J.C. BOSE UNIVERSITY OF SCIENCE & TECHNOLOGY, YMCA
(NAAC 'A' GRADE accredited State University)
SECTOR-6, MATHURA ROAD, FARIDABAD -121006 (HARYANA)

Water Conservation Facilities at University Campus

1. Rainwater Harvesting

The University has taken various initiatives for water conservation at campus. The Rain Water Harvesting systems are constructed at six different locations in university premises as per the natural gradient and landscape of university. During rainfall, water from roof top and subsurface water naturally flows towards these rain water harvesting structures due to the available natural gradient and through sedimentation pit and filter media it seeps into borewell and further aquifer. The use of Rain Water Harvesting System to collect runoff water during rainy season and recharge of groundwater add to the environmental sustainability measures at the campus.

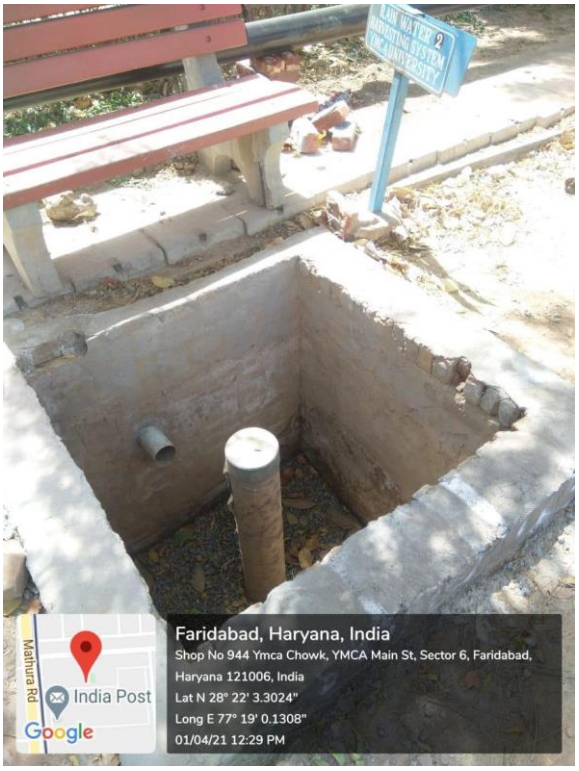

Image-01: Rainwater harvesting structure near Basket Ball Court

Image-02: Rainwater harvesting structure near MBA Lawn

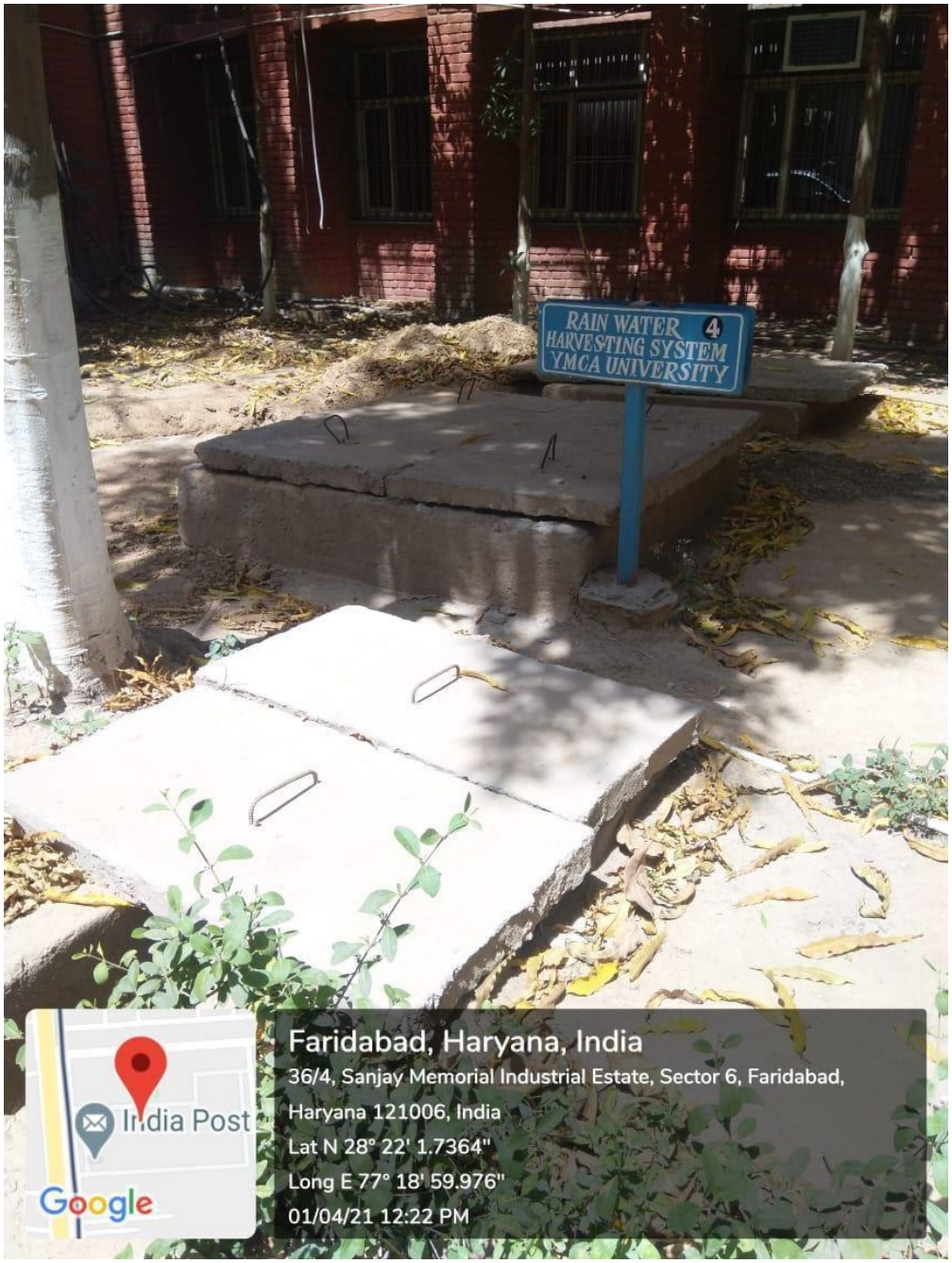

Image-03: Rainwater harvesting structure at back side of Shakuntlam Hall

