



IQRA NATIONAL UNIVERSITY

GIS PROJECT REPORT

Submitted by:

Name: DiLTaJ KhaN

Roll No: 7724

Sec : A

Submitted to:

Engr. HAmza Mustafa

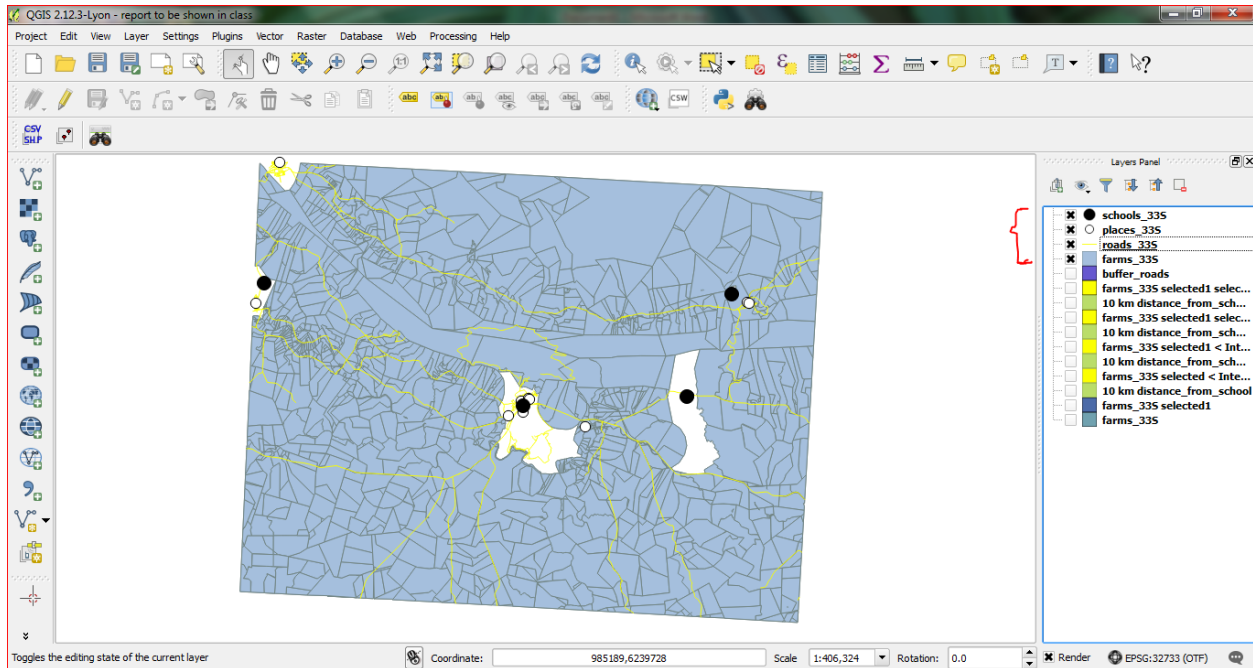
CIVIL ENGINEERING DEPARTMENT

GIS Report On Farm For Residential development For People Of CapeTown , Johnnesburg

Step 1:

Command Path : Ctrl+shift+v > browse > open in Qgis

- 1) First open farms_33s.shp file
- 2) School.shp file
- 3) Road.shp file
- 4) places



