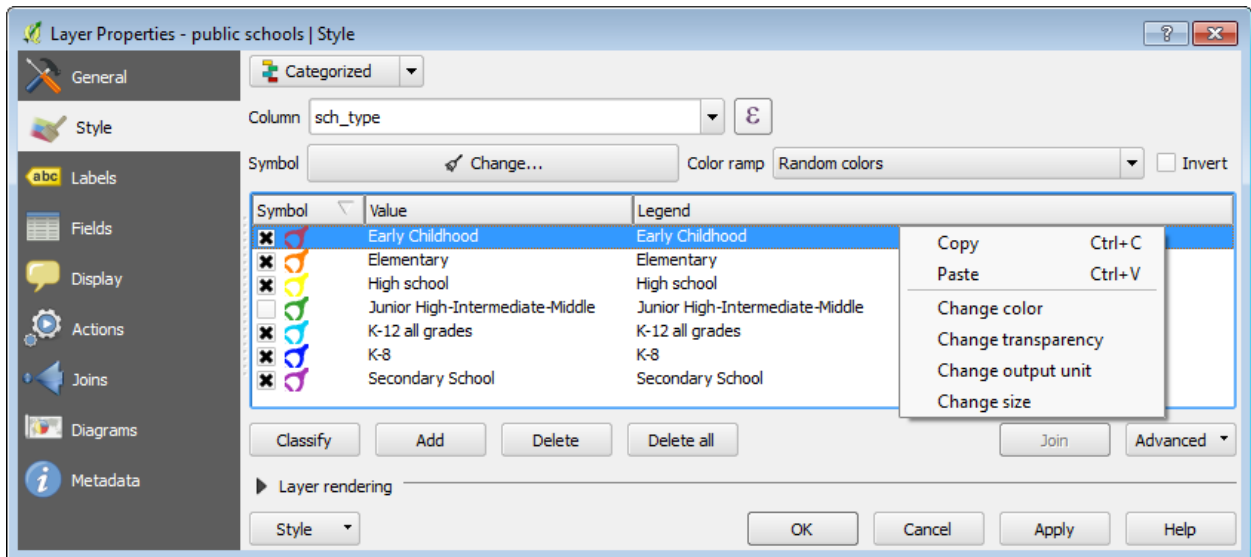
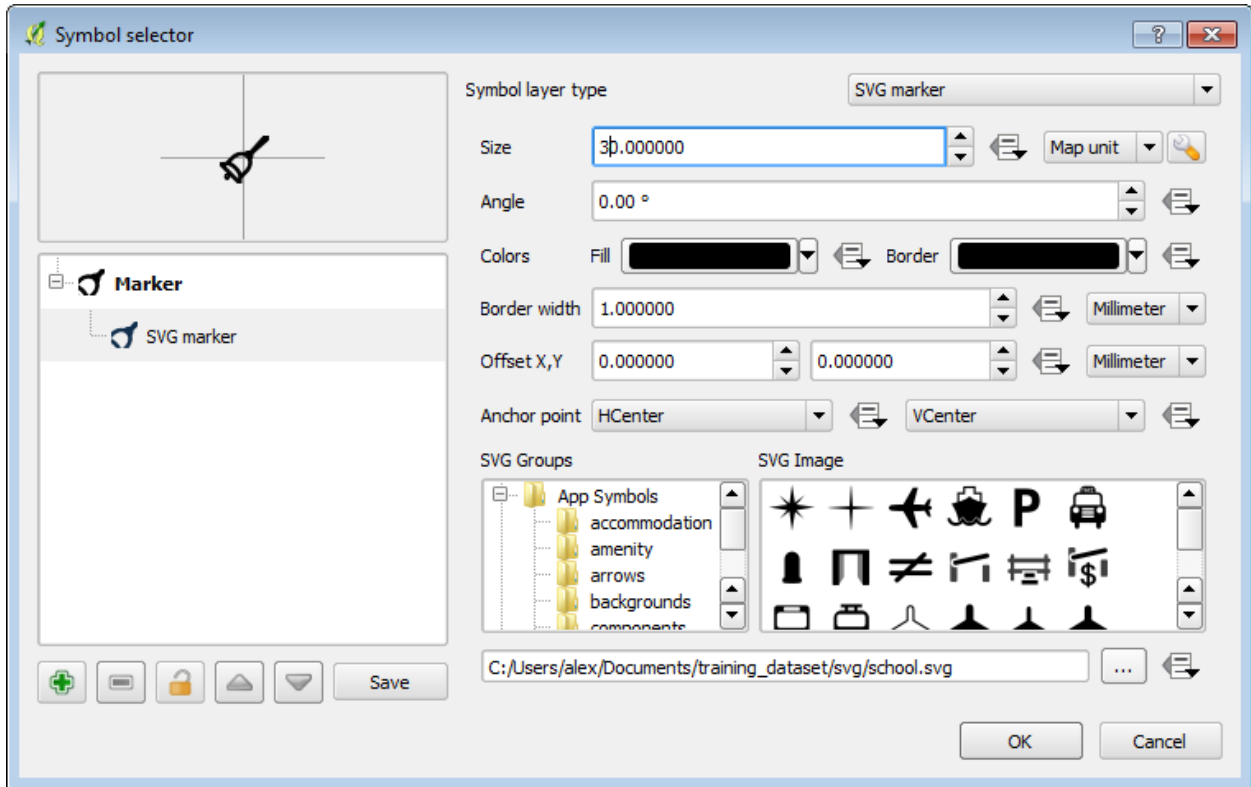
OK Cancel Apply Help

Categorized [Dropdown]

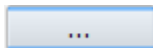
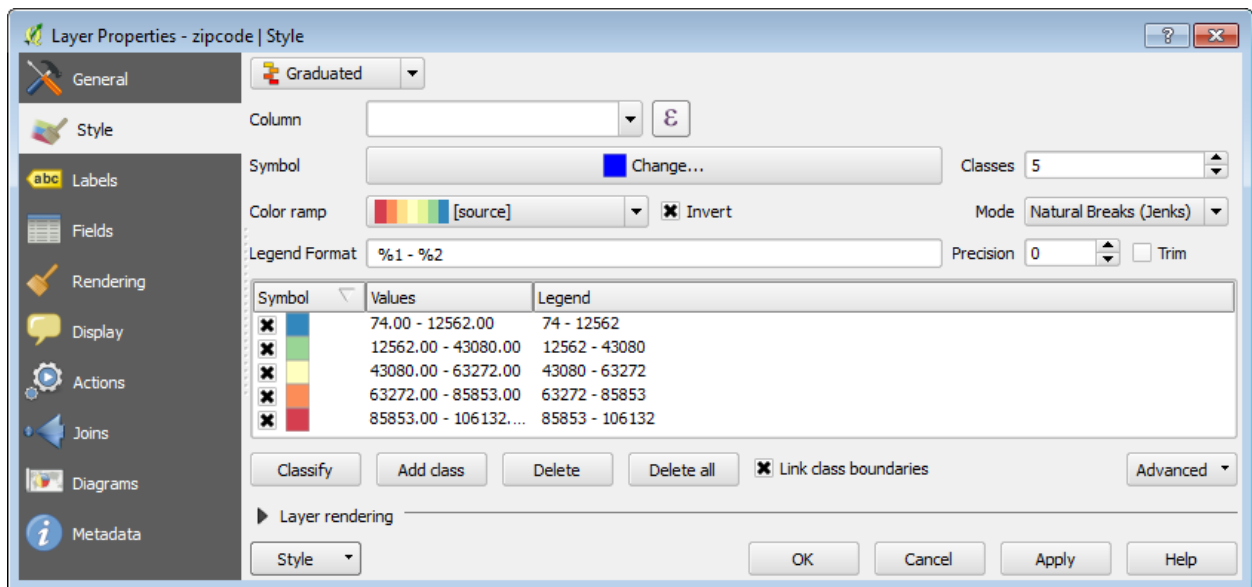
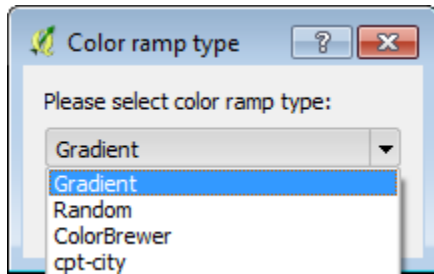
Column: sch\_type [Dropdown]

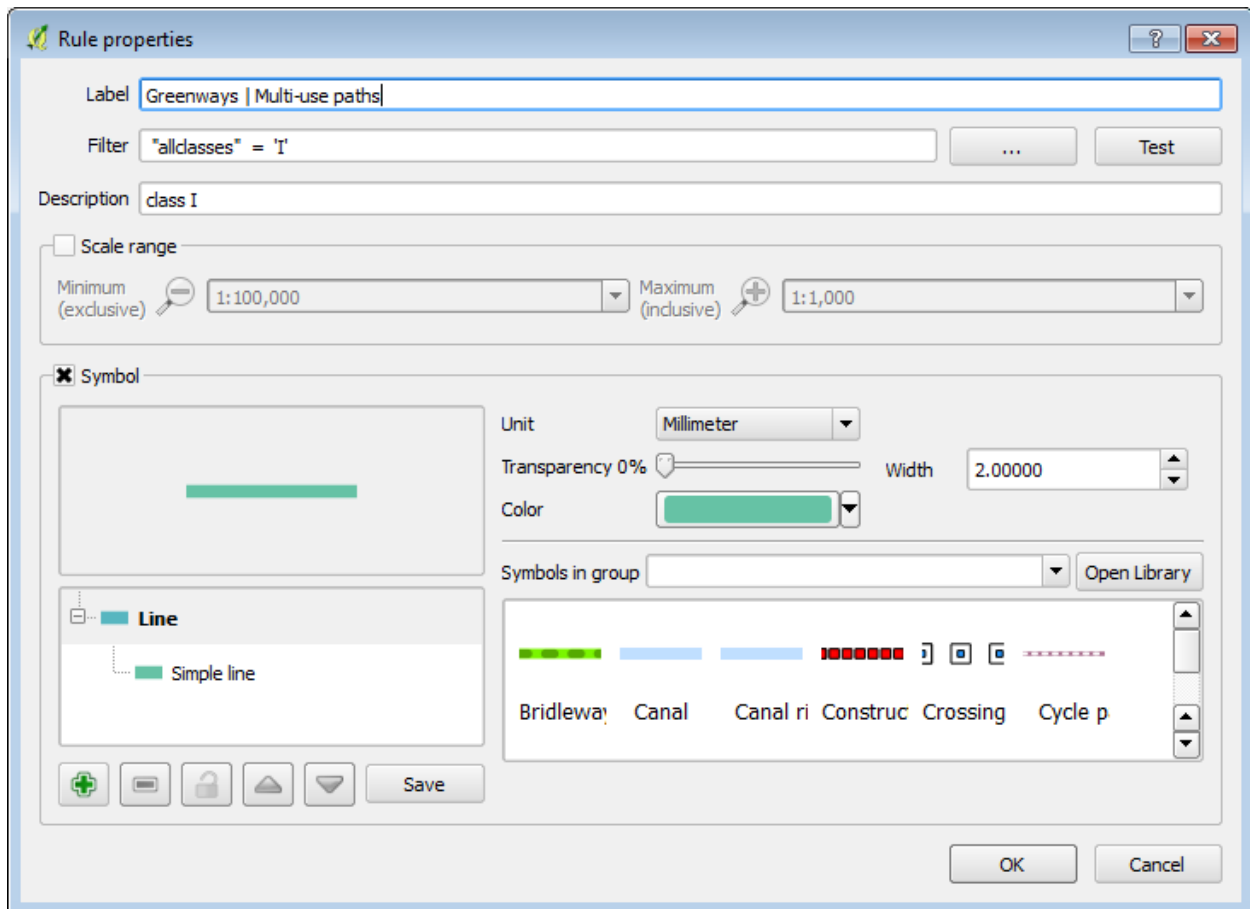
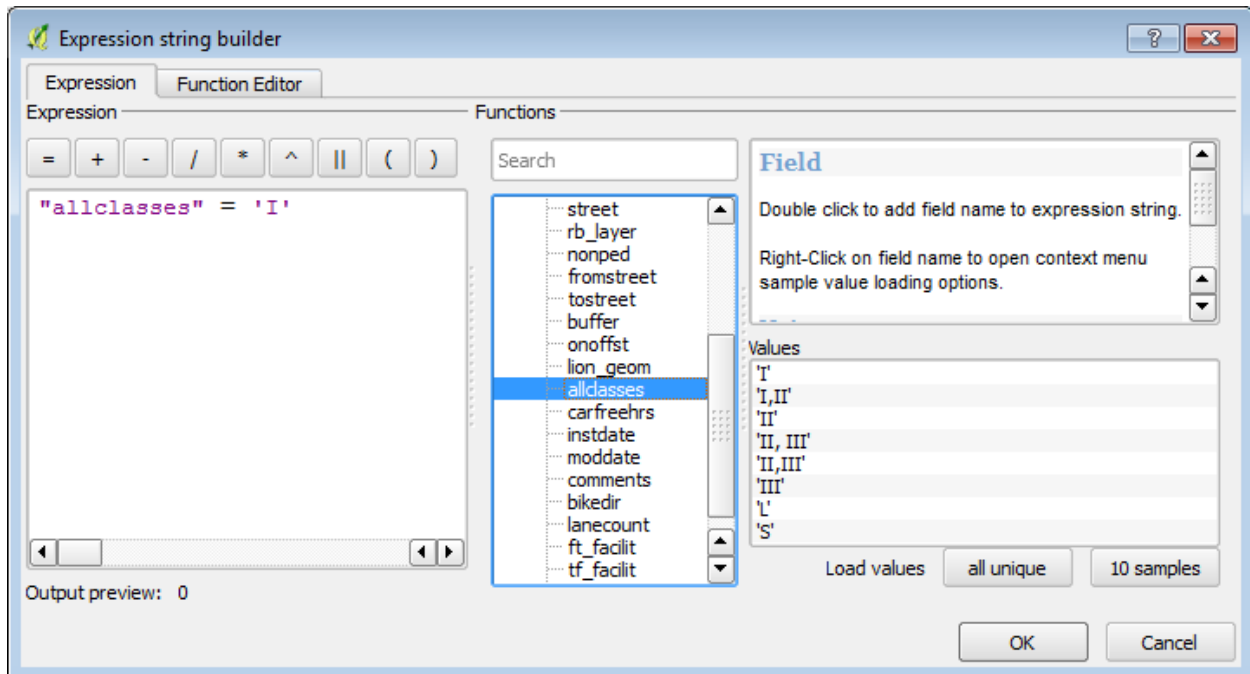






ε







### Refine a rule to categories

Column: lanecount

Symbol: Change... Color ramp: Random colors  Invert

Symbol	Value	Legend
	0	0
	1	1
	2	2
	3	3

Buttons: Classify, Add, Delete, Delete all, Join, Advanced, OK, Cancel

### Layer Properties - bike routes | Style

Rule-based

Label	Rule	Min. scale	Max. scale	Count	Duplicate count
Greenways   Multi-use paths	"allclasses" = 'I'			463	463
no lanes	"lanecount" = 0			16	16
1 lane	"lanecount" = 1			40	40
2 lanes	"lanecount" = 2			407	407
Greenways   Multi-use paths   ...	"allclasses" = 'I,II'			16	16
2 lanes	"lanecount" = 2			11	11
"lanecount" = 3	"lanecount" = 3			5	5
On-street striped bicycle lane	"allclasses" = 'II'			1536	1536
On-street striped bicycle lane   ...	"allclasses" in ('II, III...)			28	28
On-street signed bicycle route	"allclasses" = 'III'			783	783
Link, no facility present	"allclasses" = 'L'			50	0
Stairs and pedestrian overpass...	"allclasses" = 'S'			19	0

Buttons: Refine current rules, Count features, Rendering order...

Layer rendering: Style, OK, Cancel, Apply, Help

## Symbol Levels



Define the order in which the symbol layers are rendered. The numbers in the cells define in which rendering pass the layer will be drawn.

		Layer 0	Layer 1	Layer 2
	Greenways   Multi-use paths	1		
	no lanes	2		
	1 lane	2		
	2 lanes	2	3	
	Greenways   Multi-use paths   On-street striped bicycle lane	1		
	2 lanes	2	3	
	"lanecount" = 3	2	3	4
	On-street striped bicycle lane	1		
	1 lane	2		
	2 lanes	2	3	
	On-street striped bicycle lane   On-street signed bicycle route	1		
	2 lanes	2	3	
	On-street signed bicycle route	1		
	1 lane	2		
	2 lanes	2	3	
	Link, no facility present	0		
	Stairs and pedestrian overpasses	0	0	

OK

Cancel



Layer Properties - water area | Style

General Inverted polygons

Style Sub renderer: Single Symbol

Merge polygons before rendering (slow)

Symbol layer type Shapeburst fill

Gradient colors

- Two color
- Color ramp   [source] Edit

Shading style

- Shade whole shape
- Shade to a set distance: 15.00 Millimeter
- Ignore rings in polygons while shading

