



6 CLEAN WATER AND SANITATION



6.3.1 On-campus Sewage Treatment Plant (STP) ensuring sustainable wastewater management and supporting a cleaner, greener campus.”

St. Peter's Institute of Higher Education and Research (SPIHER) has a clear and effective process in place to treat the wastewater generated on campus. As part of our commitment to environmental responsibility and sustainable campus practices, all wastewater from hostels, academic blocks, laboratories, and common facilities is directed to the **on-campus Sewage Treatment Plant (STP)**.



“Campus Sewage Treatment Plant (STP) enabling efficient wastewater treatment, reuse, and compliance with environmental sustainability standards.”



Treated water collected from the Sewage Treatment Plant (STP) and transported by tractor can be safely used for gardening purposes, provided it meets the required non-potable water quality standards. This practice helps conserve freshwater resources by reusing treated wastewater for landscape irrigation. The tractor or tanker used for transport should be properly labelled and dedicated to reclaimed water to avoid cross-contamination. Before use, the treated water should undergo appropriate processes such as filtration and disinfection to ensure it is free from harmful pathogens and suitable for plants. When applied correctly preferably through controlled methods that minimize human contact STP-treated water offers an environmentally sustainable solution for maintaining gardens and green spaces

The STP follows a systematic treatment cycle that removes impurities, reduces pollutants, and ensures that the water meets safe standards before reuse. Treated wastewater is primarily used for **gardening, landscaping, and campus green maintenance**, which helps reduce the demand for fresh water and supports our water conservation goals. This recycled water plays a significant role in maintaining the greenery across SPIHER's campus throughout the year.



Plantation drive at SPIHER by Department of Biotechnology on 21.08.2024



“Each tree planted brings us one step closer to a healthier planet and a more vibrant campus.”

Regular monitoring and maintenance of the STP are carried out by the campus engineering team to ensure efficient performance and compliance with environmental guidelines. Water quality tests are conducted periodically to verify that treated water meets safety norms prescribed by local authorities.

Through this structured wastewater treatment process, SPIHER actively contributes to sustainable resource management, minimizes environmental impact, and supports national efforts toward responsible water usage and conservation.

Water management activities

In order to conserve water resources, it is essential that any environmentally responsible institution should examine its water use practices. Water auditing is conducted for the appraisal of facilities of raw water intake and determining the facilities for water treatment and reuse. Auditor concerned investigates the relevant method that can be adopted and implemented to balance the demand and supply of water. The Organization is taking enough attempt to manage wastewater that are coming out from various Department laboratories, hostels and canteens as per the water management plan. Solar water heaters are available for the domestic use of water. Chemicals like bromine and chlorine are avoided to maintain the water quality and to maintain hygienic environment to the stakeholders. Low flow fitting are implemented in the recently constructed building to conserve water.



“SPIHER’s Water Conservation Facility for Harvesting, Storing, and Reusing Water Resources”

Conclusion

The on-campus Sewage Treatment Plant plays an essential role in maintaining a clean, healthy, and sustainable campus environment. By treating wastewater efficiently and safely, the STP helps reduce the strain on municipal resources and supports the responsible reuse of treated water for gardening and other non-potable purposes. Its operation reflects the institution’s commitment to environmental stewardship, resource conservation, and long-term sustainability. The facility not only ensures regulatory compliance but also creates awareness among students and staff about the importance of water management. Overall, the STP stands as a practical demonstration of the university’s dedication to sustainable development.