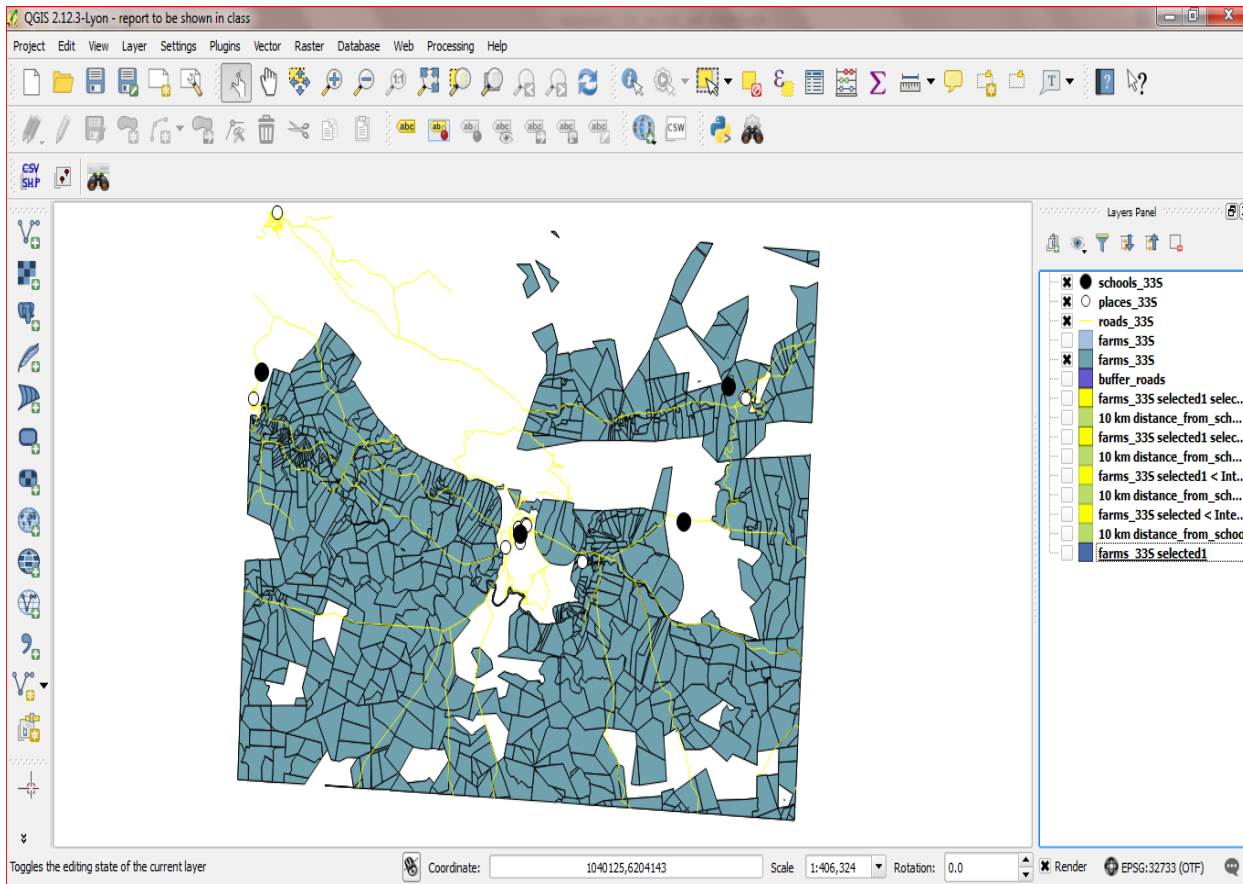