Blur strength 10

Offset X,Y 0.000000 0.000000 Millimeter

Layer rendering

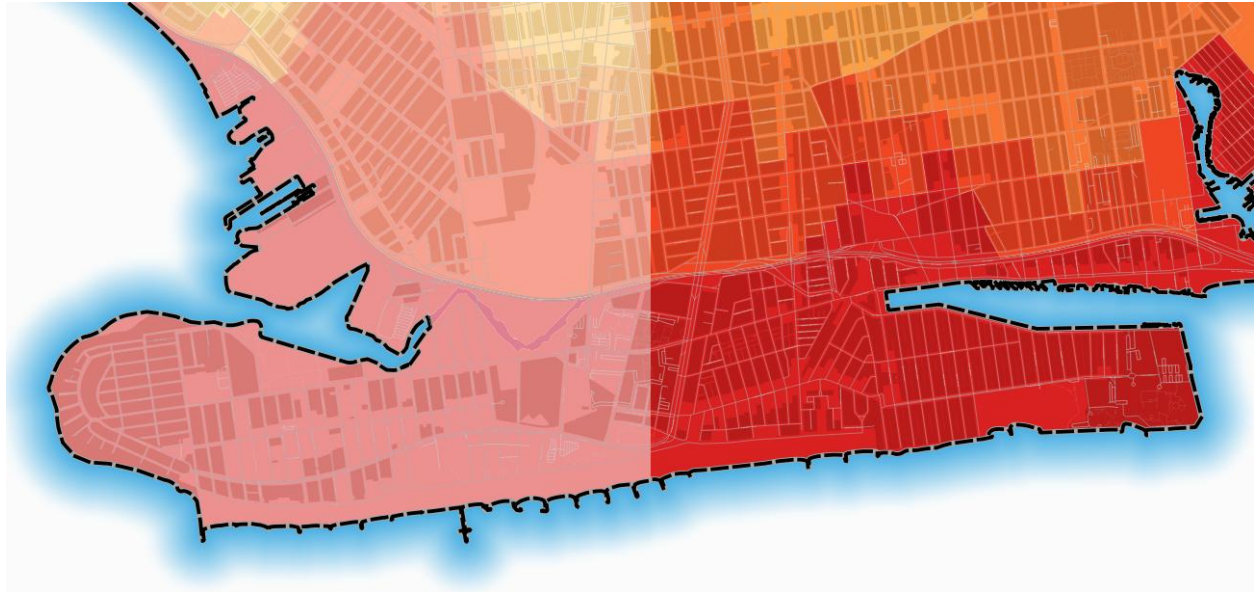
Style

OK Cancel Apply Help

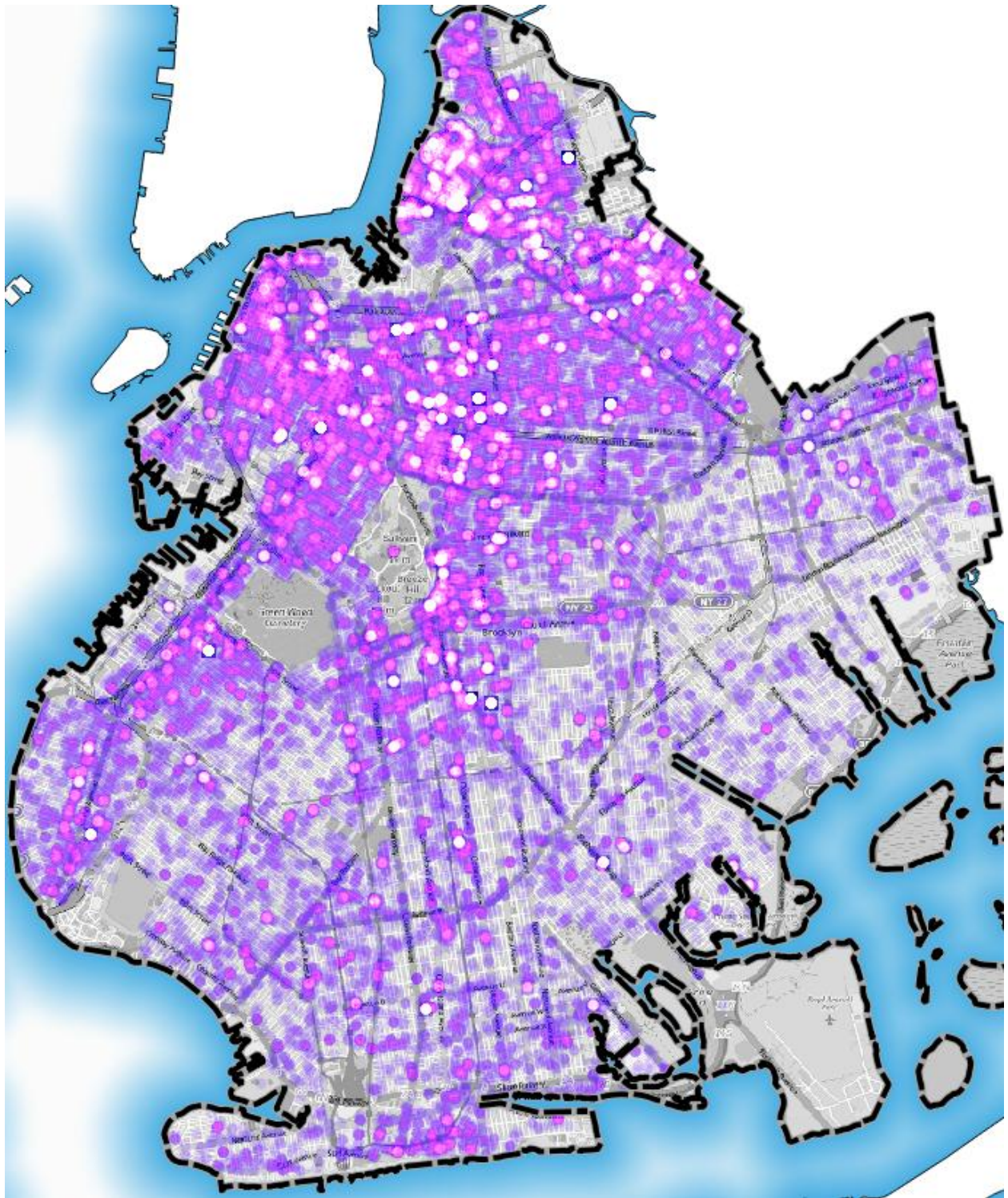
**Fill**

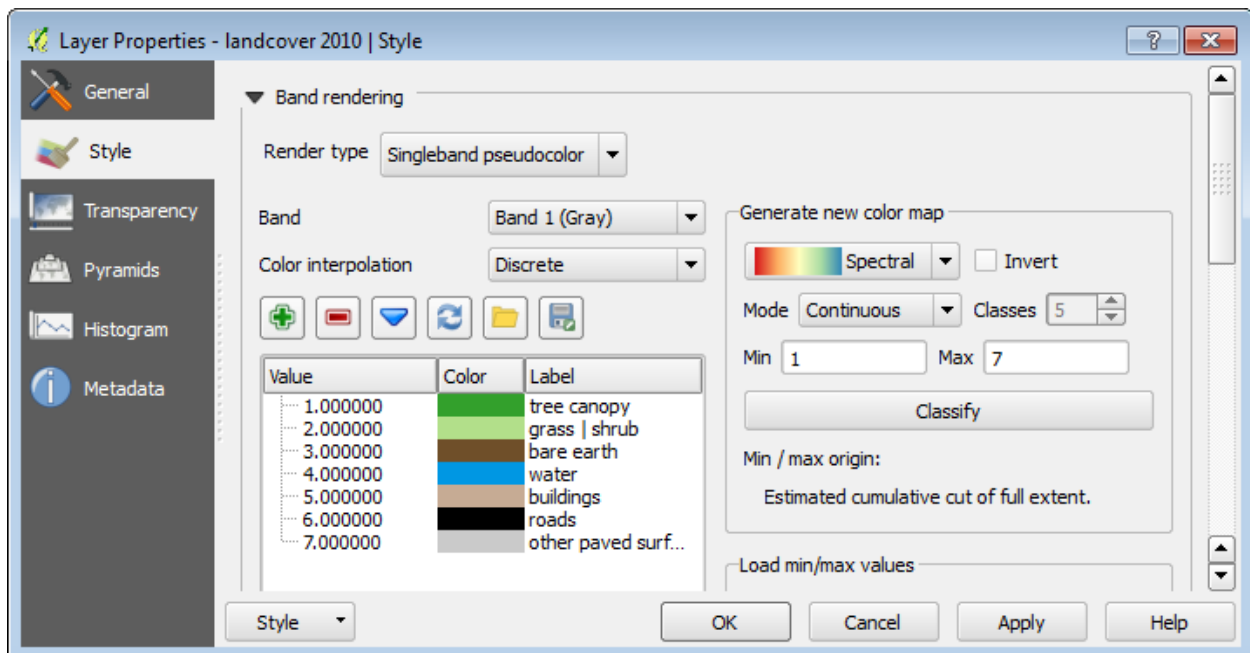
- Simple line
- Shapeburst fill

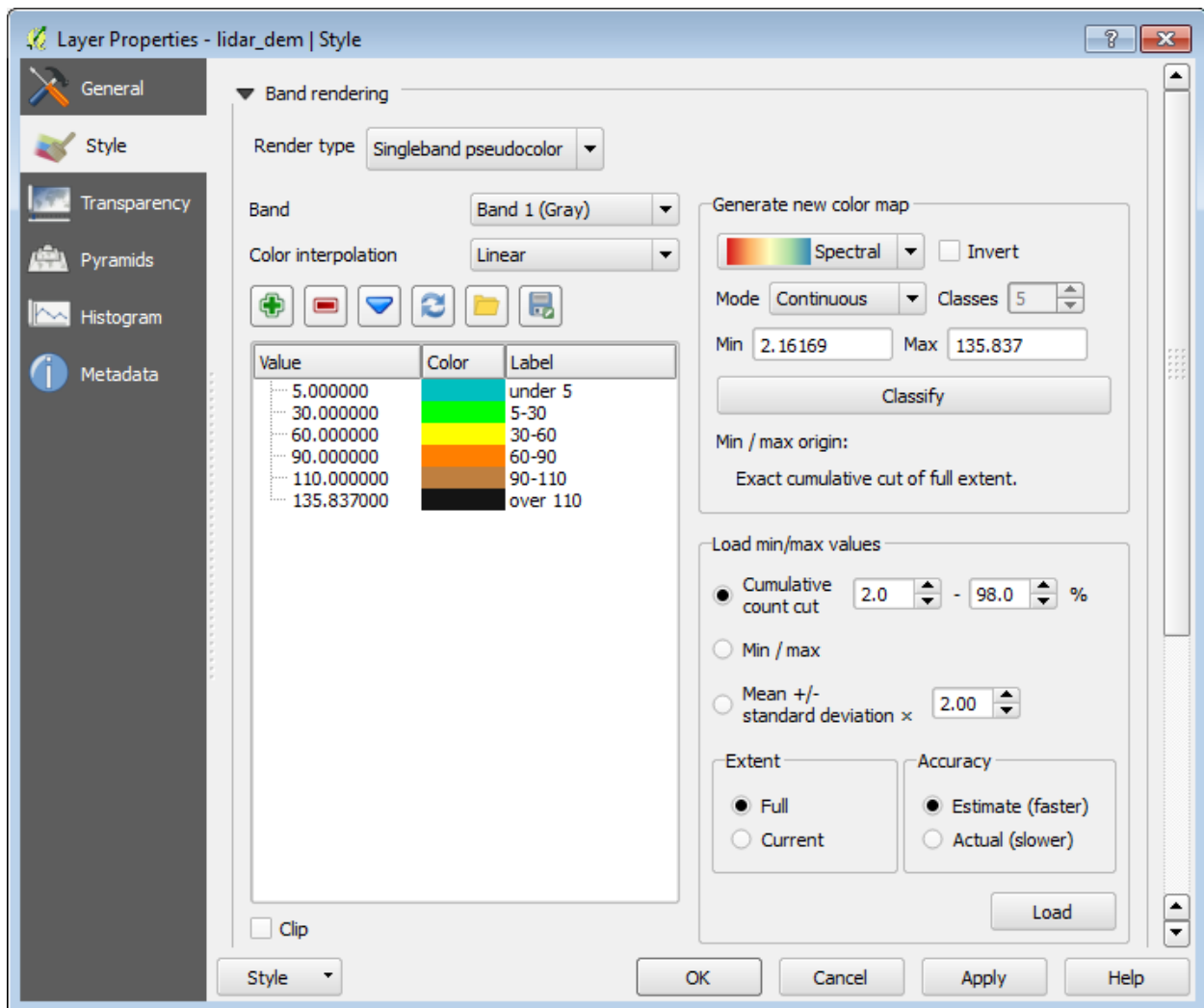
+ - 🔒 📁 📄 Save

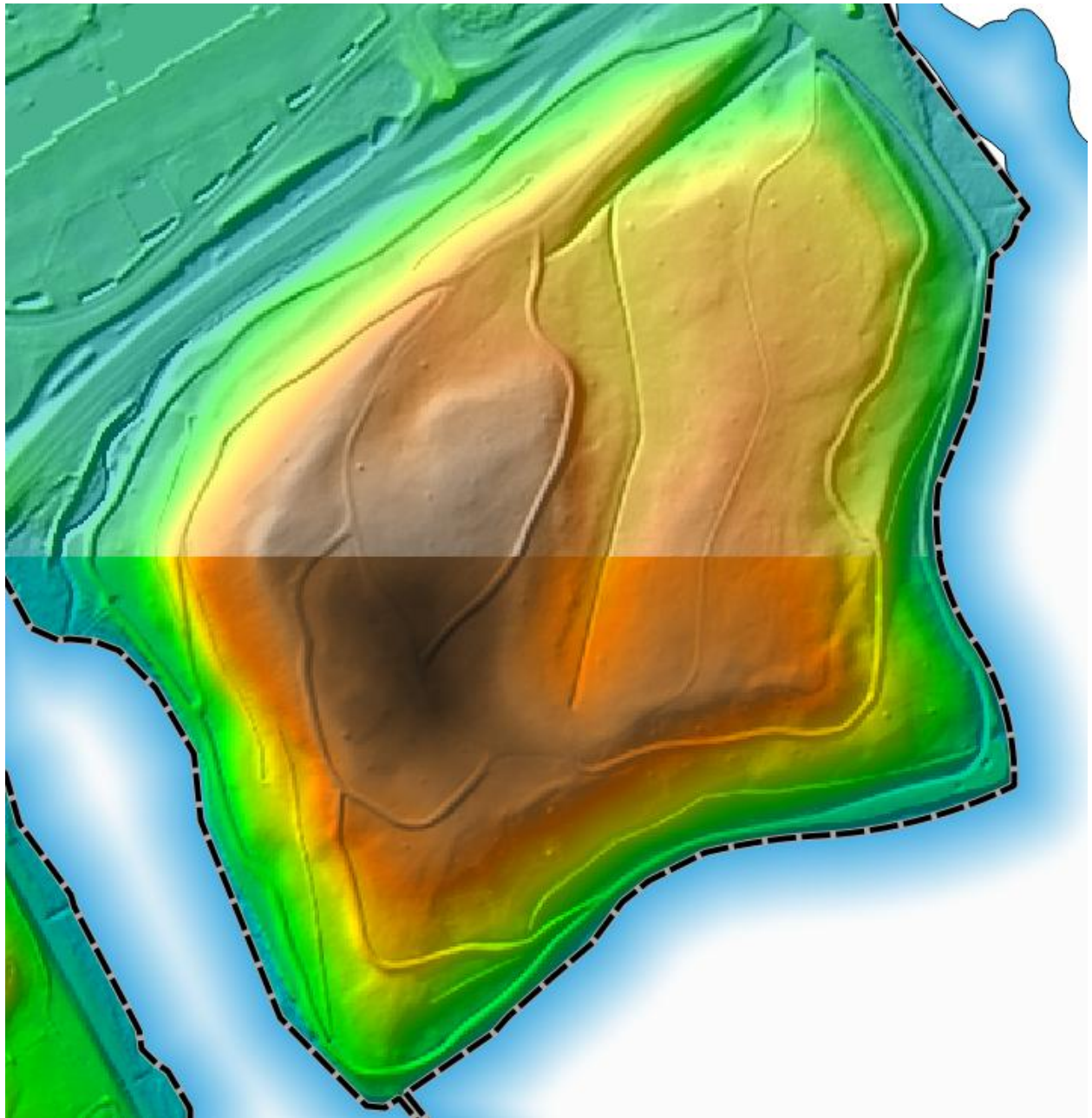


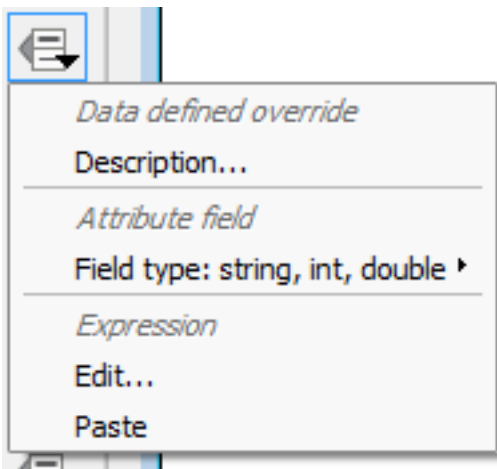
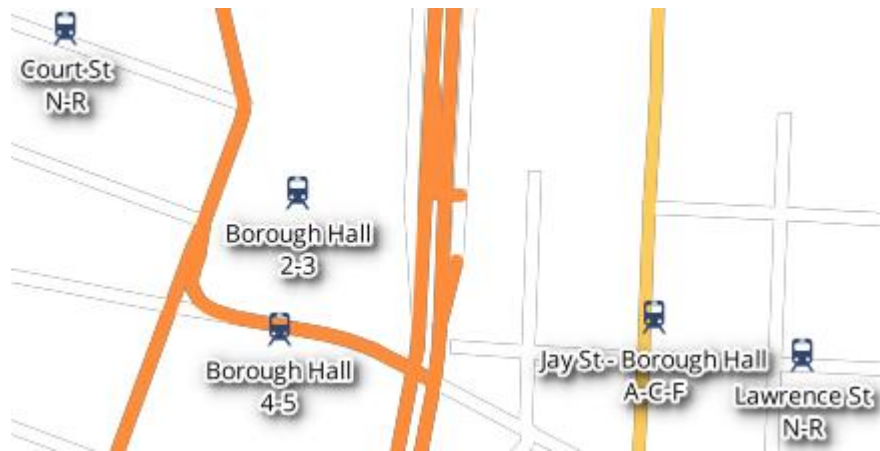


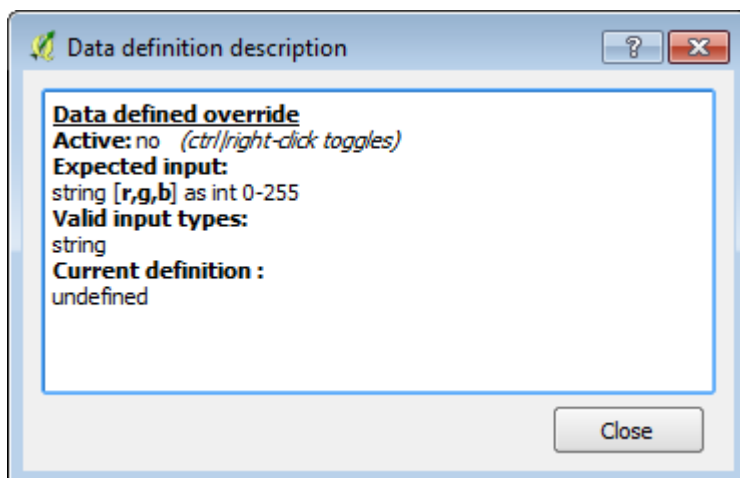
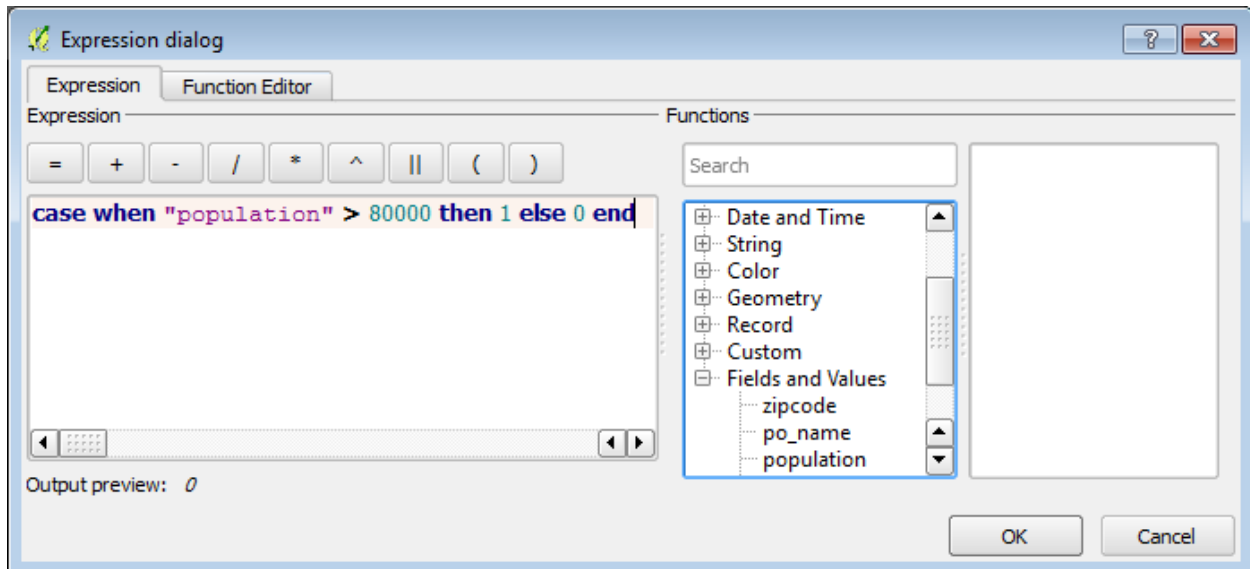


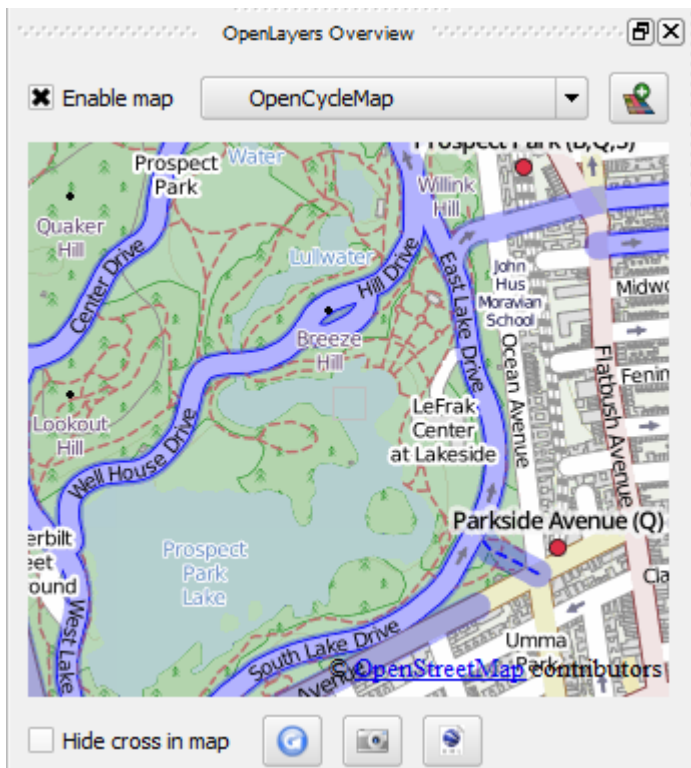
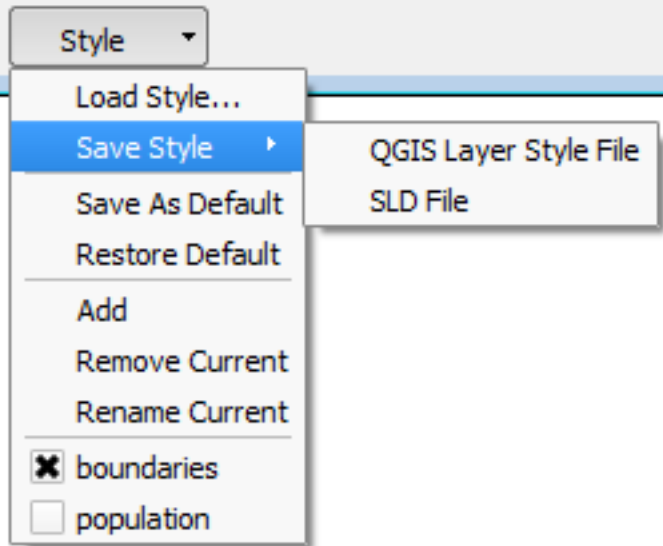


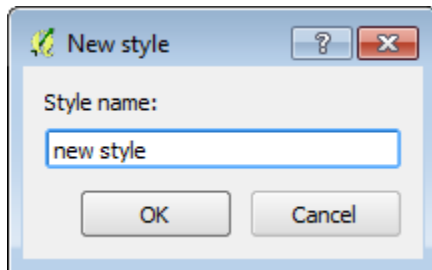
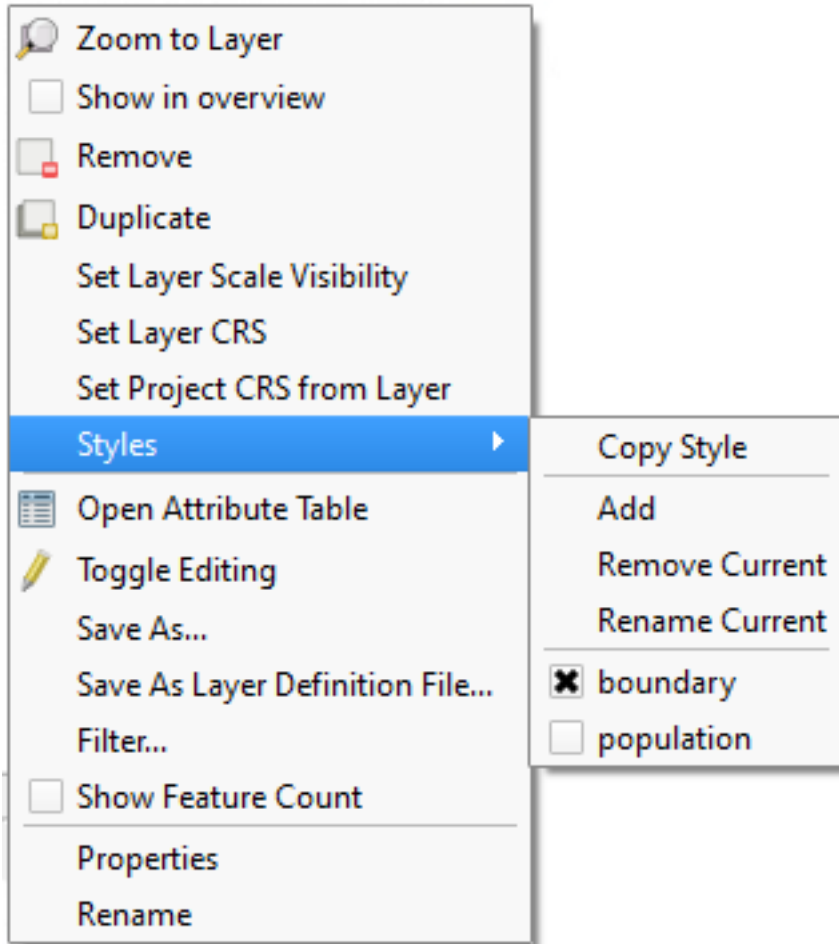




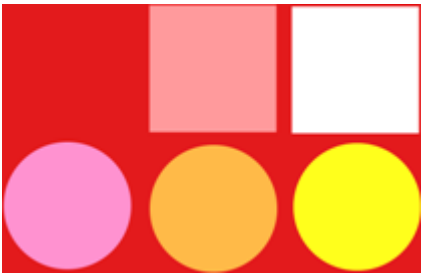
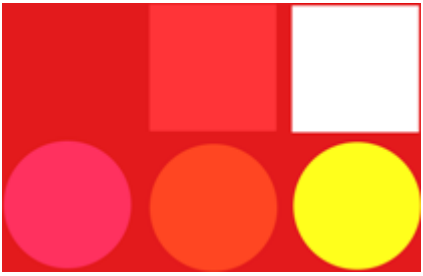
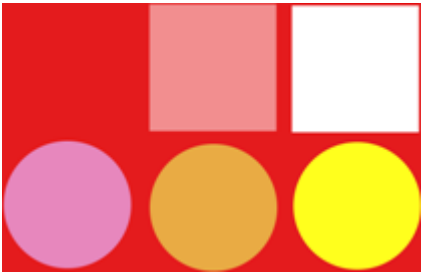
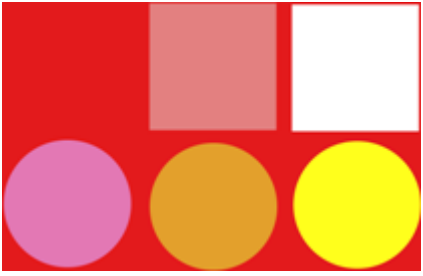






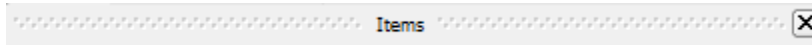
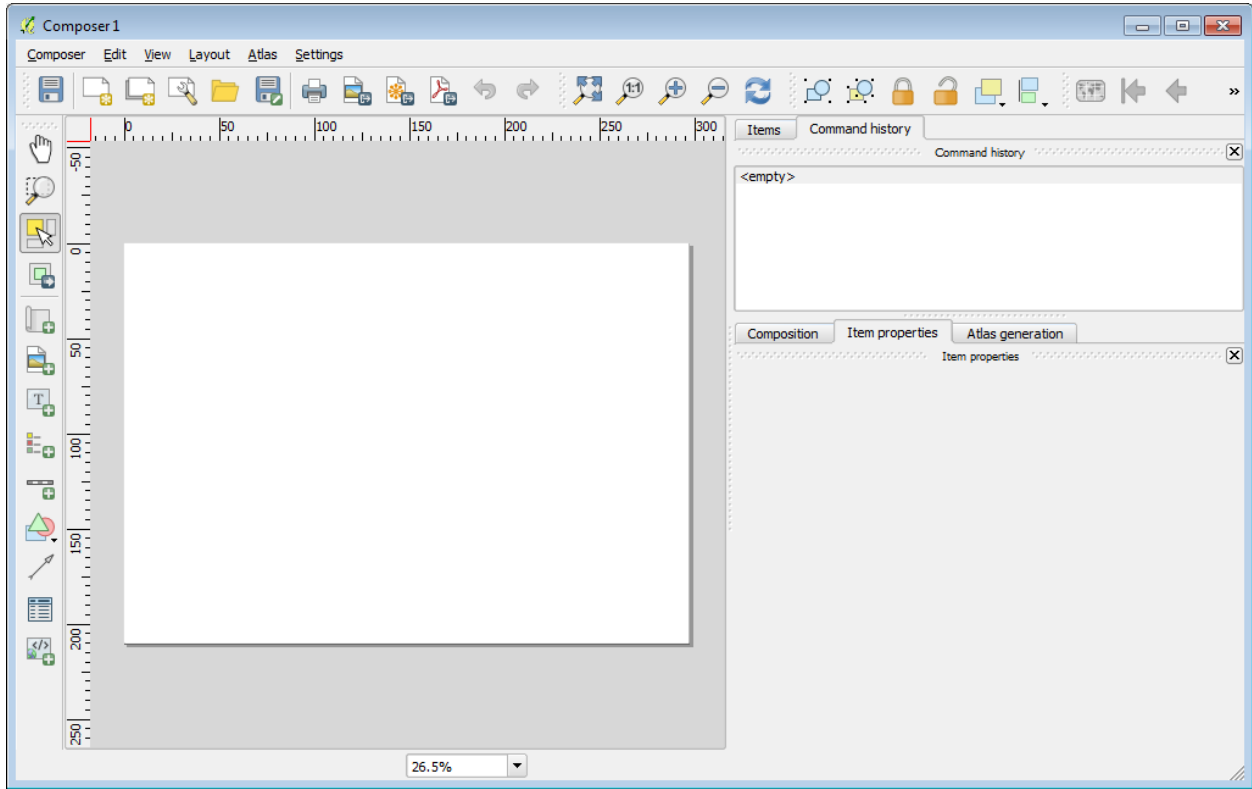












- Command history
- Atlas generation
- Item properties
- Composition
- Items

---

- Composer
- Paper Navigation
- Composer Item Actions
- Composer Items
- Atlas



Composition    Item properties    Atlas generation

Item properties

**Map 0**

▼ Main properties

Cache [dropdown]    Update preview

Scale    100000    [copy icon]

Map rotation    0.00 °    [copy icon]














Draw map canvas items














Lock layers for map item    [eye icon]

Lock layer styles for map item





absolute height, ft	landcover classes, 2010
 under 5	 tree canopy
 5-30	 grass/shrub
 30-60	 bare earth
 60-90	 water
 90-120	 buildings
 over 120	 roads
	 other paved surfaces

absolute height, ft	landcover classes, 2010	
 under 5	 90-120	 bare earth
 5-30	 over 120	 water
 30-60	 tree canopy	 buildings
 60-90	 grass/shrub	 roads
		 other paved surfaces



▼ Search directories

Loading previews...

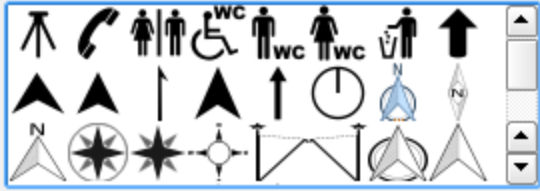


Image search paths

C:\OSGeo4W\apps\qgis\svg

Remove Add...

The 'Search directories' window displays a collection of 24 icons arranged in a 3x8 grid. The icons include: a tree, a telephone handset, a male and female figure, a wheelchair with 'WC' above it, a male figure with 'wc' below it, a female figure with 'wc' below it, a person with a trash can, an upward arrow, a north arrow with 'N', a compass rose, a starburst, a compass rose with a circle, a path with arrows, a globe, and a north arrow with 'N'. Below the icons is a text field containing the path 'C:\OSGeo4W\apps\qgis\svg' and two buttons labeled 'Remove' and 'Add...'.





Select attributes

Columns

	Attribute	Heading	Alignment	Width
0	zipcode	zipcode	Left	Automatic
1	po_name	po_name	Left	Automatic

Reset

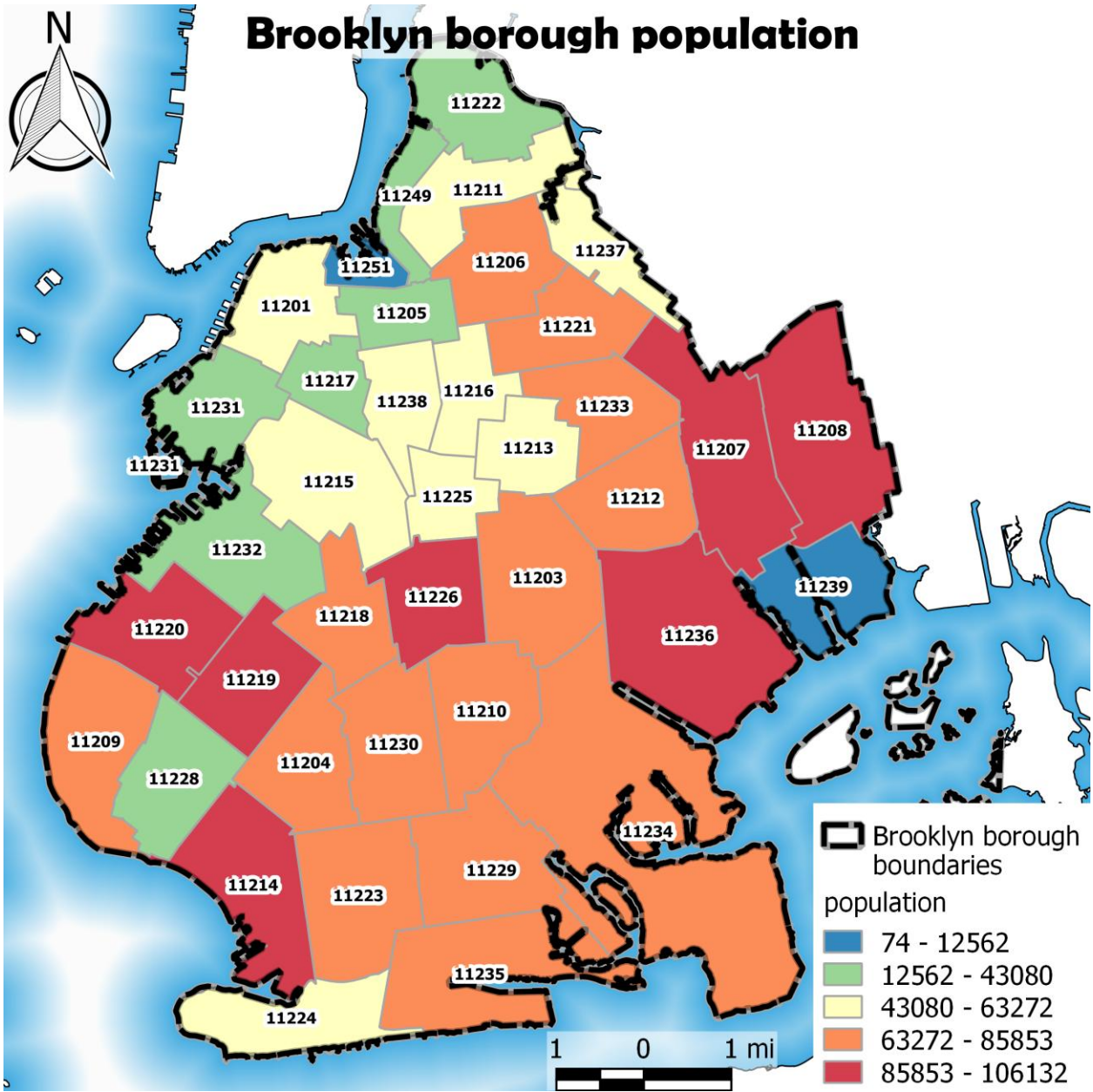
Sorting

area    Ascending

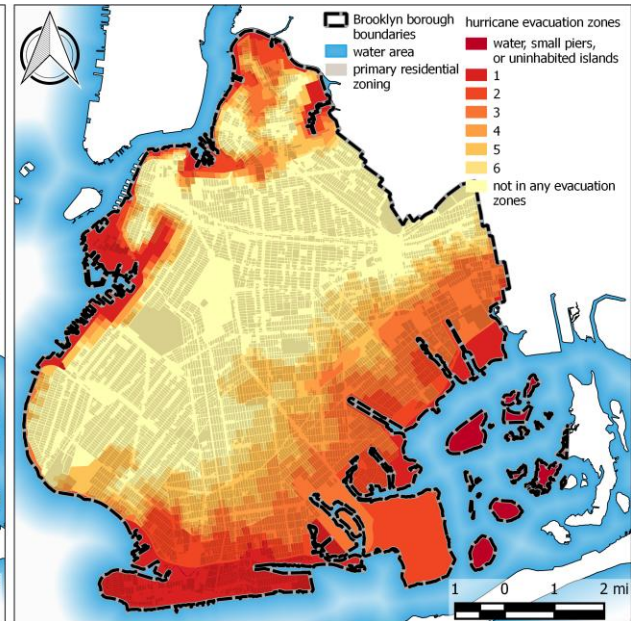
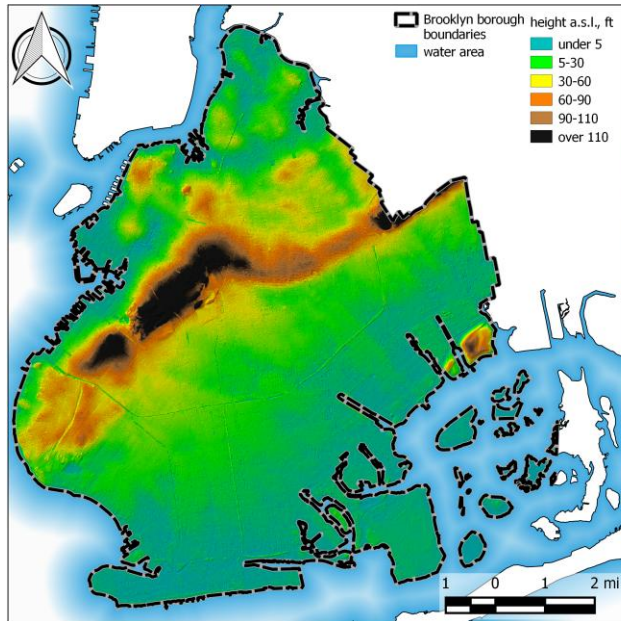
	Attribute	Sort Order
0	population	Ascending

OK    Cancel





Items		Command history
Items <span style="float: right;">✕</span>		
<input type="checkbox"/>	<input type="checkbox"/>	Item
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<picture>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<legend>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<scale bar>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	relief



Overviews

+

-

▲

▼

Brooklyn overview

Draw "Brooklyn overview" overview

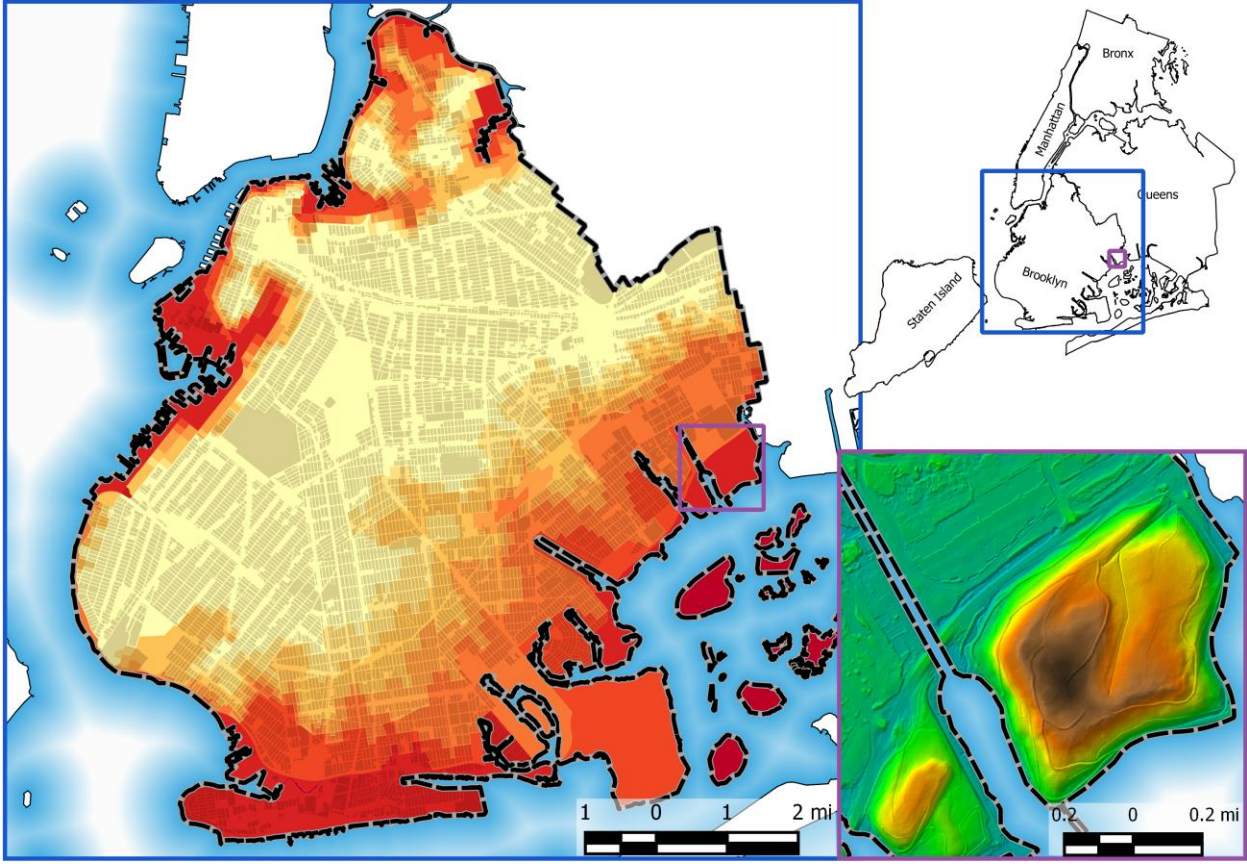
Map frame Map 0

Frame style Change...

