CHARUSAT®

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

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Policy For

Liquid Waste Management

2026

Charotar University of Science and Technology
CHARUSAT Campus, Off. Nadiad - Petlad Highway, Changa-388421

1. Preamble

Charotar University of Science and Technology (CHARUSAT) functions as a comprehensive academic and residential campus comprising academic buildings, laboratories, hostels, healthcare facilities, residential units, and support services that collectively generate liquid waste of varied characteristics. If not managed appropriately, such liquid waste poses risks to public health, soil and water resources, and the surrounding ecosystem. In recognition of these environmental concerns and the growing emphasis on sustainable campus operations, the University has framed this **Liquid Waste Management Policy** to provide an overarching framework for responsible liquid waste governance. The policy reflects the University's commitment to environmental stewardship and aligns with applicable environmental protection principles, regulatory expectations, and institutional sustainability goals, while providing a foundation for systematic planning, implementation, and continuous improvement of liquid waste management practices across the campus.

2. Purpose and Objectives

- To minimize the generation of liquid waste at source through appropriate planning, operational controls, and good housekeeping practices.
- To establish uniform and environmentally sound systems for the collection, treatment, reuse, and disposal of liquid waste generated across the University campus.
- To establish a standard process flow for management of liquid waste and monitor its implementation.
- To ensure compliance with applicable central and state environmental laws, rules, guidelines, consent conditions, and prescribed discharge standards.
- To strengthen institutional mechanisms for monitoring, record-keeping, reporting, and periodic review of liquid waste management practices.
- To create awareness and encourage responsible participation among students, faculty, staff, contractors, vendors, and service providers in the effective implementation of this policy.

3. Scope and Applicability

This Policy applies to all types of liquid waste generated across academic buildings, laboratories, hostels, residential quarters, administrative offices, canteens, workshops, gardens, and other facilities located within the University campus.

3.1 Regulatory Framework and Statutory Compliance

This Policy is framed in accordance with, and shall be implemented in compliance with, the applicable provisions of the following statutes, rules, guidelines, and regulatory requirements, as amended from time to time:

1. The Water (Prevention and Control of Pollution) Act, 1974[1], and rules framed thereunder.
2. The Environment (Protection) Act, 1986[2], and applicable rules and notifications issued thereunder.
3. Consent to Establish (CTE) and Consent to Operate (CTO) conditions issued by the respective State Pollution Control Board (SPCB) for Sewage Treatment Plants (STP), Effluent Treatment Systems (ETS), and allied facilities.

[1] https://cpcb.nic.in/upload/home/water-pollution/Amendment_Water_Act-1974.pdf
[2] https://cpcb.nic.in/displaypdf.php?id=aG9tZS9lcGEvZXByb3RlY3RfYWN0XzE5ODYucGRm

4. Hazardous and other Wastes (Management & Transboundary Movement) Rules, 2016[3]
5. Guidelines for Management of Healthcare Waste as per Biomedical Waste Management Rules, 2016[4]
6. Standards and Guidelines issued by the Central Pollution Control Board (CPCB) [5]and SPCB relating to wastewater treatment, effluent discharge, reuse of treated wastewater, and monitoring requirements.
7. Applicable local authority regulations and guidelines[6] governing water discharge, reuse, and environmental protection.

Compliance with the above statutory provisions shall be mandatory for all departments, facilities, contractors, vendors, and service providers operating within the University campus.

4. Definitions

Liquid waste generated from laboratories, hostels, kitchens, toilets, washing areas, AC exhausts and other campus activities and contains water along with various inorganic and organic contaminants requiring specialized handling and management due to its potential pollution and health hazards. In its composition, it may vary from human waste (sewage) to toxic chemicals, heavy metals and pathogens.

5. Provisions

Charotar University of Science and Technology (CHARUSAT) shall establish, implement, and maintain a comprehensive liquid waste management system across the University campus, mandating source-wise segregation, systematic collection, treatment through approved facilities, reuse of treated wastewater for permissible non-potable purposes, and final disposal strictly in accordance with applicable central and state environmental laws, rules, and standards; the University shall designate competent authorities and committees to oversee implementation, ensure compliance by all departments, hostels, healthcare units, contractors, vendors, and service providers, conduct periodic monitoring, documentation, and audits, initiate corrective and preventive actions in cases of non-compliance, and continuously strengthen operational efficiency, environmental safety, and institutional accountability.