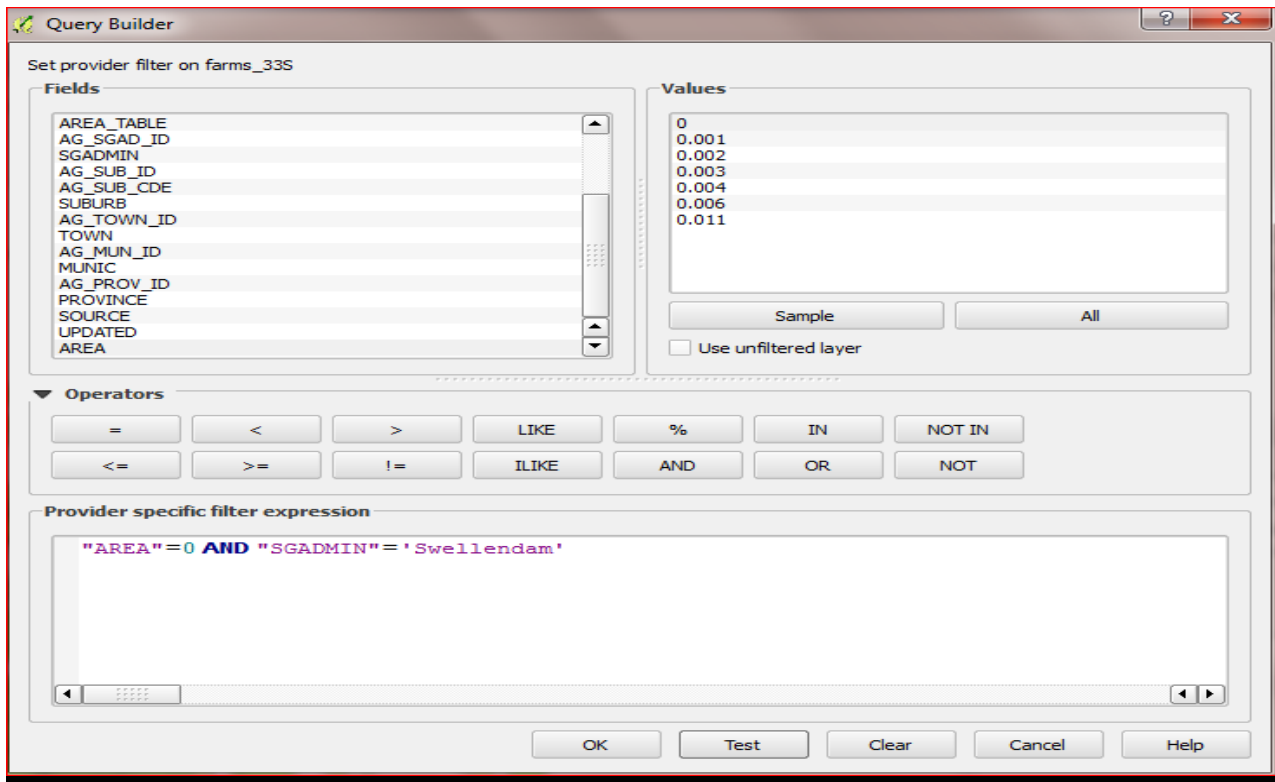
Step 2:

