

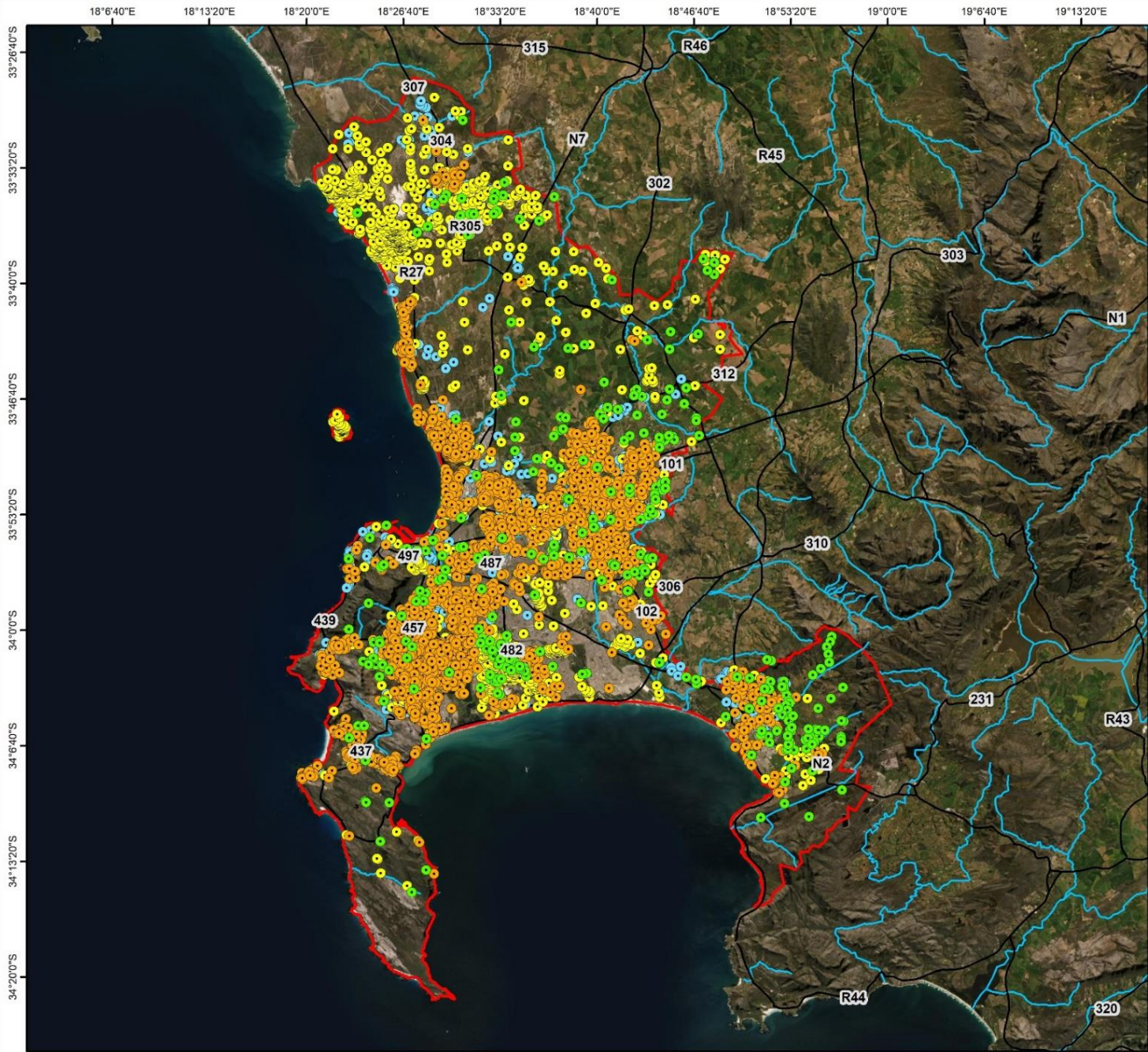
TMWSP – Groundwater Monitoring and Dashboard

A Citizen Science Monitoring Network

Dale Barrow

06 June 2024

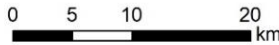




Legend

- WARMS Sites (2021)
- CoCT Registered Boreholes (2019)
- NGA Sites
- GEOSS Database
- Roads
- Rivers
- City of Cape Town Municipality

