Media Release
April 29, 2018

Dual purpose Rain Water Harvesting structures by HMRL

As a part of Municipal Minister Mr.KTR's pet project "Jalam Jeevam" program to recharge the fast depleting water table in the city and at the same time to address the water stagnation problem in the Metro corridors, HMRL has come up with an innovative rain water harvesting structure design, stated MD, HMRL Mr.NVS Reddy. Identifying the low lying road points/areas in the Metro corridors where the rain water stagnates, HMRL is constructing about 100 rain water harvesting structures with injection borewells mostly at the edge of the roads and about 200 structures without injection borewells.

After drilling a 6 inch dia perforated injection pipe with PVC casing to a depth of about 150 feet, a rain water harvesting structure is constructed all around the injection borewell. The rain water harvesting structure which is normally14 feet long and 8 feet wide, is dug to a depth of about 8 feet and is filled with 75 mm and 40 mm broken granite stones in 2 layers. Coarse sand is then spread over the granite metal stones. A strong RR masonry wall is constructed all around this rectangular pit and this well like structure is covered with a thick RCC slab on top, at the road level to withstand heavy road vehicles which pass over them. Enough gap is left between the filled up portion of the rain water well and the perforated RCC slab above, which can hold a minimum of 5,000 liters (one tanker) of water at any point of time and the rain water constantly gets sucked at good speed to deep underground layers through the injection borewell.

While improvement of existing storm water drains, construction of new storm water drains and desiltation works are being undertaken by HMRL in Metro corridors on a large scale, these rain water harvesting structures with injection borewells are being built all along the Metro corridors at Miyapur, JNTU, Kukatpalli, Punjagutta, Irrummanzil, Khairatabad, Ameerpet, Maduranagar, Malakpet, Dilsukhnagar, Narayanaguda, RTC 'X' roads, etc. The already completed rain water harvesting structures performed well during the recent rain and large quantities of water which otherwise would have stagnated on the road surface got sucked into them. Each such rain water harvesting structure with injection borewell costs around one and a half lakh rupees, Mr.NVS Reddy added and thanked HMWSSB for it's suggestions and support.

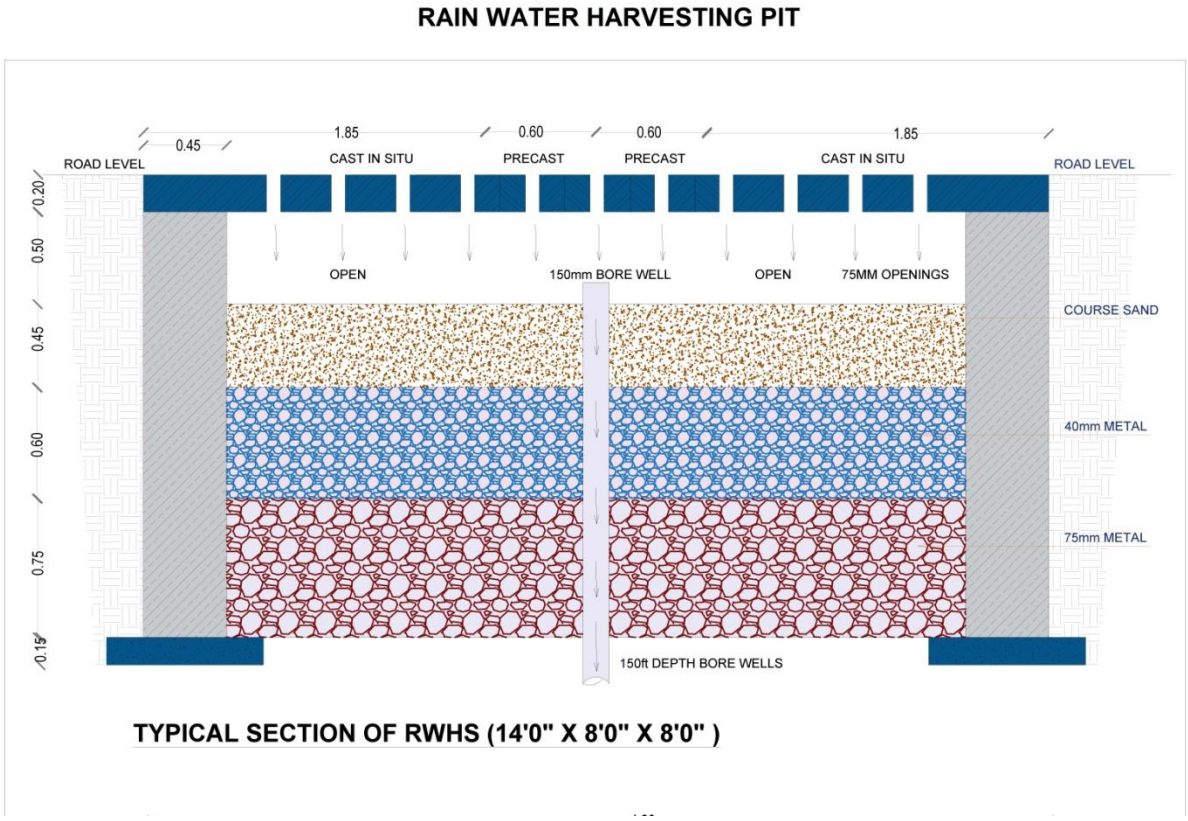
Public Relations Officer
Hyderabad Metro Rail Ltd

Stage wise photos of construction of a typical Rainwater Harvesting Structure (RWHS) with injection borewell

Borewell drilling for construction of RWHS near Institute of Engineers, Khairatabad

Filling of 40 mm HBG metal in RWHS near Institute of Engineers, Khairatabad

HMRL MD Mr NVS Reddy inspecting the RWHS near Institute of Engineers, Khairatabad



Typical section of RWHS pit