

Recharge wells

Open wells have a major role to play in the artificial recharge of ground water.

Rooftop rainwater and surface water flowing in stormwater drains can be filtered; the silt removed and allowed to recharge the open wells.

If you are building on a new site do not forget to consider digging an open well. No, it need not be like this magnificent stone structure. It can be of RCC rings, only a metre in diameter and about 6 metres deep



A magnificent open well

Location

First, the natural drainage flow channels (storm drains) should be identified. If there is no, artificial drainage channels should be created. The recharge well can be in the channel or off the channel.

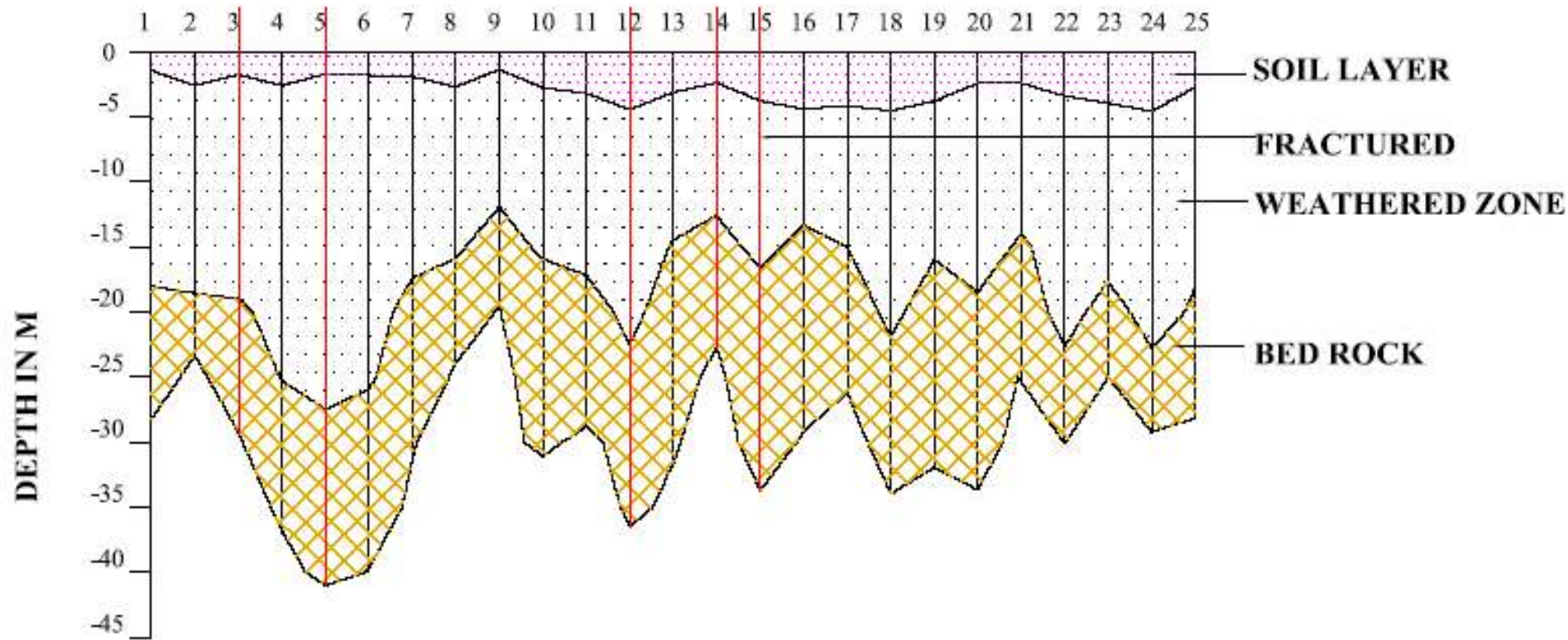
The catchment area has to be clean and unpolluted.



Recharge wells for storm water

The making of the well

Concrete ring-wells of diameter ranging from 2 feet to 6 feet and depth of 20 feet to 30 feet store large volumes of rainwater and recharge the groundwater under good hydrostatic pressure. The soil profile determines the water holding capacity and the depth of wells.



Typical ground section in Bangalore

Technique

Dig a pit having dimension 2" more in diameter than the rings.

The pit should be dug till the aquifer is reached.

Pack the pit with 1" thick layer of boulders. Place the rings one above the other in the pit.



The pit has reach the silt layer



Pit and concrete rings



Placing of the rings

Technique

Cover the pit with perforated cover.

Make a trap so that silt and leaves are removed before water enters recharge well. It can be a cubic hole in the drain, so that the big particules sediment.



Well with perforated concrete cover



Silt and leaves trap in a stormwater drain

Recommendations

By making some experiments to observe the rate of infiltration of the water, you will be able to decide the number of recharge wells necessary for the catchments.

Water should also be allowed to flow into the well gently from the sides or as a spray so as not to churn up silt and cause air bubbles to block the natural pores in the soil.

Cost

Digging a new well costs around Rs 8,000/- to Rs 12,000/- depending on the diameter and depth.



Covered recharge well in a storm water drain

Recharging a bore well

Recharge wells are excellent for recharging bore wells.

Rooftop rainwater is ideal for such recharge as it is easy to keep roofs clean.

A 3 feet diameter and 20 feet deep well can recharge ground water from nearly 1000 square metres of area which in a normal year of rainfall (900 mm) means about 1 million litres of water.