Site Distribution: Greater Cape Town Area, Western Cape

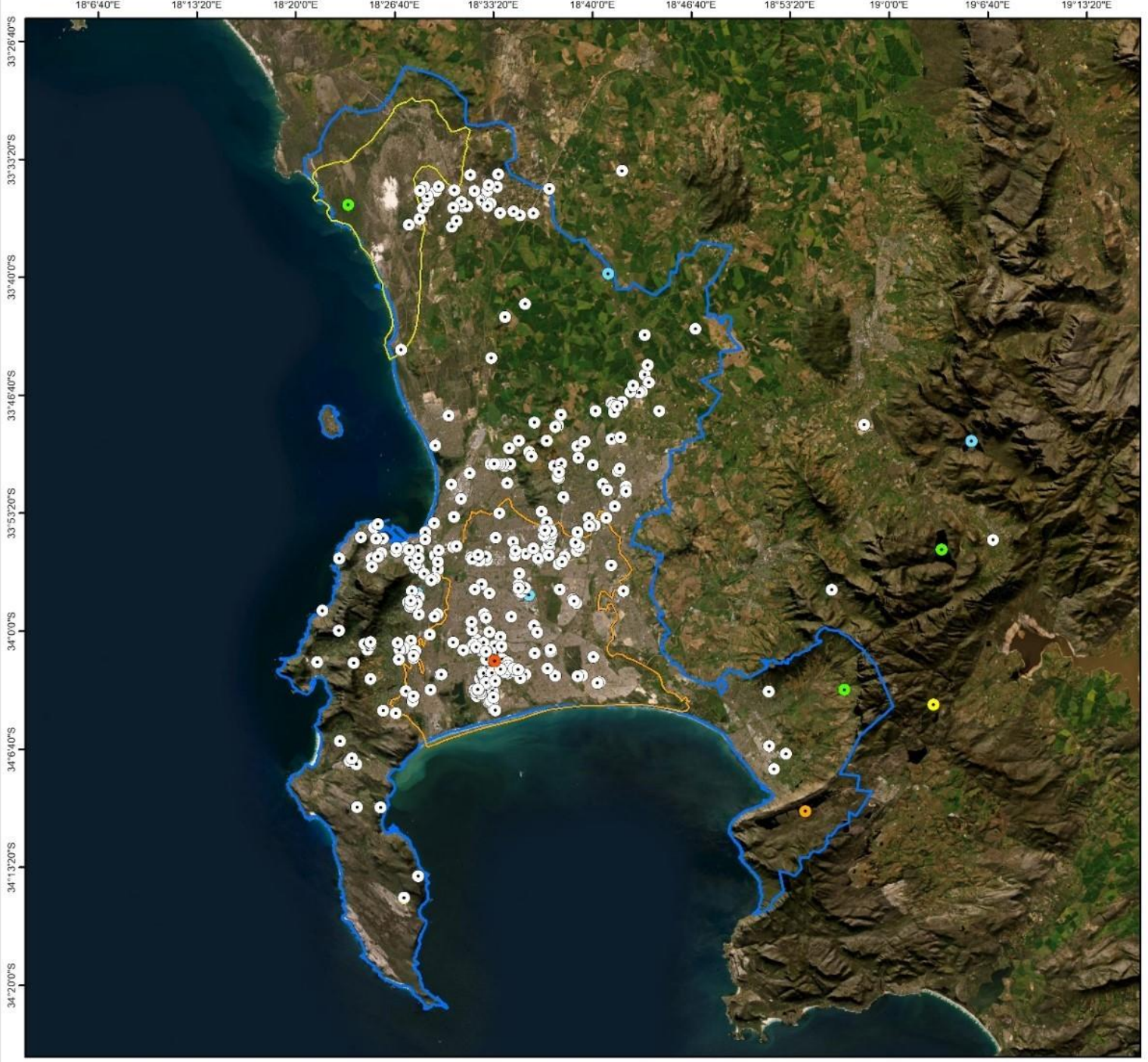


Datum: WGS 1984

Project Nr: 3423

Date: 19/05/2021





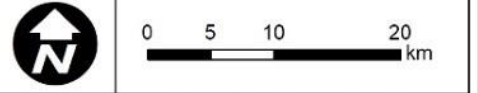
Legend

Registered Abstraction Volumes (m³)

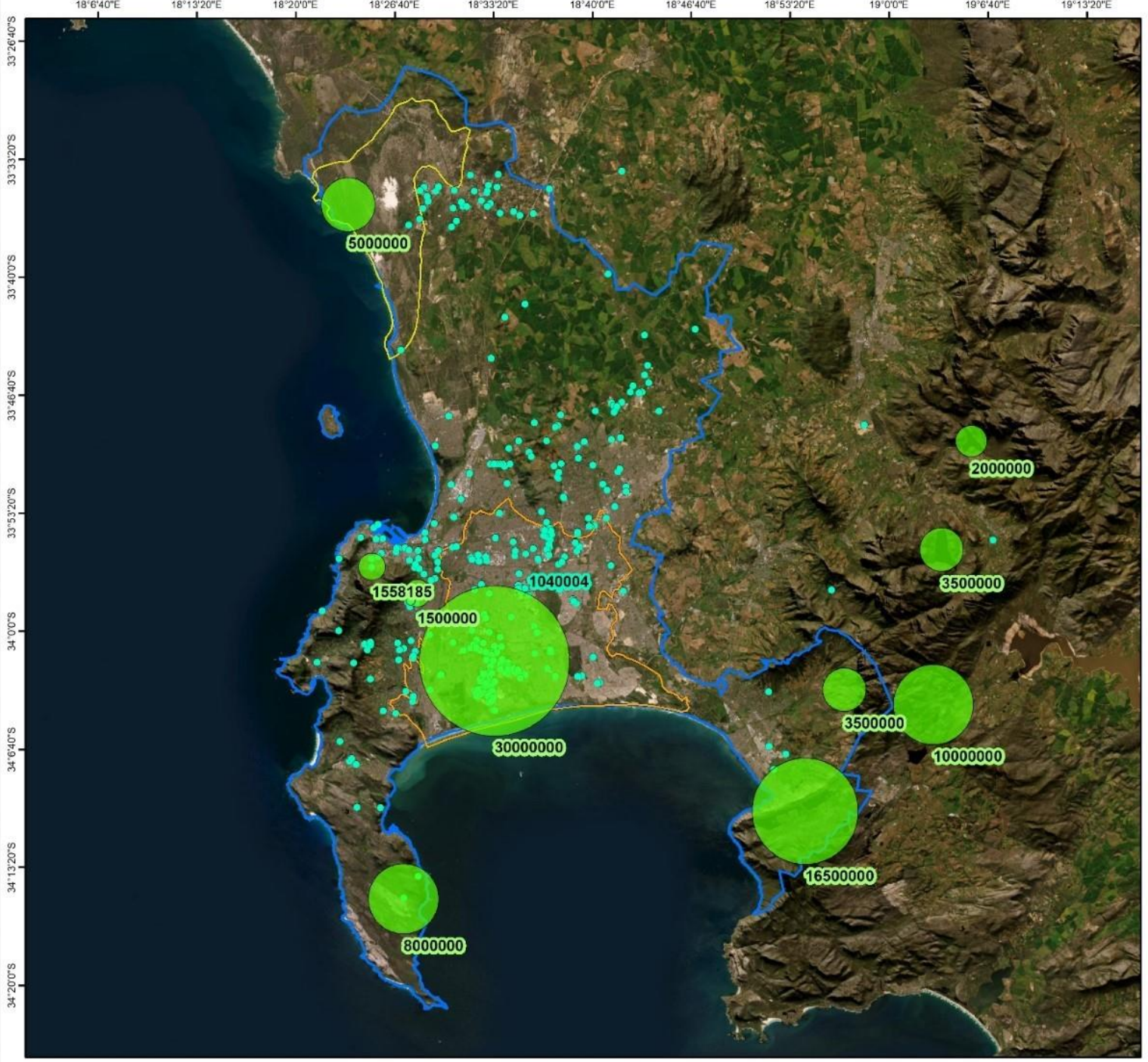
- 0 - 390063
- 390064 - 2000000
- 2000001 - 5000000
- 5000001 - 10000000
- 10000001 - 16500000
- 16500001 - 30000000