Image-04: Rainwater harvesting structure near Mechanical Engg. Block

Image-05: Rainwater harvesting structure in playground near Main Parking area

2. Borewell /Open Well Recharge

University constructed a Recharge well in the rear corner of playground area for water conservation in 2018-19. The recharge well is equipped with filters to remove debris and silt. Water collected in the well percolates into the ground and recharge aquifers. The well not only help in maintaining groundwater table, but it also provides an effective solution to water logging problems faced during heavy rainfall due to low lying plinth level of main approach road of university.

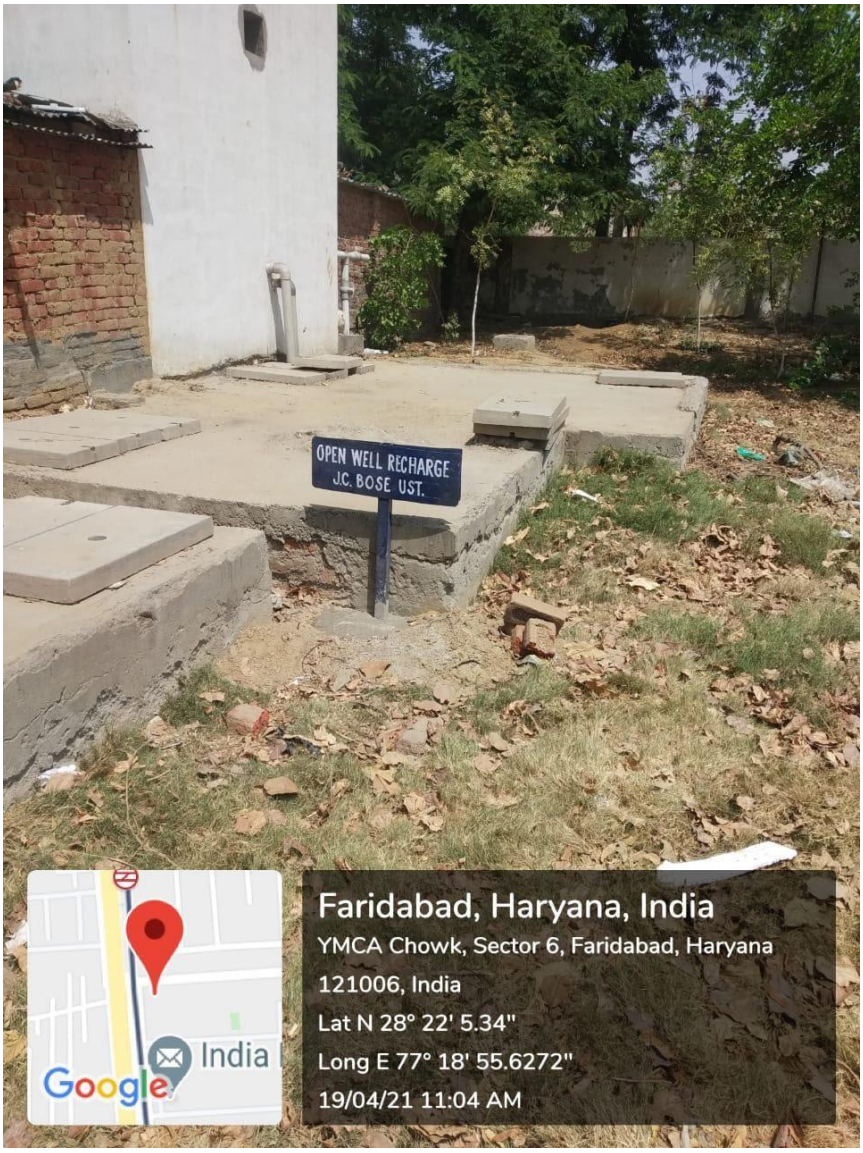

Image-06: Recharge Well at rear corner of Playground area

Image-07: Recharge Well at rear corner of Playground area

Image-08: Recharge Well at rear corner of Playground area

3. Construction of tanks and bunds

A masonry tank of 25000 litre capacity is constructed at the periphery of playground area and connected to the sedimentation pit via an open drain. During rain fall water gets collected in this tank and used for recharging groundwater.