Blending mode Multiply


Invert overview

Center on overview



**Create a mask** [?] [X]

**Style**



**Buffer**

Units:  Segments:

**On-the-fly simplification**

Tolerance:  pixels

**Limit labeling to mask's polygon**

Function used for labeling filtering on polygons:  ▼

Function used for labeling filtering on lines:  ▼

	Limit	Layer
1	<input checked="" type="checkbox"/>	roads

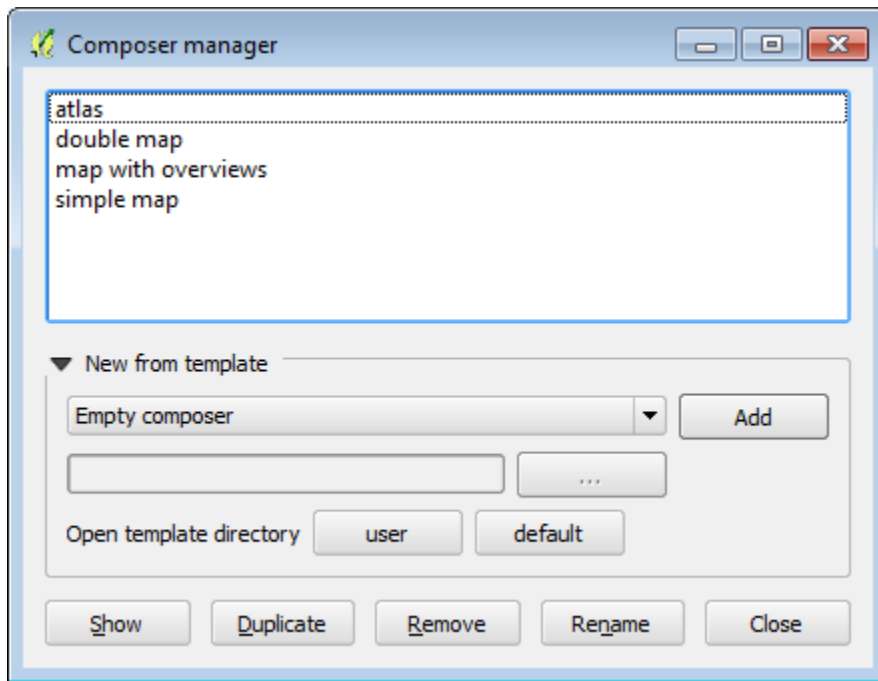
**Save as**

ESRI Shapefile

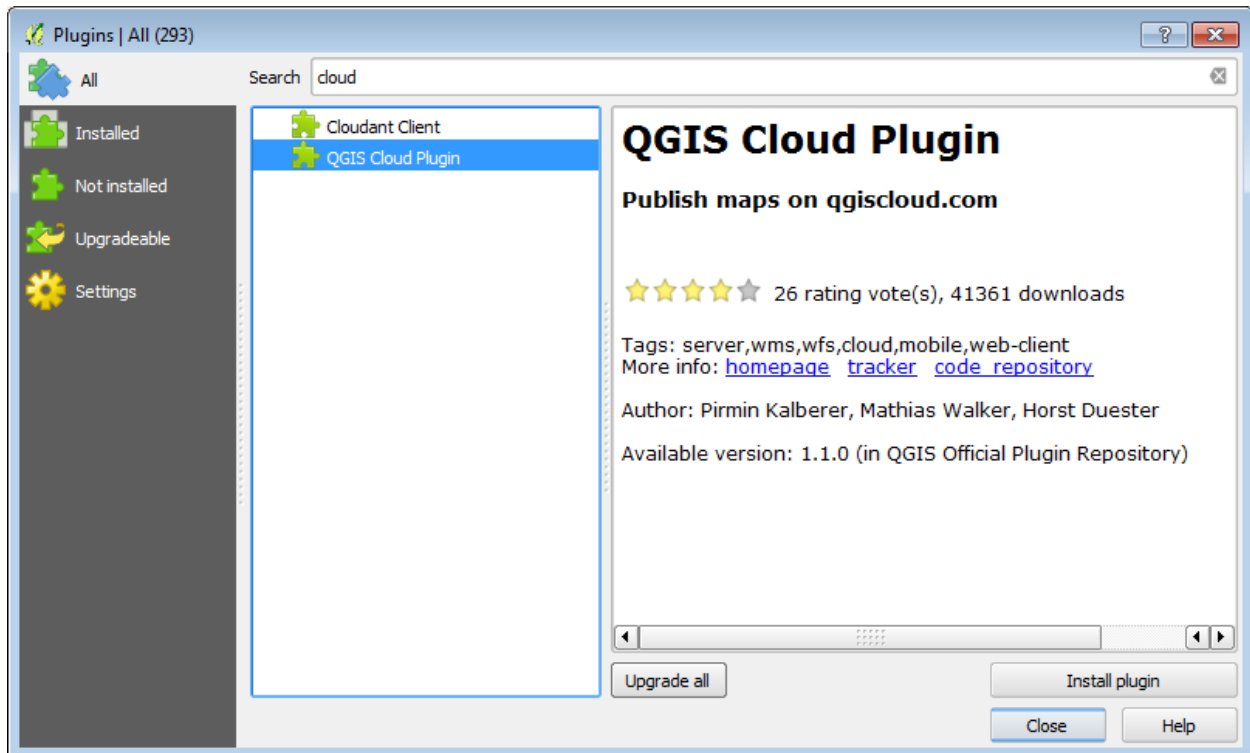


Export Atlas as Images...  
Export Atlas as SVG...  
Export Atlas as PDF...

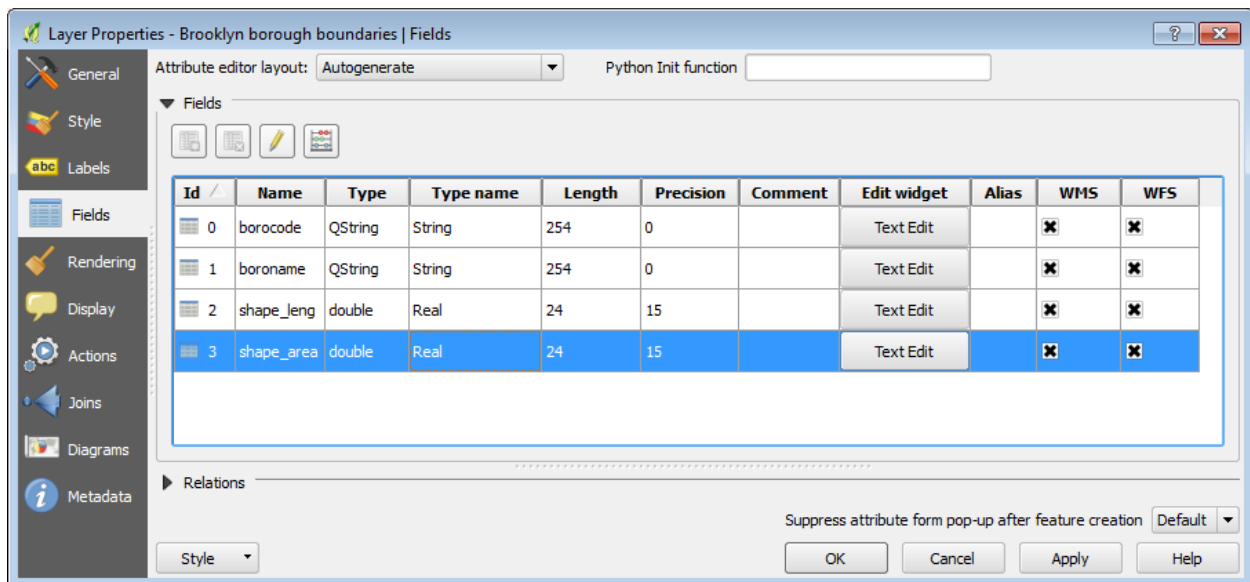
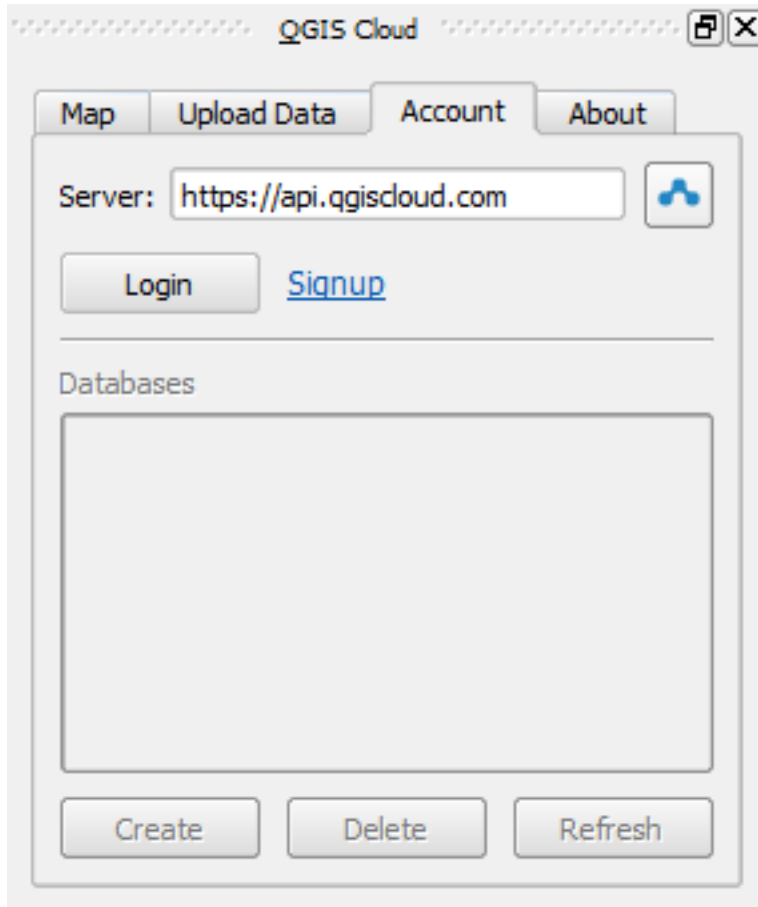




Chapter 4







Project Properties | OWS server

General  
CRS  
Identify layers  
Default styles  
OWS server  
Macros  
Relations

Service capabilities

Title: Brooklyn (New York) demo map

Organization:

Online resource:

Person: John Doe

E-Mail: john@server.com

Phone:

Abstract: A demo map of the Brooklyn district of the New York city based on the official open data from the New York open data portal <https://data.cityofnewyork.us/>.  
Map created for Packt Publishing QGIS by Example book.

Fees:

Access constraints:

Keyword list: New York, Brooklyn, QGIS by Example, demo

WMS capabilities  
WFS capabilities  
WCS capabilities

OK Cancel Apply Help

Project Properties | OWS server

General  
CRS  
Identify layers  
Default styles  
OWS server  
Macros  
Relations

WMS capabilities

Advertised extent

Min. X   
 Min. Y   
 Max. X   
 Max. Y

CRS restrictions

EPSG:2263

Exclude composers

double map  
atlas  
map with overviews

Exclude layers

Landcover and Relief  
Zoning  
zipcode

Use layer ids as names  
 Add geometry to feature response

GetFeatureInfo geometry precision (decimal places)

Advertised URL

Maximums for GetMap request  
 Width  Height

Quality for JPEG images ( 10 : smaller image - 100 : best quality )

Project Properties | OWS server

General  
CRS  
Identify layers  
Default styles  
OWS server  
Macros  
Relations

Service capabilities  
WMS capabilities  
WFS capabilities

	Layer	Published	Geometry precision (decimal places)	Update	Insert	Delete
4	bike routes	<input checked="" type="checkbox"/>	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Brooklyn borough boundaries	<input type="checkbox"/>	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	building footprints	<input checked="" type="checkbox"/>	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	colleges_universities	<input checked="" type="checkbox"/>	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	functional parkland	<input type="checkbox"/>	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	hurricane evacuation zones	<input type="checkbox"/>	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	hurricane inundation zones	<input type="checkbox"/>	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	museums	<input checked="" type="checkbox"/>	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	noise	<input type="checkbox"/>	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	NY borough boundaries	<input checked="" type="checkbox"/>	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Select all      Unselect all

Advertised URL

WCS capabilities

OK    Cancel    Apply    Help

QGISCloud - brooklyn\_demo

qgiscloud.com/alex/brooklyn\_demo

Mobile Version **QGIS Cloud**

Info and Tools

Map

Map Layers

- brooklyn\_demo
  - Boundaries
  - Education, Art and Leisure
  - Green Areas
  - Zoning
  - Communication and Transport
- Background Layers
  - Bing Aerial
  - No background

Object identification: Topmost hit

Search location in Geonames

100 m

Mode: navigation. Shift/rectangle or mouse wheel for zooming. Coordinate: -8237276,4966546 1: 9028

QGISCloud - brooklyn\_demo

qgiscloud.com/alexs/brooklyn\_demo

Mobile Version **QGIS Cloud**

Info and Tools

Map

Map Layers

- brooklyn\_demo
  - Boundaries
  - Education, Art and Leisure
  - Green Areas
  - Zoning
  - Communication and Transport
- Background Layers
  - Bing Aerial
  - No background

Object identification: Topmost hit

Search location in Geonames

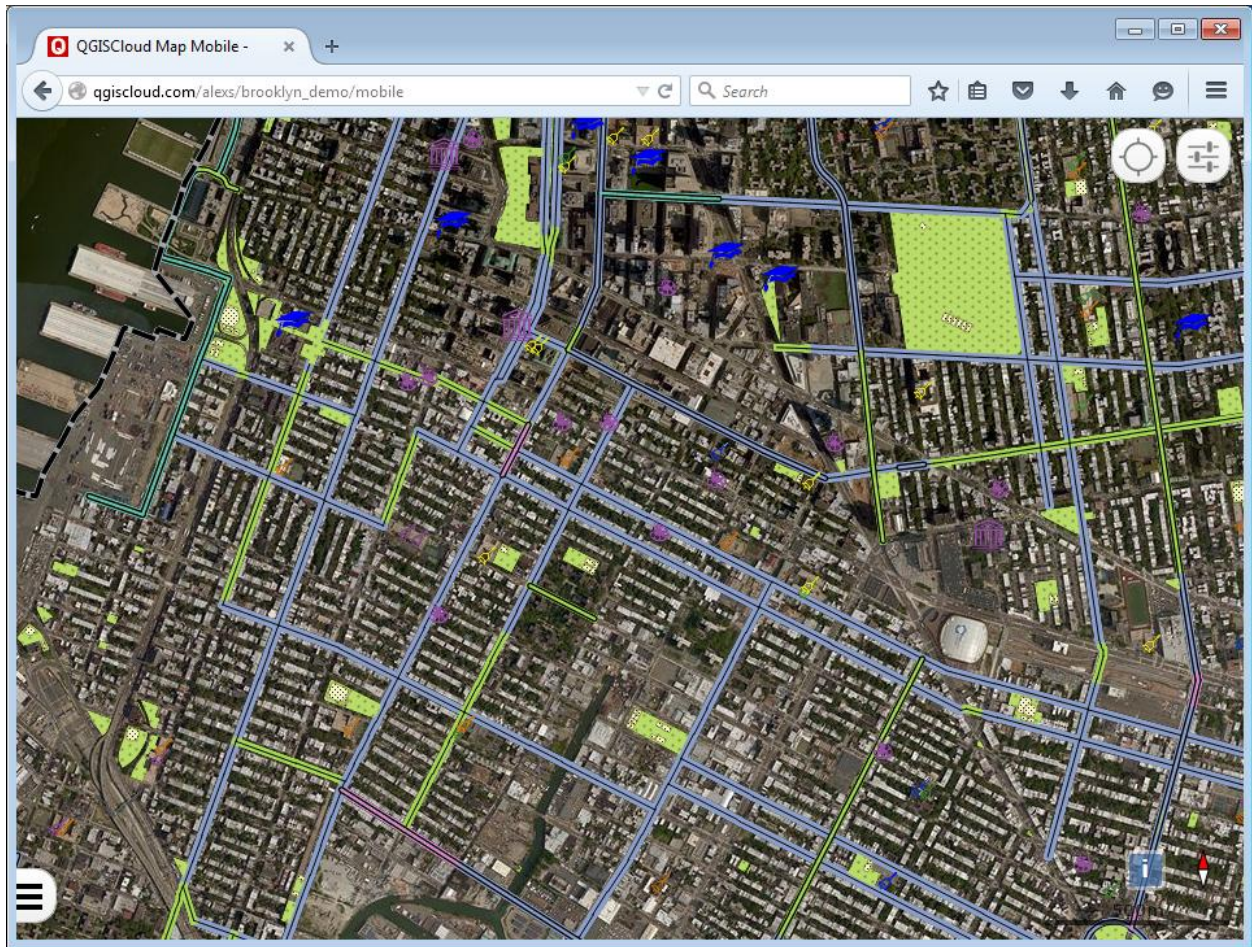
Print Settings

simple map 1:5'000 300 dpi Rotation: 0 Print Cancel

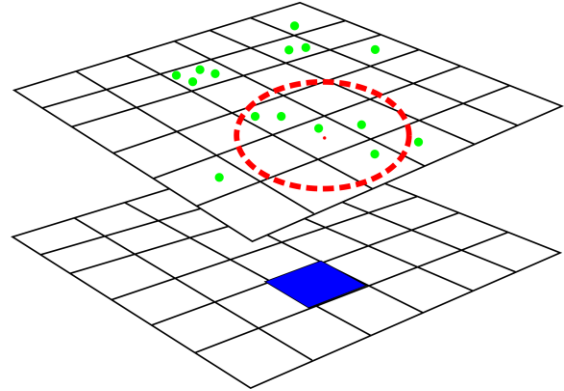
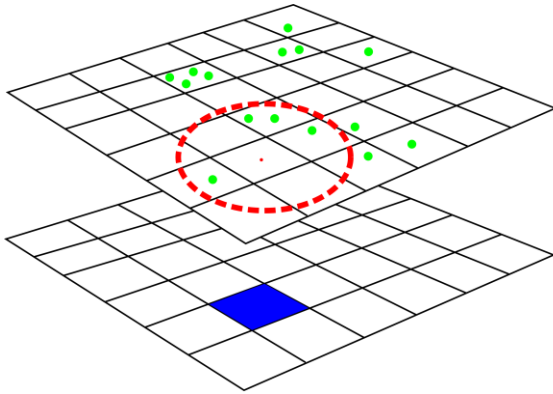
100 m

Mode: printing. Move or rotate the map extent. Print with the 'Print'-Button. Coordinate: -8237180,4967413 1: 9028

Detailed description: This is a screenshot of the QGIS Cloud web interface. The browser address bar shows 'qgiscloud.com/alexs/brooklyn\_demo'. The main map area displays an aerial view of a city grid in Brooklyn, with several colored overlays: a yellow shaded area, a blue line, and a purple polygon. A 'Print Settings' dialog box is open over the map, showing options for 'simple map', a scale of '1:5'000', '300 dpi', and a rotation of '0'. The 'Print' button is visible. On the left, the 'Map Layers' panel is expanded to show 'brooklyn\_demo' with sub-layers for 'Boundaries', 'Education, Art and Leisure', 'Green Areas', 'Zoning', and 'Communication and Transport'. Under 'Background Layers', 'Bing Aerial' is selected. At the bottom, a status bar indicates the current mode is 'printing' and provides the coordinates '-8237180,4967413' and a scale of '1: 9028'. A scale bar for '100 m' is also present in the bottom left of the map area.



Chapter 5



**Heatmap Plugin** [?] [X]

Input point layer: noise

Output raster: C:/Users/alex/Documents/heatmap.tif

Output format: GeoTIFF

Radius: 1000 meters

Add generated file to map

Advanced

Rows: 353 Columns: 299

Cell size X: 177.2 Cell size Y: 177.2

Kernel shape: Quartic (biweight)

Use radius from field meters

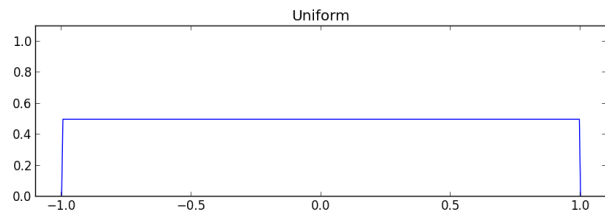
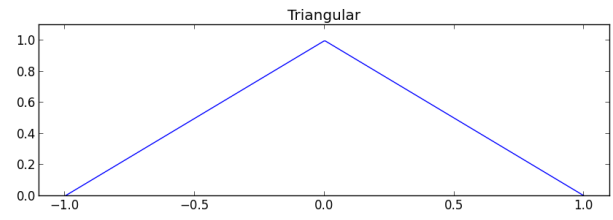
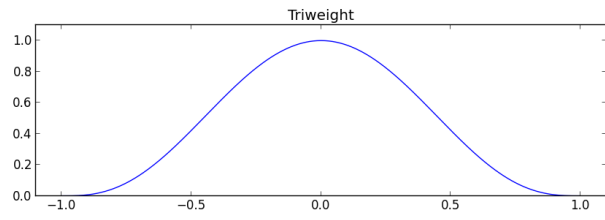
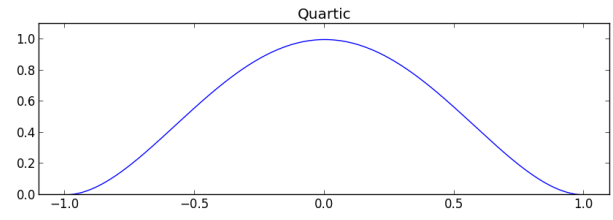
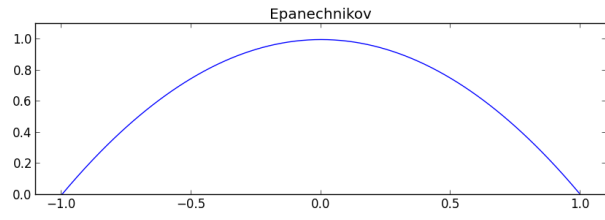
Use weight from field

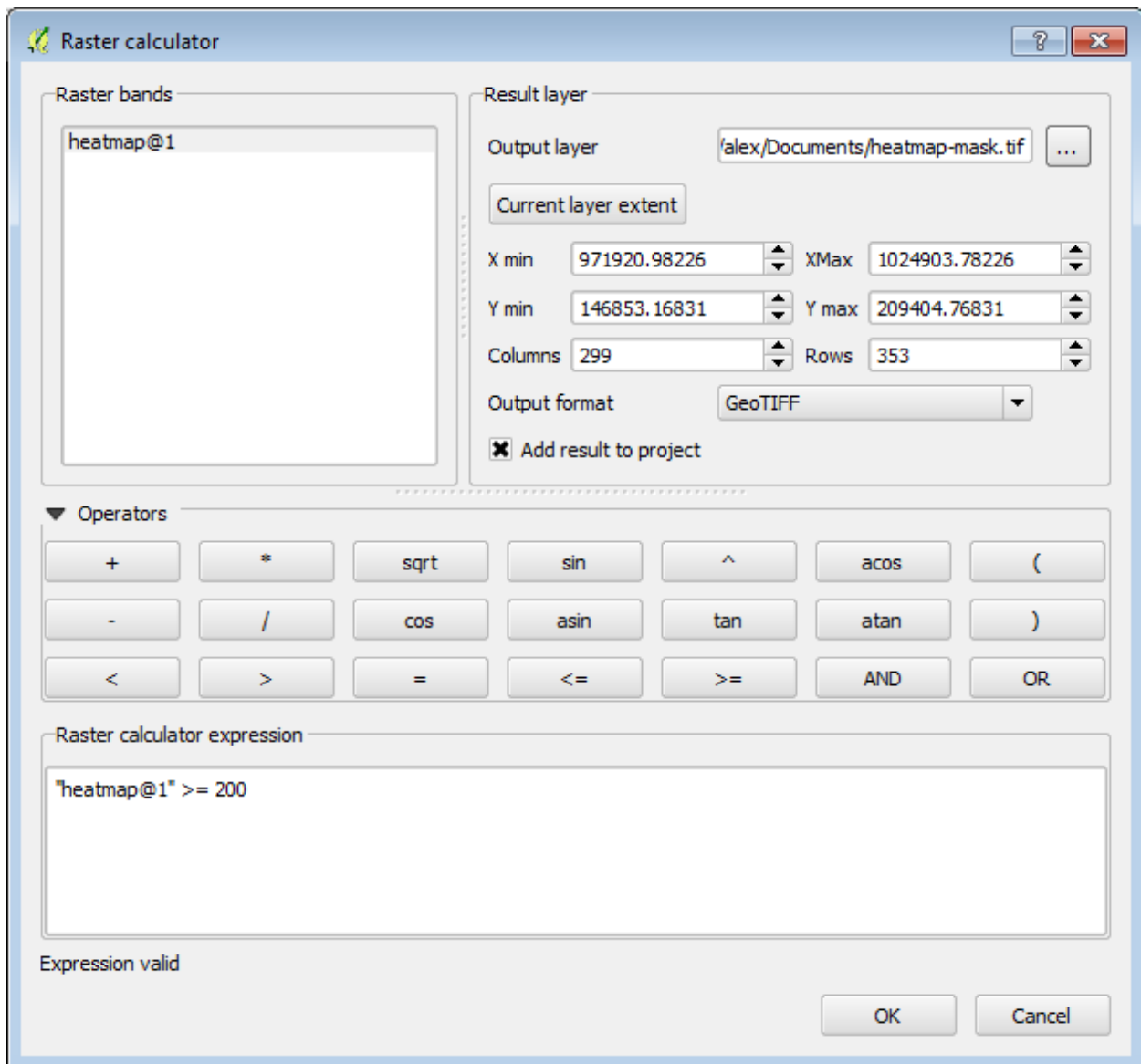
Decay ratio: 0.0

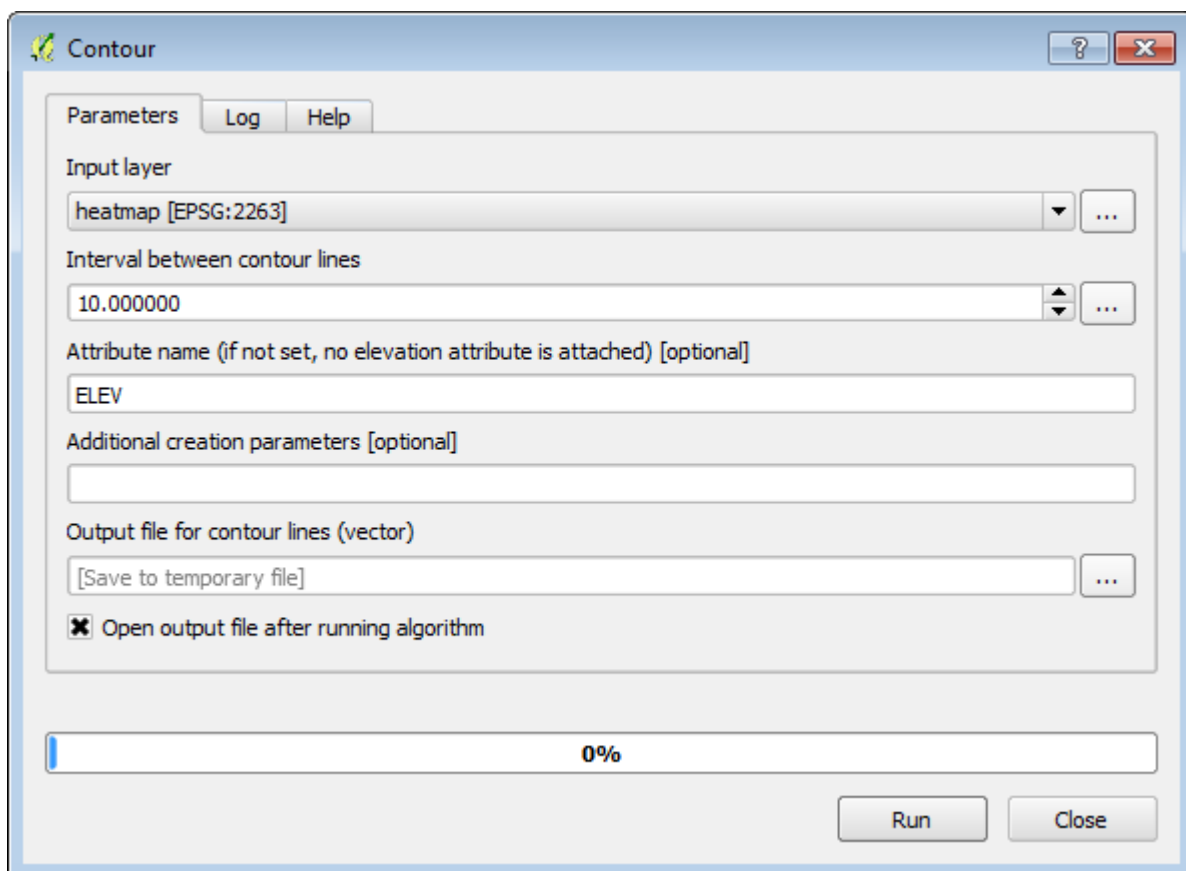
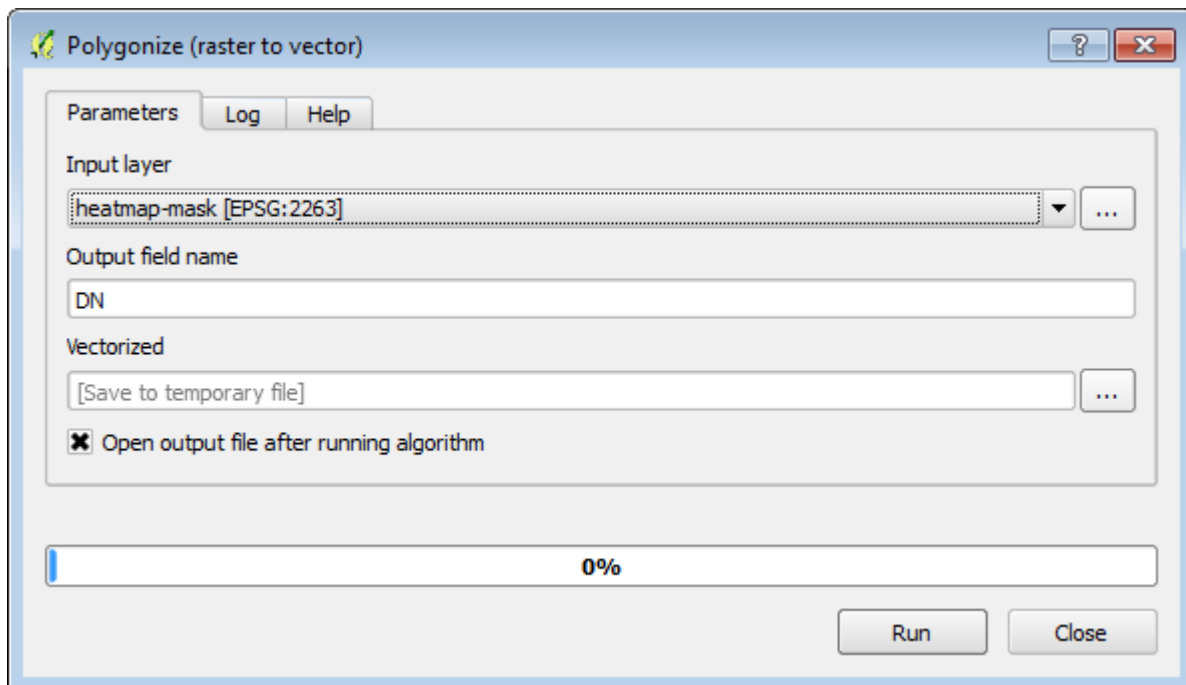
Output values: Raw values

