

## Participative Aquifer Mapping Study

BIOME along with WIPRO, ACWADAM (from Pune) and MAPUNITY (from Bangalore) is undertaking a study to map the aquifer around the Sarjapura - Bellandur area. This study intends to be a participative exercise involving citizens (residents, school children, employees of corporate institutions to name a few). Some of the data that can contribute significantly to this exercise is the data on individual borewells drilled in this region and also the water consumption patterns of the people dependent on these borewells. With this in view, the following questionnaire has been designed to get the above mentioned information. Of course, all the requisite information might not be readily available with the participants. But an effort towards providing as much information as possible would contribute towards coming up with a meaningful understanding of the aquifer which in turn can help in formulating sustainable ground water management policies.

### Participant Details

Participant Type (Apartment/ Household/ Institution) and Name	
Point of Contact Name	
Contact Details (Email/ Phone)	

### List of Questions

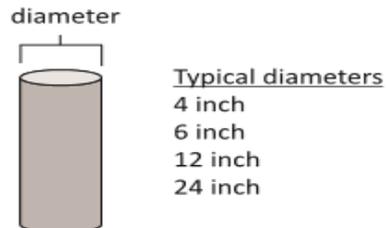
1. What is the total depth of the borewell?
2. What is the diameter of the borewell casing?
3. What is the casing material and the depth of the casing?
4. What is the level at which water was stuck during the drilling of the borewell?
5. What was the stable water level after the drilling of the borewell?
6. When (year) was the borewell drilled?
7. What is the rating of the pump that is inside the borewell?
8. At what depths was the change in color/ size of the soil strata observed during the drilling of the borewell?
9. What is the current discharge rate of water from the borewell?
10. What is the quantity of water that is extracted on a daily basis?
11. What is the total duration of pumping on a daily basis?

For a more detailed explanation of the questions, please refer below.

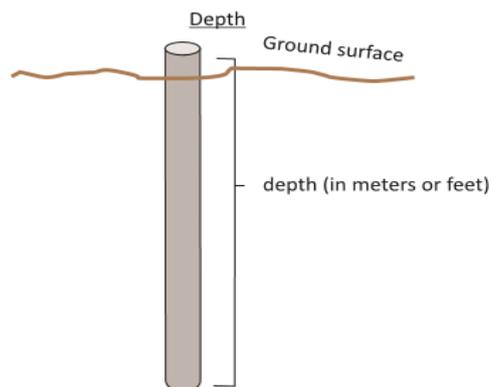
### Detailed Questions

1. What is the diameter of the borewell casing? The casing is the metal/ plastic section that is generally visible to some extent above the ground. Please refer picture for better understanding.

A borewell

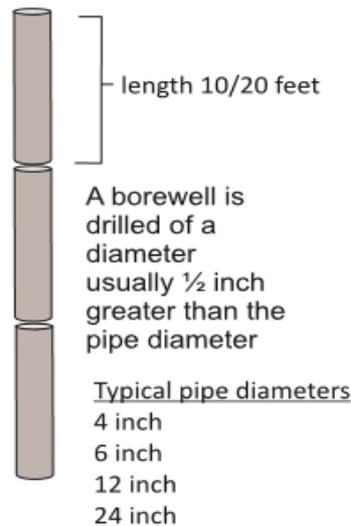


2. What is the total depth of the borewell? This refers to the total depth to which drilling was done. Please refer picture for better understanding