- Atlantis Aquifer
- Cape Flats Aquifer
- CoCT Municipality

Registered Abstraction Volumes: City of Cape Town Municipality



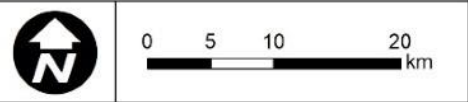
Coordinate System: WGS 1984 / UTM Lo19°
 Project Number: 5326 Date: 2024/05/14



Legend

- CCT Registered Abstraction Volumes (m³)**
- 100 000
 - 1 000 000
 - 10 000 000
- Other Registered Abstraction Volumes (m³)
- Atlantis Aquifer
 - Cape Flats Aquifer
 - CoCT Municipality

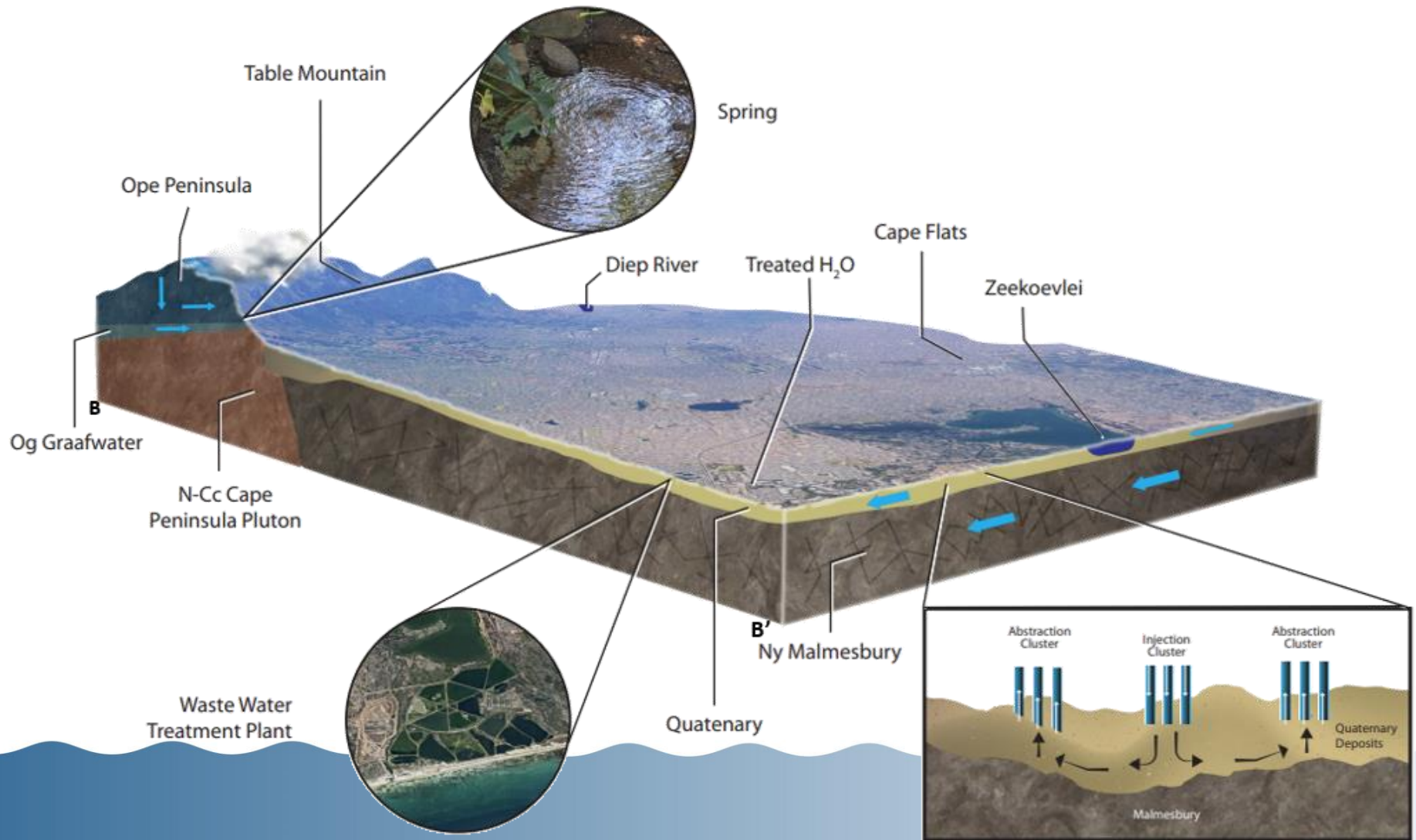
Registered Abstraction Volumes: City of Cape Town Municipality

