SDG 6 - CLEAN WATER AND SANITATION

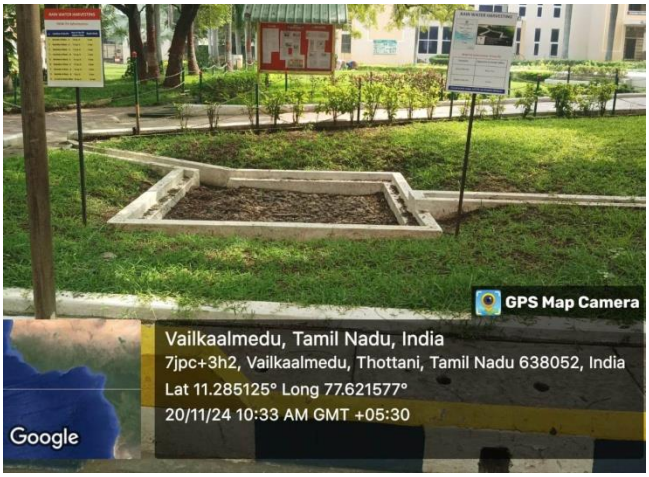
6.1 RAIN WATER HARVESTING

The recharge well takes water down to the permeable zone which is made up of weathered rock. Here the earth itself acts as filter and fine filtration is not required. Filtration is required only to remove larger debris + silt (which will silt up the recharge well).

Most simple way to recharge is to dig a pit in the ground and make a filtering system so that clean rain water can reach underground and can be reused.

It has installed rainwater harvesting structures throughout the campuses at different location

S.No	Location of the Pit	Area of the Pit (Square Feet)	Depth (Feet)
1	Backside of Block – 4	7.5 sq. ft	5 feet
2	Backside of Block – 4	7.5 sq.ft	5 feet
3	Backside of Block – 4	7.5 sq.ft	5 feet
4	Backside of Block – 4	7.5 sq.ft	5 feet
5	Backside of Block - 3	7.5 sq.ft	5 feet
6	Backside of Block - 3	7.5 sq.ft	5 feet
7	Backside of Block - 3	7.5 sq.ft	5 feet
8	Backside of Block - 9	9 sq. ft	6 feet
9	In front of Estate Office	84 sq. ft	10 feet



6.2 WATER SOURCES (BORE WELL / OPEN WELL)

Water Supply to the campus is done by three wells namely NEC well with the capacity of 10, 80,000 litre is locatedNear to Canteen, Well 1 with the capacity of 7, 20,000 litre and Well 2 with the capacity of 4, 80,000 litre are located near to outside the campus. There is a proper pipeline connection from well 1 and well 2 they supply water to NEC well. These three open wells supply water to various locations to satisfy the daily need of water in the campus.

Location of Water Bodies

S.No	Name	Location	Capacity (Lit)
1	NEC Well	Near to Canteen	10,80,000
2	Well 1	Near to Outside the campus	7,20,000
3	Well 2	Near to outside the campus	4,80,000

6.3 AFFORDABLE DRINKING WATER IN CAMPUS

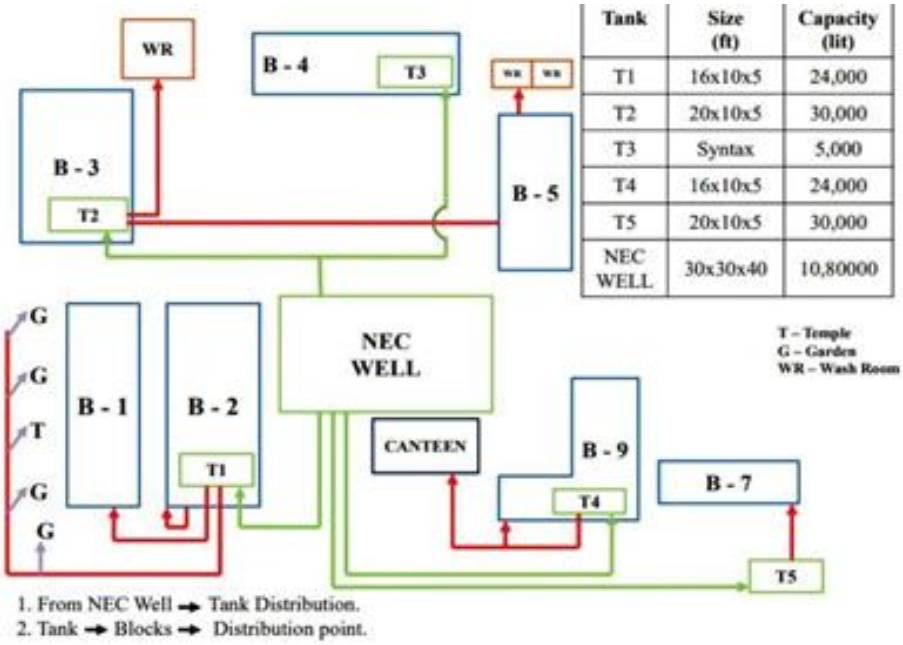
All students and employees on our campus will have access to safe and clean drinking water. We have placed fountains for drinking with reverse osmosis (RO) filtering systems in specific locations across campus to ensure the highest quality drinking water possible.