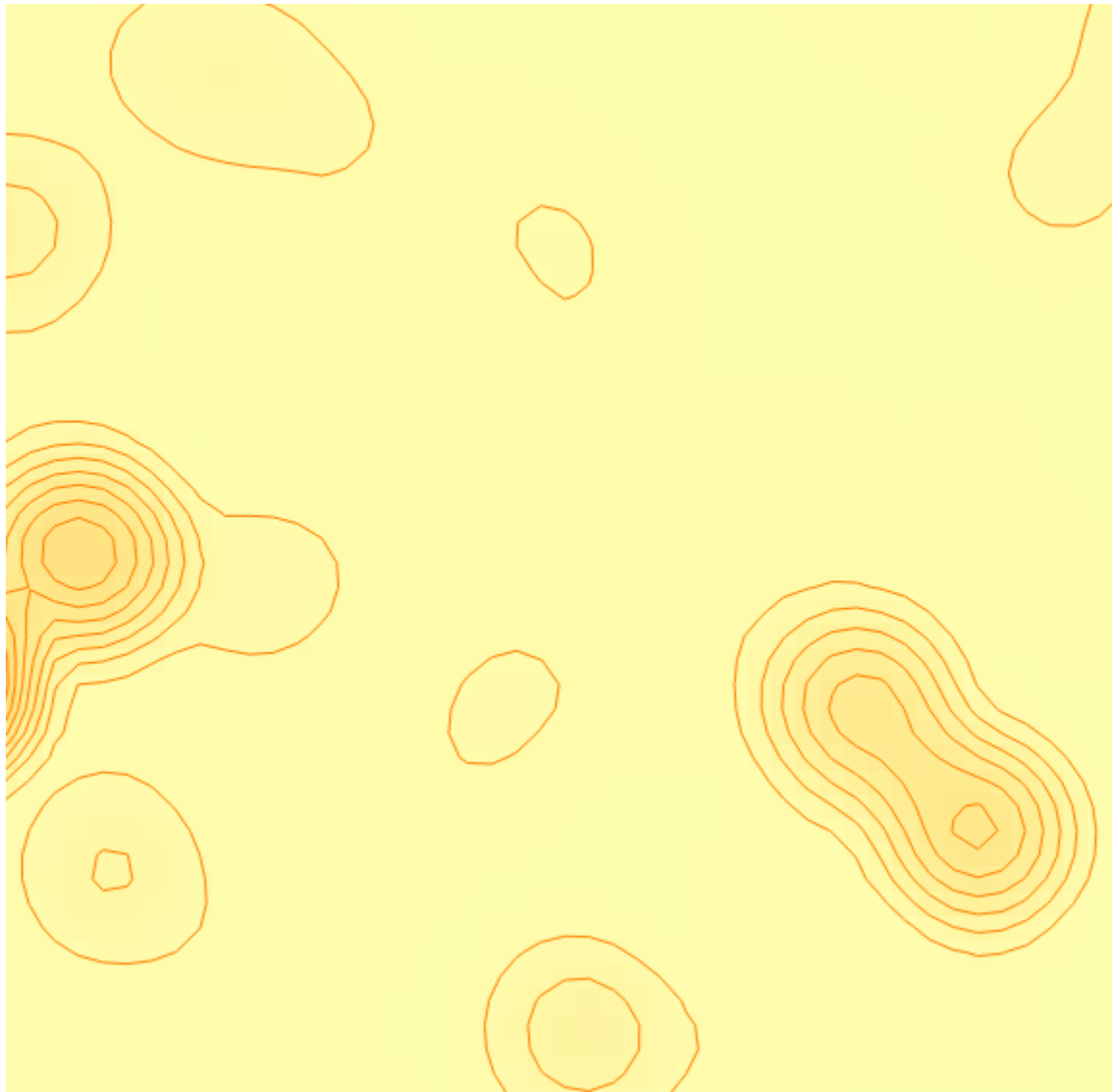
OK Cancel Help

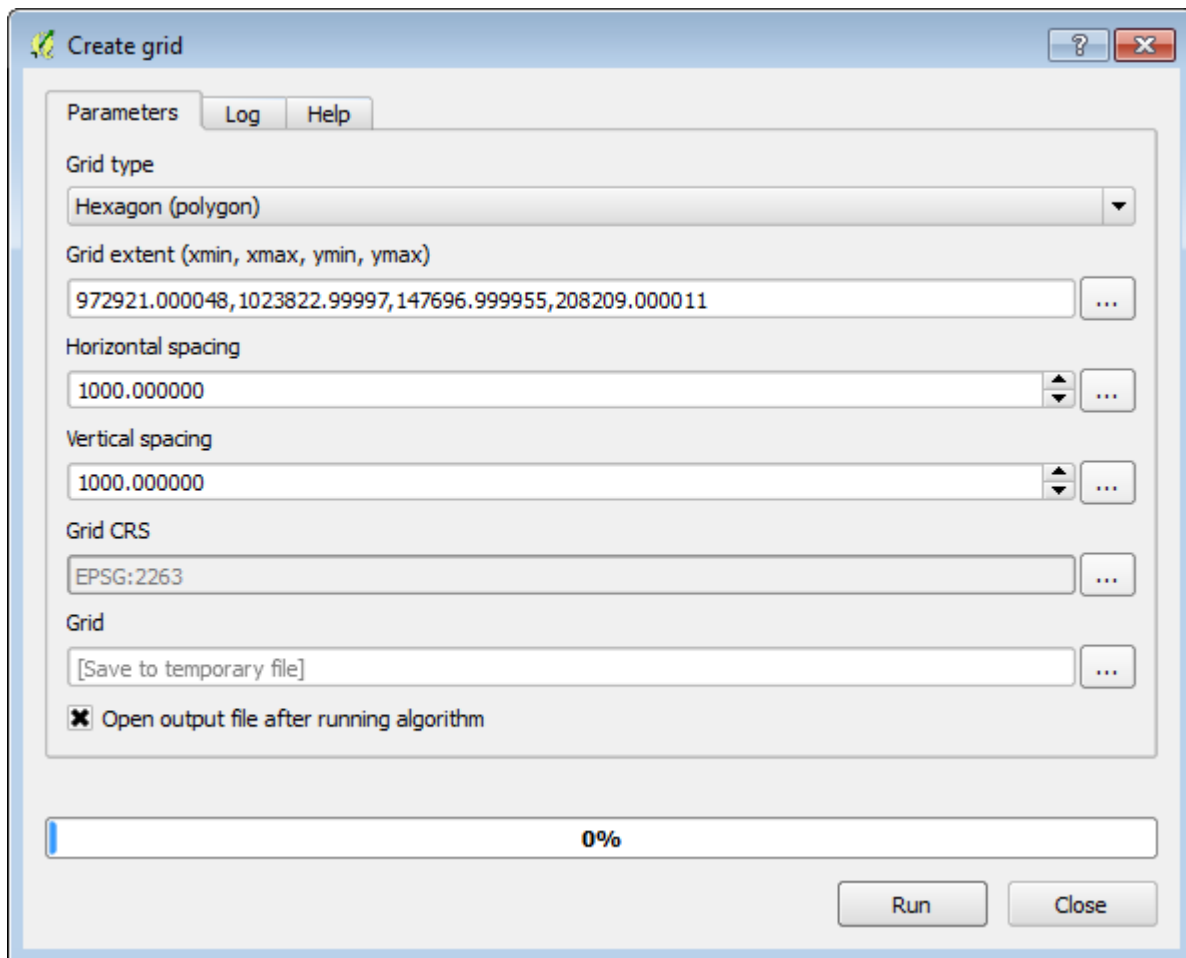


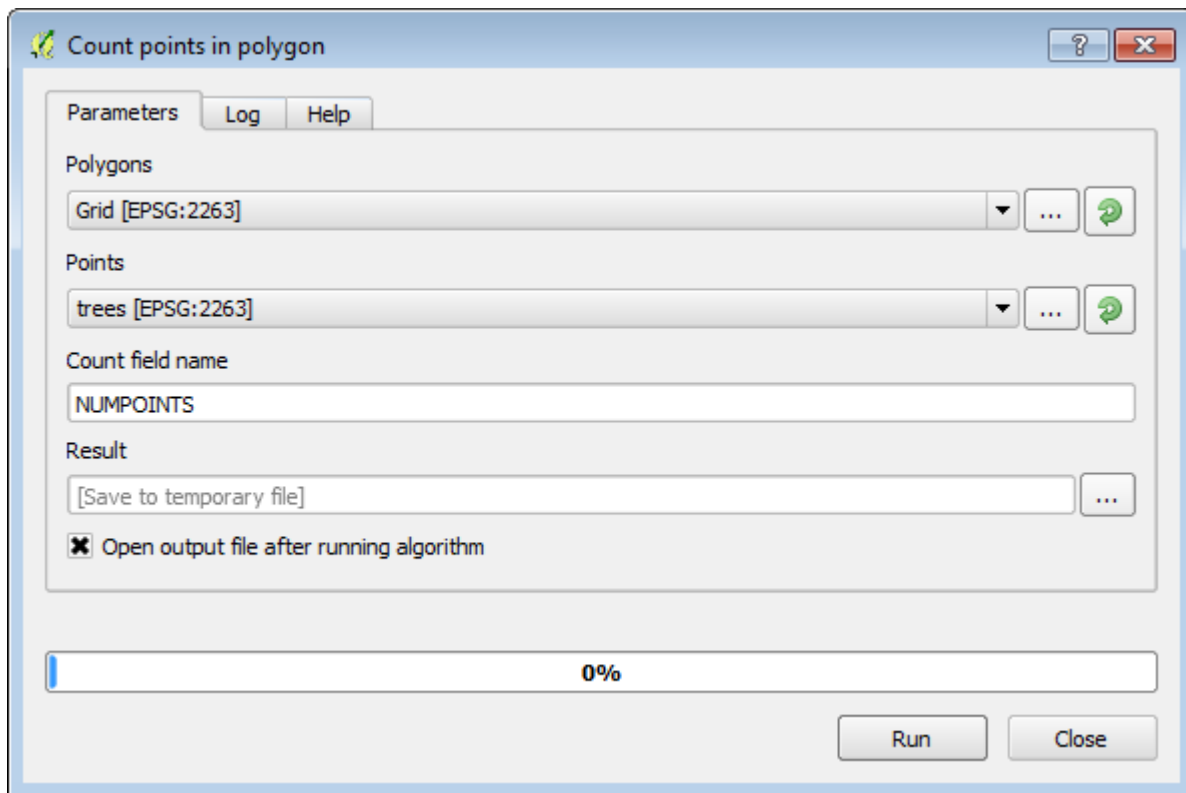


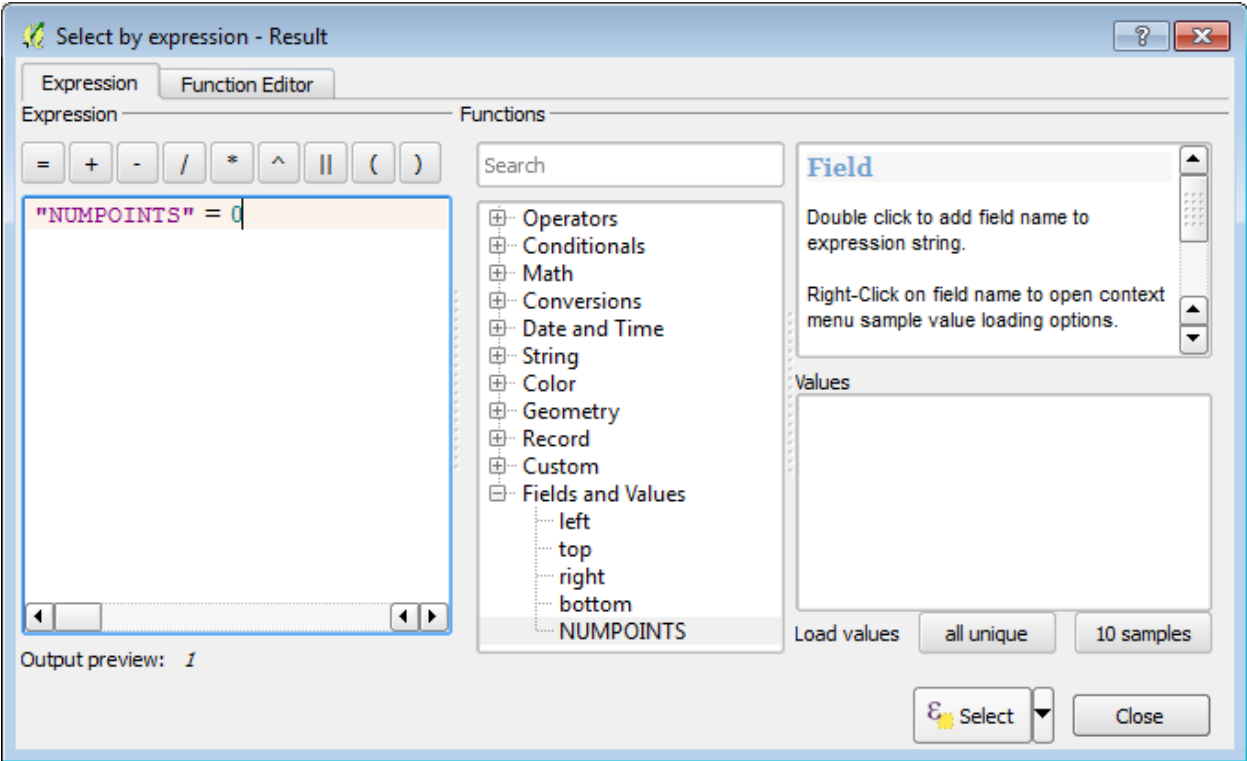


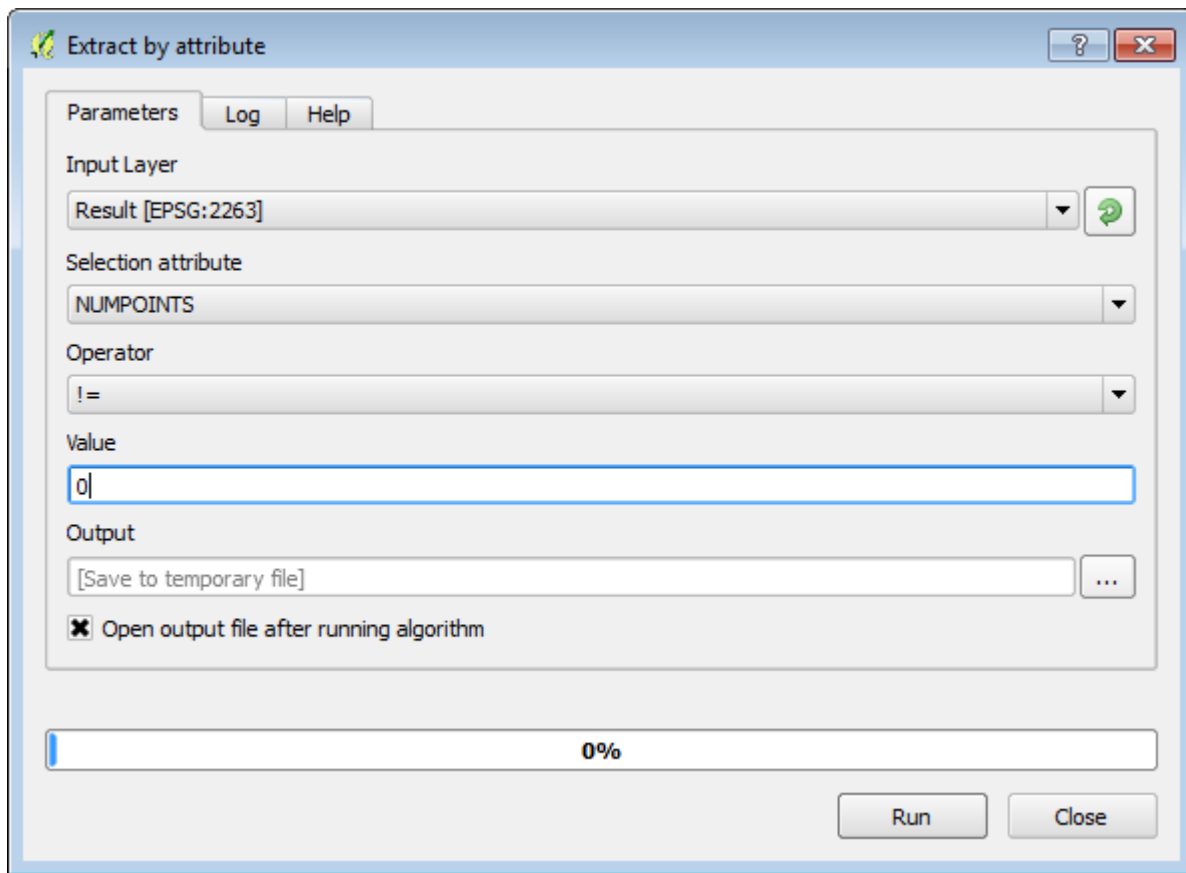




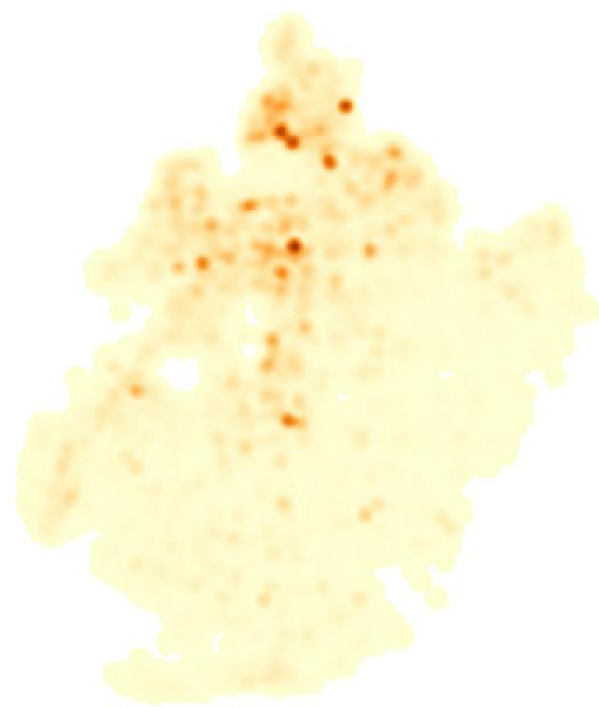
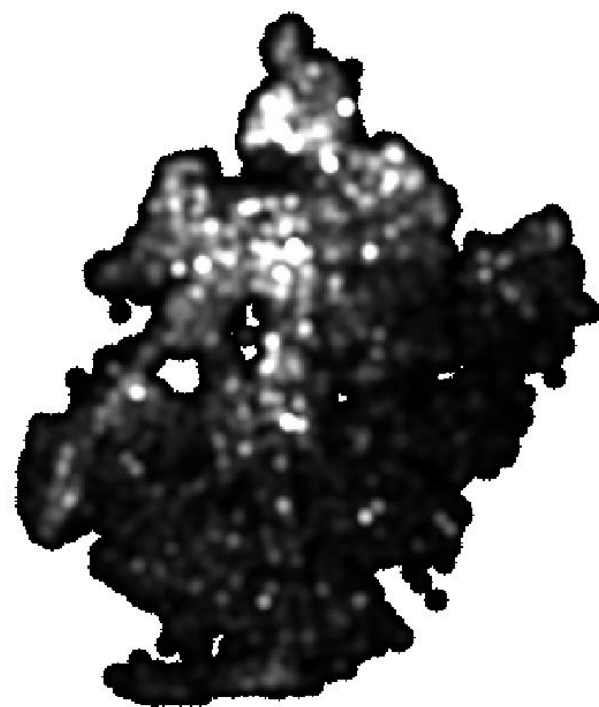


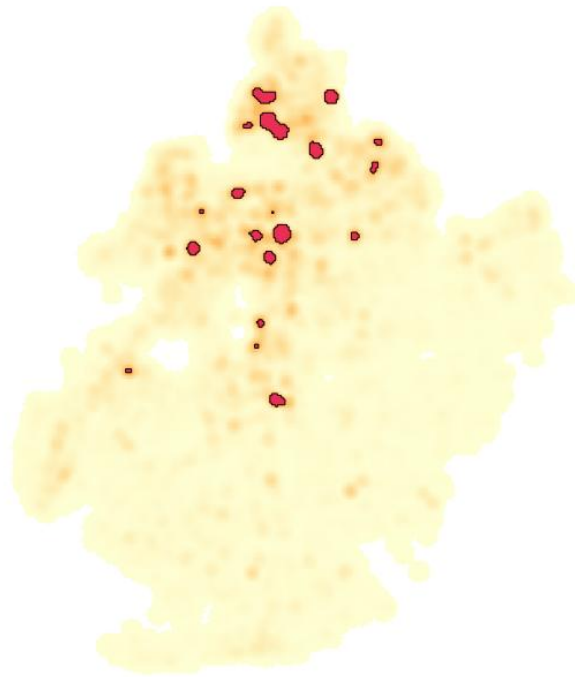












$$\sqrt{31400m^2} \approx 177.2m$$

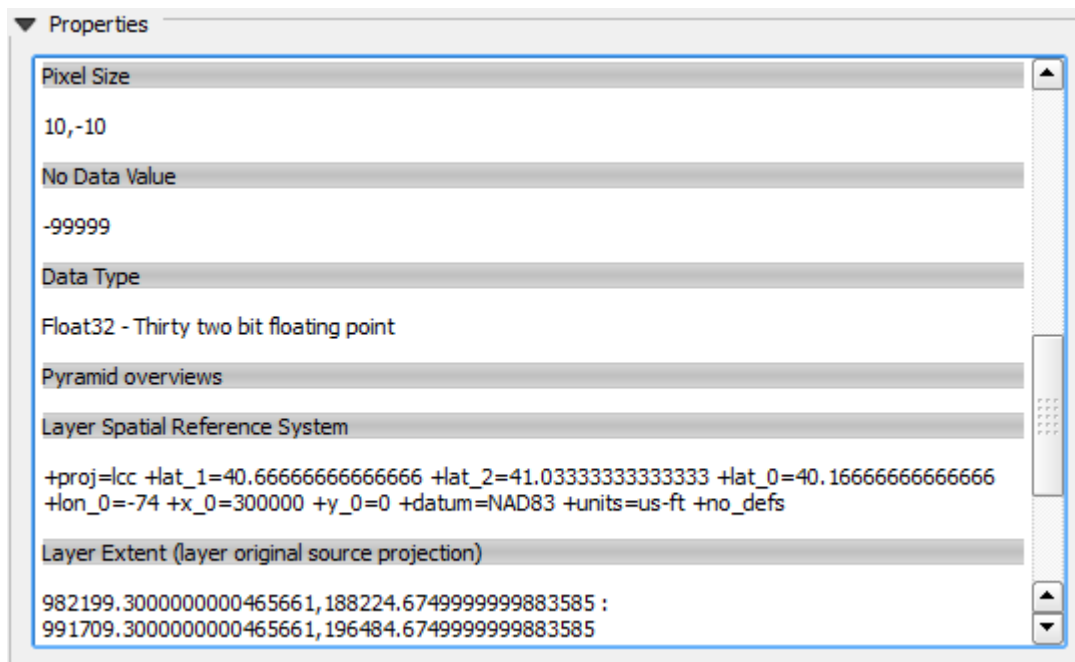
$$r = \sqrt{\frac{S}{\pi}}$$

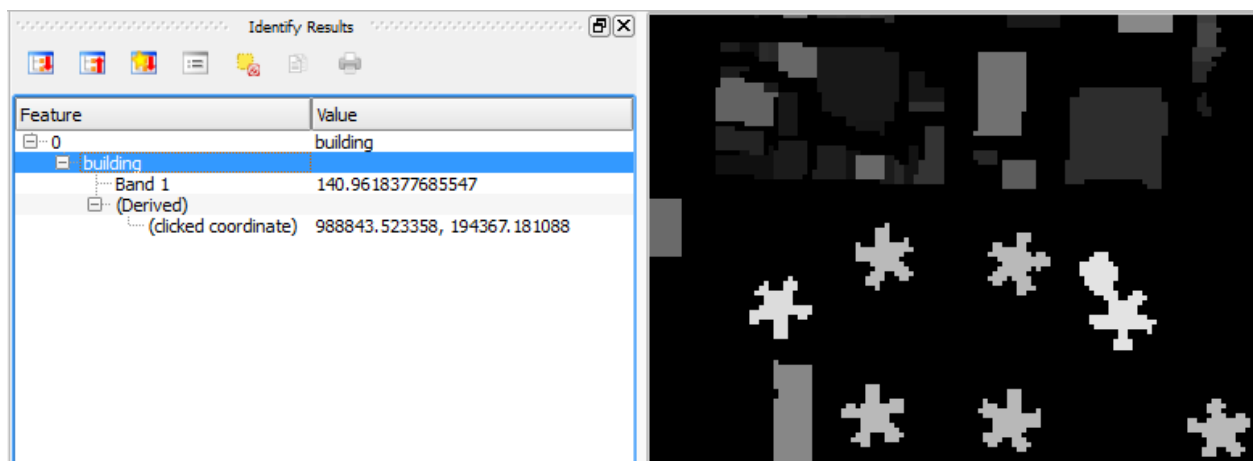
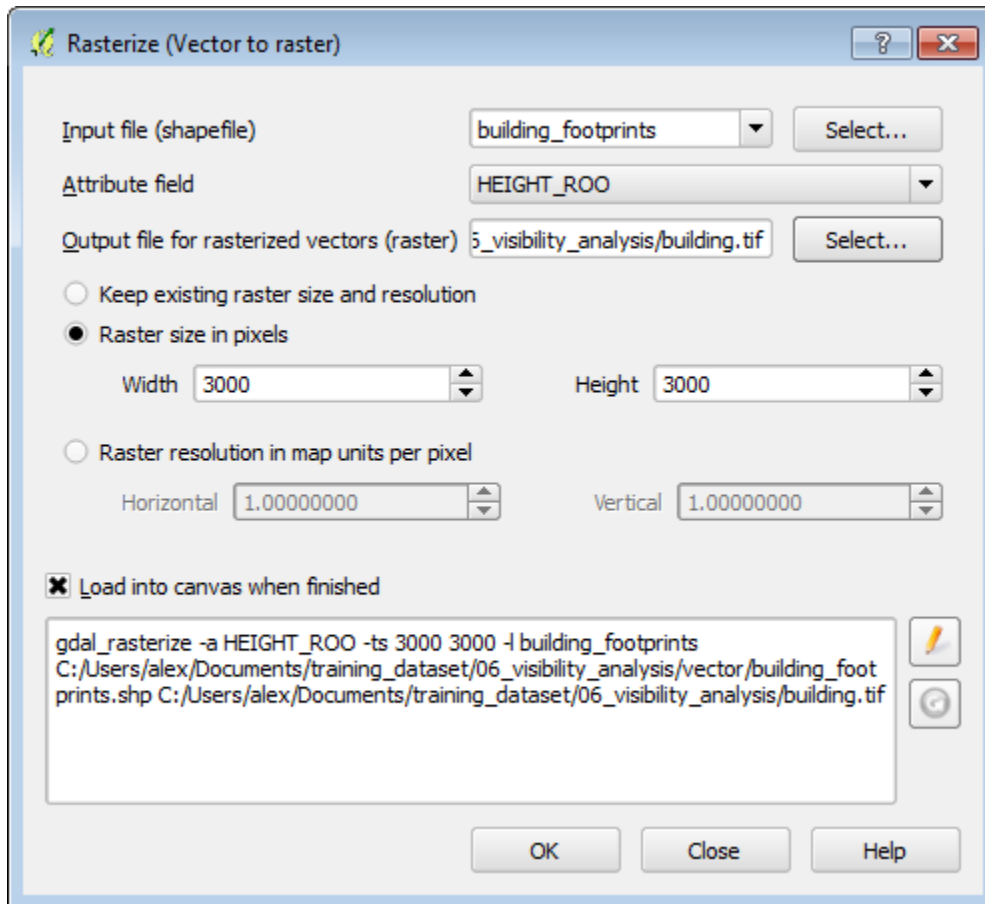
$$r = \sqrt{\frac{1\text{km}^2}{\pi}} = \sqrt{\frac{1000000\text{m}^2}{3.1415926}} \approx 564.2\text{m}$$