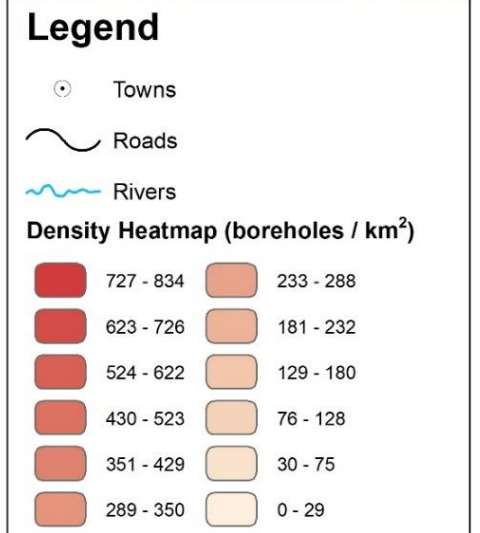
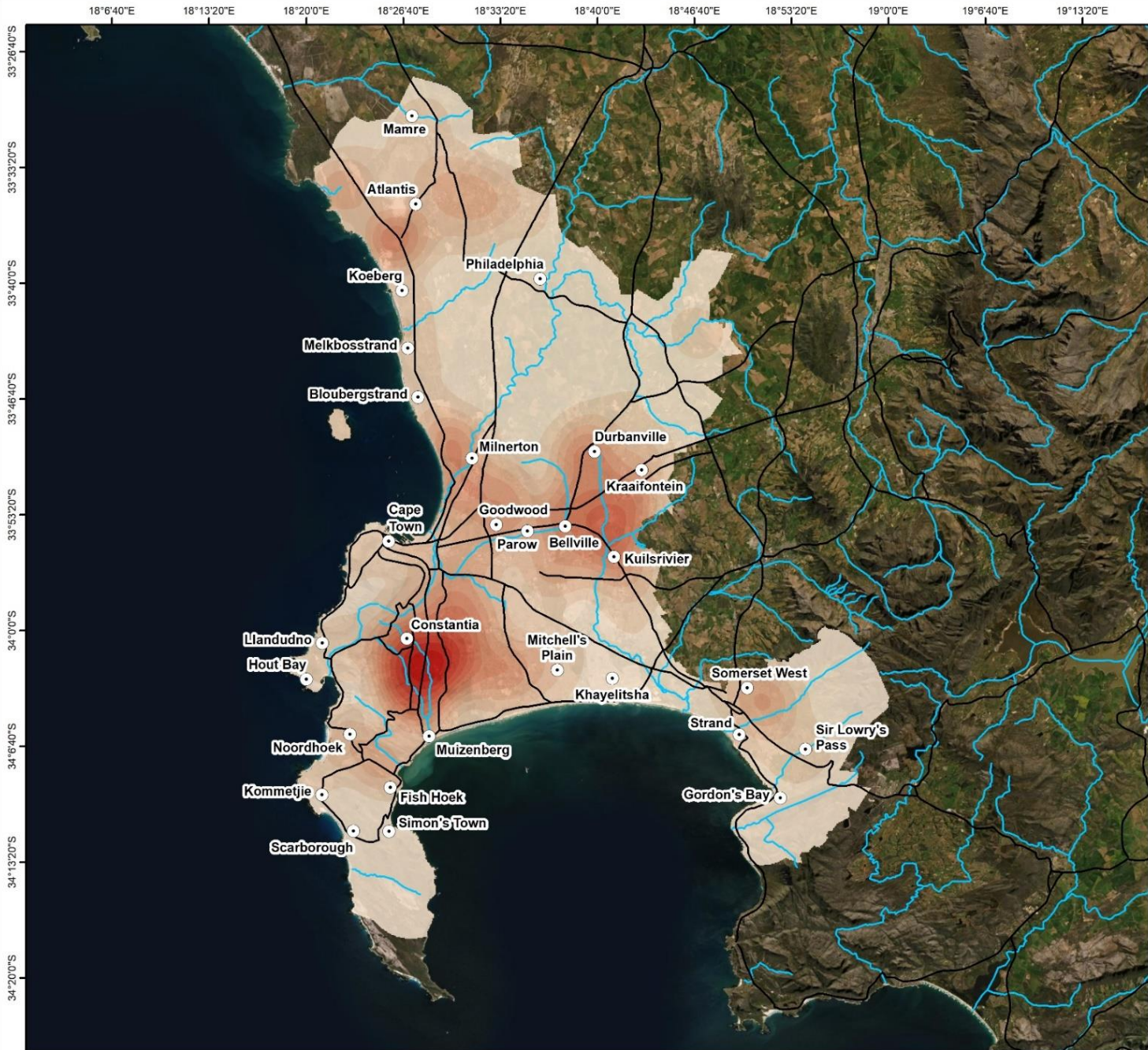


Coordinate System: WGS 1984 / UTM Lo19°
 Project Number: 5326 Date: 2024/05/14

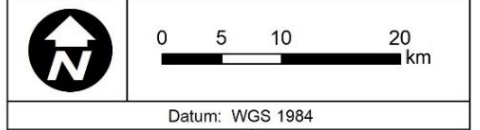


Major Aquifers





Heatmap:
Greater Cape Town Area,
Western Cape
 NGA, WARMS, CoCT Registered & GEOSS



Datum: WGS 1984
 Project Nr: 3423 Date: 19/05/2021





Legend

- Towns
- Roads
- Rivers
- Study Areas**
- Bergvliet
- Brackenfell
- Kommetjie
- Noordhoek
- Newlands
- Airport
- City of Cape Town Municipality