Right click on th layer farms.shp > filters > 0k that **two** required condition for farms.

- A) It needs to be in Swellendam.
- B) The farm must be between 100 and 150 hectares in area.

From attribute table "Area"< '0.00015 AND "SGADMIN" = 'Swellendam'

The image shows on the next page as the result of filter command.

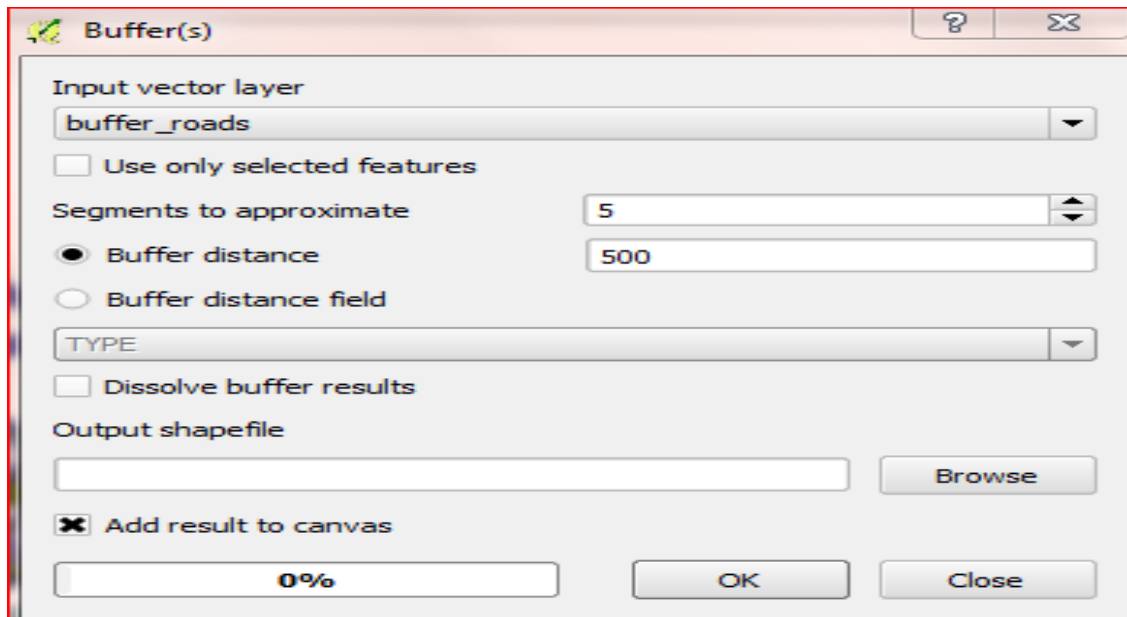


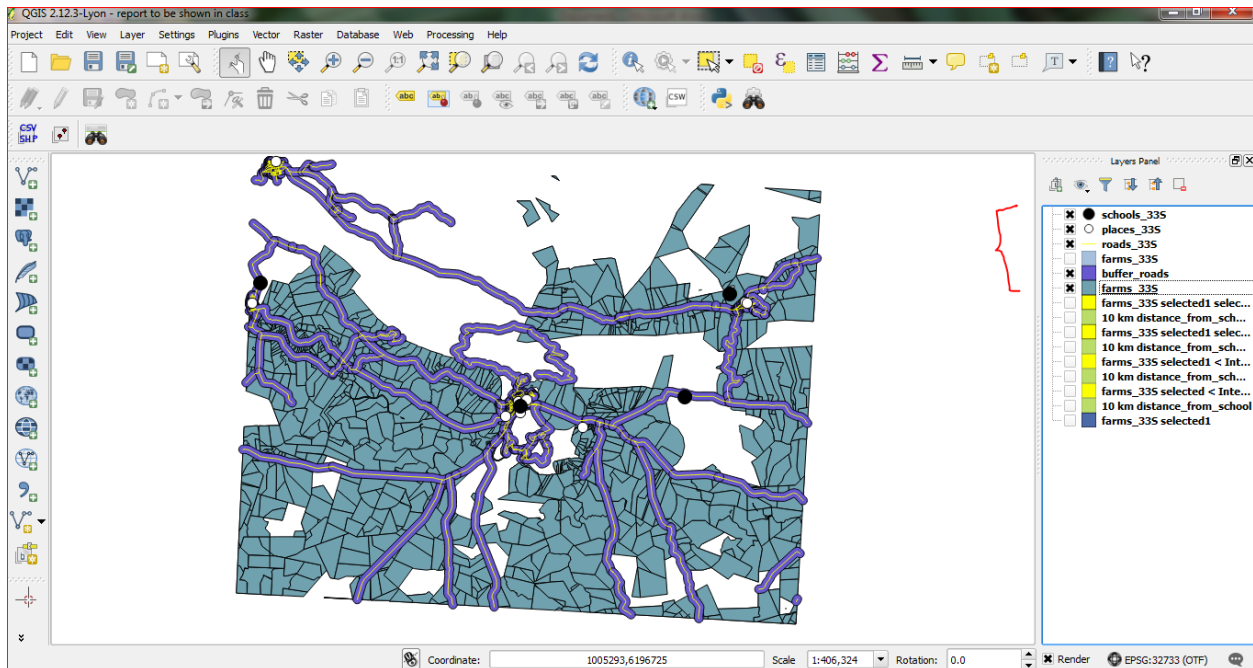
Step 3: After the filter command I need to buffer the roads upto 500 meters by the method as follow

Command path : vector > Geoprocessing tools > Buffers

- 1) Input vector layer > Buffer_roads
- 2) Buffer distance > 500 meters
- 3) Browse
- 4) Ok

The datasets are already projected to appropriate Projected Coordinate System (WGS 84/ UTM Zone 33S). The unit of CRS is meter.