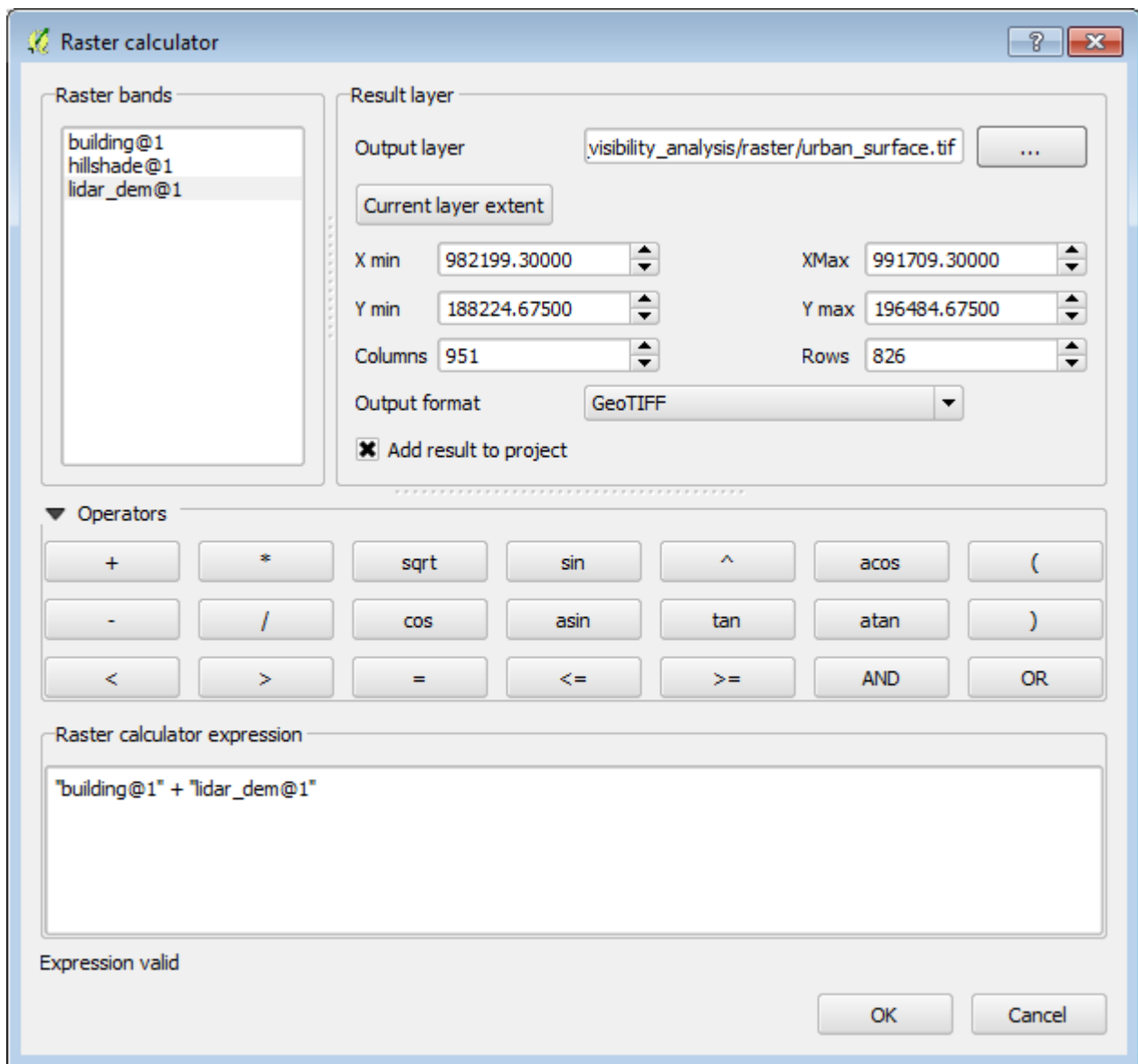
$$3.14\text{km}^2 = 3.14 \cdot 1000\text{m} \cdot 1000\text{m} = 3140000\text{m}^2$$

$$\frac{3140000\text{m}^2}{100\text{cells}} = 31400\text{m}^2 \text{ per cell}$$

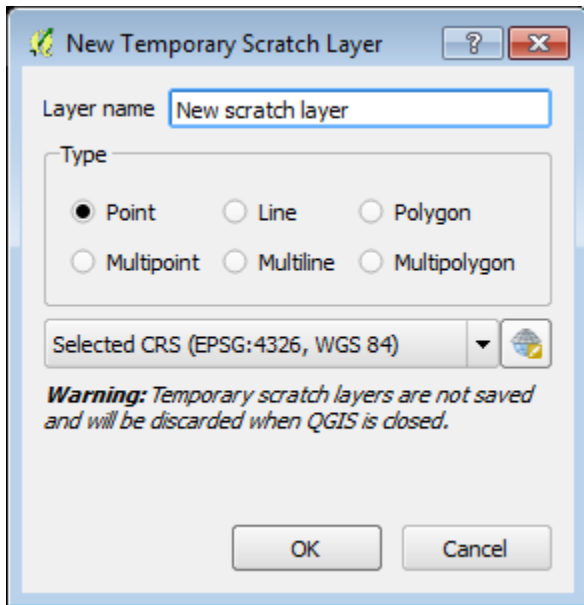
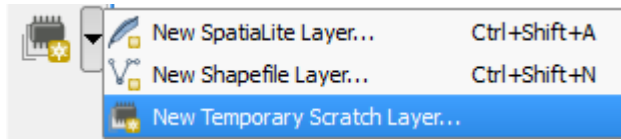
## Chapter 6

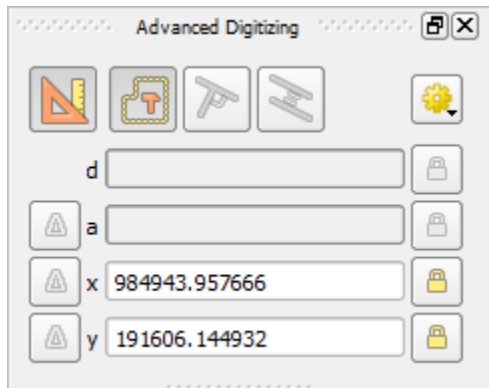


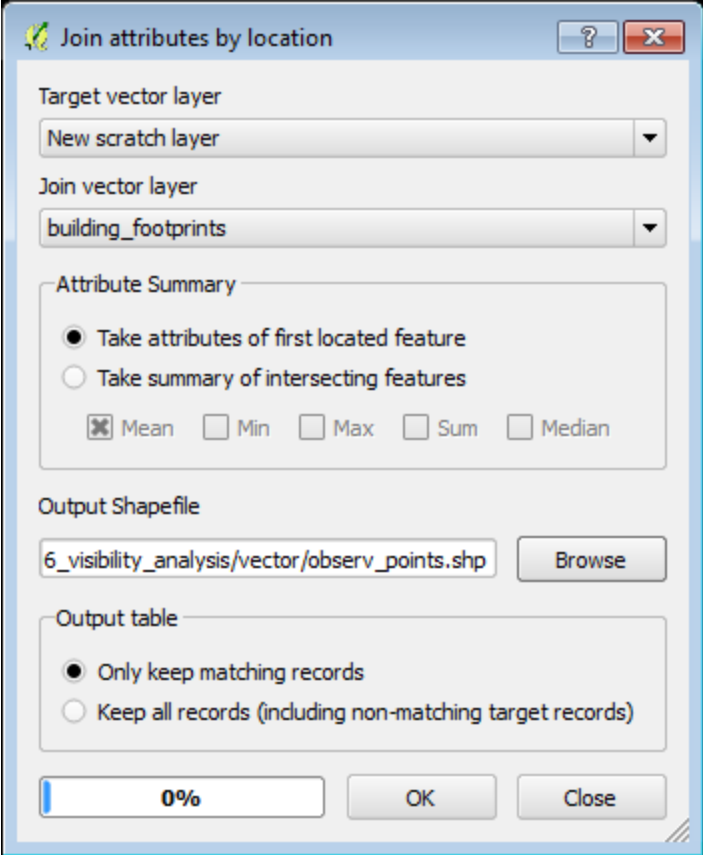




Identify Results				
	Layer	FID	Attribute	Value
1	urban_surface	1	Band 1	362.6337890625
2	building	1	Band 1	294.4028015136719
3	lidar_dem	1	Band 1	68.23100280761719









Advanced viewshed analysis

General Reference About

Elevation raster: urban\_surface

Output file: ng\_dataset/06\_visibility\_analysi  
s/coverage

Observation points: observ\_points

Target points (intervisibility):

Settings

Search radius: 5000

Observer height: 1.6 or field:

Target height: 0 or field:

Adapt to highest point at a distance of:  
0 pixels for observer 0 pixels for target

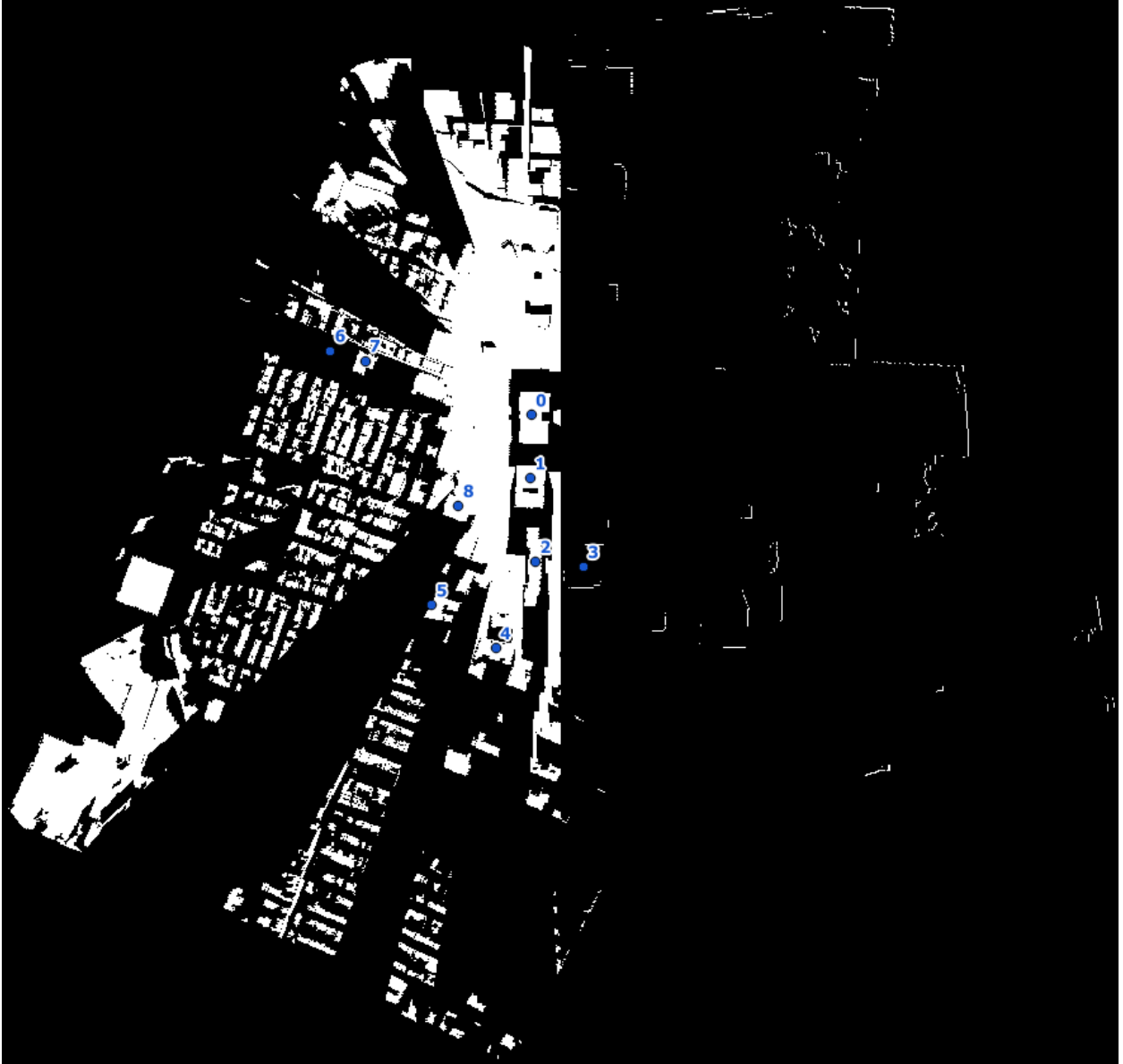
Output

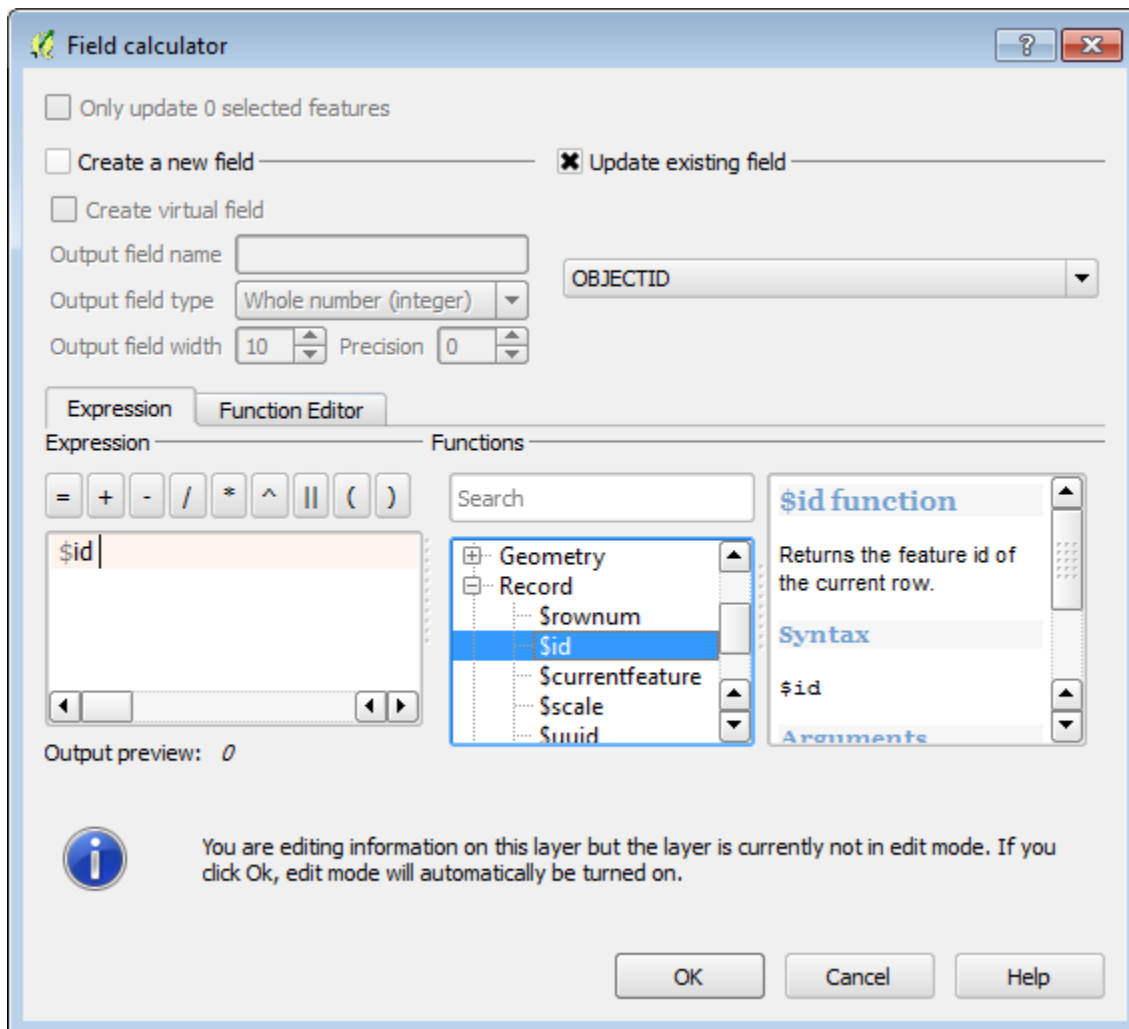
Binary viewshed  Invisibility depth  
 Intervisibility  Horizon

Options

cumulative (for raster output)  
 Use earth curvature 0.13 Atmospheric refraction

OK Cancel

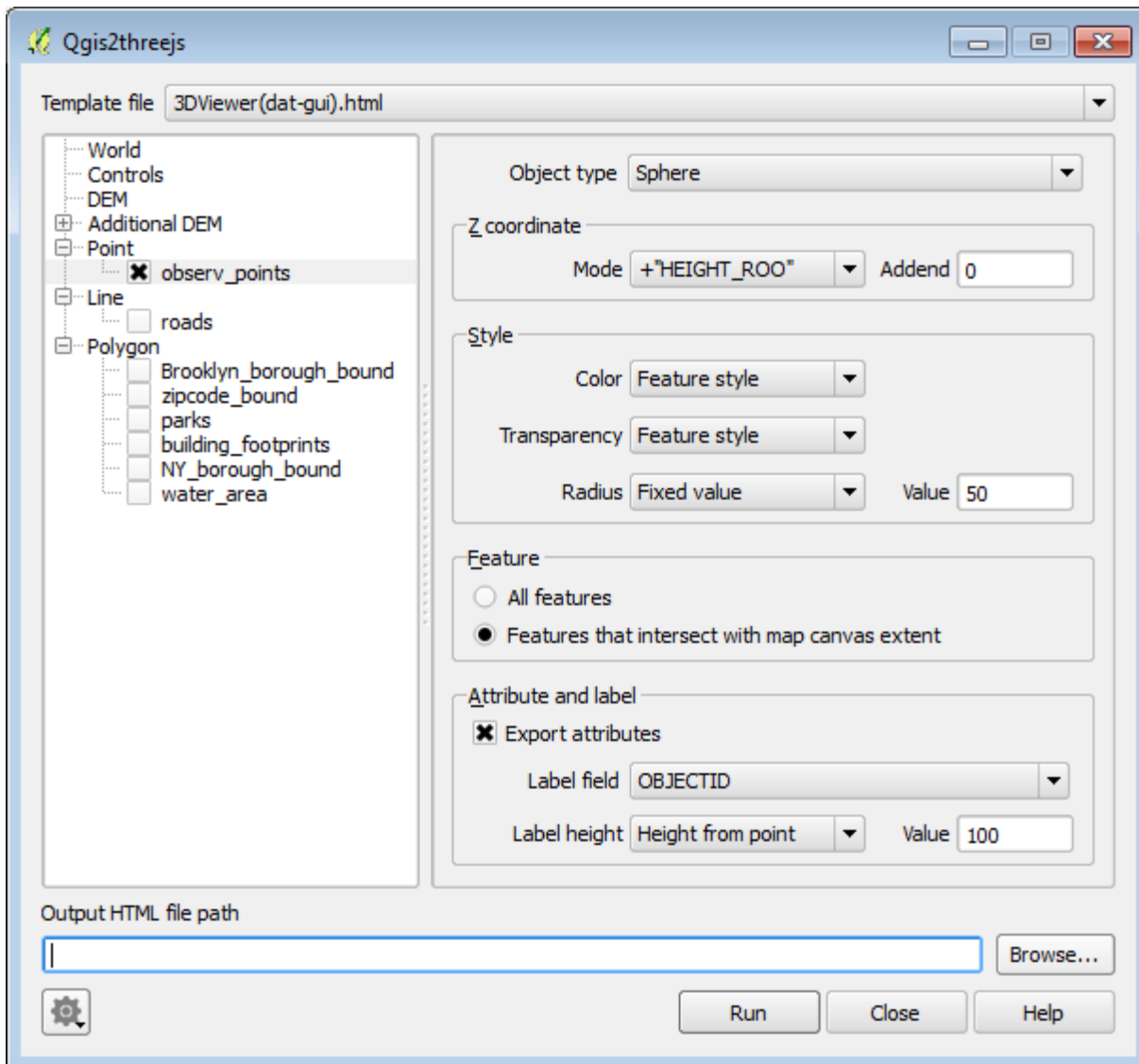


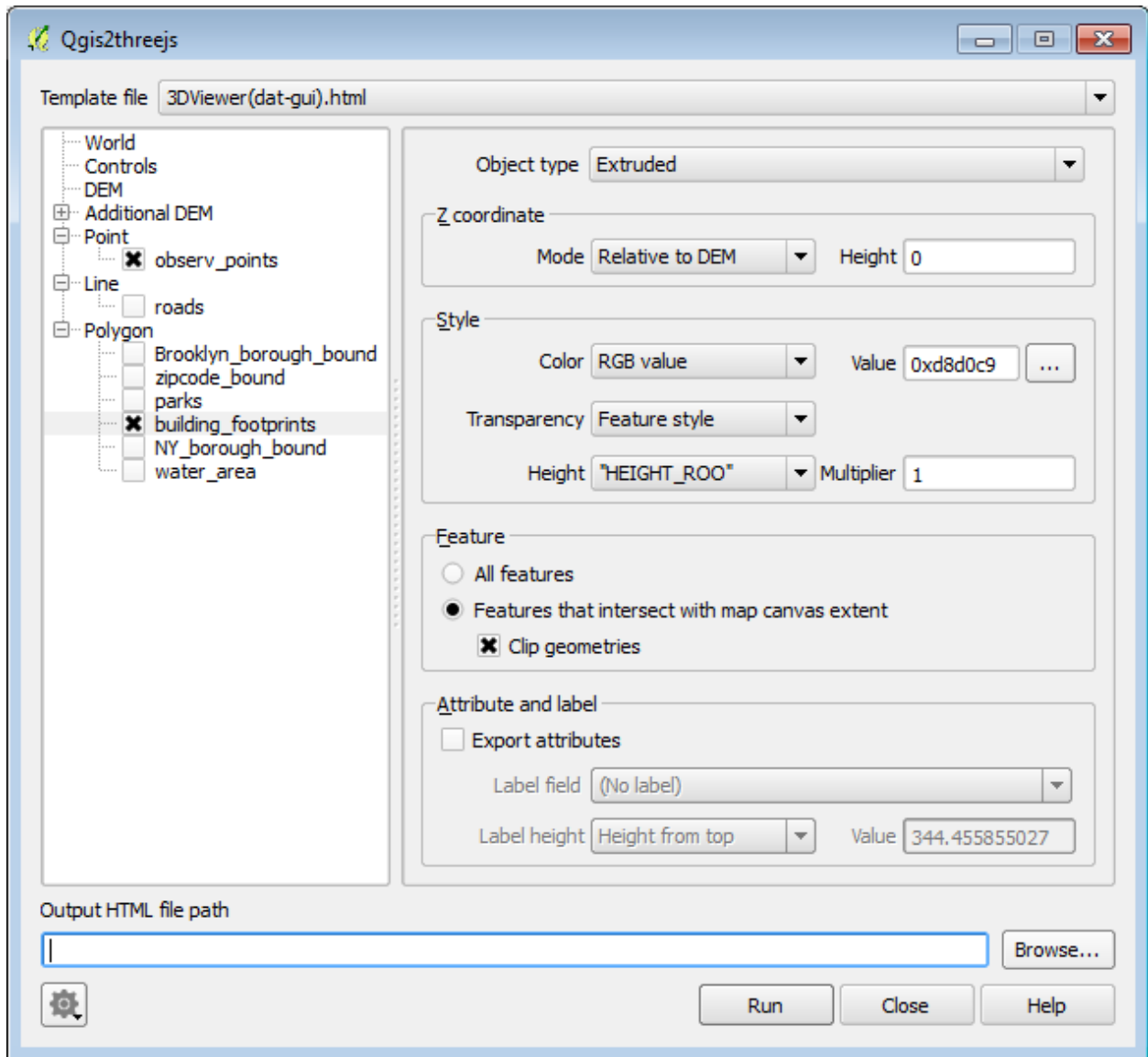


Value	Color	Label
0.000000		area
1.000000		horizon

	From	To	Percent Transparent
1	1	1	100
2	0	0	25

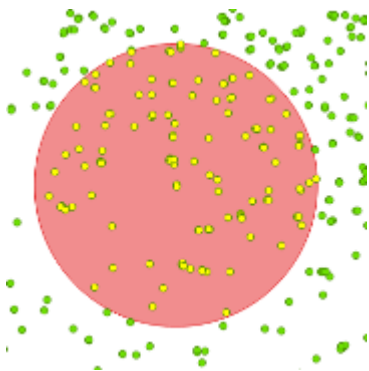


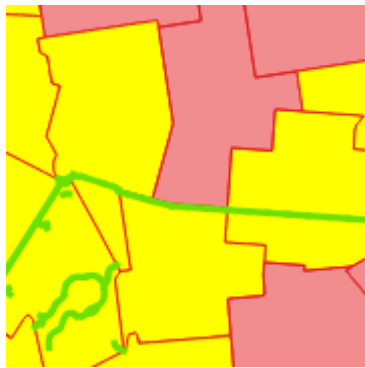
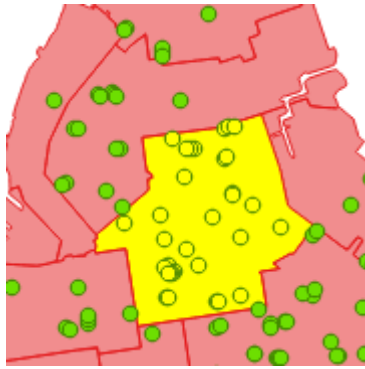