6. Working Committee

Waste Management Committee shall comprise of following members:

i. Chairperson/Convener
ii. Senior Faculty member (Environment / Sustainability aspects)
iii. Senior Faculty member (Microbiology/Biodiversity conservation aspects)
iv. Senior Faculty member (Structural Engineering aspect)
v. Representative of Estate Department (Member Secretary)
vi. Representative from CHARUSAT Hospital
vii. Representative from IT cell
viii. Sustainability Coordinator of each Institute
ix. Two outside reputed experts (academicians / industry professionals / consultants / or domain specialists) (Environment Engineering / Sustainability / Microbiology /

[3] https://cpcb.nic.in/displaypdf.php?id=aHdtZC9IV01fUnVsZXNfMjAxNi5wZGY=
[4] https://cpcb.nic.in/uploads/projects/bio-medical-waste/guidelines_healthcare_june_2018.pdf
[5] https://cpcb.nic.in/
[6] https://gpcb.gujarat.gov.in/Home/FunctionsAndPriorities

Biodiversity conservation/ Structural Engineering aspects) (To be nominated by the Provost).

Waste Management Committee is responsible to oversee and facilitate appropriate mechanisms for the systematic management of **solid and liquid wastes** on campus.

7. **Roles and Responsibilities of the Waste Management Committee** ***(Specific to Liquid Waste Management)***
   - Oversee the implementation of the liquid waste management policy by all the staff members, students, visitors, contractors, vendors and outsourced service provider(s).
   - Initiate programs for reduction in the volume of liquid waste.
   - Enhance recycling efforts and promoting recovery from wastes.
   - Monitor the waste disposal operations.
   - Create awareness and promoting training for faculty, non-teaching and students on waste handling and management issues.
   - Benchmark the campus for using green norms.
   - Periodical review of Liquid Waste Management Policies.
   - Celebrating National/Global environmental related relevant days.
   - The committee shall convene a minimum of two meetings in an academic year, with documented minutes duly recorded and preserved.
8. **Implementation Mechanism**

   The implementation is as follows:

   8.1. Collection

   Wastewater collected from institutional, administrative and residential buildings shall be collected in septic tanks and soak pits. Whereas, Laboratory wastewater (from selected locations) shall be collected separately in designated tanks.

   8.2. Treatment
   - Wastewater from septic tanks and soak pits (institutional, administrative and residential buildings) shall be treated through the Sewage Treatment Plant (STP) and further processed in the Water Treatment Plant (WTP).
   - Laboratory wastewater (from selected locations) shall be treated through an appropriate treatment system before disposal.
   - Oil and grease traps shall be installed at appropriate places.

8.3 Reuse and Disposal

Treated water shall be used for flushing, cleaning and gardening purposes helping to reduce intake of fresh groundwater.

9. Monitoring and Review Mechanism

The Waste Management Committee shall:

- Carry out periodic inspections and maintain proper and systematic records of waste generation, treatment, and disposal.
- Review policy implementation and performance.
- Update policy with latest regulatory framework provisions.
- Provide suitable recommendation for effective implementation of policy.

10. Compliance and Accountability

In case of non-compliance, the concerned individual, department, service provider, or unit shall be duly informed and required to undertake corrective measures within a stipulated timeframe, failing which appropriate institutional action such as issuance of warning, restriction or suspension of related services, imposition of penalties, or any other action as per University norms may be initiated.

11. Effective date and validity

This policy shall come into effect from the date of circulation and shall be valid till further notice.

