



6.3.4 SPIHER's Building Standards to Minimise Water Use

St. Peter's Institute of Higher Education and Research (SPIHER) is committed to sustainable campus development, and a major part of this commitment involves applying water-efficient building standards in the design, construction, and maintenance of all facilities. The institution follows structured guidelines that help minimise water consumption and promote responsible usage across the campus.

All new buildings at SPIHER are constructed following **Public Works Department (PWD)** norms and **Central Ground Water Authority (CGWA)** guidelines, ensuring that water-saving principles are integrated from the planning stage. Plumbing systems across academic blocks, laboratories, administrative offices, and hostels are equipped with **low-flow fixtures**, including sensor-based taps, aerators, dual-flush toilets, and low-flow showerheads. These fixtures significantly reduce unnecessary water wastage without compromising user convenience.



Policy for Maximizing Water Reuse

1. Introduction

St. Peter's Institute of Higher Education and Research (SPIHER) is committed to protecting the environment and using natural resources responsibly. Water is one of our most precious resources, and this policy outlines how the institution will reuse, recycle, and conserve water across the campus. The aim is to reduce wastage, promote sustainability, and build a culture of responsible water use among students, staff, and visitors.

2. Objectives

- To reduce overall water consumption on campus through reuse and recycling.
- To treat wastewater safely and use it for non-potable activities.
- To encourage sustainable water practices among all campus members.
- To support SPIHER's commitment to environmental protection and NAAC/SDG goals.

3. Scope

This policy applies to all campus users, including students, faculty, staff, administrative offices, hostels, laboratories, gardens, and external contractors.

4. Key Initiatives for Water Reuse

4.1 Sewage Treatment Plant (STP) Water Reuse

- Treated water from the STP will be reused for:
 - Gardening and landscaping
 - Toilet flushing
 - Road cleaning
- Regular monitoring will ensure water meets safety standards.

4.2 Rainwater Harvesting

- Rainwater harvesting structures will collect and store rainwater across campus buildings.
- Stored rainwater will be used for groundwater recharge and non-potable purposes.

4.3 Greywater Recycling

- Water from washbasins and wash areas will be filtered and reused for gardening wherever feasible.
- Departments and hostels will be encouraged to implement small-scale greywater reuse systems.

4.4 Laboratory and RO Wastewater Recovery

- RO reject water will be reused for floor cleaning, pre-washing, and gardening.
- Labs will adopt low-water-use cleaning methods and reuse non-contaminated water where possible.

4.5 Smart Irrigation Practices

- Gardens will follow:
 - Drip irrigation systems
 - Scheduled watering (early morning & evening)
 - Use of treated water only
- Water-intensive plants will be replaced with drought-tolerant species.

5. Awareness and Capacity Building

- Workshops, posters, and classroom awareness sessions will be conducted to educate the campus community and off-campus on water reuse.
- "Water Reuse Week" will be organized annually to promote sustainable habits.

6. Roles and Responsibilities

- **Estate/Facilities Department:** Operate and monitor STP, rainwater systems, and greywater reuse.
- **Department Heads:** Ensure efficient water practices within departments and labs.
- **Students & Staff:** Follow good water-use habits and report leakages or wastage immediately.
- **Cleaning Contractors:** Use treated/STP water for suitable cleaning tasks.

7. Monitoring and Evaluation

- Monthly audits of water consumption and STP output.
- Annual report highlighting water saved, systems upgraded, and awareness programs conducted.
- Corrective actions taken promptly in case of system failure or wastage.

8. Compliance

All campus stakeholders must comply with this policy. Non-compliance will invite corrective measures from the administration.

9. Review of Policy

This policy will be reviewed once every two years to incorporate improvements, new technologies, and sustainability requirements.