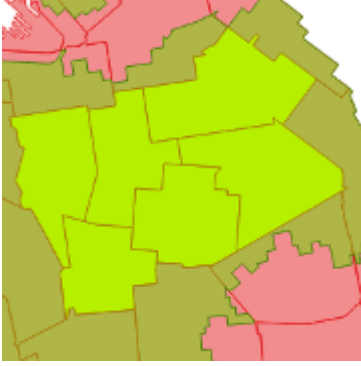


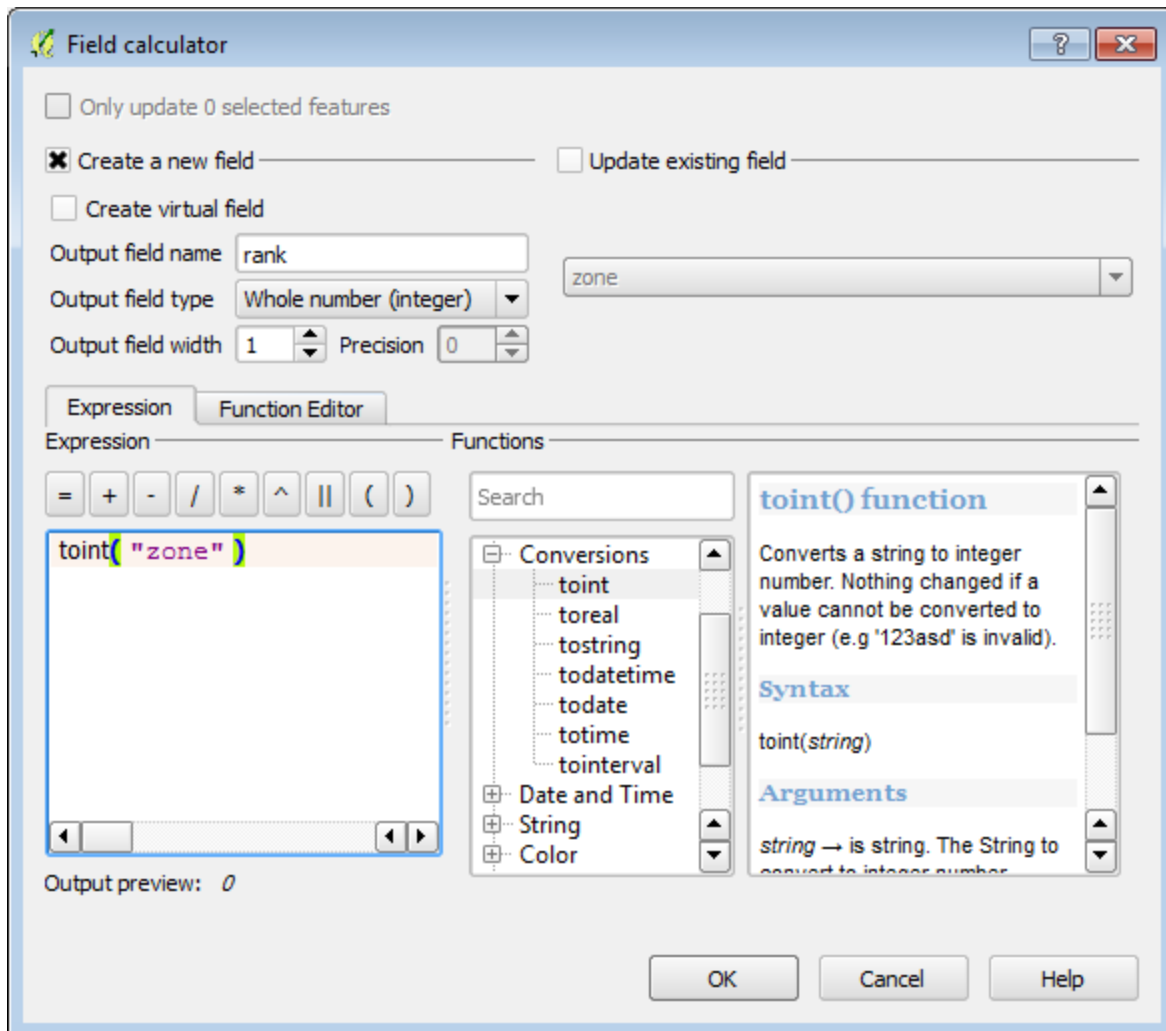
Chapter 7

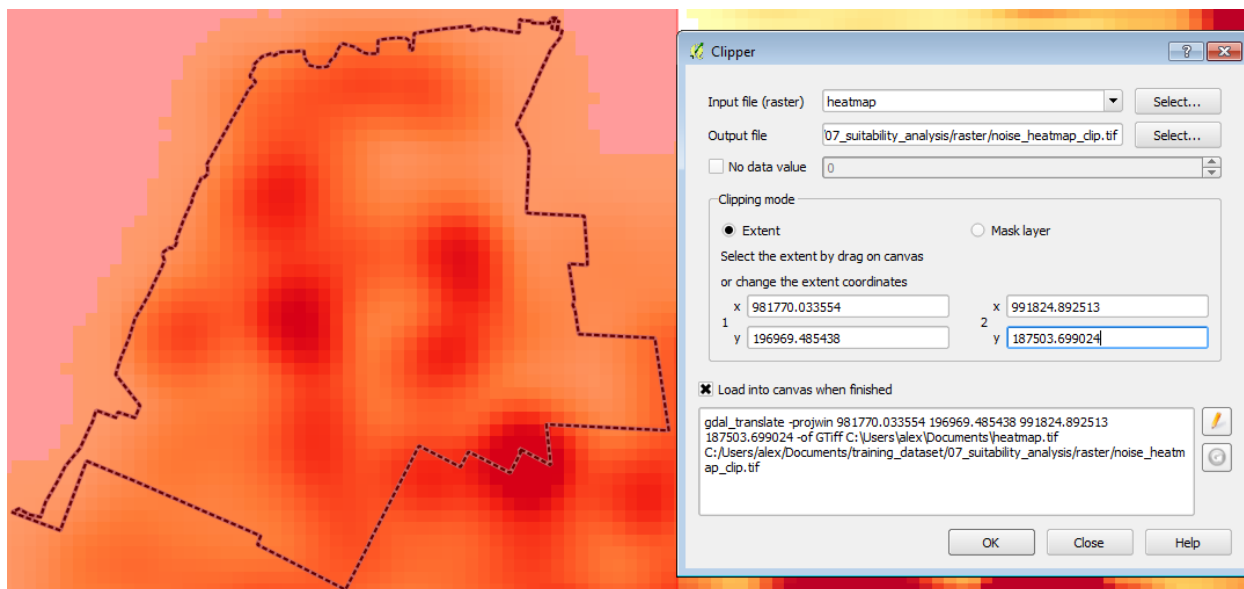
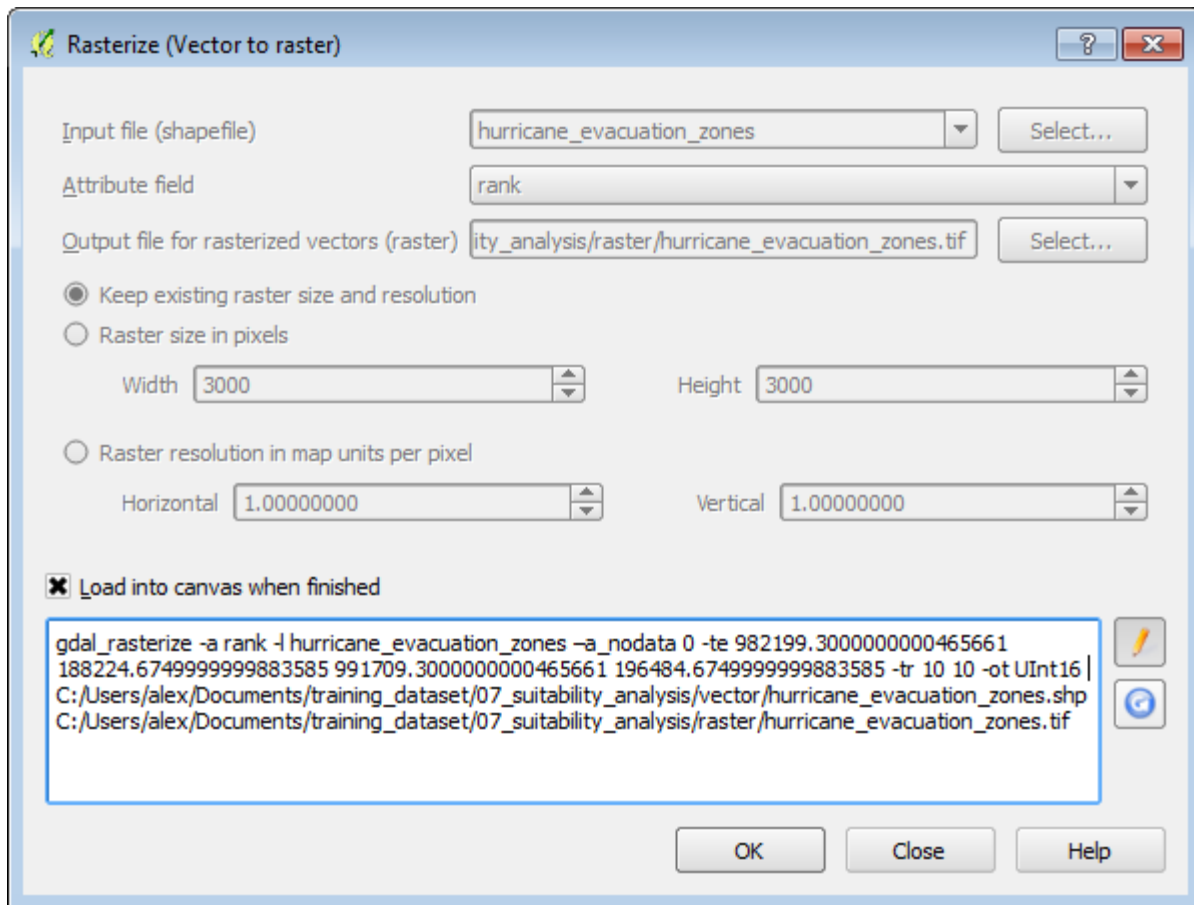












▼ Properties

Band 1

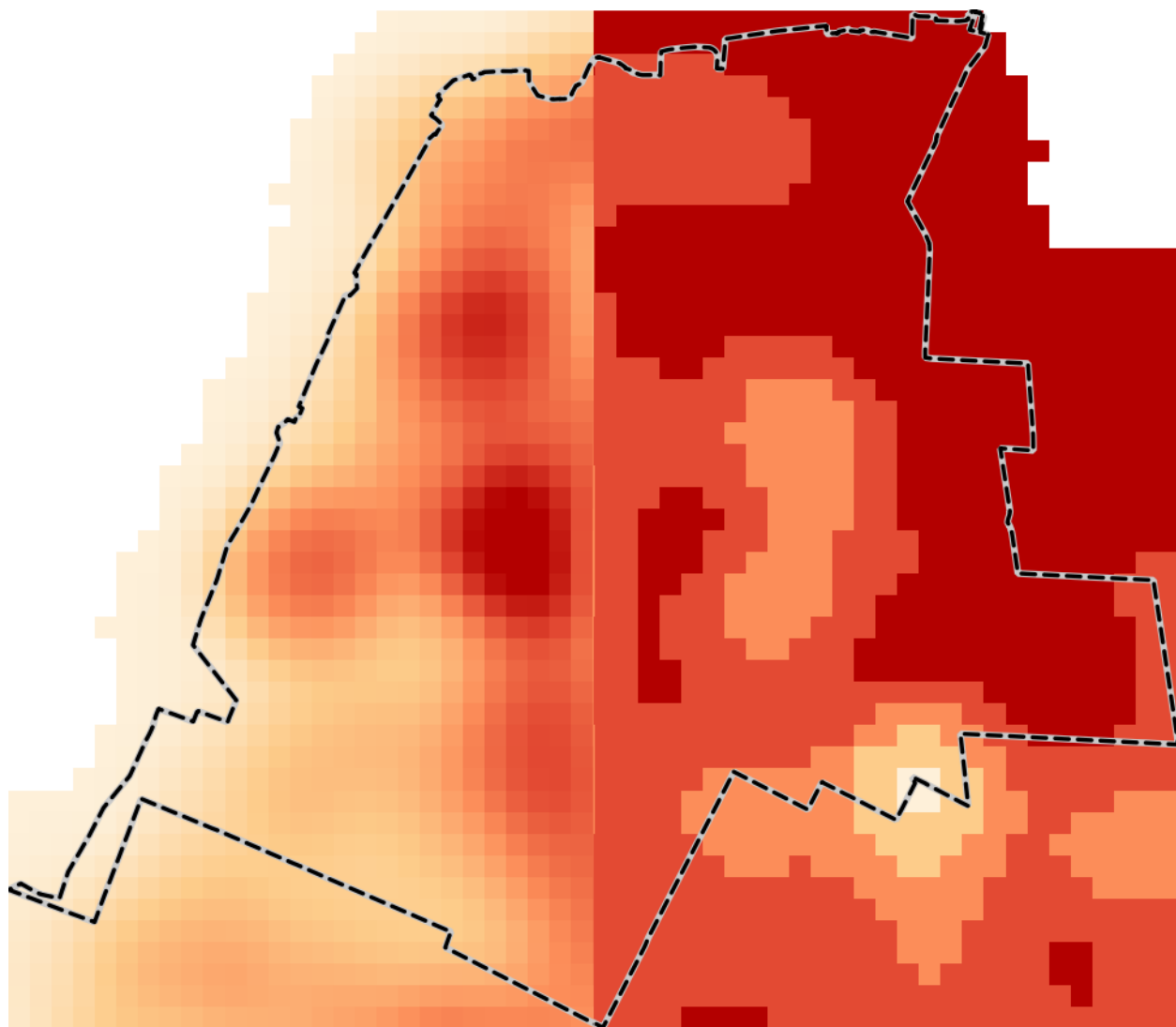
STATISTICS\_MAXIMUM=210.16748046875

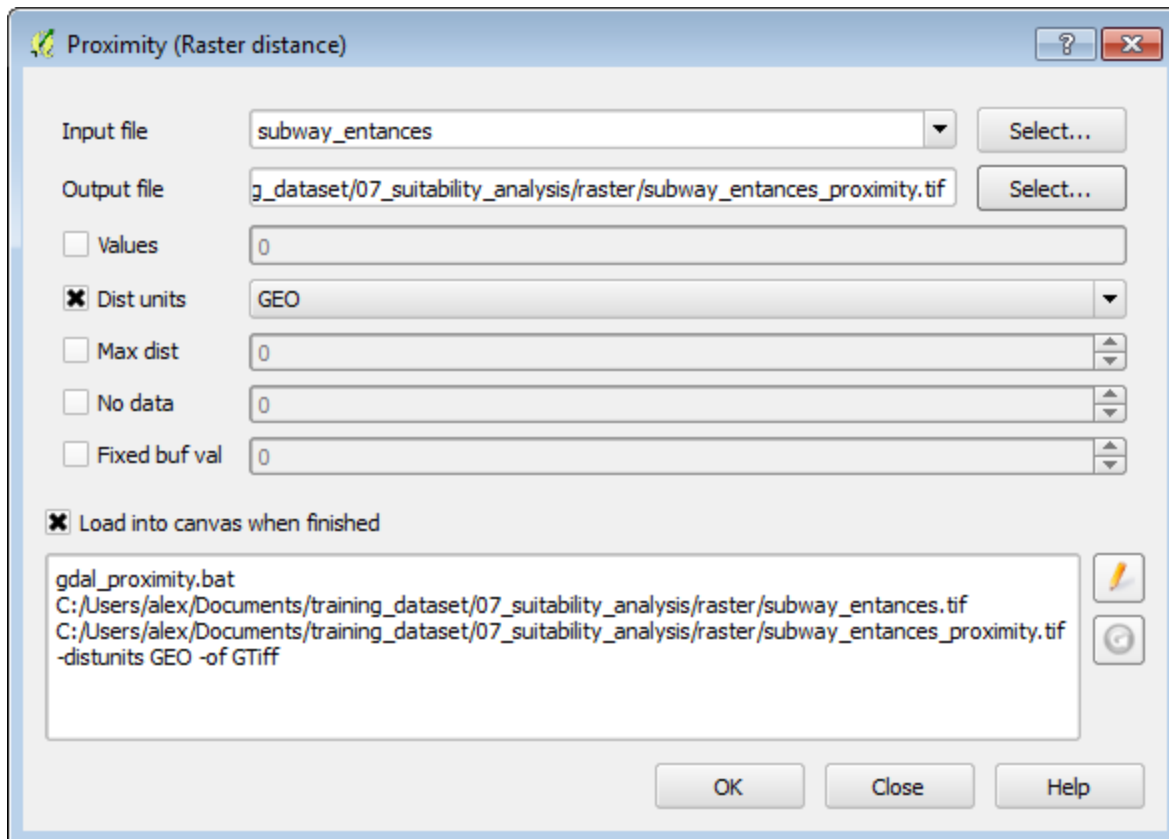
STATISTICS\_MEAN=56.402453314991

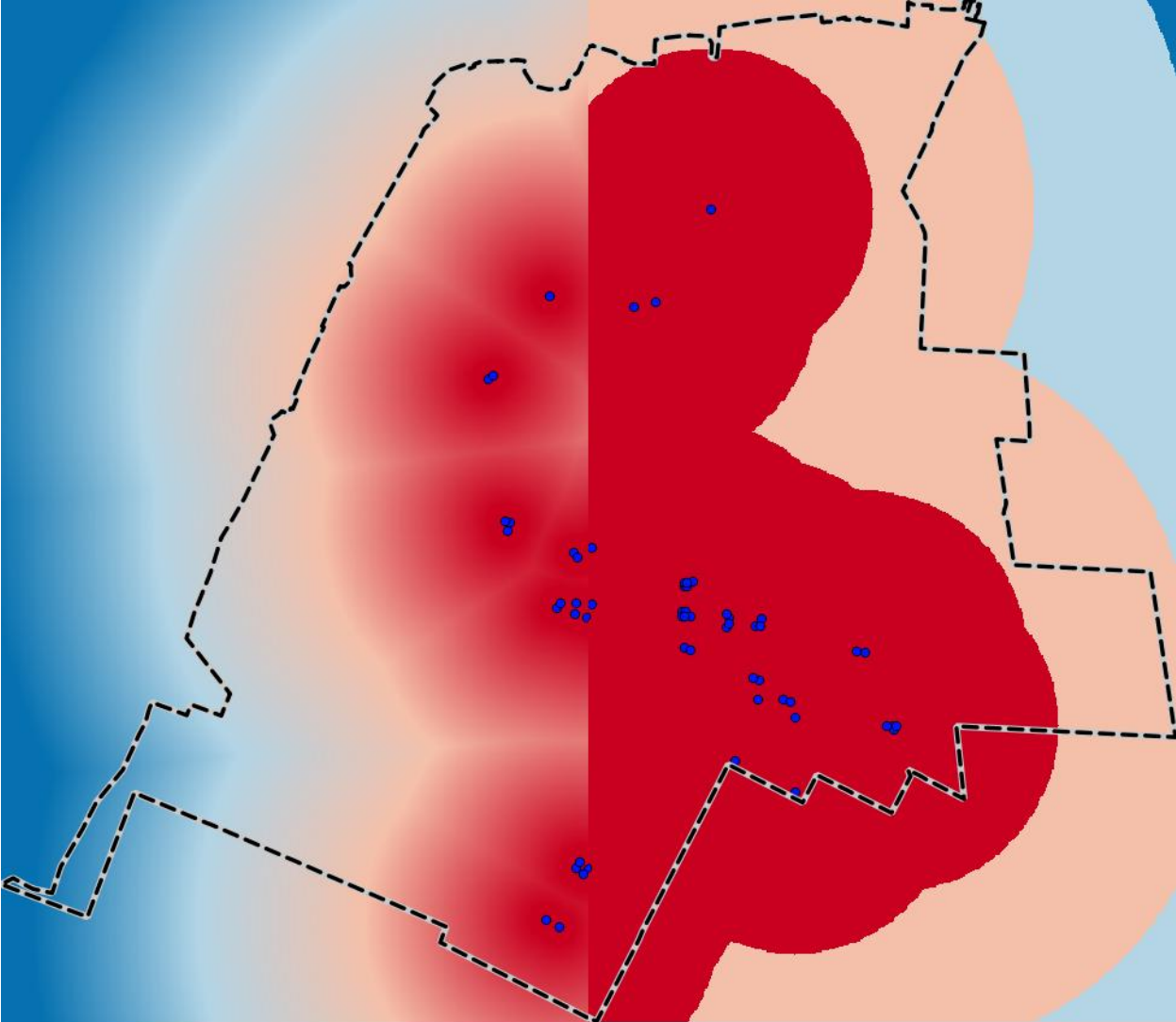
STATISTICS\_MINIMUM=0

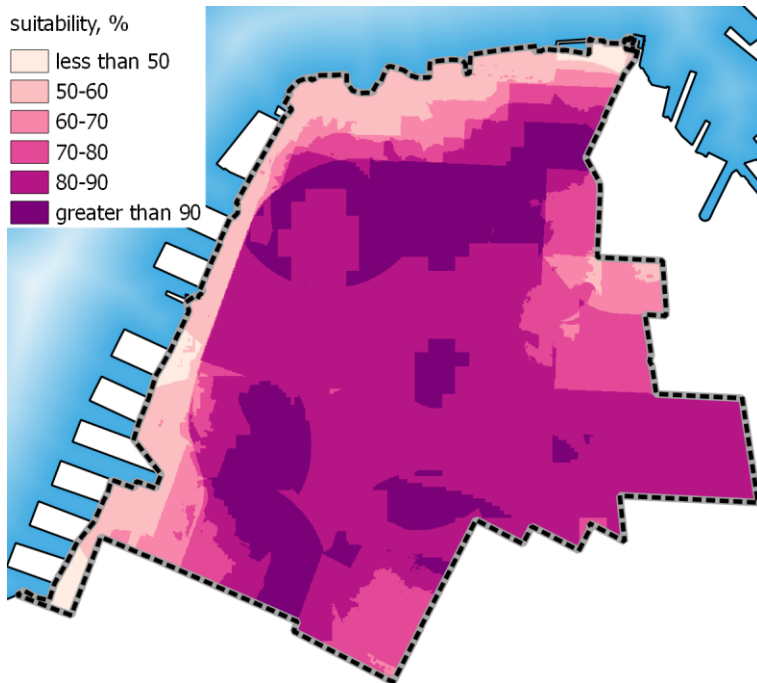
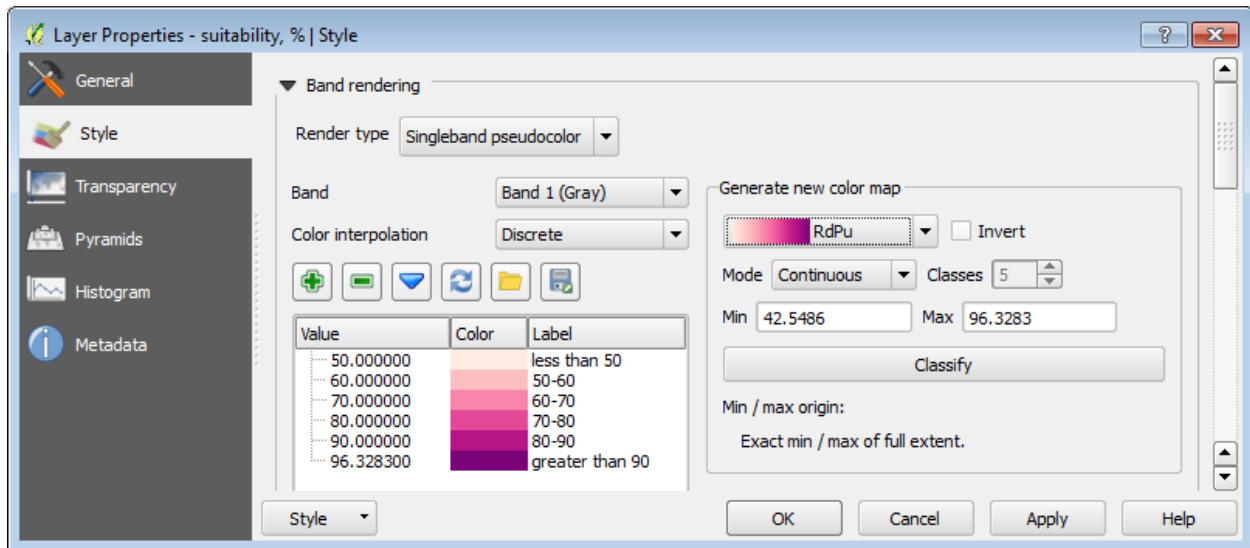
STATISTICS\_STDDEV=40.173098861065