Step 4:

My next objective to achieve those residential farms which is 500 meter distance from main road. which I already buffer the road so by this command path I remove all those residential farm which is not touch with buffer_roads.

Local Govt. Department wants to buy a farm to build a new residential development for people which states that a farm must satisfy this requirements:

- C) You don't want to have to build a long access road (maximum distance 500 meters), and it has to be easily accessible from main routes.

Command Path: Vector > spatial Query > spatial Query

- 1) Select source features from > farms_33s (filtered)
- 2) Where the feature > Intersects
- 3) Buffer_roads
- 4) Apply

Spatial Query ⓘ ⌵

Select source features from

farms_33S selected 1

155 selected geometries

Where the feature

Intersects

Reference features of


10 km distance_from_school2

Selected geometries

And use the result to

Create new selection


Selected features

155 of 936 selected by "Create new selection" 

Result feature ID's

Result query

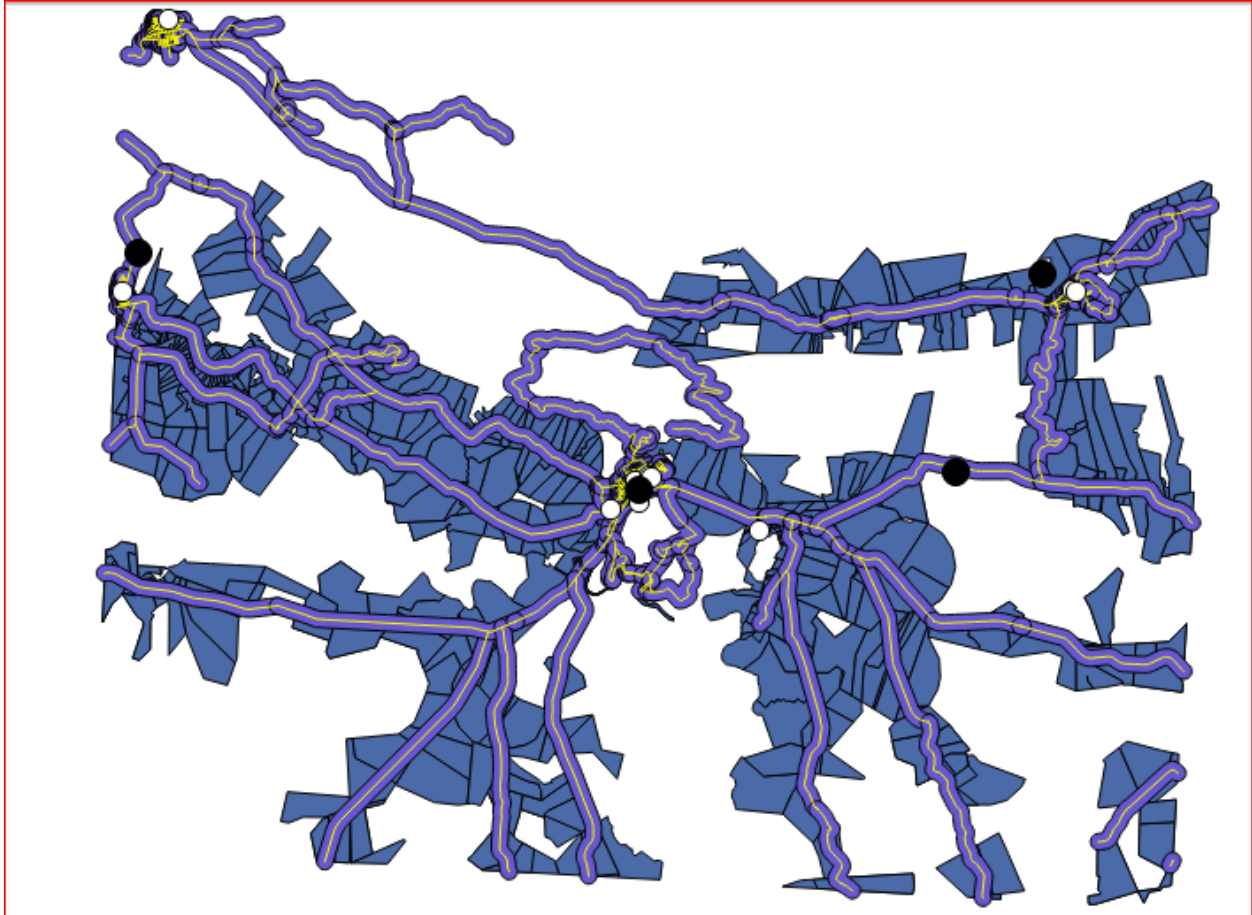
0
1
2
38
82
154
186
187
198
199
210
224
225
227
228
279
281
303