Jee Han

Registrar

01/02/2024

Registrar

Policy for Maximizing Water Reuse

Policy Created on:	01/02/2024	Approved by:
Revision 1:	-	REGISTRAR

SDGs Directly Supported:

- **SDG 6 – Clean Water and Sanitation**
- **SDG 12 – Responsible Consumption and Production**
- **SDG 13 - Climate Action**

SDGs Indirectly Supported:

- **SDG 3 – Good Health and Well-being**
- **SDG 7 – Affordable and Clean Energy**
- **SDG 9 – Industry, Innovation and Infrastructure**
- **SDG 14 – Life Below Water**
- **SDG 15 - Life on Land**



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Policy for Maximizing the water reuse Created on 2020 and revised on 2024

SPIHER has implemented a **comprehensive rainwater harvesting system** to maximise natural water conservation. Rooftop rainwater is channelled through filtration units and directed into recharge pits, helping replenish groundwater levels and reduce dependence on external water sources. The landscaping design also incorporates **water-efficient irrigation**

methods, particularly drip and sprinkler systems, which ensure that gardens and green spaces receive adequate water with minimal wastage.

SPIHER places a strong emphasis on sustainable development, and one of the key aspects of this commitment is the application of building standards that help minimise water use across the entire campus. Every new construction, renovation, and maintenance activity is carried out with clear guidelines that promote efficient water management. These standards ensure that the campus infrastructure is not only functional and modern but also environmentally responsible.

The SPIHER also integrates rainwater harvesting systems within the building design. Roof-top rainwater is collected through structured pipelines and directed into recharge pits, borewells, or storage tanks. This system supports groundwater replenishment and reduces dependence on external water sources. In some buildings, the harvested rainwater is used for cleaning, gardening, or other non-potable requirements, further easing the demand on treated water supplies.



Our Rainwater Harvesting system at SPIHER Campus ensures a sustainable and greener tomorrow

Another important aspect is the **reuse of treated water**. The campus operates a Sewage Treatment Plant (STP) and a Reverse Osmosis (RO) plant, where wastewater is thoroughly treated to make it safe for reuse. Treated water is supplied to the garden areas, lawns, trees, and landscaping zones. This reduces the consumption of freshwater and supports the university's efforts to maintain a beautiful green campus throughout the year.



From Wastewater to Resource: STP Supporting a Greener SPIHER.

Construction and maintenance activities also follow water-saving guidelines. Contractors are instructed to use **controlled curing techniques, drip curing, and alternative methods** that significantly reduce water consumption during building works. They are also encouraged to adopt dust-control methods that do not rely heavily on water spraying.

In addition to infrastructure measures, the SPIHER actively promotes **awareness among students and staff** about responsible water use. Posters, seminars, and campus campaigns teach the importance of conservation and encourage everyone to play a role in reducing waste.

DEPARTMENT OF CIVIL ENGINEERING
 In association with
National Service Scheme (NSS)
 Organizes
 AWARENESS PROGRAM ON
WATER CONSERVATION AND RAINWATER HARVESTING

12 September 2024 | 10:00 am | Kannappalayam Village

Convenor
 Dr. B. Hemalatha
 Professor, Department of Civil Engineering, SPIHER

NSS coordinators
 Dr. P. Pariyasamy
 Mrs. R. Nirmala

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Awareness Programme on Water conservation and Rain water Harvesting conducted on 12.09.2024

Through these combined efforts efficient fixtures, rainwater harvesting, treated water reuse, sustainable construction practices, and continuous monitoring the SPIHER ensures that its building standards truly contribute to minimising water use. This approach reflects the institution's commitment to environmental responsibility and long-term sustainable development.

Conclusion

SPIHER has implemented a comprehensive rainwater harvesting system to maximise natural water conservation. Rooftop rainwater is channelled through filtration units and directed into recharge pits, helping replenish groundwater levels and significantly reducing dependence on external water sources. The landscaping design also incorporates water-efficient irrigation methods, particularly drip and sprinkler systems, which ensure that gardens and green spaces receive adequate water with minimal wastage.

A key sustainability practice at SPIHER is the reuse of treated water. The campus operates a fully functional Sewage Treatment Plant (STP), and the treated water is effectively utilised for gardening, landscape maintenance, and other non-potable purposes. This reduces the demand for fresh water and supports a circular water management system. Overall, these initiatives demonstrate SPIHER's strong commitment to responsible water usage, environmental sustainability, and long-term conservation.