Location of Tanks and Capacity

Tank	Location	Capacity (litres)
Tank 1	Block II	24,000
Tank 2	Block III	30,000
Tank 3	Block IV	5,000
Tank 4	Block IX	24,000
Tank 5	Opposite to Block 7	30,000
Tank 1	NRI - I	24,000
Tank 2	NRI - II	24,000
Tank 3	NRI - III	5,000

6.4 STRATEGIES FOR SUSTAINABLE WATER EXTRACTION

The water is collected and stored in wells and tanks. Water purified through the RO (Reverse Osmosis) process is utilized across all buildings on the campus.



Tank	Size (ft)	Capacity (lit)
T1	16x10x5	24,000
T2	20x10x5	30,000
T3	Syntax	5,000
T4	16x10x5	24,000
T5	20x10x5	30,000
NEC WELL	30x30x40	10,80000

Well / Tank	Size (ft)	Capacity (lit)
WELL 1	20 x 20 x 60	7,20,000
WELL 2	40 x 30 x30	10,80,000
WELL 3	20 x 20 x40	4,80,000
NEC WELL	30 x 30x 40	10,80,000
NRI SUMP	16 x 10 x 10	48,000
T1	16 x 10 x 5	24,000
T2	16 x 10 x 5	24,000
T3	Syntax	5,000

6.5 INCREASE WATER REUSE EFFICIENCY (WASTE WATER TREATMENT AND SAFE REUSE)

Wastewater from the boys' hostel and mess is recycled in the wastewater recycling plant and used for gardening, irrigation, and lawn watering, reducing the usage on fresh water supply.

It has been designed to handle an inflow of lakhs of liters per 24 hours, with a storage capacity of 1.80 lakh liters and an outflow capacity of 1.60 lakh liters per 24 hours.

6.6 COURSES

The curriculum typically integrates practical applications and case studies to help learners understand how to manage water resources effectively in different environmental and societal contexts.

Courses on water conservation and rainwater harvesting focus on equipping individuals with the knowledge and skills needed to address global water scarcity issues. These courses cover topics such as sustainable water usage, designing and implementing rainwater harvesting systems, water resource management, and environmental policy regarding water conservation. Students explore techniques for reducing water waste, promoting efficient irrigation, and developing infrastructure to collect and store rainwater for agricultural, industrial, and domestic use.

B. Tech Agricultural Engineering - https://nandhaengg.org/wp-content/uploads/2024/10/R22-AGRI-Curriculum-Syllabus-2022-2026-2023-2027-batches.pdf

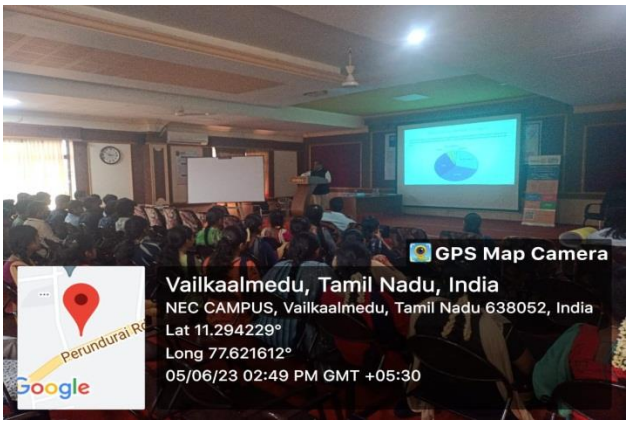
B. Tech Chemical Engineering - https://nandhaengg.org/wp-content/uploads/2024/10/R22-CHEM-Curriculum-Syllabus-2022-2026-2023-2027-batches.pdf

B. E Civil Engineering - https://nandhaengg.org/wp-content/uploads/2024/10/R22-CIVIL-Curriculum-Syllabus-2022-2026-2023-2027-batches.pdf

6.7 EMPOWERING STUDENTS THROUGH ENGAGING ACTIVITIES

The activities like tree plantation on water conservation and management are often organized through club initiatives aimed at benefiting the community. These clubs engage in awareness campaigns and practical demonstrations to educate the public about the importance of sustainable water use and conservation practices. Through collaborative efforts, they promote strategies such as rainwater harvesting, efficient irrigation techniques, and reducing water wastage, helping to instill a sense of responsibility toward preserving water resources for future generations.

The main objective of workshop seminar was to bring about a change in their attitude towards the environment and advocate partnership between each human being and society to ensure a safe future for all.



Activities through Tree Plantation

The NSS Volunteers of Nandha Engineering College conducted a cleaning programme at Government Higher Secondary School, Seenapuram, on November 25, 2023. During this programme, the student volunteers cleaned the premises of the school. The students have removed the plastic and trash from the premises of the school. The students have insisted that the school students keep the premises clean and avoid using plastic. The students have insisted the school students keep their trash in dustbins. 68 student volunteers, along with two faculty members, participated in this cleaning programme