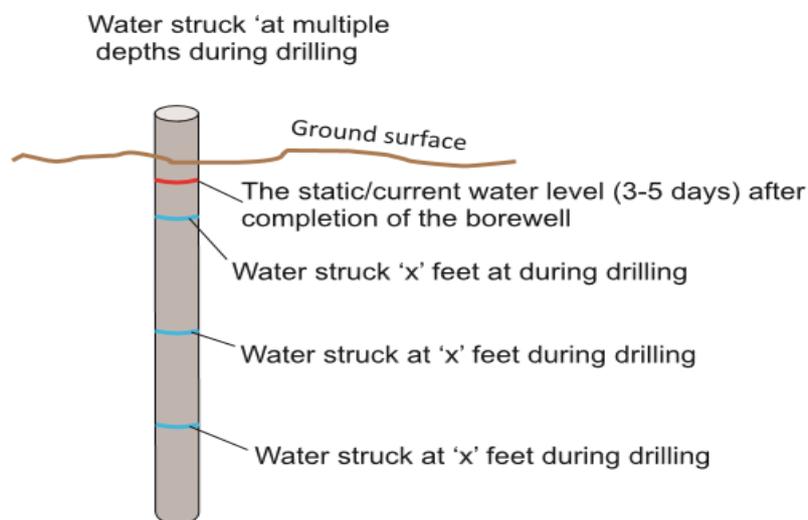


3. What is the casing material and what is the depth of the casing? (the casing material could be Galvanized Iron or PVC and the casing would be inserted till a depth where a substrate becomes hard rock) Please refer picture for better understanding

Pipes (GI or PVC)/(casing)

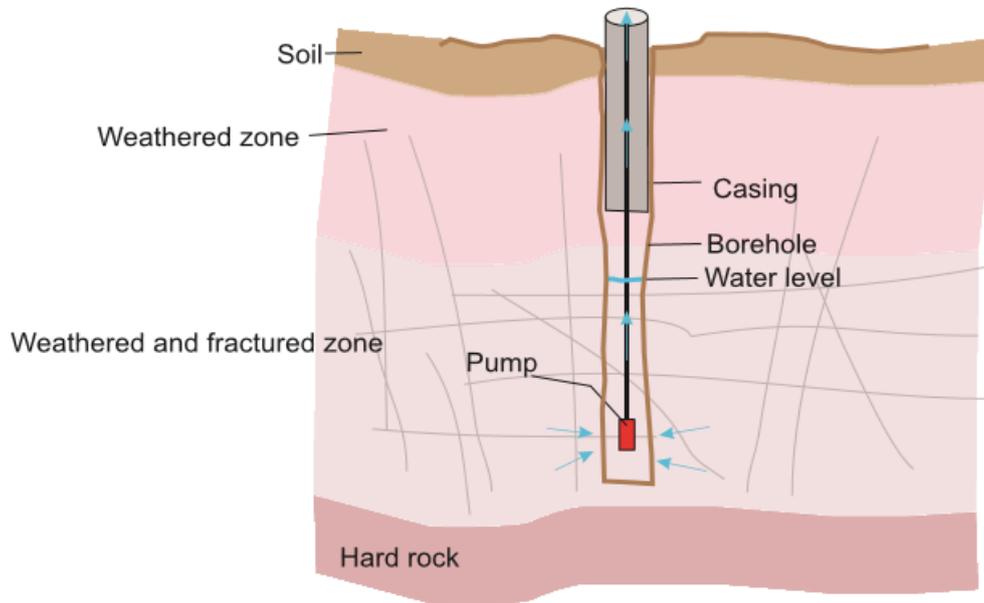


4. What is the level at which water was struck during the drilling of the borewell? (During the borewell drilling process, water could have been struck at multiple depths with varying yields. The borewell driller would have given this information) Please refer picture for better understanding



5. After the drilling of the borewell was complete, what was the stable water level? (During the borewell drilling, while the rig drills through hard rock substrate, it will come across fissures/ cracks in the rock through which water is discharged at high pressure into the borehole and due to which the water level rises up quite significantly in the borehole. After 3-5 days of drilling, the water level would stabilize and this is the static water level)
6. When was the borewell drilled? (If not the exact date, the year of drilling is good enough)
7. What is the rating of the pump that is inside the borewell? (rating could be 5 HP, 10 HP etc). Please describe the type of pump used as well (submersible single/ multistage etc)

8. At what depths was the change in color/ size of the soil strata observed during the drilling of the borewell. (For instance the top 10 -20 feet would be the top soil and would be dark reddish brown color while at depths beyond 20 ft, the color could change to light brown or greyish. Any pictures taken during the drilling would be awesome)



9. What is the current static water level in the borewell. (We have a specialized equipment to measure this. We will discuss with you the possibility of coming over and measuring your borewell's static water level)
10. What is the current discharge rate of water from the borewell (in litres per minute). Please describe the change in yield over a period of time as well
11. What is the quantity of water that is extracted on a daily basis
12. What is the total hours of pumping on a daily basis