



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

MINI PROJECT REPORT (GIS)

TOPIC

Selection of land area for wastewater
treatment plant for Hayatabad

Murtaza Haseeb

ID 7730

SEC C

INTRODUCTION

- ▶ Wastewater is any water that has been affected by human use
- ▶ Wastewater is “used water from any combination of domestic, industrial, commercial or agricultural activities , surface runoff or stormwater and any sewer inflow or sewer infiltration
- ▶ The structure where wastewater is treated is called wastewater treatment plant

PROBLEM

- ▶ Pakistan is the third most affected country by an acute water shortage as ranked in an IMF study.
- ▶ As we know that in Pakistan there is no proper plan and resources to store water for future.
- ▶ If the same trend remains it will reach absolute scarcity levels of water, with a shortage of 31 million acre feet (MAF) and face drought by as early as 2025

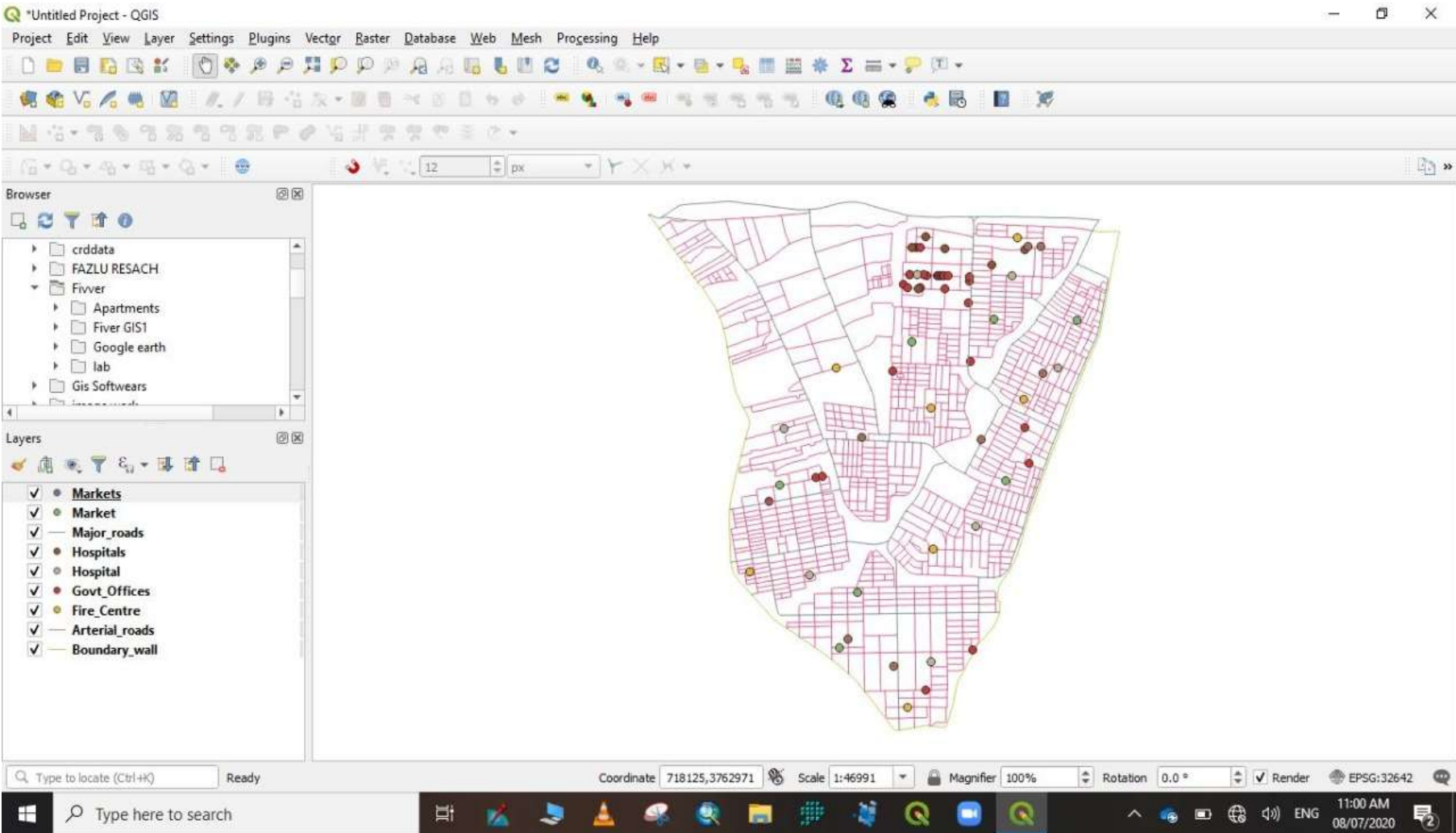
SOLUTION

- ▶ We have an alternate option to minimize the water shortage crises
(treatment of wastewater and its reuse)
- ▶ And treatment plant required selection of proper and appropriate land area
- ▶ So with the help of a wonderful software of GIS we can select the land area for wastewater treatment plant for Hayatabad

