

## **7.1.4 WATER CONSERVATION FACILITIES AVAILABLE IN THE INSTITUTION:**

### **2. BORE WELL / OPEN WELL RECHARGE**



In India, bore water or groundwater is the predominant source of water, obtained by drilling into the ground and extracting water from aquifers. Aquifers are permeable rocks or clay formations that store groundwater.

There are several benefits associated with bore water:

1. Long-term investment: Boreholes provide a sustainable and long-lasting water source for both residential and commercial purposes.
2. Increased property value: The presence of a borehole can enhance the value of a property, making it more desirable to potential buyers or tenants.
3. Cost savings in the long run: Utilizing bore water can lead to significant savings on water bills over time, reducing reliance on expensive municipal water supply.
4. Easy maintenance: Boreholes generally require minimal maintenance, making them convenient and hassle-free to operate.
5. Health benefits: Borehole water is often considered healthier and more natural compared to other water sources, as it is free from certain chemical additives and treatment processes.
6. Reduced strain on municipal supply: By utilizing bore water, there is less strain on the municipal water supply, contributing to overall water conservation efforts.
7. Uninterrupted supply: Boreholes ensure a consistent and uninterrupted supply of water, even during periods of water scarcity or drought.
8. Versatile use: Bore water is suitable for a wide range of applications, both personal and commercial, meeting various water needs effectively.

Overall, bore water presents numerous advantages, including sustainability, cost-effectiveness, convenience, and reliability, making it a valuable water resource in India.


### 3. CONSTRUCTION OF TANKS & BUNDS



Bunds are constructed to maintain the stability of subsoil's, slope angles, and water levels, ensuring the integrity of the reclamation area. Their purpose is to control the water table and regulate the flow of discharge water within the fill area. In the context of preserving water near a lake view, tanks and bunds are constructed to retain and store water in proximity to the scenic lake area. This helps in maintaining the water levels and enhances the visual appeal of the lake view.

Tanks have a rich history of being used to capture and store rainwater and water from streams and rivers for various purposes, including drinking water, agricultural irrigation, and ceremonial activities. This tradition has been passed down through generations, and continues to be an important aspect of water management in many parts of the world.

## 4. WASTE WATER RECYCLING



**SHRI VISHNU ENGINEERING COLLEGE FOR WOMEN**  
Project Sponsored By  
**DEPARTMENT OF SCIENCE AND TECHNOLOGY, GOVT. OF INDIA**

under  
**WATER TECHNOLOGY INITIATIVE**  
Ref. No: DST/TM/WTU/2K14/193,  
Dt: 28.11.2014.

**VISHNU**  
UNIVERSITY LEARNING

**PROJECT TITLE:**  
"Recycling of waste water by improved moving bed bio film reactor  
in Vishnu Educational Society campus, Bhimavaram"


**SEWAGE TREATMENT PLANT - I**  
Built Up Area: 115.72 Sq. Mt.

**Units:**

1. Collection
2. Aeration
3. Clarifier
4. Tubular Filters
5. Pressure Sand Filter
6. Activated Carbon Filter
7. Sludge holding
8. Treated Water Storage
9. Chlorine Dosing

**TOTAL COST OF THE PROJECT :** Rs 170.536 Lakhs (For 2 STPs)  
**DURATION OF THE PROJECT :** 24 Months

GPS Map Camera



**Kovvada, Andhra Pradesh, India**  
HG9F+GJ7, Kovvada, Andhra Pradesh 534206, India  
Lat 16.568837° Long 81.524327°  
Vishnu Institute Of Technology




**MBBR TANK 1**

**MBBR TANK 2**

GPS Map Camera




**Kovvada, Andhra Pradesh, India**  
HG9F+GJ7, Kovvada, Andhra Pradesh 534206, India  
Lat 16.568884° Long 81.524396°  
Vishnu Institute Of Technology




**FILTER PRESS**

GPS Map Camera



**Kovvada, Andhra Pradesh, India**  
HG9F+GJ7, Kovvada, Andhra Pradesh 534206, India  
Lat 16.568865° Long 81.524357°  
Vishnu Institute Of Technology




