# FISH HOEK VALLEY
# RATEPAYERS & RESIDENTS ASSOCIATION

*(Incorporating Fish Hoek, Clovelly and Sun Valley)*

~~65B Central Circle, Fish Hoek 7975~~

**Web: https://www.fhvrra.org.za/ Facebook: www.facebook.com/FHVRRA/**

**Heritage Western Cape: Conservation Body**


**TO: INFINITY ENVIRONMENTAL comments@infinityenv.co.za**
**JEREMY ROSE jeremy@infinityenv.co.za**

**SUBJECT: COMMENTS ON THE WATER USE APPLICATION FOR GROUNDWATER EXTRACTION ON ERF 10699, FISH HOEK DUNES**

---

Our internationally acclaimed hydrologist, Terry Page, has studied the GEOSS South Africa (Pty) Ltd geohydrological investigation report as part of the Water Use Licence Application (WULA) for the Fish Hoek dune rehabilitation area.

The project area is Fish Hoek beach in its entirety, which is owned by the City of Cape Town. It is the area where incipient sand dunes have been flattened off to arrive at a more 'natural state', which is wrong because historically sand dunes develop along the beach area due to the prevailing South-Easterly winds. Old pictures of the beach show longitudinal dunes up to 20 meters high parallel to the shoreline with a few resilient shrubs on the lee side. South half of the beach was flattened long ago to allow road and railway to pass by. Later it was flattened again to allow development of beach front, the galley, huge car park, caravan park and a housing area where chalets are privately owned but on leased land retained by the municipality.

This beach village area from Silvermine River mouth up to the caravan Park is being flattened off by removal of huge volumes of dune sand. Coastal plants are being grown in a temporary nursery and seedlings are being established over the newly flattened area. Due to flattening, sand invasion will become relentless and living conditions in the beach village will become much worse because of removal of protective incipient sand dune. Housing prices will drop. The main threat to the introduced dune plants will not be lack of water, but rather burial by sand as the dunes re-establish.

In the beach village there are two existing boreholes, which are proposed to be upgraded to supply water to the newly introduced coastal vegetation.

BH1 is at the NE extremity of the beach village and BH2 in the caravan park. They are 3 meters above sea level and 14,69 and 14,32 meters deep, respectively. Pumps are 7 meters down each hole. Water levels are 2 meters below the top of each hole.

BH1 has a steel casing to 2 meters, thereafter slotted PVC to the bottom, BH2 has slotted PVC casing throughout.

In both cases, yields are very high at 4 litres per second with installed piezometers indicating drawdown to levels 4 meters to 5 meters below surface, then steady state of around 1 litre per second after 60 hours or so. After stopping extraction, there is seen a rather rapid return to original water levels. Over a protracted period, we would expect the yields per second to drop as the large scale resource is depleted.

The extracted water salinity is classed as a high and very high hazard: C3 for BH1 and C4 for BH4. So, this is not potable water, though good enough for coastal scrub and plants.

Prolonged test pumping is shown to result in reduced salinity values, but only slightly. This means that as the water table is drawn down by pumping, the extracted groundwater is being replaced more from the freshwater wetlands area higher up the slope rather than from the brackish seawater lower down the slope.

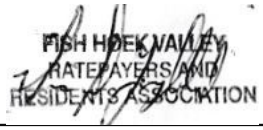
We see no environmental hazard for this project. It will improve the environment in terms of nurturing the introduced vegetation. However, overall with the passage of time, the dune heaps will re-establish and the vegetation will disappear under them.

**SUMMARY**

In conclusion, the Fish Hoek Valley Ratepayers and Residents Association is not opposed to this application for the two boreholes in this area.

All hoses and taps should be secured from access by the public and street people in the area.

We do wish to receive the periodic water sample analysis as we have a particular interest in the ground E. coli counts.

| | |
|---|---|
| **NAME & SURNAME** | *Brian Youngblood, Chair: Fish Hoek Valley Residents and Ratepayers Association (FHVRRA)* |
| **CONTACT NUMBER** | *Cell: 084 399 9933* |
| **E-MAIL ADDRESS** | *FishHoekRRA@gmail.com* |
| **SIGNATURE** |   |
| **DATE** | 16 July 2023 |