CHARUSAT: Liquid Waste Management Strategy 2026

Governance & Strategic Goals

Multi-Disciplinary Oversight

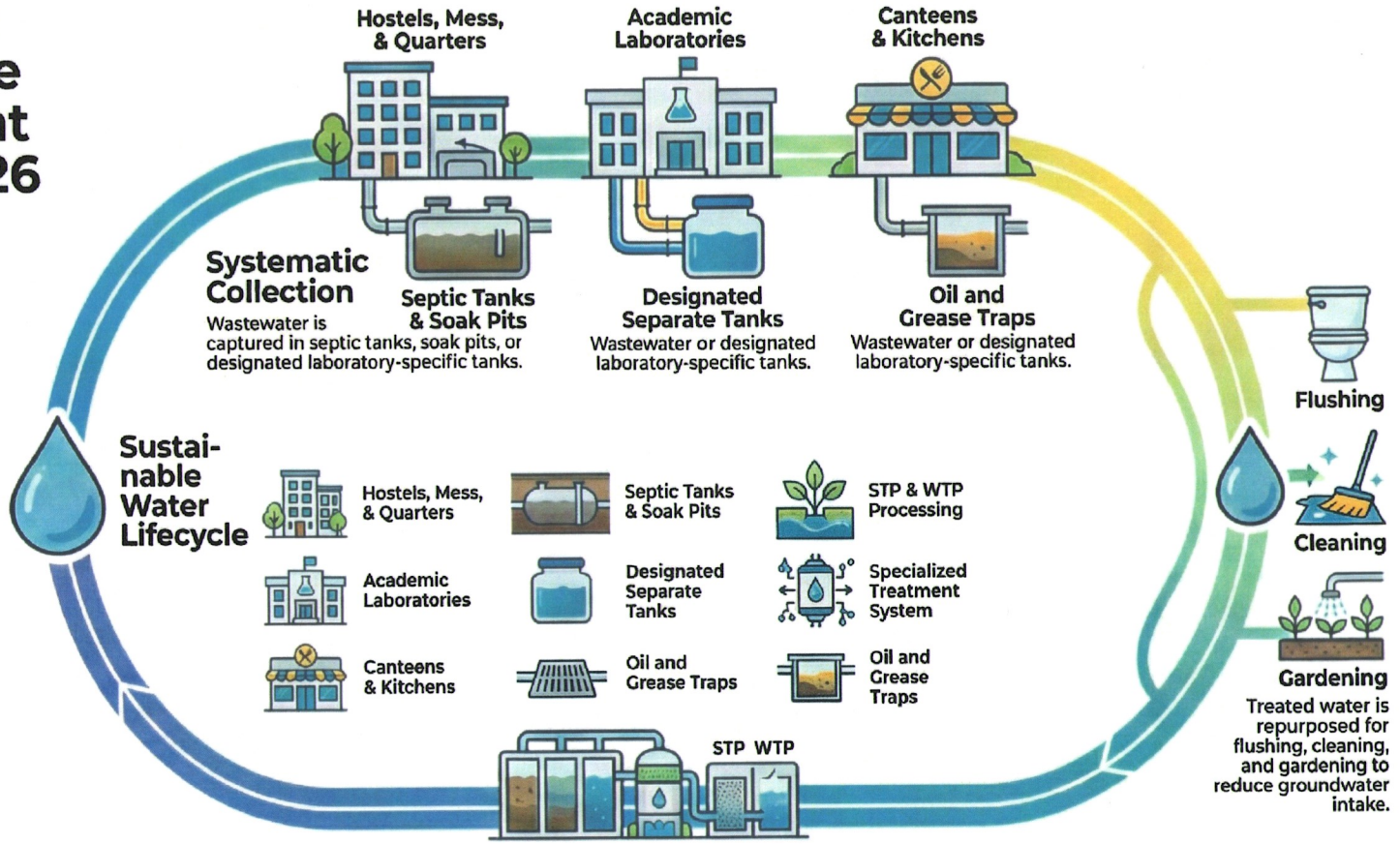
A specialized Waste Management Committee monitors implementation, recycling efforts, and regulatory compliance.

Core Policy Objectives

Focuses on minimizing waste at the source and adhering to national environmental laws.

Comprehensive Waste Scope

Manages everything from laboratory chemicals and pathogens to human sewage and AC exhaust.



12. Approving Authority

Prepared By

Head, M S Patel Department of Civil Engineering, CHARUSAT

Reviewed By

Coordinator IQAC, CHARUSAT

Approved By

Registrar, CHARUSAT

Provost, CHARUSAT

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