

# When the stakes are high: Water Engineering and Global Diplomacy for Sustainable Cities

## Decentralized Sanitation, Recycling and Zero-waste concepts Summer School

18-28 June 2019 | Piran, Slovenia

### Concept Note



#### Date and place

18-28 June 2019

Marine Biology Institute, Piran, Slovenia, situated in a water-scarce, karstic area

#### Main Partners

Global Water Partnership Central and Eastern Europe (GWP CEE), University of Ljubljana (UL), Zurich University of Applied Sciences (ZHAW) and COST Action Circular City

#### Introduction

In July 2018, the UN's High-Level Political Forum concluded that the world is off-track to meet the Sustainable Development Goal on water and sanitation (SDG 6). Billions of people worldwide continue to lack access to safe drinking water and basic sanitation, water scarcity is increasing, water quality is decreasing, water ecosystems are under threat, and climate change intensifies these trends.

This requires to “rethink” water, on how it is used and managed, on how innovative technological and governance processes along with the introduction of holistic and integrated approaches, can contribute to a transformational change at all levels. Water management education today needs a better understanding of multi-disciplinary aspects of water governance. This is what the Summer School is aiming for through the collaboration of GWP partners, and leading universities in the region, the UL and ZHAW, benefiting from their respective experience in managing water resources.

#### Program

The Summer Schools, which GWP CEE organizes with partners that are leaders in their field, provide a multi-layered program aiming to bridge theoretical knowledge, practical issues and links to policies in

water resource management at the example of a concrete case study. This year, the focus is on concepts for ecological water management in water-scarce areas. The topics include socio-economical, technical, environmental and health risk aspects of decentralized wastewater treatment systems, ecological sanitation methods, integrated water resources management, water governance processes, their conceptualization and first steps towards their practical implementation.

Increasing urban development in touristic areas, resource consumption, climate change and on the other hand the demand for transition to a low carbon society are a challenge. Mastering it will only be possible with enhanced flexibility of the urban environment, more sustainable use of resources (including wastewater re-use), as well as the adaptation of infrastructure systems to recent and predicted changes. Re-use of resources (water, nutrients) by recycling wastewater results in “closing material flows”, which leads to the sustainable management of resources, especially in the tourist areas with high demands (resources, legislation) while addressing environmental and health risks. The course will offer practical knowledge and hands-on activities on wastewater recycling and reuse of treated water for fertigation of green areas or for non-potable applications within tourist facilities.

All these topics will be explored in the context of international water governance and policies, which will bring the global perspective to the region. The course will provide the participants with an overview of the links between global, regional and national strategies and how planning at national and regional level is informed by the latest analyses and processes on global level. Selected case studies on the application of integrated water resources management, as well as practical exercises will contribute to the better understanding of multi-disciplinary aspects of water governance such as legal issues, participatory approaches, and conflict resolution techniques.

The students will have the opportunity to join the GWP Summer School alumni group. It is an interactive platform, where they can participate in current debates, search for opportunities and ask for advice from professors, practitioners, experts and youth advocates

### **Lecturers**

The lecturers from the Zurich University of applied Sciences (ZHAW), the University of Ljubljana, University of Wageningen and University of Girona, as well as practitioners and experts from the Global Water Partnership and other international organizations will provide the students with valuable insights into the main topics.

### **Methodology**

The summer school will follow the concept of Problem Based Learning (PBL). After the first 2 days, the participants will be divided into 2 groups: Group 1 will focus on social-economic issues, and Group 2 - on technology issues. During the second week the groups will be re-arranged to mix the students with both foci in transdisciplinary groups.

### **Credits**

After the successful completion of the course, the participants will receive 4 ECTS. Students can transfer their ECTS credits from one university to another. One ECTS corresponds to 25 to 30 hours of total student work. The certificate for ECTS will be issued jointly by UL and ZHAW.