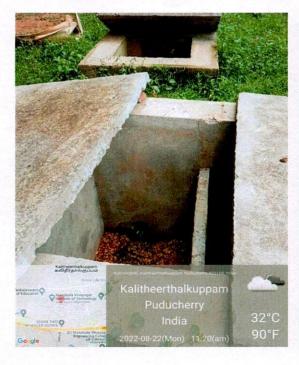


### RAIN WATER HARVESTING

Our institution has taken proactive steps towards water conservation by implementing a comprehensive rainwater harvesting system. This initiative aims to secure a consistent supply of groundwater by efficiently capturing and utilizing rainwater. The system is strategically designed and implemented across the campus, utilizing various techniques to maximize rainwater collection and conservation.

#### Benefits:

- 1. **Groundwater Recharge:** By efficiently capturing rainwater, the system aids in replenishing groundwater reserves. This contributes to maintaining a sustainable supply of groundwater, especially during dry periods.
- 2. Water Conservation: The rainwater harvesting system significantly reduces the reliance on external water sources for non-potable purposes, such as irrigation and landscaping.
- 3. **Mitigation of Runoff:** The implementation of shallow ditches and proper drainage helps control and reduce surface runoff during heavy rainfall, minimizing soil erosion and potential flooding.
- 4. **Environmentally Friendly:** This initiative promotes eco-friendliness by reducing the demand for treated water for non-potable needs, thereby conserving energy and lowering the institution's carbon footprint.







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### Bore well/Open well Recharge

Rainwater harvesting is an essential practice aimed at mitigating water scarcity and promoting sustainable water management. SMVMCH has implemented a rainwater harvesting system using recharge wells and bore wells, focusing on the watershed as a unit. The system involves the installation of bore wells at various locations within the campus, providing a dedicated water supply for horticultural and garden needs. In this brief, we highlight the significance of this initiative and its benefits to our institution.

Watershed-Centric Approach: The rainwater harvesting system at SMVMCH is designed based on a watershed-centric approach, wherein the entire campus area is considered a single unit for water management. This approach takes into account the natural flow of rainwater, enabling efficient collection and utilization. By treating the campus as a watershed, we optimize water utilization and minimize runoff, contributing to overall water conservation efforts.

Bore Wells for Horticulture and Garden Use: Bore wells have been strategically installed across various locations within the campus to cater specifically to the horticultural and garden water requirements. This targeted approach ensures a consistent and dedicated supply of water for maintaining lush gardens and green spaces. The bore wells tap into the natural groundwater resources, thereby reducing the reliance on external water sources and promoting self-sufficiency.

## Benefits and Advantages:

- Water Conservation: By harnessing rainwater through recharge wells and bore wells, SMVMCH significantly reduces water wastage and enhances overall water conservation efforts.
- 2. Sustainable Landscaping: The availability of a dedicated water supply enables the maintenance of vibrant landscapes and gardens, contributing to the aesthetic appeal and view environmental health of the campus.

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- 3. Reduced Dependence: The reliance on external water sources is minimized, leading-ALKUPPAM, PUDUCHERRY-605107.



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- 4. **Groundwater Recharge:** The recharge well system replenishes groundwater reserves, contributing to the long-term sustainability of local water resources.
- 5. **Educational Opportunities:** The rainwater harvesting initiative provides a platform for raising awareness about water conservation, sustainability, and environmental stewardship among students, faculty, and staff.



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#### **Sewage Treatment Plant**

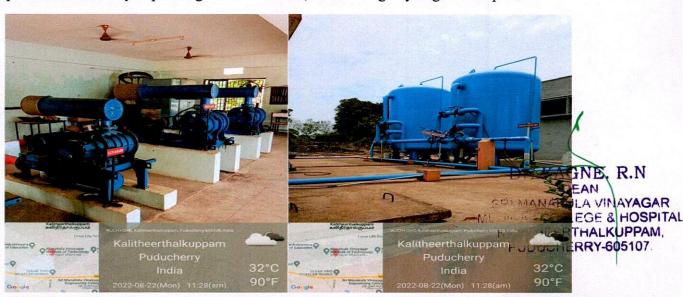
The process of waste water recycling plays a crucial role in addressing environmental challenges by facilitating the treatment of contaminants present in water, thereby rendering it suitable for desired purposes. At our institution, we have implemented a state-of-the-art Sewage Water Treatment Plant (STP) on campus to effectively recycle used water, resulting in a range of benefits, including contaminant removal, odour elimination, mineral enrichment, and sustainable landscaping.

Waste Water Recycling Process and Benefits: The Sewage Water Treatment Plant (STP) on our campus employs an advanced recycling process that targets the removal of existing contaminants from sewage water. This process effectively reduces the concentration of contaminants, ensuring that the treated water meets desired quality standards. As a result, the recycled water is free from both contamination and foul odours, making it safe and pleasant for various applications.

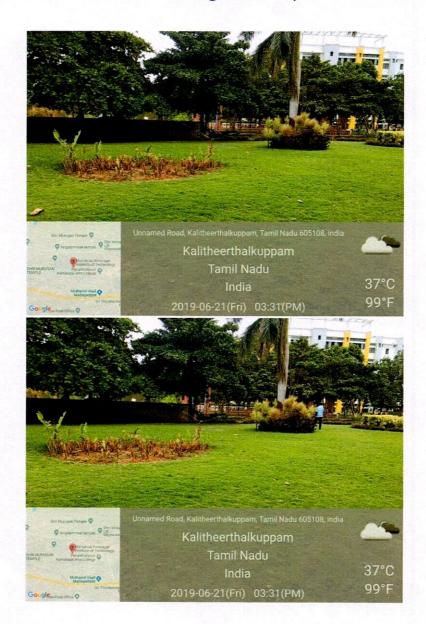
**Mineral Enrichment and Fertility:** A remarkable outcome of our waste water recycling process is the enrichment of the treated water with essential minerals. This mineral-rich water proves to be highly fertile and beneficial for plant growth. The recycled water, owing to its nutrient content, enhances the health and vibrancy of the plants it nourishes.

Sustainable Landscaping and Water Conservation: The availability of treated, mineral-rich water has opened the door to sustainable landscaping practices on our campus. This recycled water serves as a valuable resource for watering gardens and maintaining lush lawns. By utilizing treated water for irrigation, we contribute to water conservation efforts and reduce the demand on traditional water sources.

**Foul Odour-Free Sludge Management:** In the process of sewage water treatment, the formation of sludge is inevitable. However, our STP efficiently manages this challenge. The foul odour-free sludge produced during the treatment process is carefully collected and removed from the STP on alternate days. This sludge is disposed of in an environmentally responsible manner by depositing it into the earth, minimizing any negative impact.



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