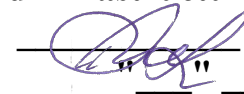


"I approve"
Member of the Management Board-Acting Vice-Rector for
financial and economic affairs
and infrastructure development

 **A. Tassybayev**
_____ **2024**

Efficiency Improvement Program **reuse of water**

Program objective:

Ensure sustainable water use and maximum water reuse at the university by reducing water supply costs and minimizing the environmental footprint in line with the Sustainable Development Goals (SDGs).

1. Assessment of current water consumption and analysis of opportunities

Water use audit

Conduct an initial audit to identify the main sources and volumes of water consumption, as well as points where it can be reused.

Technical infrastructure assessment

Analyze the current state of water supply systems and identify modernization needs to support water reuse.

Defining reuse points

Identify areas where treated process water can be used safely and efficiently, including irrigation, sanitary areas, and cooling systems.

2. Purchase and installation of cleaning equipment

Purchase of water treatment equipment

Purchase and installation of a state-of-the-art wastewater treatment system by the end of 2024, ensuring that water meets the established standards for secondary use.

Installation and adjustment of purified water storage systems

Creation of tanks for storing purified water, taking into account the needs for irrigation and other technical needs of the university.

Automation of the purified water distribution system

Development and implementation of an automated system for distribution of purified water for effective management of its use.

3. Introduction of water-saving technologies

Installing water-saving devices

The University will install aerators and other water-saving nozzles on taps and showers, which will reduce the consumption of drinking water in domestic and sanitary areas.

Optimization of irrigation systems

Introduction of automated irrigation systems using humidity sensors and weather data, which will ensure irrigation of green areas with minimal water consumption.

Modernization of plumbing systems

Replacing outdated pipes and plumbing installations with more economical and safe ones, which will reduce leaks and water overspending.

Optimization of water consumption for irrigation

Until July 2025, develop a landscape plan for planting plants and trees on the campus with rational use

4. Monitoring and evaluating performance

Creating a monitoring system

The University will create a system for monitoring water reuse. Based on the monitoring data, proposals will be developed to improve the program and correct the water reuse strategy.

5. Financing and reporting

Optimization of water supply costs

Regular analysis and reporting of water supply costs, taking into account the introduction of water reuse and water treatment technologies. Annual report on water conservation.

Publication of reports on the results achieved in the framework of the SDGs and sustainable development goals, indicating the resources saved and reducing water supply costs.

6. Expected results:

Start using the water treatment system at the university.

Reuse of at least 50% of treated industrial water for irrigation and other technical needs.

Raising awareness of students and staff about water conservation and responsibility for water resources.

Optimization of water supply costs, redirection of saved funds to educational and scientific projects.

Strengthening the university's environmental image as a responsible participant in international sustainable development initiatives.