

ERCIYES UNIVERSITY

WATER MANAGEMENT AND WATER REUSE POLICY

1- Purpose and Scope of the Policy

This policy has been prepared to ensure the sustainable management of water resources across the Erciyes University (ERU) campus, to promote water reuse, reduce consumption, and minimize the environmental impacts that cause water pollution.

The primary aim of this policy is to define the university's strategy for water reuse and maximize its implementation. Key objectives of the policy include:

- **Sustainability:** To promote responsible and sustainable water management practices.
- **Resource Efficiency:** To reduce total water consumption through improved infrastructure systems, behavioral changes in water use, and technological solutions.
- **Environmental Impact:** To minimize wastewater discharge and reduce the university's environmental footprint by protecting local water resources.
- **Education and Participation:** To educate students and staff on water conservation and reuse, and to encourage their participation.

This policy applies to all units and activities within ERU, including academic and administrative buildings, laboratories, research centers, sports facilities, and landscaping areas.

2- Definitions

Water Reuse: The process of treating used water (such as graywater or wastewater) appropriately and reusing it.

Water Efficiency: Providing the same benefit with less water or providing greater benefit with the same amount of water, based on the zero-loss principle of water resources.

Graywater: Wastewater from sources other than toilets (such as sinks, showers, baths, and washing machines) that has potential for reuse.

Rainwater: Water originating from atmospheric precipitation that has not yet begun to flow.

Wastewater: Water that has been polluted or whose characteristics have been partially or fully altered as a result of domestic, industrial, agricultural, or other uses.

3- Measurement and Monitoring of Total Water Use

ERU will encourage decisive steps to measure and monitor the total amount of water consumed across the campus. This will cover water used across all units and activities within the campus. Measurements will be conducted regularly to track consumption and establish baseline data for water-saving initiatives.

4- Policy Principles and Objectives

Water is essential for environmental sustainability. Within this framework, ERU commits to effective water management, promoting reuse practices, and raising public awareness, guided by the following objectives and principles.

4.1. Assessment of Water Resources

- All water sources, including tap water, groundwater, and surface water, are thoroughly mapped.
- Alternative water sources suitable for reuse, such as graywater and rainwater, are identified.
- Water consumption in university facilities is analyzed to identify areas with reuse potential that can provide water savings.

4.2. Water Conservation

- Technologies such as low-flow fixtures, sensor-operated faucets, and water-efficient irrigation systems are implemented in existing buildings and systems.
- Conscious and integrated approaches to water use are adopted in areas with high water consumption, such as cleaning, cooling, and laboratories.

4.3. Reuse Systems: Graywater systems and rainwater harvesting will be promoted to ensure water efficiency and the conservation of water resources. These systems aim to reuse water consumed in landscaping, garden irrigation, and other suitable areas.

4.4. Sustainable Infrastructure: The installation of rainwater harvesting systems in existing buildings to enable water reuse will be ensured, and the necessary infrastructure and systems for water reuse will be designed and implemented, particularly in new construction projects.

4.5. Education and Awareness: Training sessions and awareness activities on water efficiency, reuse, and conservation will be organized for university academic and administrative staff as well as students.

4.6. Monitoring and Audit: The ERU Directorate of Construction and Technical Affairs and the ERU Environmental Issues and Clean Production Application and Research Center (ERÇEVREM) will regularly monitor, report on, and evaluate practices related to water use.

5. Implementation Methods

5.1. Water Reuse Applications

1. Installing rainwater harvesting systems in all buildings to collect and store rainwater for landscape irrigation and other non-potable uses.
2. Implementing graywater reuse systems where appropriate and use this water for applications such as landscape irrigation.
3. Identifying dedicated areas for the reuse of stored water within the university and developing an action plan.

4. Conducting scientific studies and projects related to water reuse.
5. Ensuring the conscious use of water drawn from wells on campus for drinking and consumption purposes.
6. Promoting the widespread adoption of time-controlled and sensor-based smart irrigation systems to optimize water use for landscaping and outdoor areas.
7. Installing dual plumbing systems in new buildings or major renovations to separate potable and non-potable water sources.
8. Integrating water management, conservation, and reuse systems in areas with large water bodies such as swimming pools and ponds.

5.2. Techniques to Prevent Water Waste

1. Use of sensor-operated/automatic self-closing faucets in sinks and automatic sensor urinals in toilets.
2. Use of dual-flush cisterns to reduce the amount of water used per flush.
3. Use of aerator-equipped faucets.
4. Use of machines that conserve energy and water.
5. Ensuring water savings through time-controlled drip irrigation, under-tree sprinklers, and spray systems that provide uniform irrigation.
6. Conducting irrigation in manually watered areas based on seasonal conditions.
7. Detecting consumption and leaks with appropriate equipment and perform regular monitoring.

5.3. Building Standards Suitable for Water Efficiency

- Existing buildings should be inspected for water-saving applications, maintained regularly, and equipped with remote monitoring systems to detect and repair leaks, and renovated.
- Water efficiency standards should be applied in new or renovated buildings. Water-saving fixtures and similar technologies should be used.

5.4. Provision of Free Drinking Water

The university should provide safe and clean drinking water to students, staff, and visitors through water fountains, water stations, and other accessible means.

5.5. Education, Awareness, and Participation

- Raising awareness among students and staff about water use through awareness activities and training programs.
- Supporting research projects related to water reuse and sustainability.
- Encouraging the integration of water conservation topics into educational planning.

6. Monitoring and Reporting

The Directorate of Construction and Technical Affairs and ERÇEVREM will oversee the implementation of water reuse policies. Annual reports on water use will be prepared to evaluate the effectiveness of reuse practices.

7. Review and Continuous Improvement

This policy will be reviewed and updated as necessary in accordance with national legal regulations. During this process, feedback from stakeholders will be taken into consideration to maximize the policy's effectiveness.

8- Effective Date

This policy shall take effect on the date of its approval by the Erciyes University Senate.