**SAND FILTER**

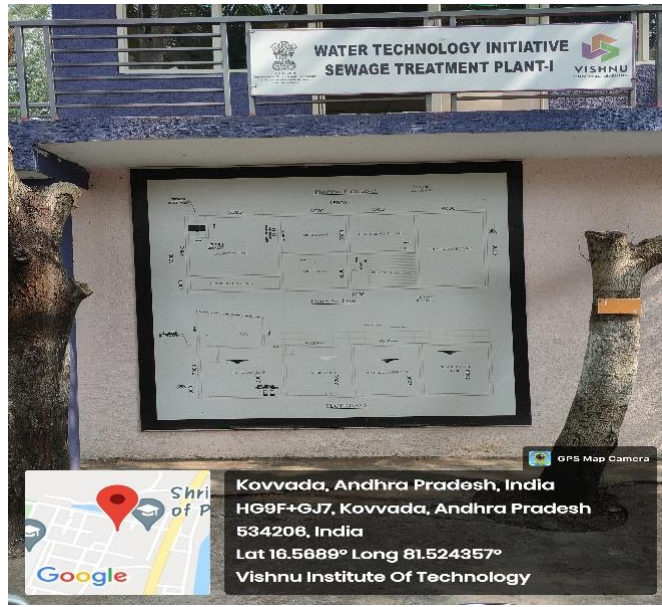
**CARBON FILTER**

**AIR BLOWER 2**

GPS Map Camera



**Kovvada, Andhra Pradesh, India**  
HG9F+GJ7, Kovvada, Andhra Pradesh 534206, India  
Lat 16.568883° Long 81.524388°  
Vishnu Institute Of Technology



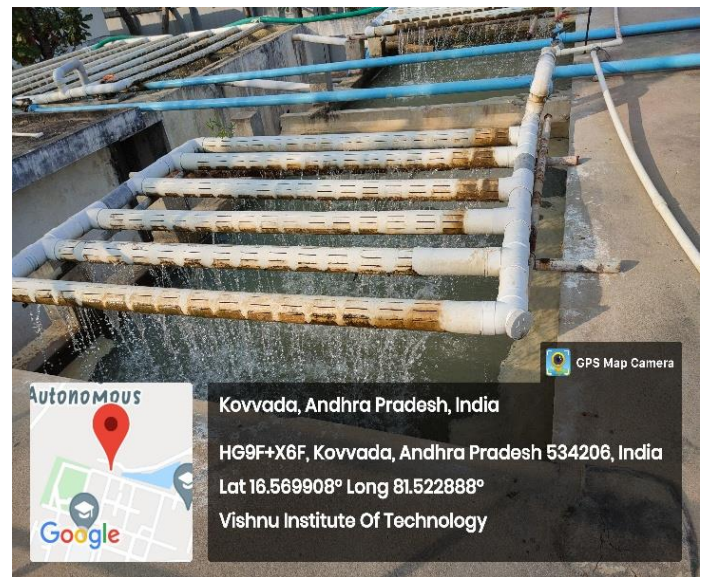
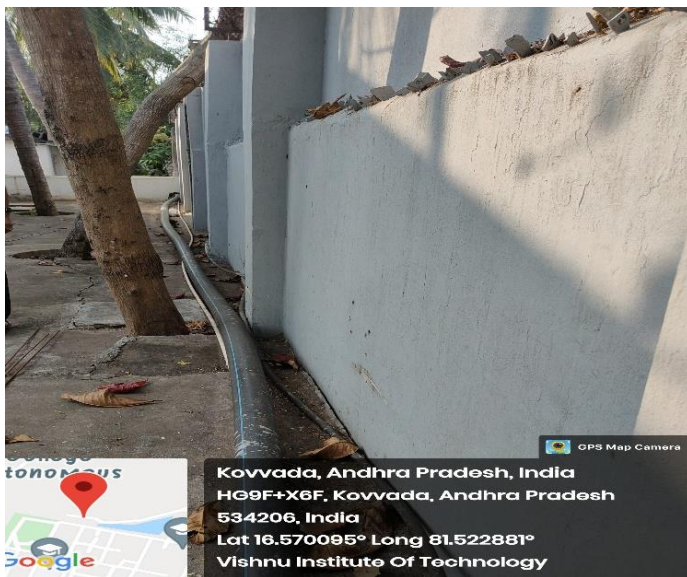
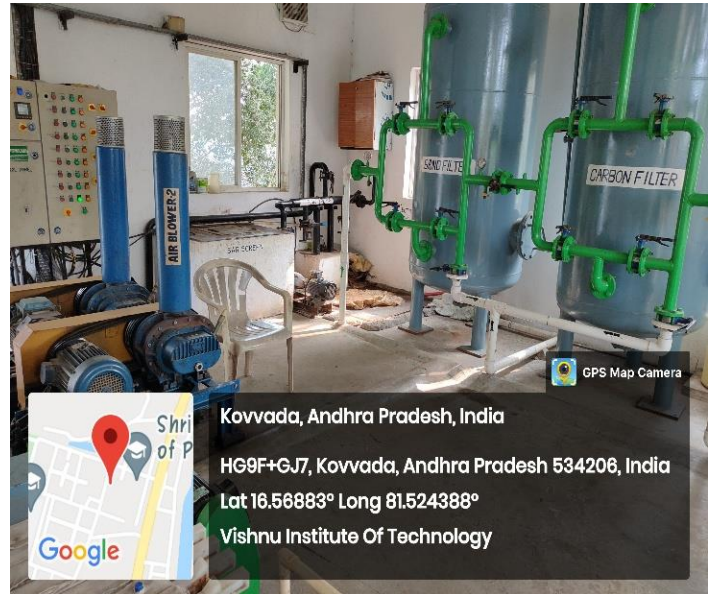
Sewage treatment is a crucial process in wastewater management that aims to eliminate pollutants from sewage, resulting in an effluent suitable for discharge into the environment or for reuse purposes. This prevents water pollution caused by untreated sewage discharge.