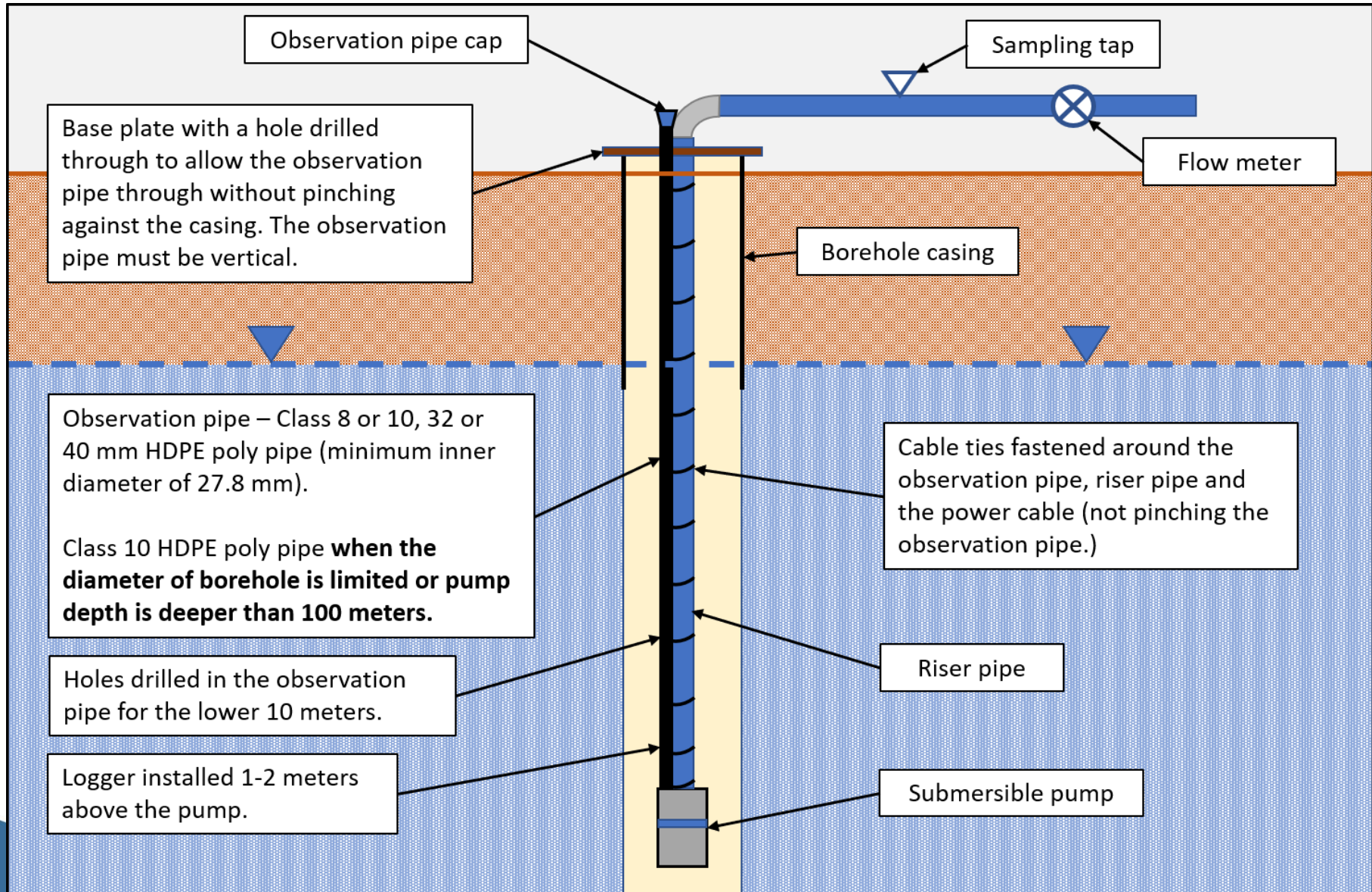
Locality:
WWF Groundwater Monitoring Study Areas, Cape Town



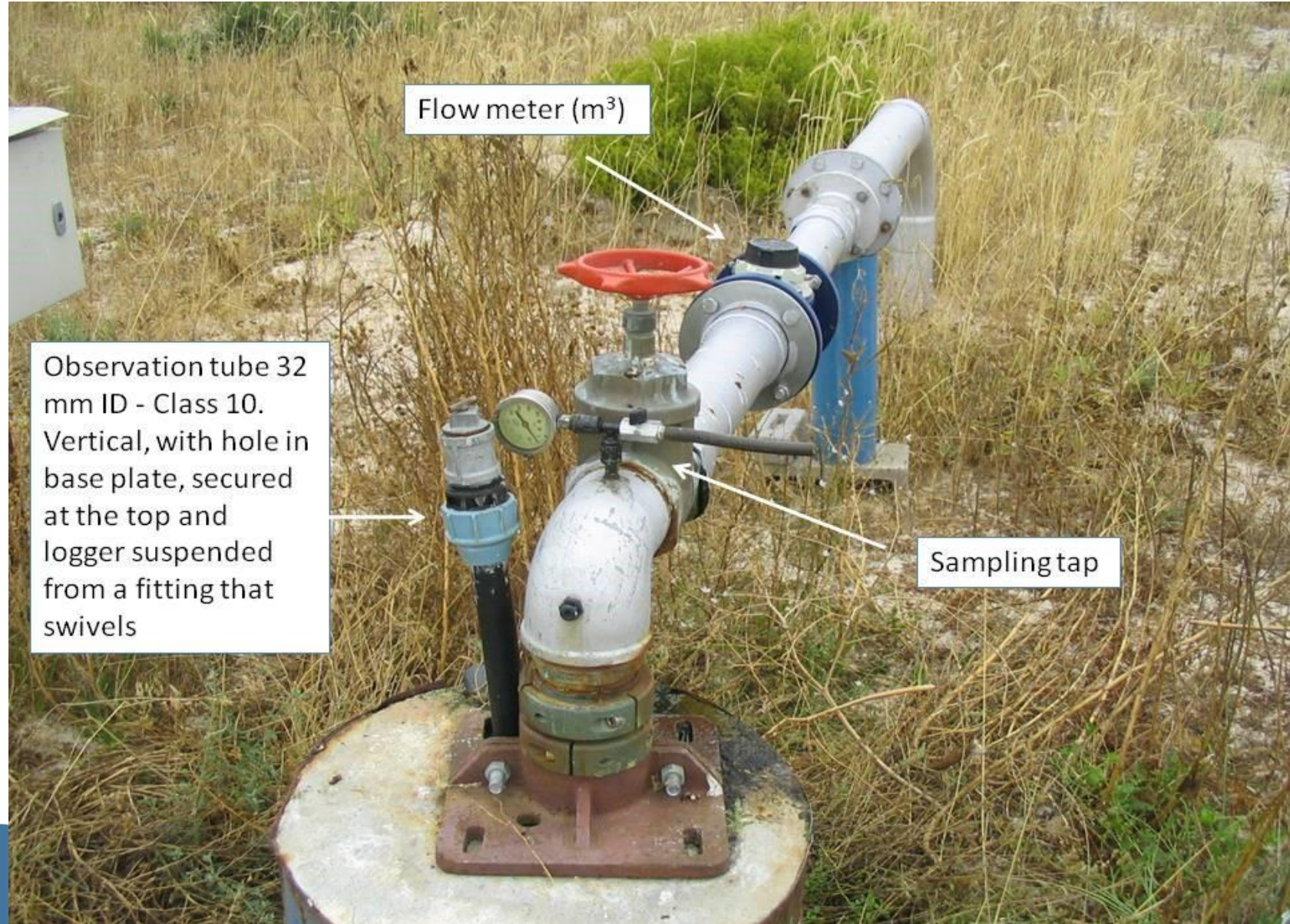
Coordinate System: WGS 1984 / UTM
 Project Number: 3423 Date: 26/10/2021