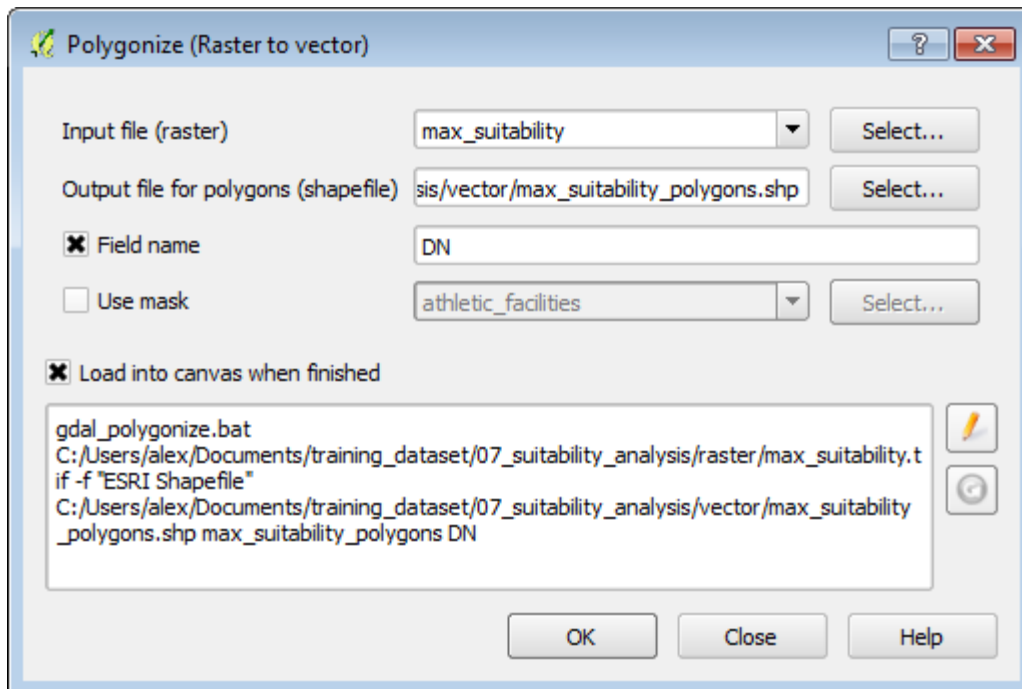
Dimensions





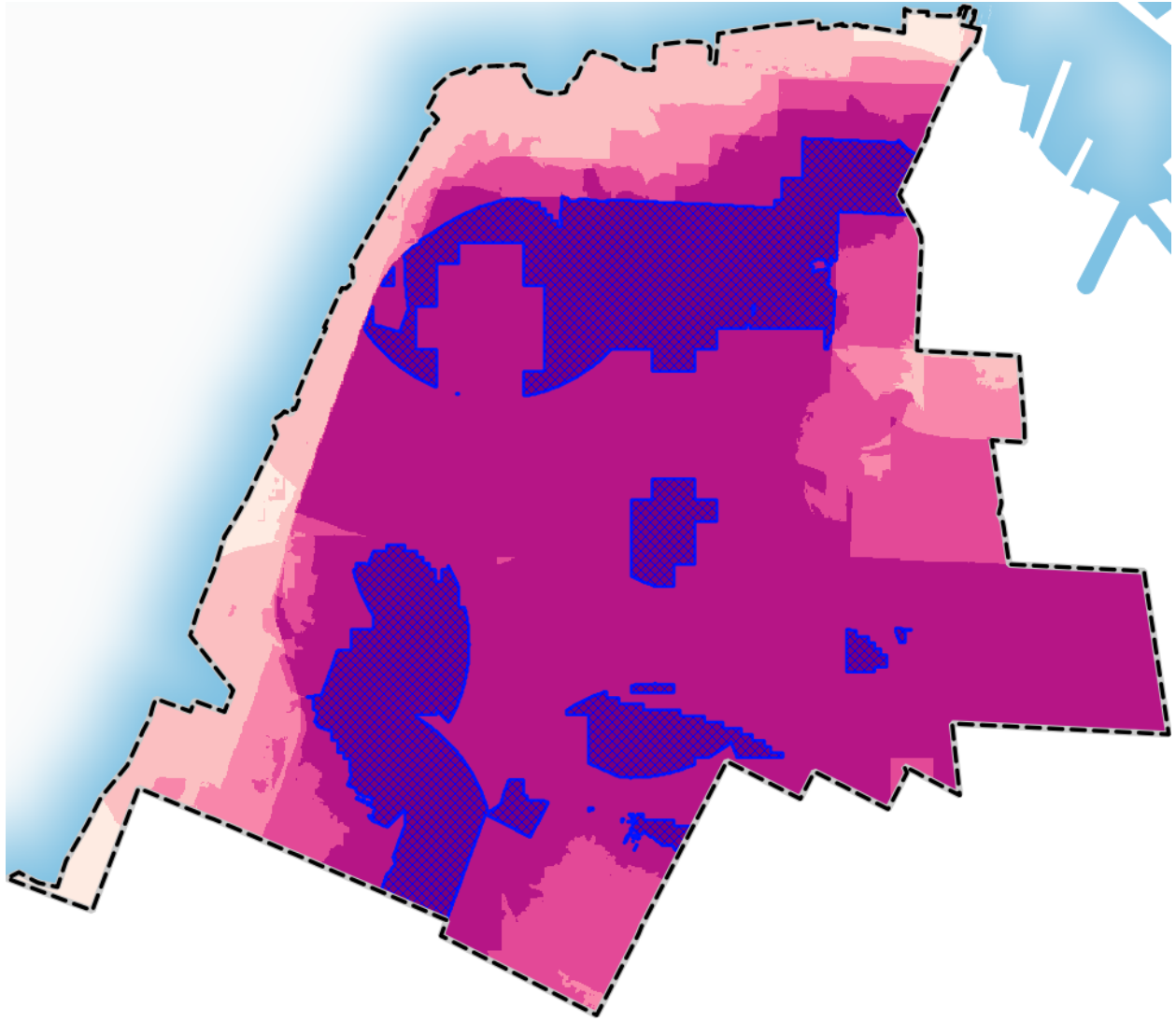


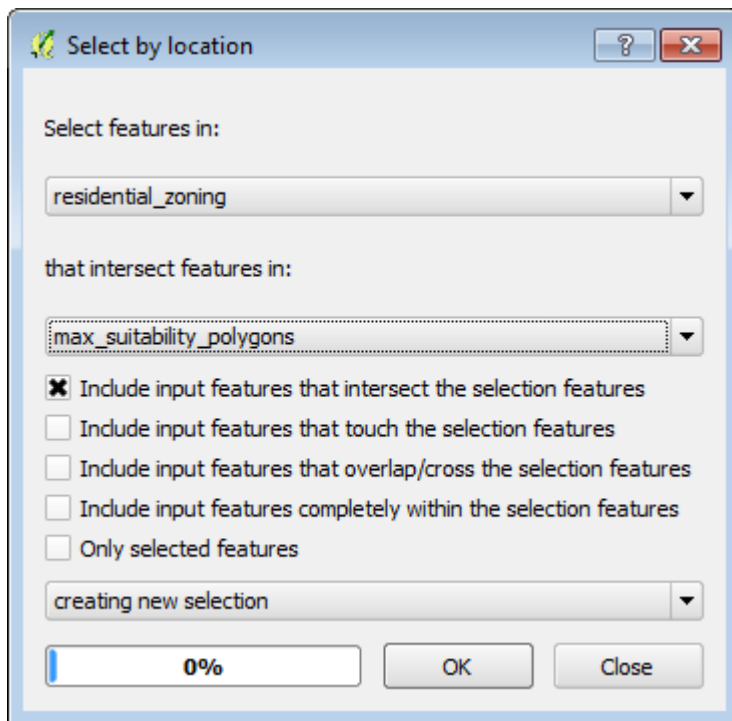


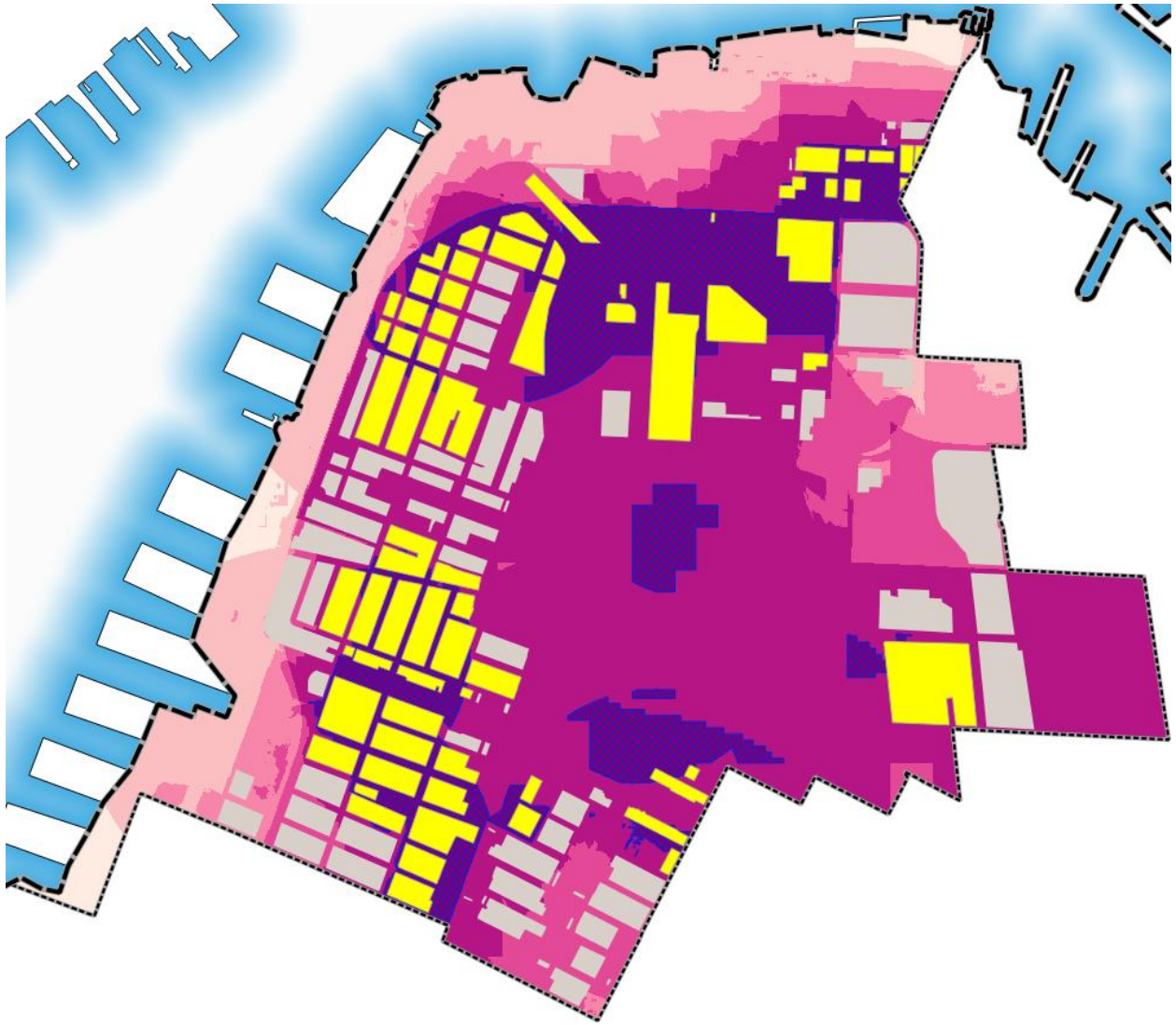


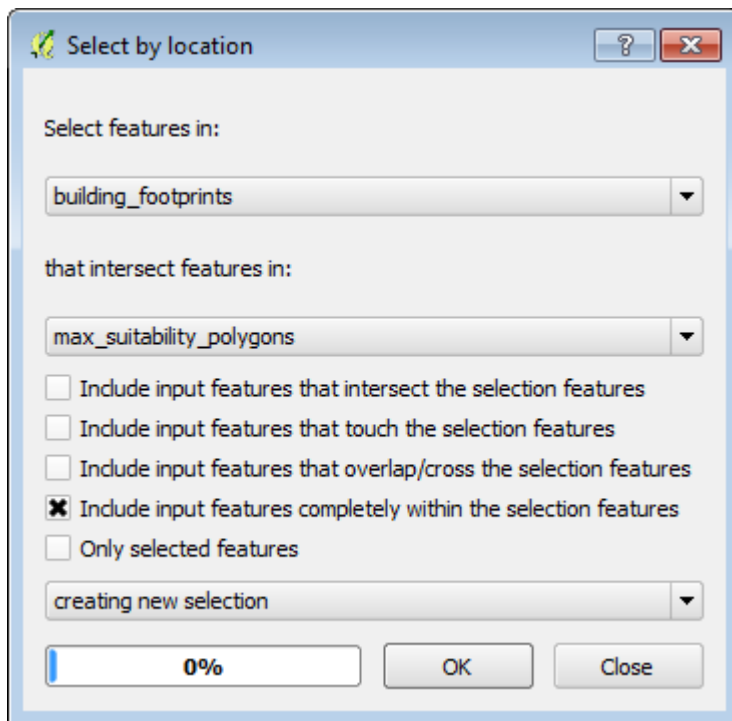


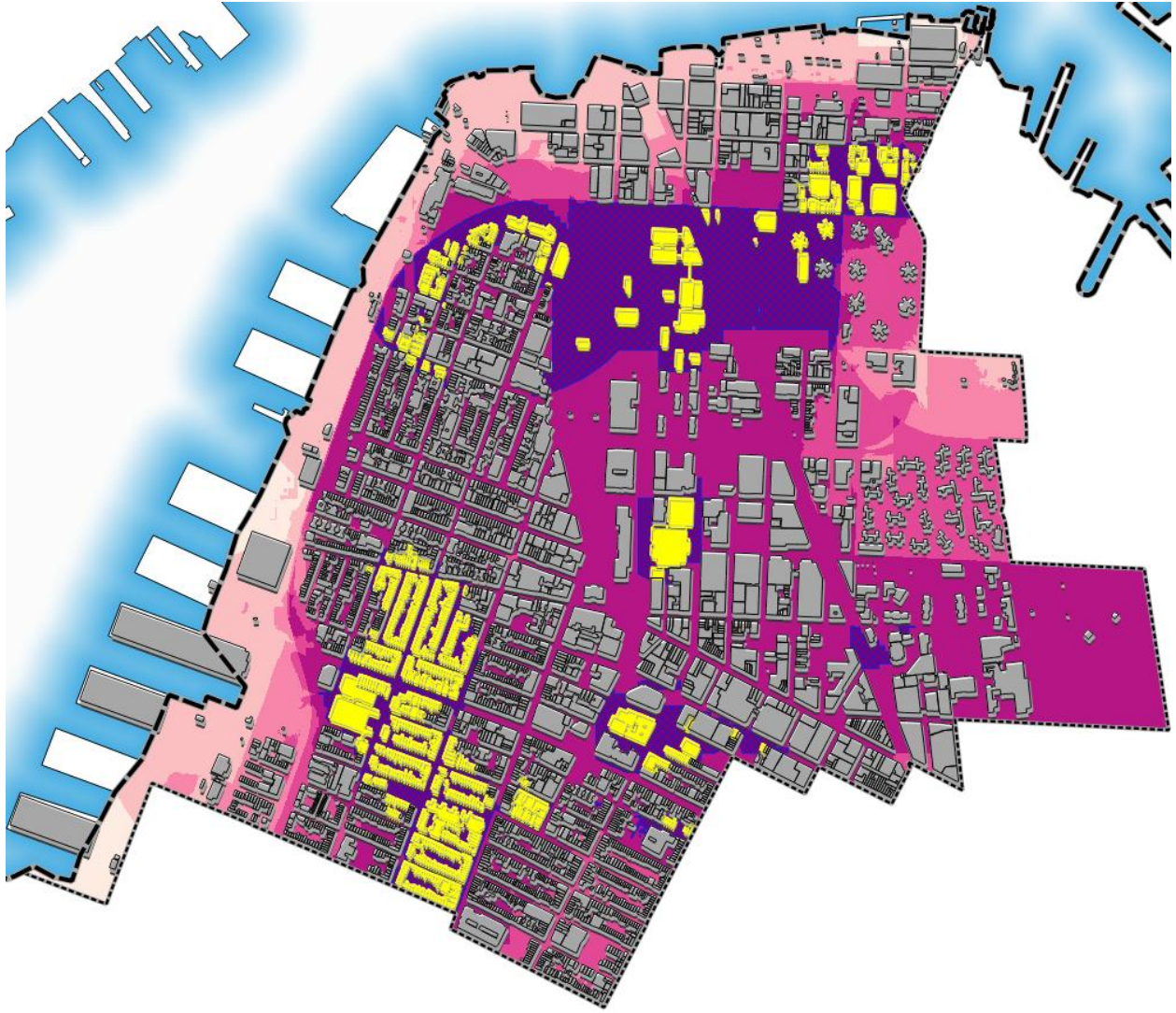




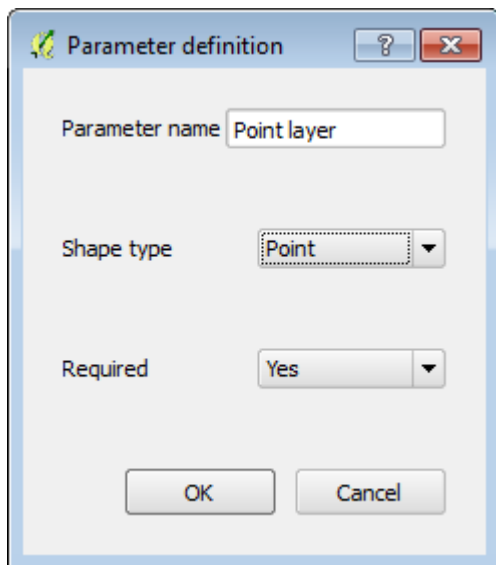
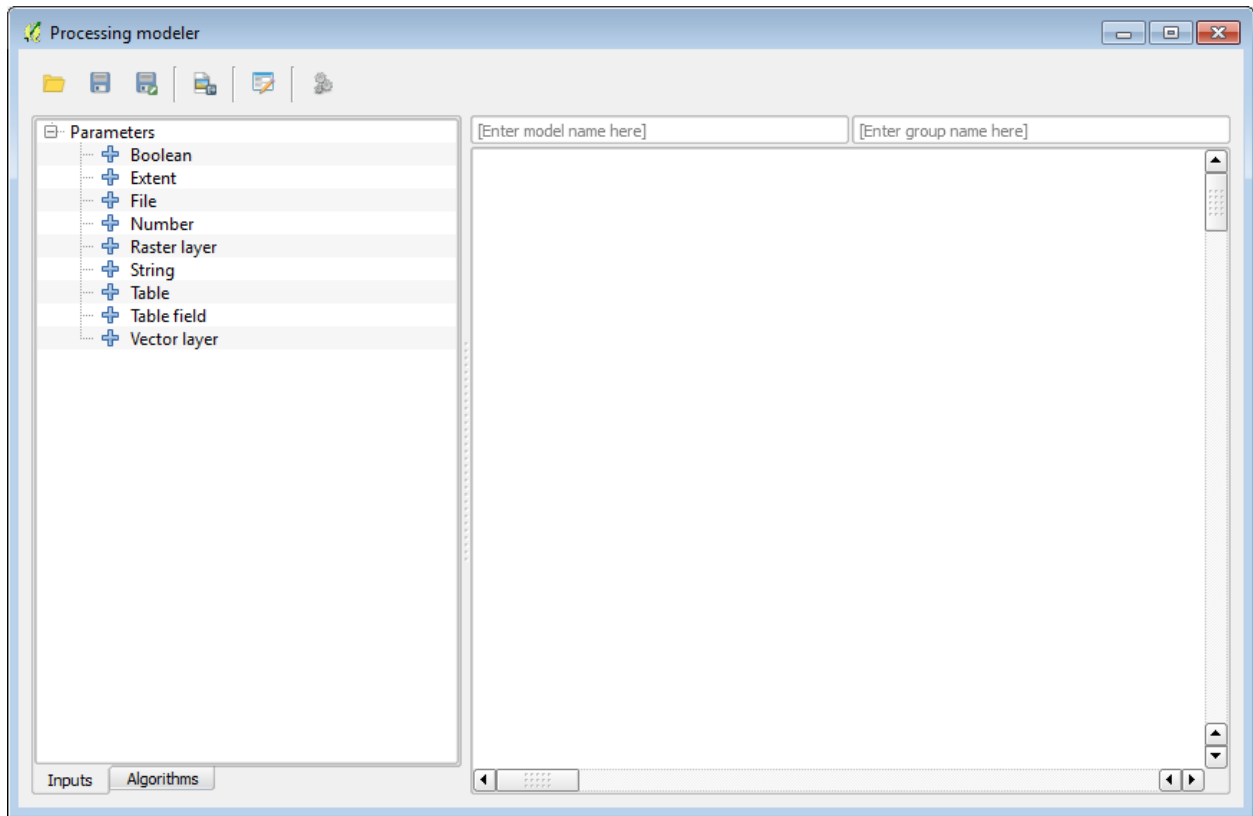








Chapter 8



**Parameter definition** [?] [X]

Parameter name

Min/Max values

Default value

**Vector layer bounds** [?] [X]

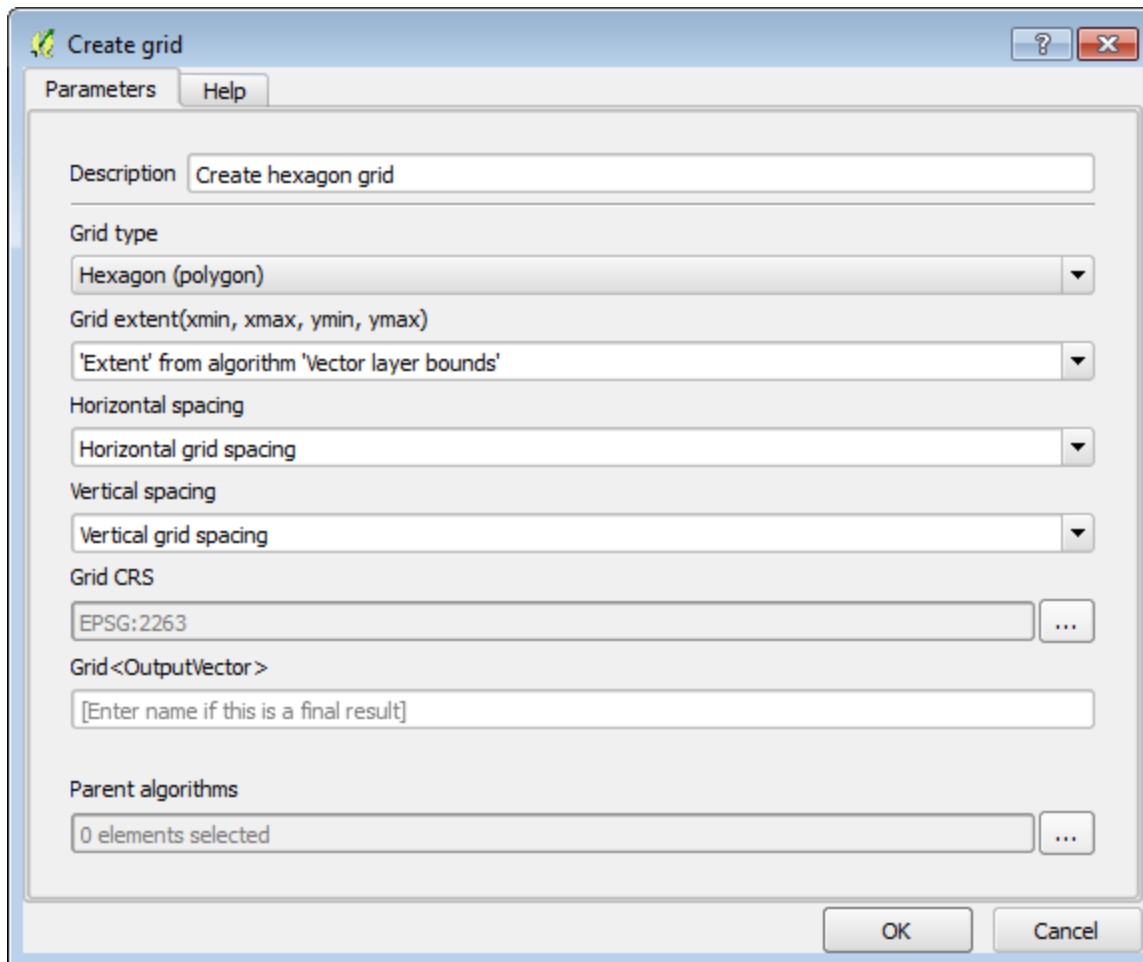
Parameters Help




Description

Layer

Parent algorithms  ...