155 of 936 identified 

Zoom to item

Log messages

Close Apply



Step 5 :

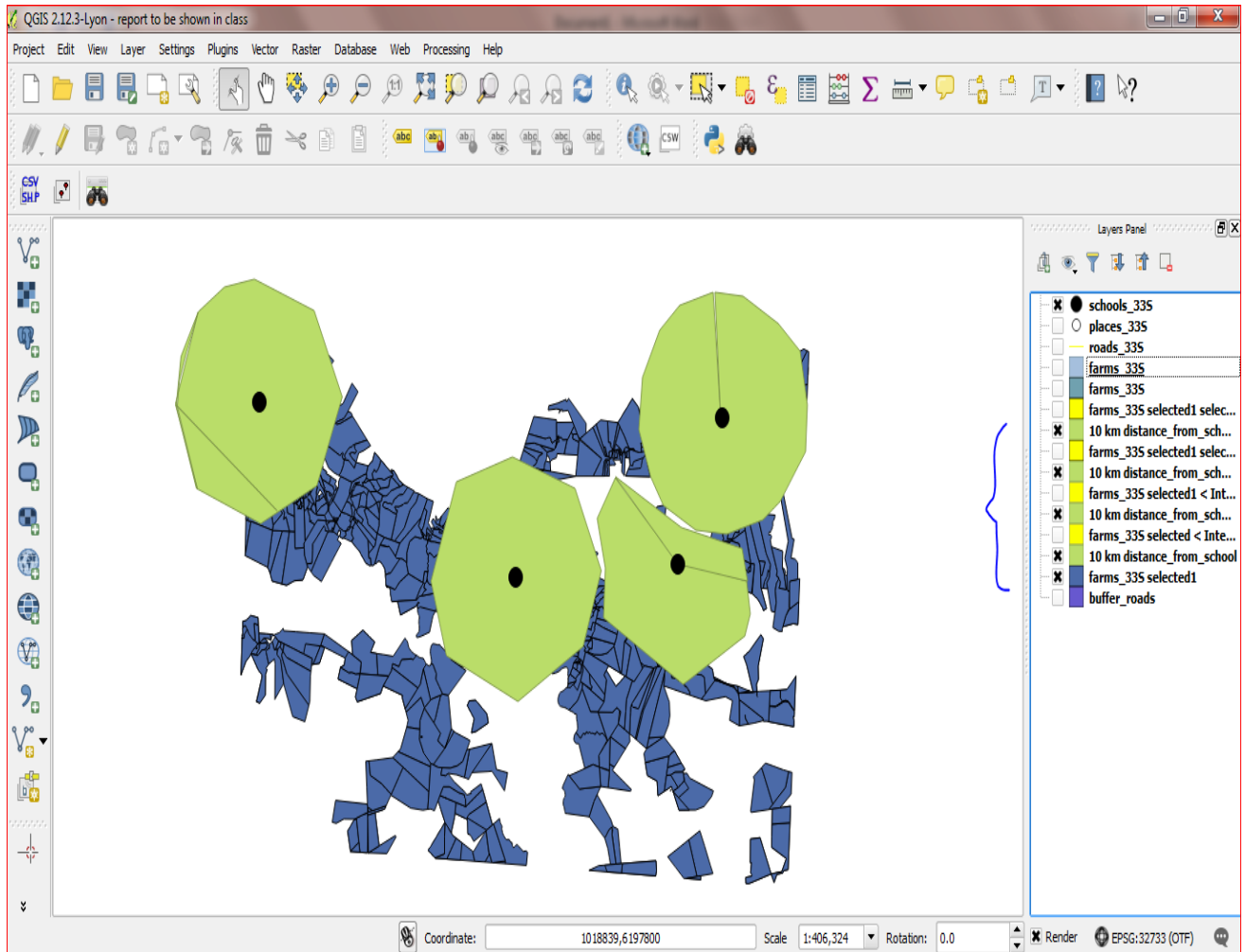
Now I want to draw a circle of 10 km radius so that I achieve those farms_33s which is 10 km from School.