Image-09: Constructed tank corner of Playground area

4. Wastewater Recycling

Wastewater Recycling through Sewage Treatment Plant –

University has installed Sewage Treatment Plant (STP) of 50KLD capacity to treat the waste water generated at the campus. The STP works on MBBR technology with the collection tank of RCC and rest of the tanks in MS as Prefab structure placed on top of RCC tank to minimize space coverage.

The treated wastewater is fully recycled and utilized for irrigation in gardening/horticulture areas by reducing its BOD and COD to less than 30 and 100 ppm, respectively.

RO Wastewater Recycling -

Separate RO plants are installed on the roof top of different teaching blocks. These plants are placed at most locations in such a way that wastewater generated from these plants goes by gravity into storage tanks meant to supply water for flushing and washing purposes. A detailed layout for RO wastewater recycling in Mechanical Engineering Block is given as flowchart.

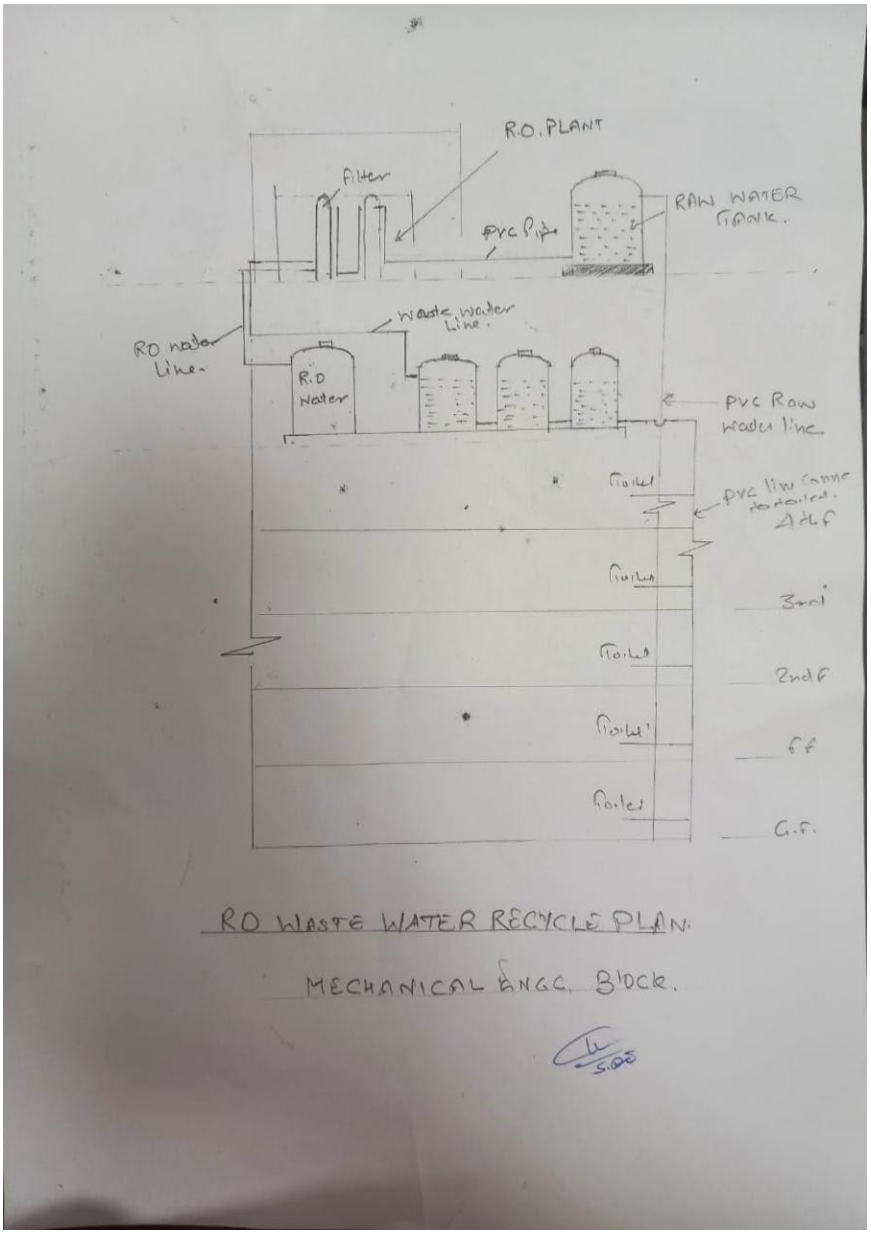

Image-10: RO Wastewater Recycling Flowchart in Mechanical Engg. Block

Image- 11: RO Wastewater Recycling Flowchart in Mechanical Engg. Block