

History of Water in Bangalore

- From the 1900's, Bangalore was dependent on 900+ interlinked lakes along with shallow dug wells for water
- A hundred years ago it started using the Arkavathi which is now dry
- Now we are dependent on the Cauvery, whose water extraction is maxed out since it is an inter-stage river
- With population explosion and city concretization, lakes were encroached and 90% of lakes taken over as land and the interlinking also was broken
- The few remaining lakes become sewage depositories
- Water began to be mined from the aquifer, with about 50% of water needs being met by rapidly depleting groundwater

History of Water Issues in Whitefield

- No water in 1974
 - Water tankers called for water from nearby lakes (Ulsoor)
 - People relocated to Airport Rd
- Varthur lake dried up in mid-late 80's due to lack of rain
 - Impacted agriculture that year
 - Villagers de-silted the lake to ensure a greater depth to capture more rain water

Current State – Water

- Bangalore is out of water (but not out of energy)
 - There is no existing perennial surface water supply
- 50% of Bangalore population draws more Cauvery water than allocated for the entire rural and urban population in Cauvery basin
 - Pumping costs are 300 Crores – 75% of BWSSB energy bill
 - Very few homes in Whitefield get water from Cauvery
- The shallow aquifers have dried up and deep bore wells are tapping into static groundwater resources.
 - Water drawn through borewells is 3.7 times more than the recharge from Bangalore's annual 900 mm rainfall.
 - Many borewells are running dry in Whitefield
 - Borewell depth has increased to a 1000 ft in places

Whitefield | Geological Structure

- Unlike other parts of Bangalore this region is covered with thick saprolite (clay rich weathered material) and hence recharge to groundwater is limited and depletion of water is faster
- Deeper borewells have higher levels of total dissolved solids (TDS) > 1000 , more than twice what is accepted as limits for humans
- The likelihood of finding water declines below 800 ft

Map Of Borewells For Tanker Fillup

Tanker water is provided primarily through borewells close to a water/ sewage body



Thousands of private borewells exist – most are dry and carrying sewage down.

Current State – Sewage

- Officially around 200 lakes exist, store the city's sewage.
- Only 30% of Bangalore sewage is treated in 14 Treatment Plants
- Most of Whitefield sewage is not treated
- While newer constructions have put in some type of STP, they are not monitored for operating status regularly
- After 'treatment' many STP still discharge into storm-water drains and polluting the ground water
- Varthur lake has 250 million litres of sewage inflow everyday
- Lake is very shallow, average depth is 1m