Groundwater Monitoring



Groundwater Monitoring



Groundwater Monitoring

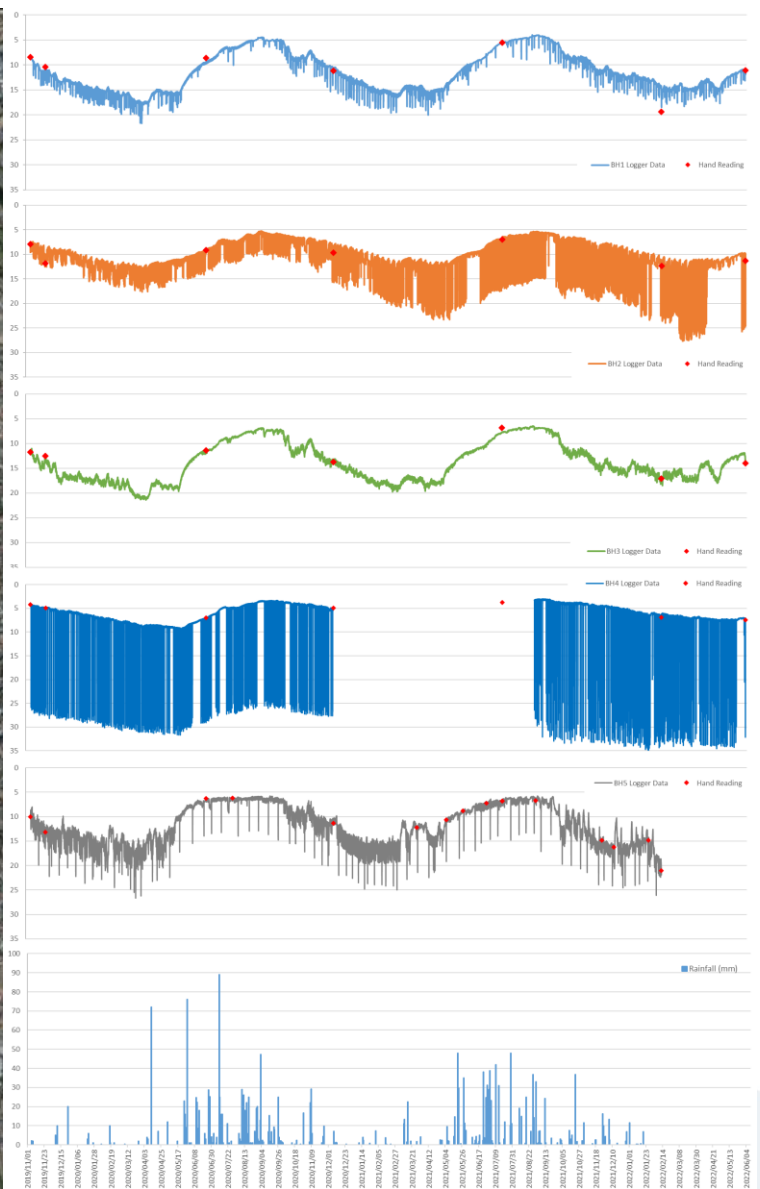
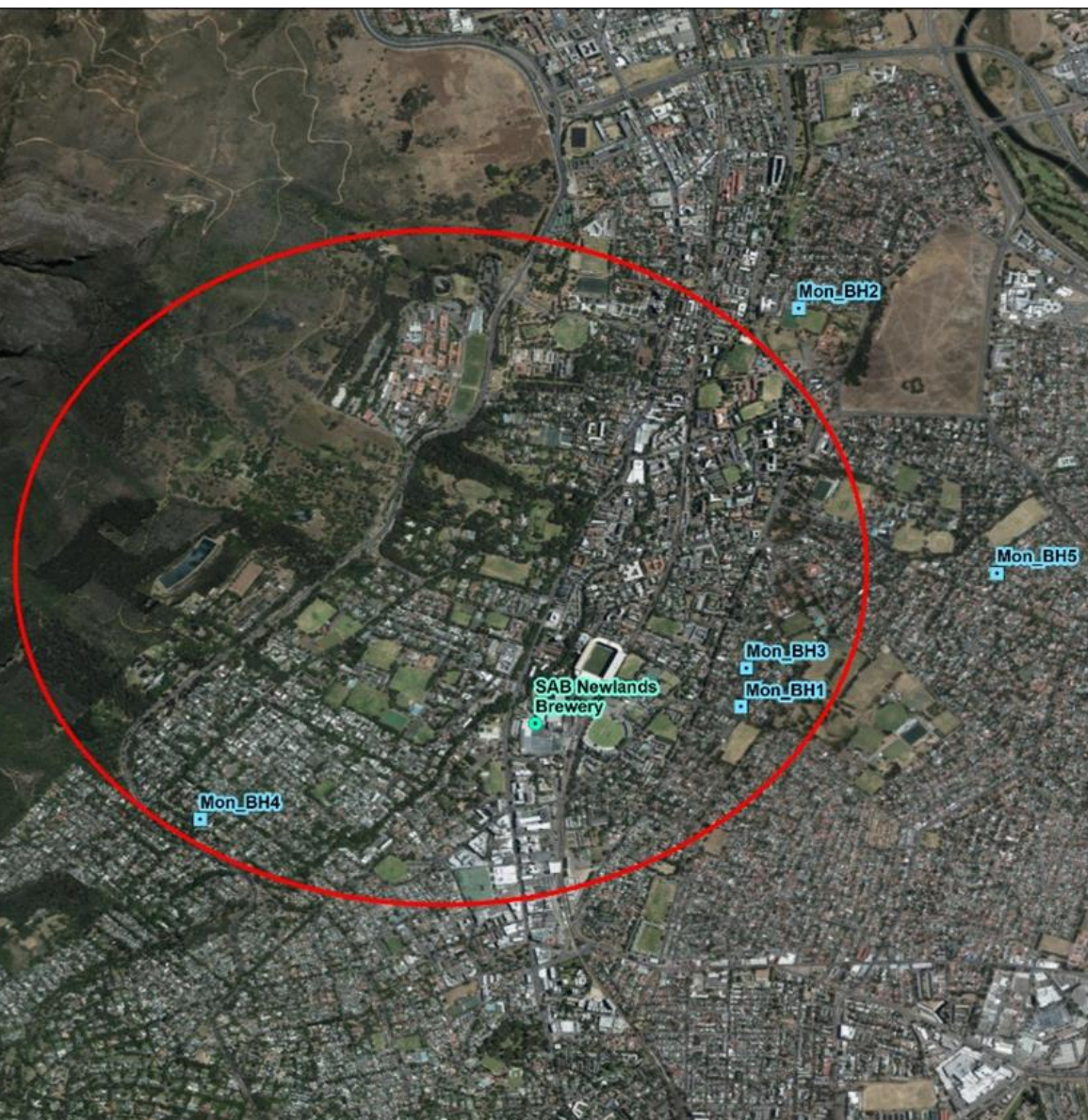
Typical monitoring infrastructure (for water level monitoring, and flow in the case of pumped borehole)



