



# Port Said University

## Watershed Management Strategy for the Faculty of Physical Education



### Overview

The Faculty of Physical Education at Port Said University recognizes the importance of sustainable watershed management in preserving the health of the Suez Canal ecosystem. This strategy outlines key initiatives designed to reduce environmental impacts and protect water quality. The Faculty aims to minimize surface water runoff, prevent pollution, and promote sustainable practices both on-campus and within the surrounding community. Through the implementation of best management practices, the Faculty will contribute to the preservation of aquatic biodiversity and support sustainability in the region.

### Key Components of the Watershed Management Strategy

#### 1. Implementation of Sustainable Urban Drainage Systems (SUDS)

- **Objective:** To reduce surface water runoff and enhance groundwater recharge by using environmentally friendly infrastructure.
- **Actions:**
  - Install **permeable pavements** across the campus to allow water to infiltrate into the ground, reducing runoff.
  - Construct **green roofs** on buildings where possible, to absorb rainwater and promote evaporation, further reducing the volume of runoff.
  - Implement **rainwater harvesting systems** to collect and store runoff for non-potable uses, such as irrigation or cleaning, thereby reducing the demand on local water sources and minimizing water flow into the canal.
- **Expected Benefits:**
  - Reduced pressure on drainage systems and the Suez Canal by allowing more water to be absorbed into the soil.
  - Increased resilience to flooding during heavy rainfall events.

## 2. Vegetative Buffer Zones

- **Objective:** To prevent pollutants from entering the Suez Canal by slowing the movement of water runoff and filtering contaminants before they reach the water.
- **Actions:**
  - Establish **vegetated buffer zones** along the canal's edge, consisting of native plant species that can absorb and filter nutrients, sediment, and pollutants from runoff.
  - Promote the use of **riparian buffers**, which are natural or planted vegetated areas along watercourses, to slow water movement and improve water quality.
- **Expected Benefits:**
  - Protection of water quality in the Suez Canal through natural filtration processes.
  - Creation of habitats for local wildlife and enhancement of biodiversity.
  - Reduction in soil erosion, preventing sediment from entering water bodies.

## 3. Regular Monitoring of Water Quality

- **Objective:** To track the health of the watershed and ensure timely identification and mitigation of any water quality issues.
- **Actions:**
  - Conduct **periodic water quality assessments** on the runoff from campus areas and surrounding water bodies.
  - Measure key parameters such as **nutrient levels, pH, temperature, and pollutant concentrations** to detect early signs of contamination.
  - Collaborate with local environmental agencies to maintain a robust monitoring framework and report findings to relevant stakeholders.
- **Expected Benefits:**
  - Early detection of potential pollutants in the runoff, allowing for rapid intervention.
  - Data-driven decision-making for continuous improvement in water management practices.

## 4. Community Awareness and Engagement

- **Objective:** To foster a culture of sustainability and encourage responsible water use and waste management practices.
- **Actions:**

- Launch **awareness campaigns** to educate faculty staff, students, and the local community about the importance of sustainable water use and the role they play in protecting the Suez Canal ecosystem.
- Offer training on **waste reduction** techniques and encourage **recycling** to reduce the contamination of stormwater runoff.
- Organize **community clean-up events** along the canal to engage the broader community in waterway protection and environmental stewardship.
- **Expected Benefits:**
  - Increased public participation in sustainable practices, amplifying the effectiveness of the strategy.
  - A more environmentally conscious community that supports the broader goals of the strategy.

By adopting these strategic initiatives, the Faculty of Physical Education at Port Said University will contribute to the protection and preservation of the Suez Canal's aquatic biodiversity. The combination of Sustainable Urban Drainage Systems (SUDS), vegetative buffer zones, regular water quality monitoring, and community engagement will enhance sustainability on campus while minimizing harmful environmental impacts. This comprehensive watershed management approach will ensure that the Faculty remains a responsible steward of the local ecosystem, promoting long-term ecological health and resilience.