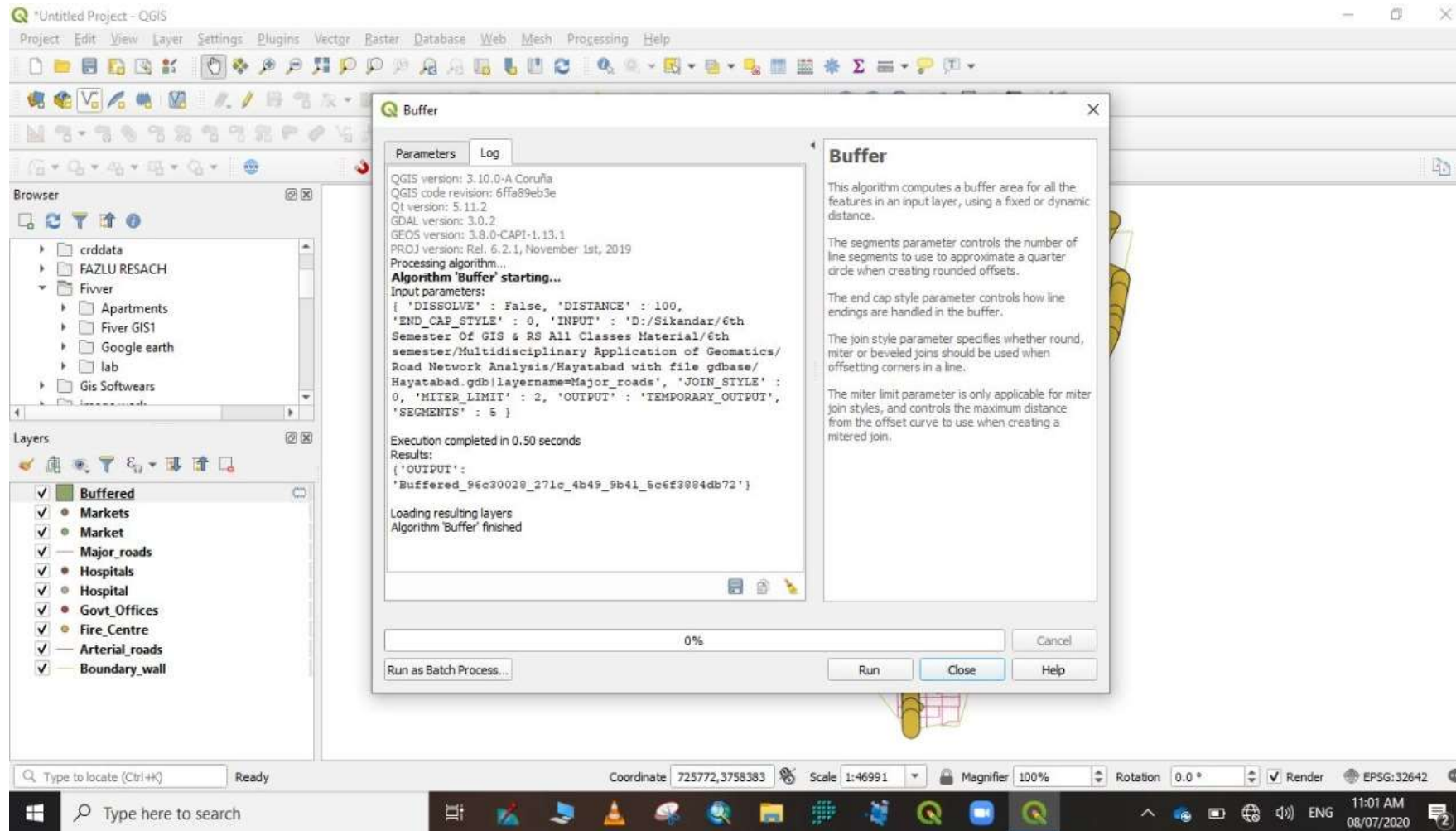
CRITERIA IN GIS

- ▶ First of all we have to download osm file for Hayatabad.
- ▶ Then extract the data like schools, hospitals, govt offices etc. in layer from that osm file.
- ▶ Then create a buffer according to our need.
- ▶ We create 100m buffer from every element because we don't need this treatment plant closer to schools, hospital, offices, markets etc.
