



## Rain Water Harvesting Project- Concept Note

Date of Submission: 08-12-2022

Date of Acceptance: 22-12-2022

### Site characteristics

- Groundwater Category - Over-exploited
- Groundwater Level - 33 mbgl (cgwb, 2020)
- Rainfall - 521.4 mm/year
- Extraction Borewells capacity – 2 Nos, rate – 800-1200 ltr./min
- Dependency on the premises - 550 people
- Proposed RWHS capacity - 92 KL Recharge Potential - 2200 KL/year S

### Components of Rain Water Harvesting System

- Desilting Chamber
- Filtration Chamber
- Recharge Borewell
- Rain water Tank
- Conveyance System
- Collecting Manhole
- Slope Stabilization
- Collection Drain

### Advantages of RWH model

- Decentralized system divides the runoff and transport the water to different locations.
- Multiple recharge borewell helps to recharge the water at different location and if one of recharge well choked in any case other will be working.
- Large Borewell diameter creates extra space to filter the water and its increases up the infiltration rate.
- Multiple filtration system reduced the choking of recharge Borewell.
- Small size Desilting chamber helps in cleaning of silt instead of whole RWH tank.
- Perforated Drain helps in collecting runoff from large surface area and transport to RWH Tank.
- All the calculation for designing the system is done on Basis of CGWB norms and standard.

S.no.	Type of Catchment	Area of Catchment	Runoff	Total Runoff
1	Green Area	9500 sqm	42.5KL	90.68 KL
2	Rooftop area + Parking area	2424 sqm	48.48	

Total no. of structure – 3 R.W.H System

Design capacity of structure – 92 KL

Recharge potential generated – 2200 KL /annually





### Maintenance Steps for Rain water Harvesting system