Local Govt. Department wants to buy a farm to build a new residential development for people which states that a farm must satisfy this requirements:

D) The people who make up the target market will probably have children, so it must be within a reasonable distance (by car) from a school (maximum 10 Km).

Command path :

Layer > Creat Layer > New Shape File layer > Polygon > ok

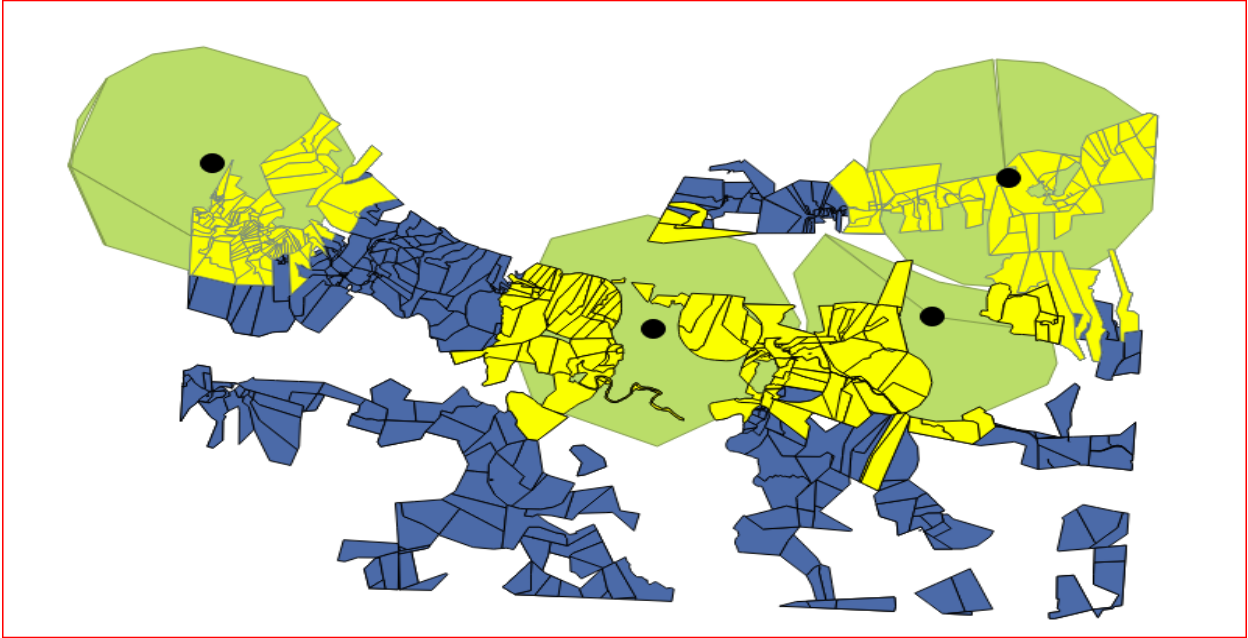


Step 6:

By the help of this command path I get those residential farms_33s which 10 km from school.

Command Path: Vector > spatial Query > spatial Query

- 1) Select source features from > (farms_33s < Intersect > Buffers_roads)
- 2) Where the feature > Intersect
- 3) Polygon 1, Polygon 2, Polygon 3, Polygon 4
- 4) Apply



Step 7 :

The final Result which satisfy all the condition. The big Black spot is School.