Hydrocensus



Groundwater Monitoring – Newlands





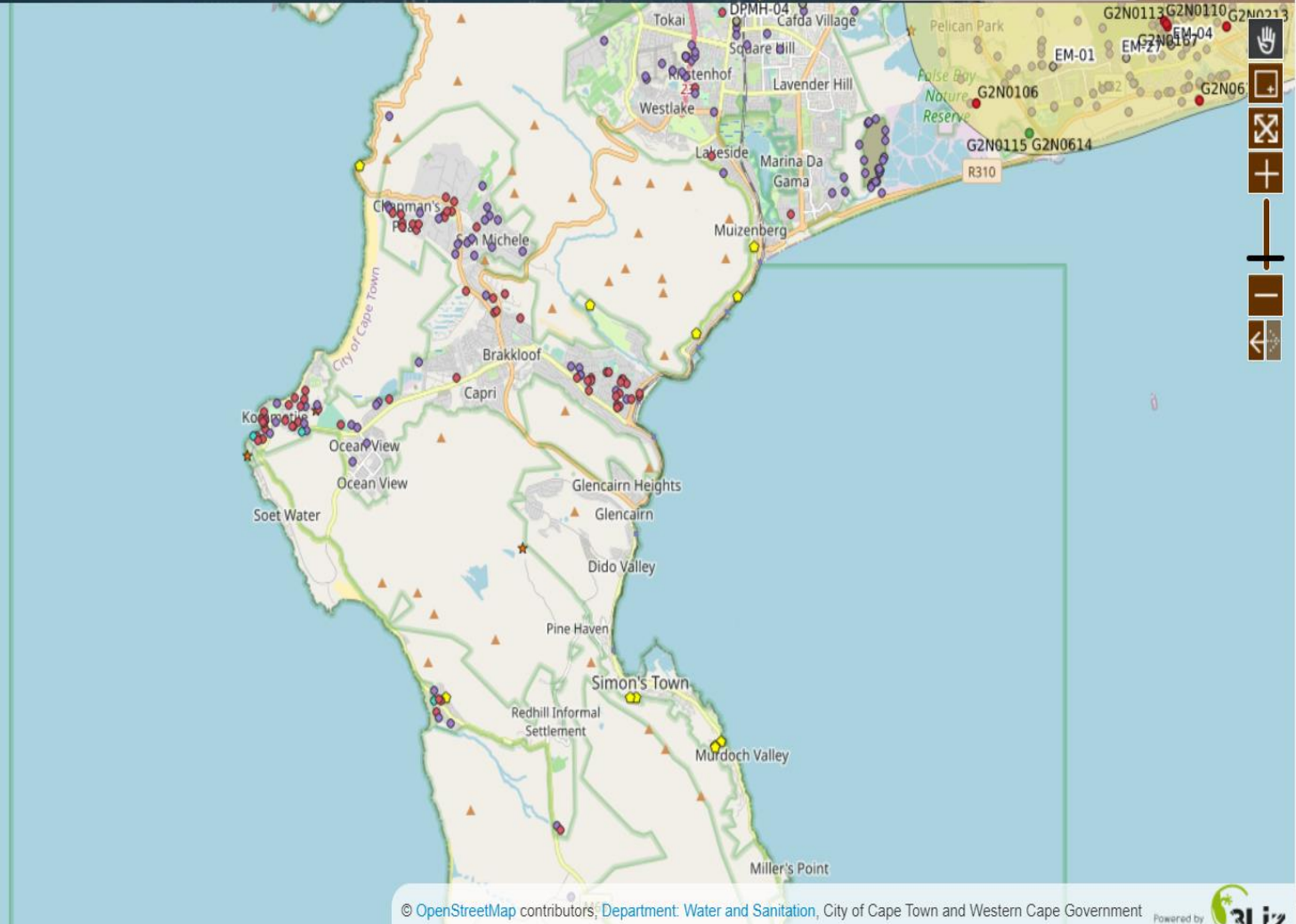
"Quick view" dashboard Table Mountain Water Source Area maps