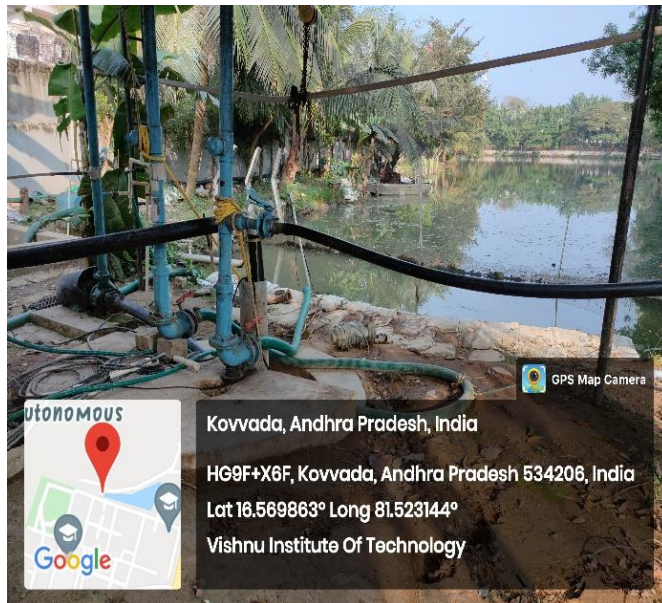
The wastewater treatment process consists of three primary stages: primary, secondary, and tertiary water treatment. In certain cases, more advanced treatment, known as quaternary water treatment, may be necessary.

The objective of a sewage treatment plant is to effectively treat wastewater to the best practical extent possible. Although these plants can handle larger amounts of waste compared to septic tanks, they still require periodic emptying. On a daily basis, this plant treats 200 kiloliters per day (KLD) of wastewater.

The treated sewage wastewater finds application in gardening purposes, while the dried sludge serves as valuable manure for plants, contributing to sustainable waste management practices.

## 5. MAINTENANCE OF WATER BODIES AND DISTRIBUTION SYSTEM IN THE CAMPUS





In our college we have water treatment plant in which water is collected from the source, Purified & is distributed to the Canteens, Hostels & Hospital etc., We also have Sewage treatment Units in which waste water is collected & Purified in various ways & Safely dispose in to the water bodies.

The basic function of a water distribution system is **to transport the water from the treatment facility to the customer**. In addition, distribution systems may also provide storage, as well as provide flow and pressure adequate for fire protection.