- ▶ And then we have to make decision among the available choices.

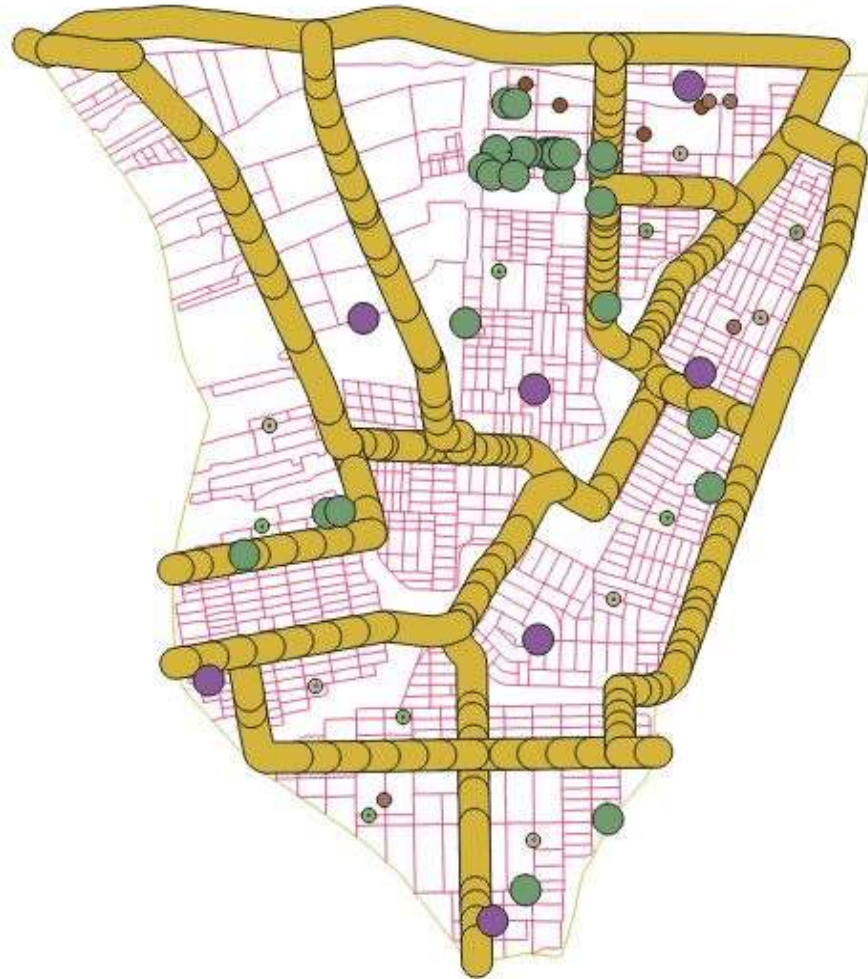
DATA EXTRACTED FROM OSM FILE



APPLING BUFFER



FINAL RESULTS WE GET



CONCLUSION

- ▶ Now after Applying buffer we get much suitable sites that is fit and good for treatment plant (the areas which are free and out of buffer in final result)



Thank You



Thank You