Add/remove map layers

- Water source areas in Cape Town
- The Table Mountain WSA monitoring networks
- Other groundwater and weather station sites
- Groundwater quality
- More groundwater information
- Surface water features

Base Layer

OpenStreetMap



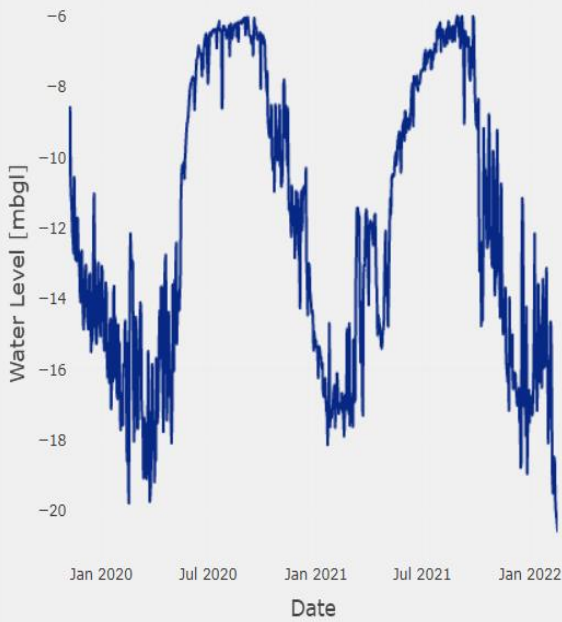
<https://tablemountain.groundwaterinfo.africa/>



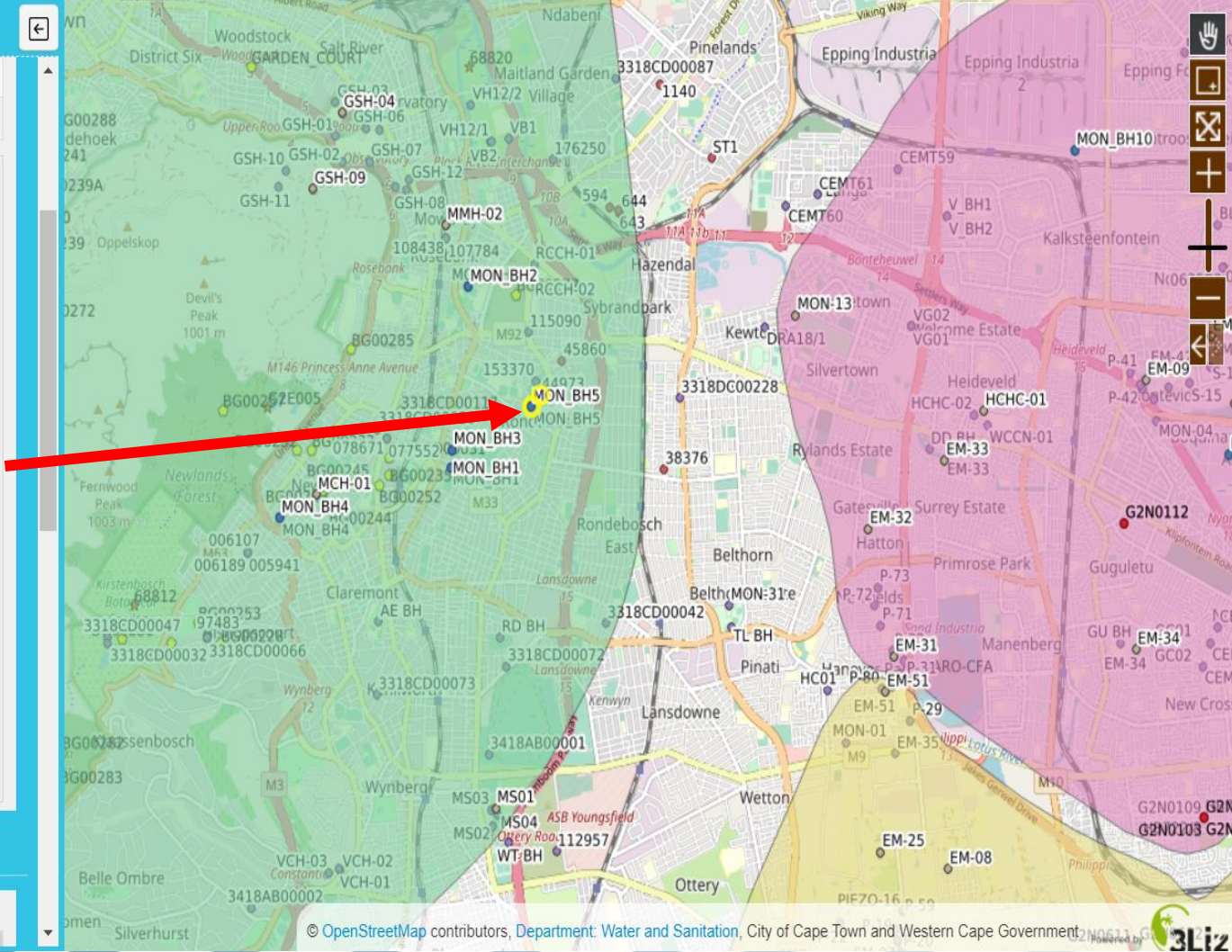
Popup

Altitude [mamsl]	15
Site Purpose	Production (water supply)

Daily Average Water Levels [mbgl]



All boreholes/wells/dugwells



Monitoring Challenges:



- Accessibility
- Resources Required
- Telemetry (Capital)



BH1 Water Level (mbgl)

● Water Level (mbgl) ● Maximum Recommended Water Level ● Pump Depth (m)