 **Count points in polygon**  

Parameters **Help**

Description


---

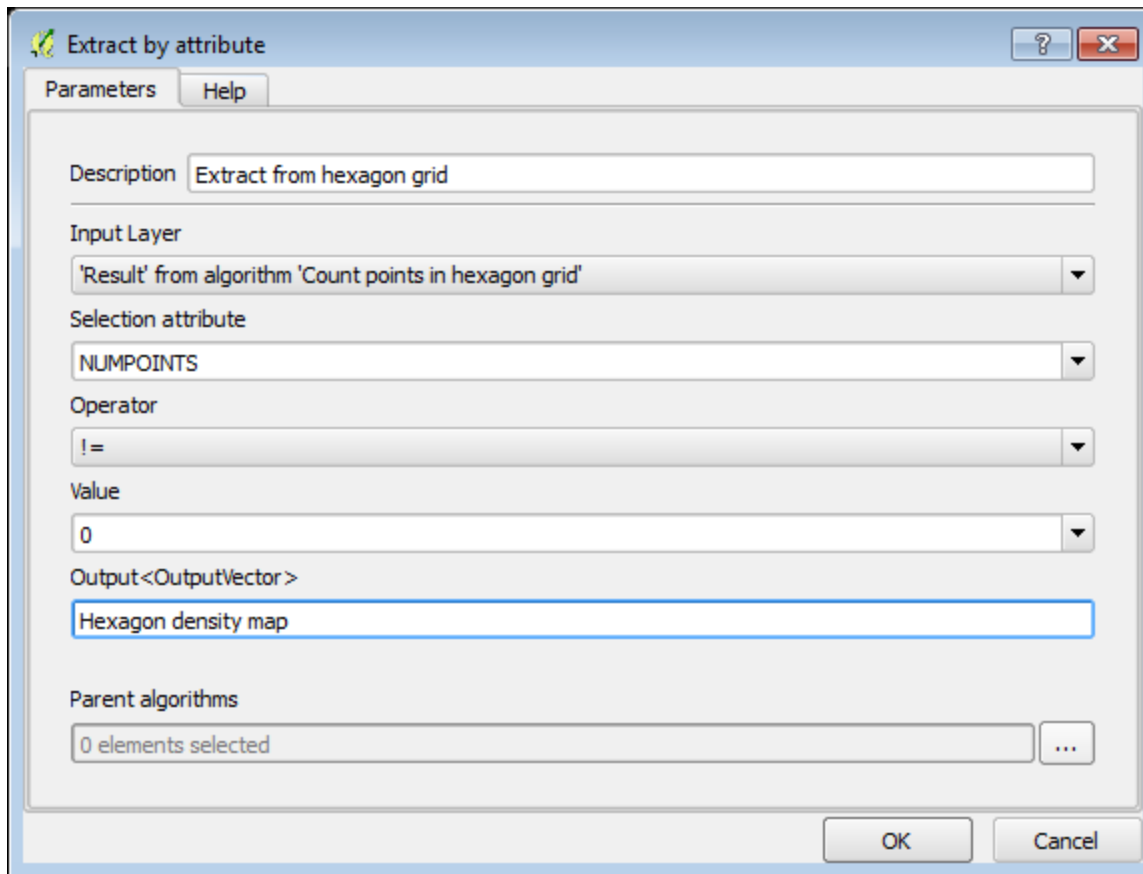
Polygons

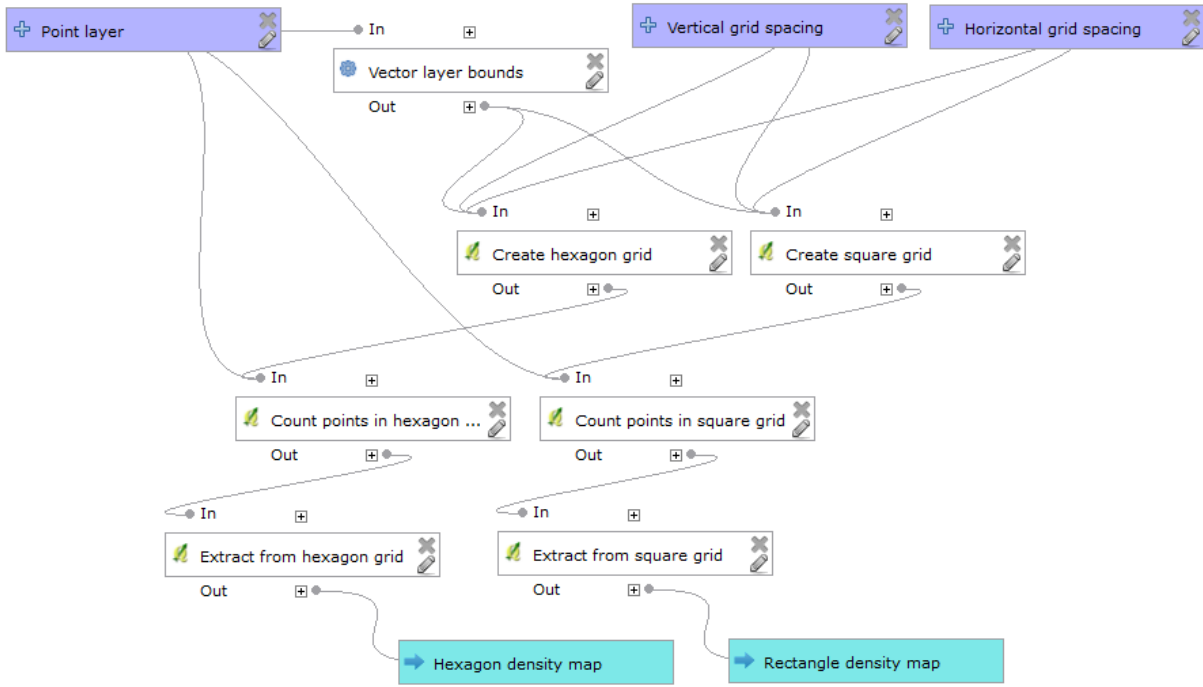
Points

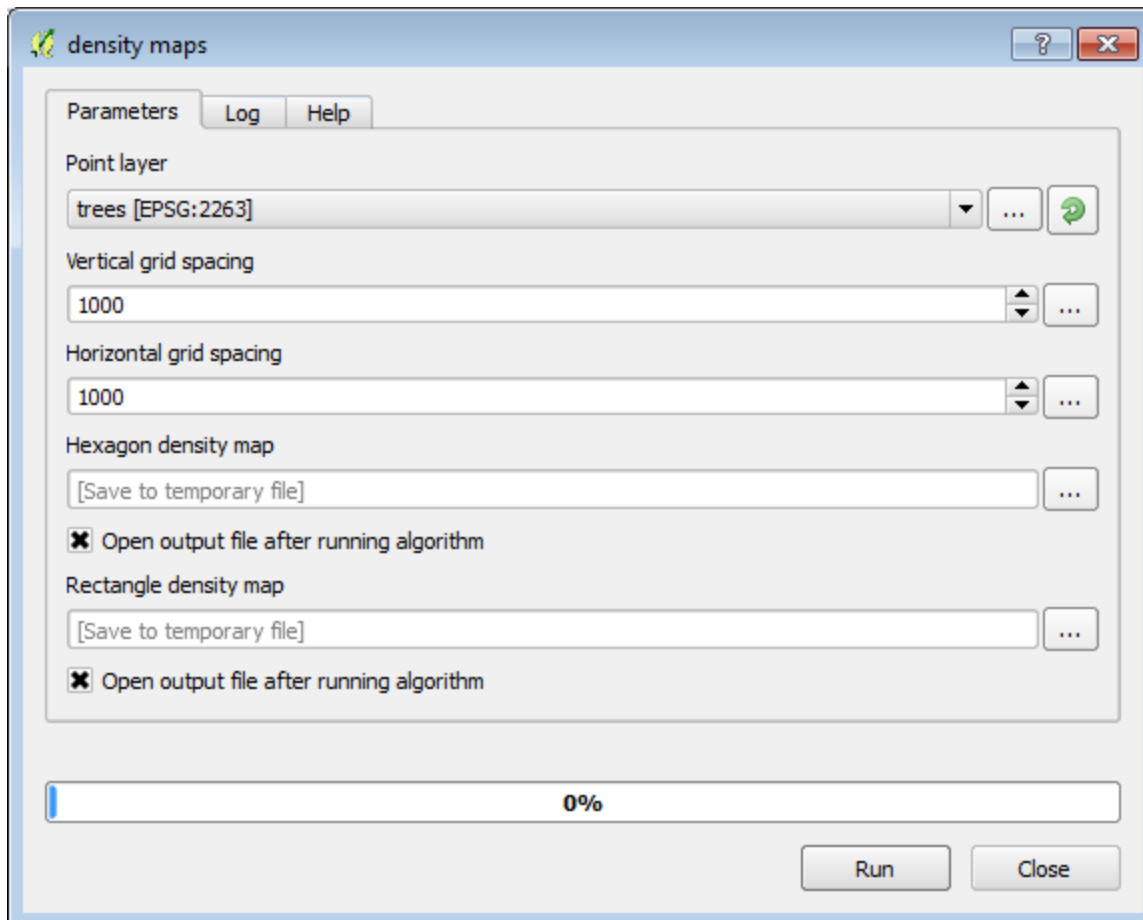
Count field name

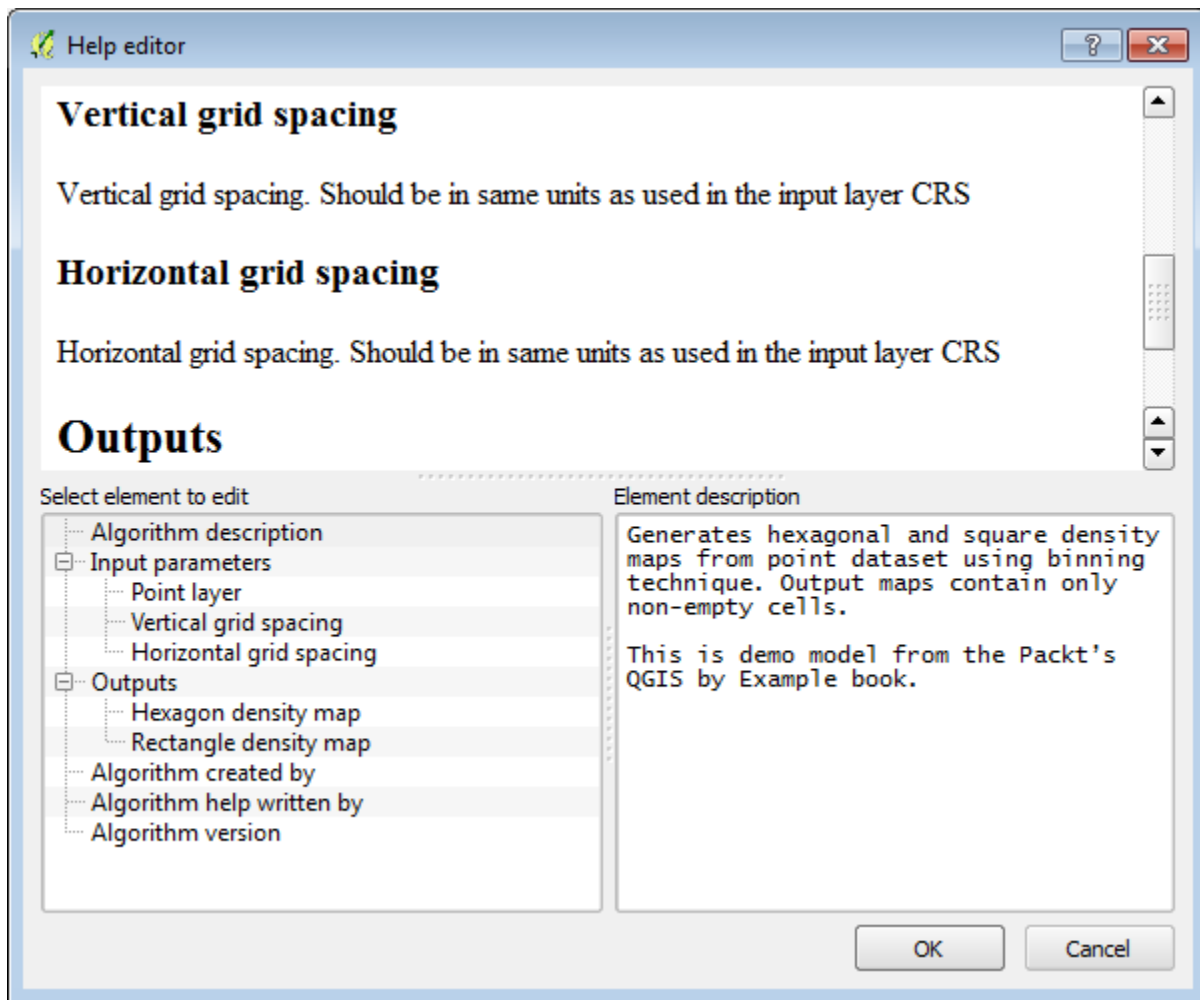
Result <OutputVector>

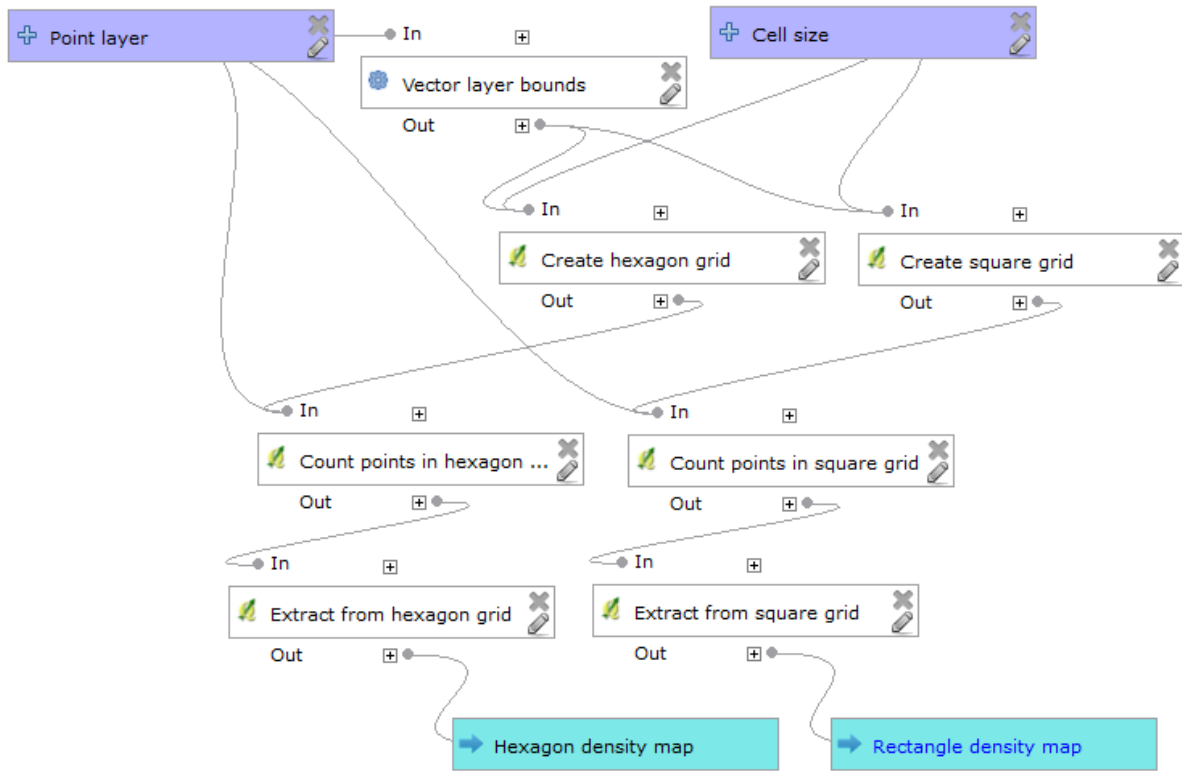
Parent algorithms  
 

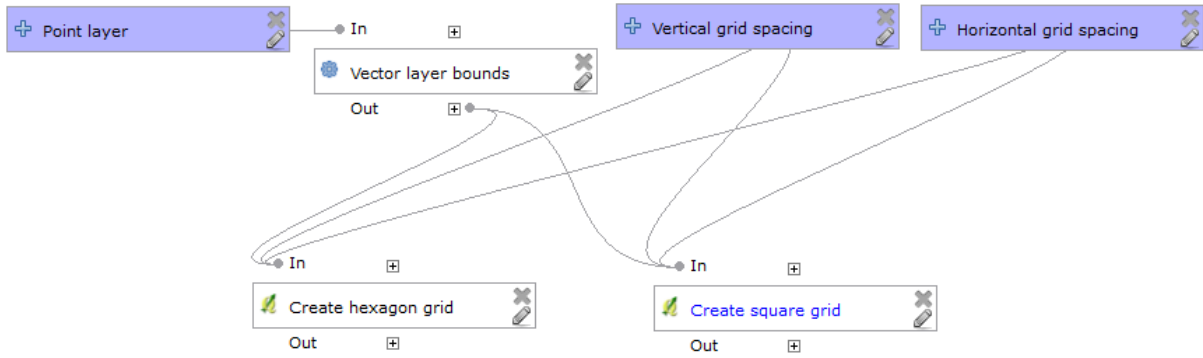








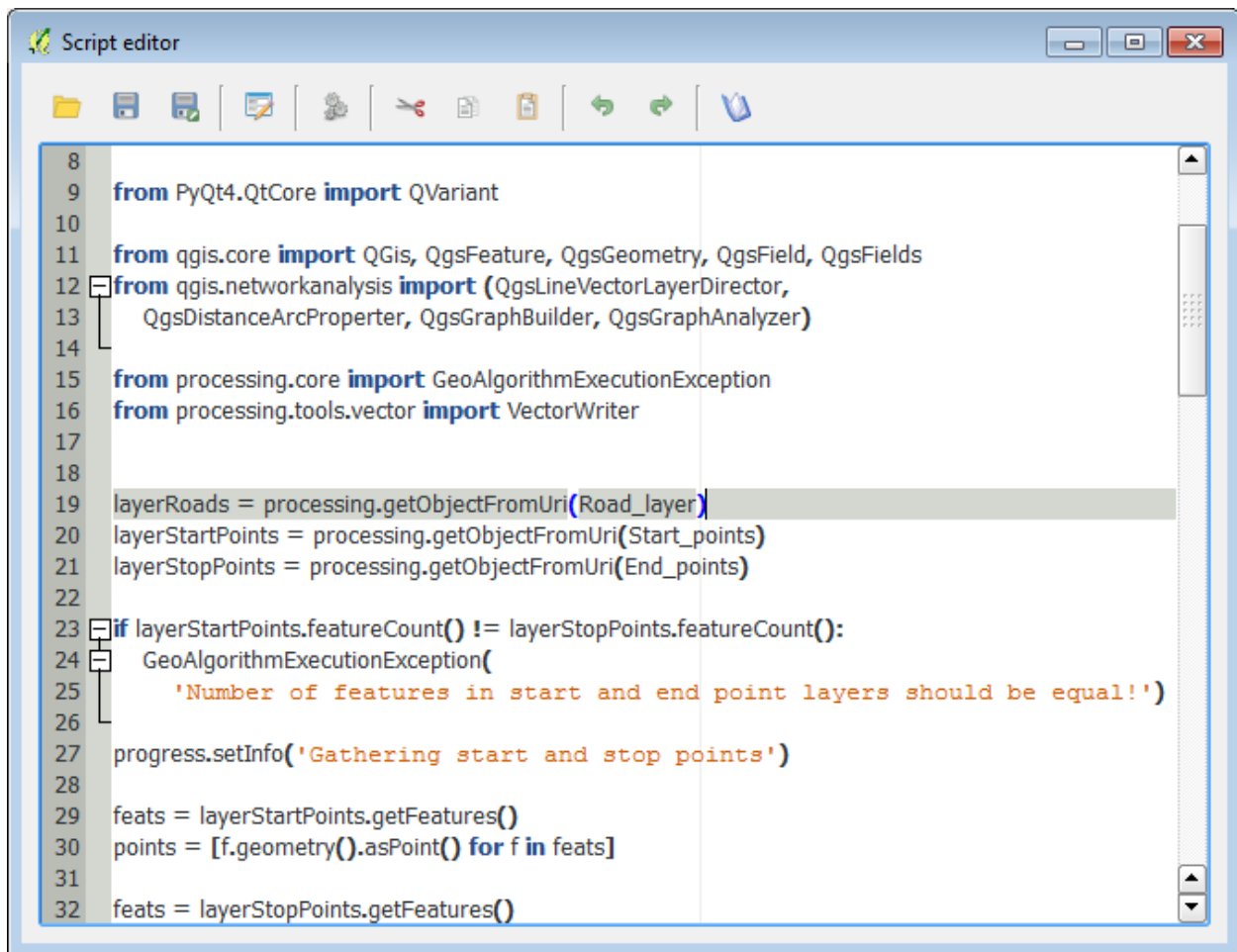




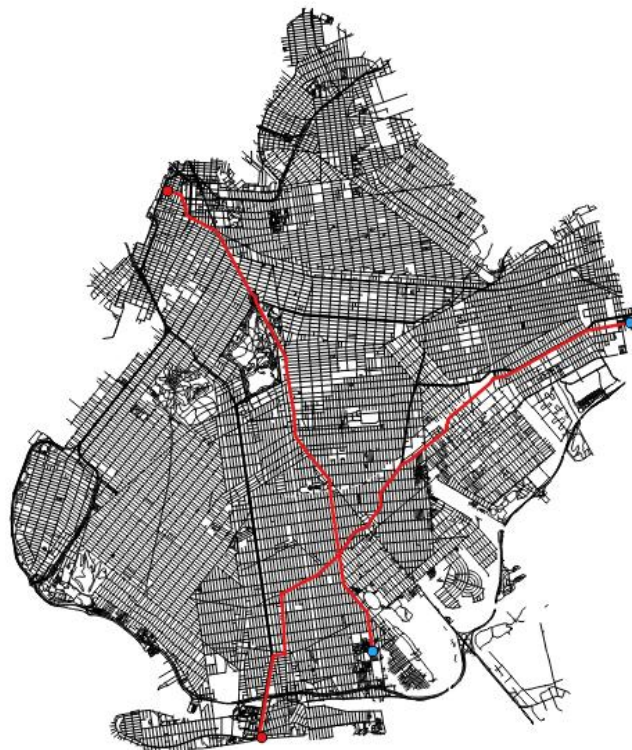
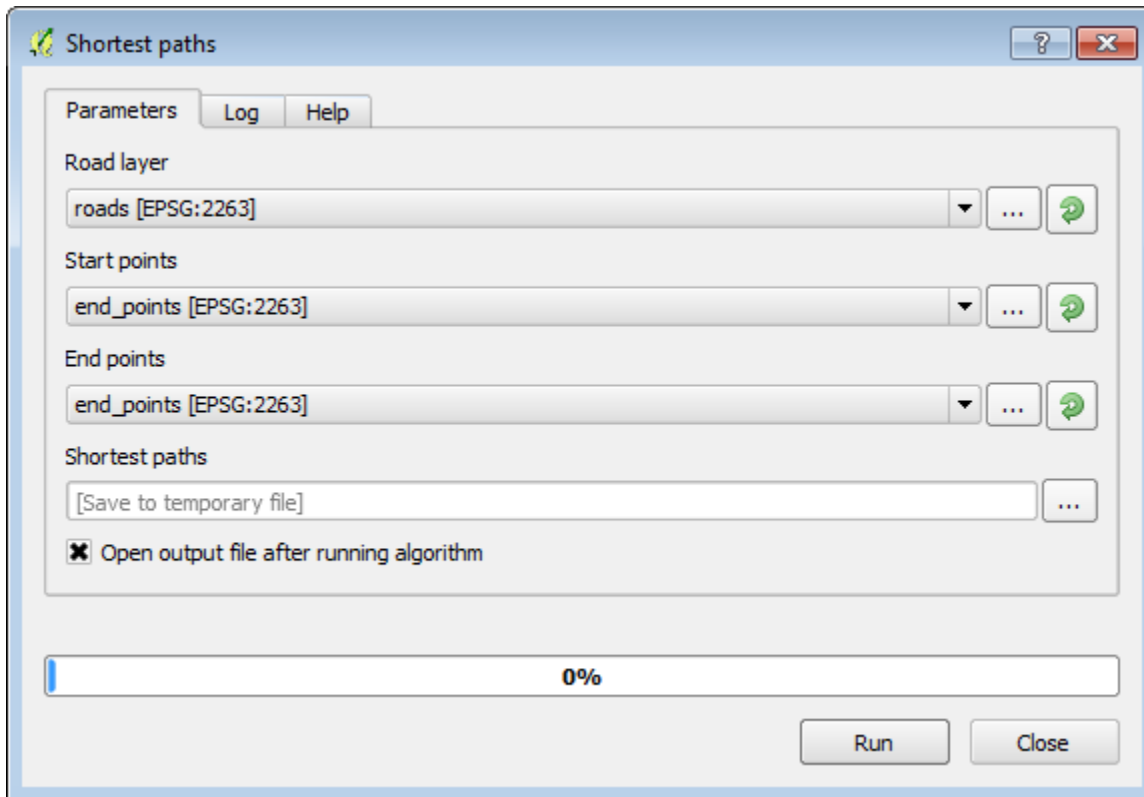
## Chapter 9

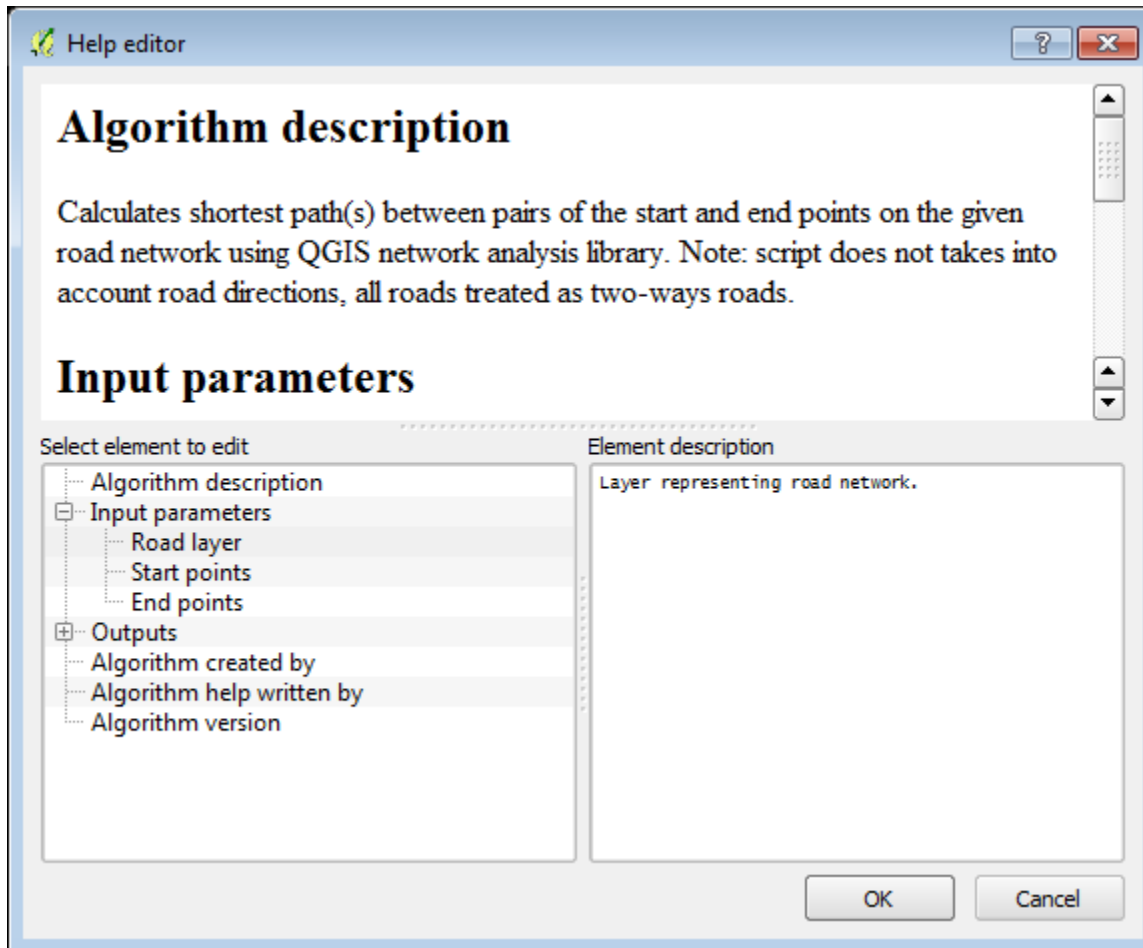
```
Python Console
1 Python Console
2 Use iface to access QGIS API interface or Type help(iface) for more info
3 >>> import processing
4
>>> processing.alglist()
```



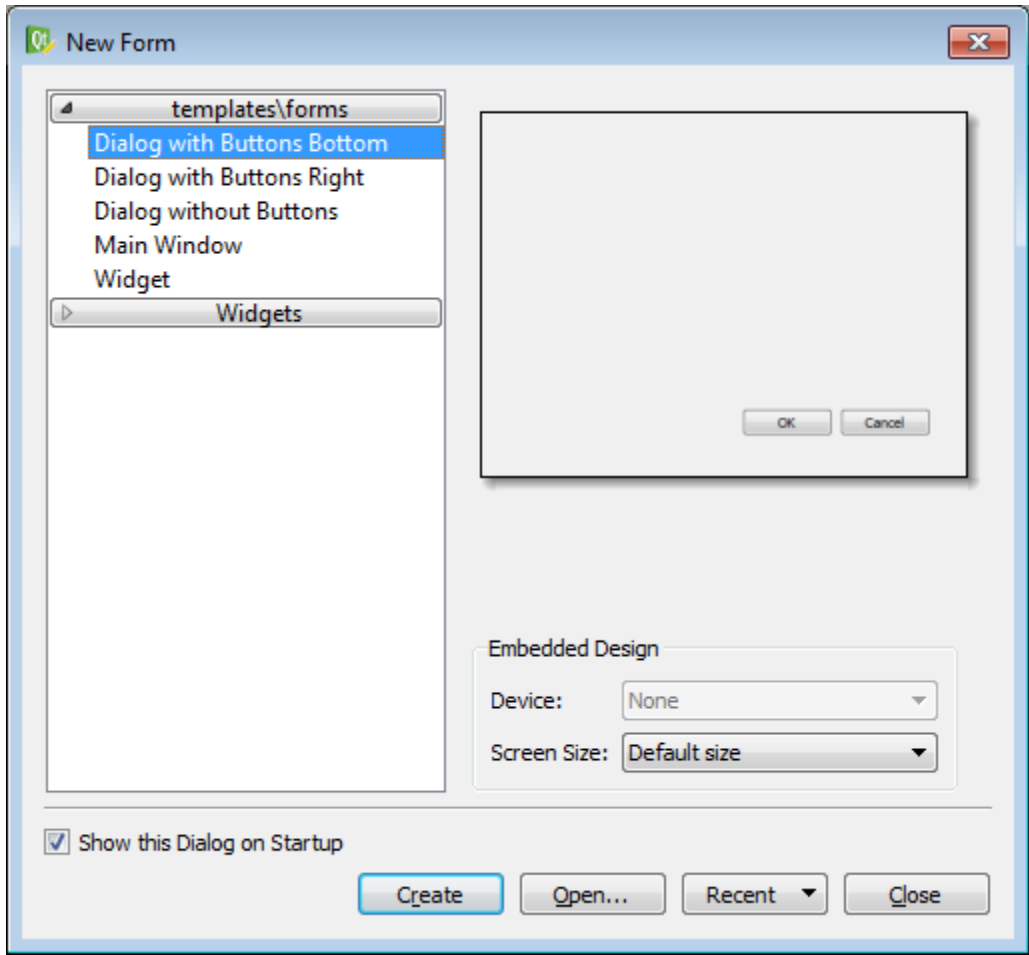


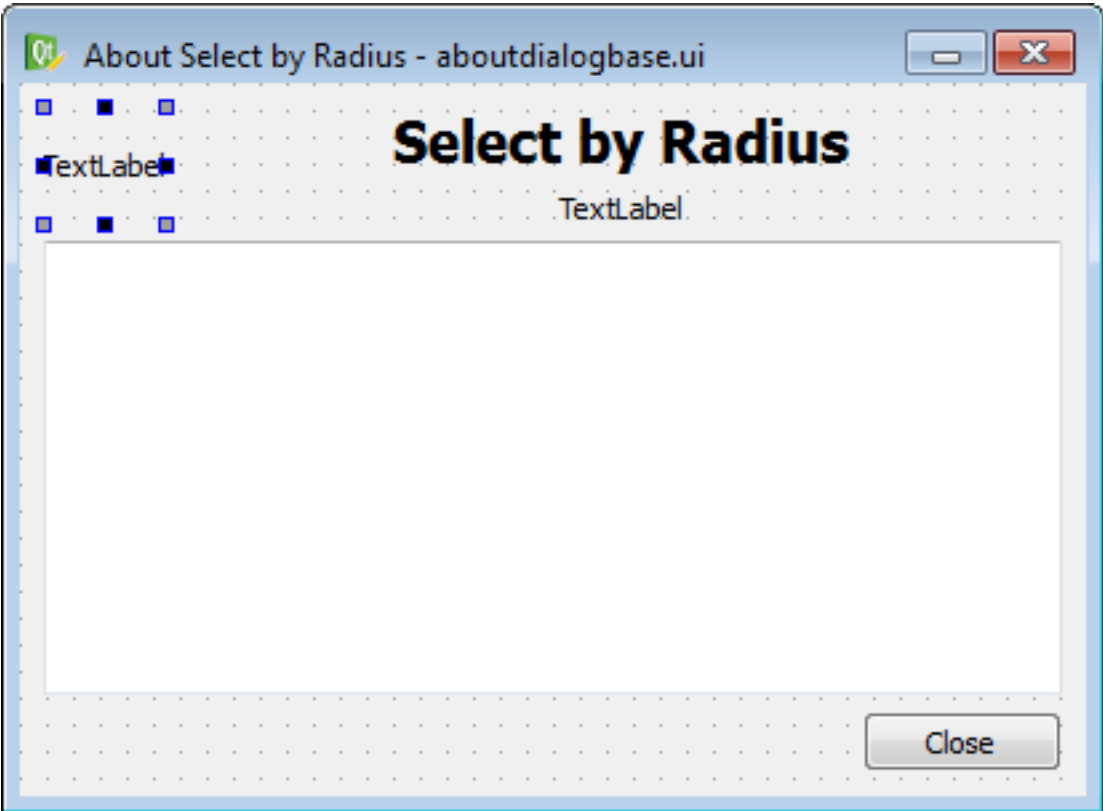
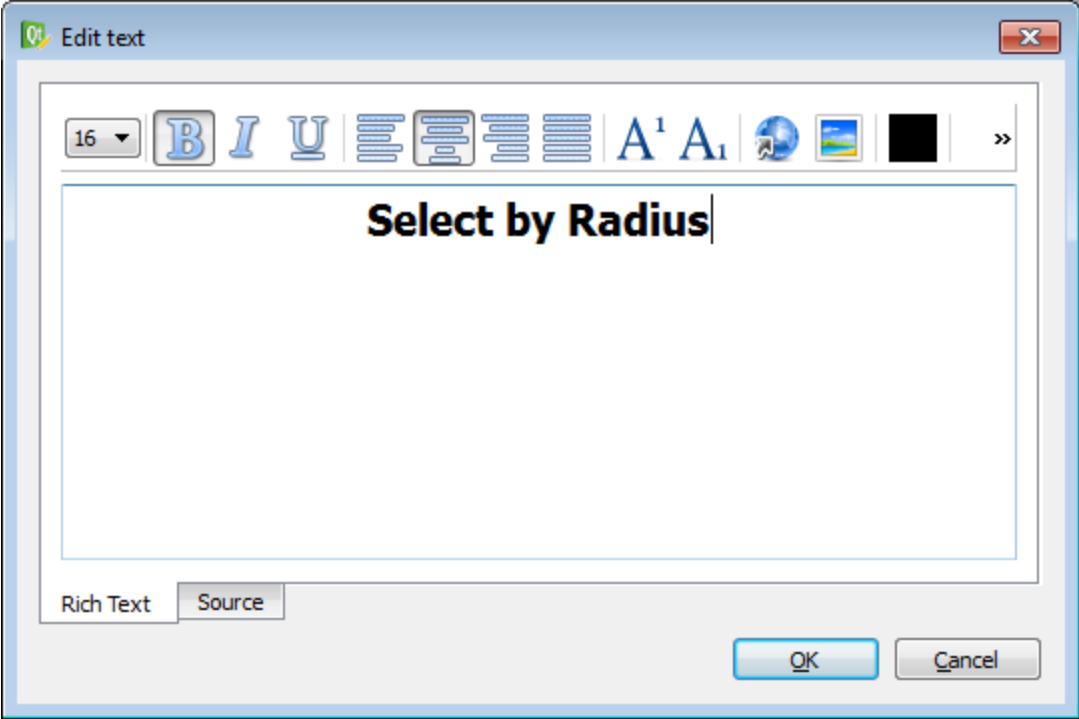
```
8
9 from PyQt4.QtCore import QVariant
10
11 from qgis.core import Qgs, QgsFeature, QgsGeometry, QgsField, QgsFields
12 from qgis.networkanalysis import (QgsLineVectorLayerDirector,
13     QgsDistanceArcProperter, QgsGraphBuilder, QgsGraphAnalyzer)
14
15 from processing.core import GeoAlgorithmExecutionException
16 from processing.tools.vector import VectorWriter
17
18
19 layerRoads = processing.getObjectFromUri(Road_layer)
20 layerStartPoints = processing.getObjectFromUri(Start_points)
21 layerStopPoints = processing.getObjectFromUri(End_points)
22
23 if layerStartPoints.featureCount() != layerStopPoints.featureCount():
24     GeoAlgorithmExecutionException(
25         'Number of features in start and end point layers should be equal!')
26
27 progress.setInfo('Gathering start and stop points')
28
29 feats = layerStartPoints.getFeatures()
30 points = [f.geometry().asPoint() for f in feats]
31
32 feats = layerStopPoints.getFeatures()
```

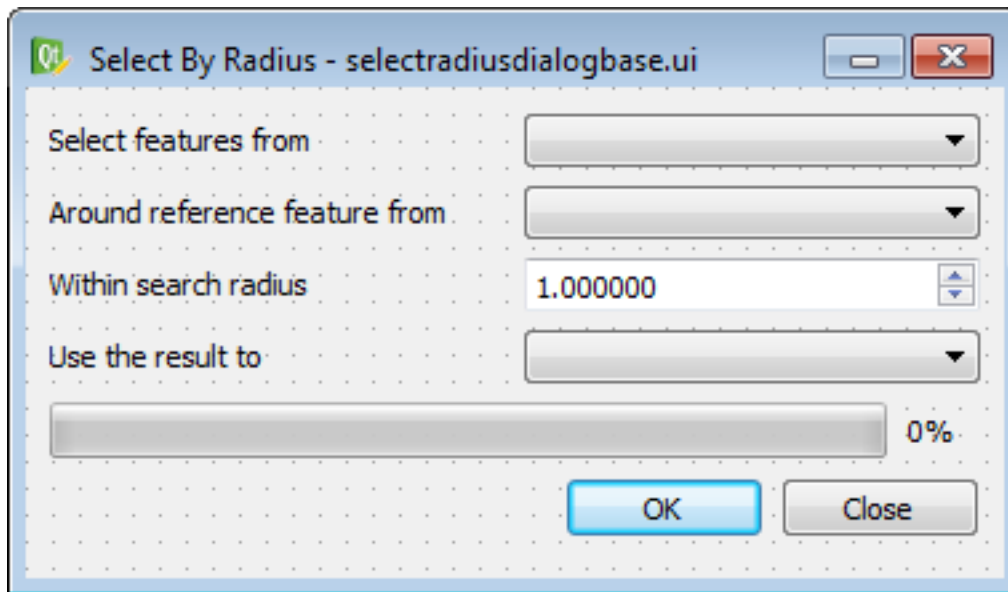




```
selectradius/  
├── icons  
│   ├── about.png  
│   └── selectradius.svg  
├── __init__.py  
├── metadata.txt  
└── selectradius_plugin.py
```







```
selectradius/  
├── gui  
│   ├── aboutdialog.py  
│   ├── __init__.py  
│   └── selectradiusdialog.py  
├── i18n  
│   ├── selectradius_de.ts  
│   └── selectradius_uk.ts  
├── icons  
│   ├── about.png  
│   └── selectradius.svg  
├── __init__.py  
├── metadata.txt  
├── selectradius_plugin.py  
└── ui  
    ├── aboutdialogbase.ui  
    └── selectradiusdialogbase.ui
```