

D 5.3.13: Demonstration

Partner: University of Lodz

Partner number: 15

The major goal of the Demonstration Project is to demonstrate application of ecohydrology application as an integral and essential part of the sustainable Integrated Urban Water Management in Lodz. Demonstration activities and implementation take place in two pilot areas, with the following overall goals:

Project 1: Sokolowka river: Restoration of a municipal river for stormwater management, increase of water retentiveness and improvement of quality of life;

Project 2: Ner River: Sewage system management for environment quality and positive socio-economic feedbacks.

In 2007, the following activities were conducted:

1. First stage of the construction of the Zabieniec reservoir on the Sokolowka River- Project documentary;

The design of the reservoir started in 2005. The technical documentation in progress – 90% of the task has been completed so far – and it will be terminated by March 2008. A formal decision regarding the location of the reservoir has been made and the construction work will start in 2008, on schedule. More information is included in the attached report (DEMO_LODZ_2007_M13-24_Zabieniec Reservoir_FINAL, and available at: <http://switchlodz.wordpress.com/implementation/>).

2. The development of a protective vegetation belt around the Teresa reservoir (The Sokolowka river revitalization Project);

The construction of the Teresa reservoir was finalized within the first year of the SWITCH Project implementation (2006). The activities in 2007 focused on the development of a vegetation belt around the reservoir's banks, for water quality improvement. The first stage of the implementation has been completed. This year will further continue the implementation and testing. More information is included in the attached report (DEMO_LODZ__2007_M13-24_Vegetation belt_FINAL, and available at: <http://switchlodz.wordpress.com/implementation/>).

3. Hydrological monitoring of the Sokolowka river: Final installation of the online – monitoring system for research, education and demonstration

Installation of the online monitoring system is essential for the full monitoring of the meteorological parameters, Sokolowka river water flow and stormwater loading, for ecohydrological monitoring, development of water quality improvement strategies and flood protection. The technical documentation collection for the automatic online monitoring stations equipment was completed in 2007. Three flow meters (Isco 2150 Area Velocity Flow Module) were installed for automatic online hydrological monitoring.

The installation of the following equipment will continue in 2008 (III-IV): 1. Isco 6712 Full-size Portable Sampler; 2. YSI 600 - SDI-12 compatible Sonde for for automatic on line

physical monitoring stations (temperature, oxygen, concentration, pH and conductivity); 3. Automatic online climate monitoring station. The task has been completed in 40%. Delay due to long-lasting administrative procedures.

4. Tree stock-taking in the Sokolowka river-valley between Zgierska street and Wlokniarzy avenue, which served as the basis for the creation of the Sokolowka Valley Park, its landscape design and the layout of the park alleys.

The stock-taking of trees conducted by the University of Lodz was conducted as the preliminary studies for the establishment of the Sokolowka Park.

The work has been completed. The next tasks will be developed in 2008-2010. The attached report provides summary report of this task (DEMO_LODZ_2007_M13-24_Sokolowka Park summary report_FINAL, and available at: <http://switchlodz.wordpress.com/implementation/>).

5. Establishment of new areas and exploitation of the existing plots of the experimental willow plantation in the protective zone of the Waste Water Treatment Plant (The Ner river Project)

The aim of the demonstration and implementation activities in the Ner river is to show the alternative ways of the sewage treatment plant management in urban areas, by sewage sludge utilization on an experimental energetic willows plantations and converting nutrients and pollutants into biomass and bioenergy. The planned activities in 2007 were to plant new willow patches and harvest the biomass from the existing plantation (sequential cutting) and were completed. More information is included in the attached report (DEMO_LODZ_2007_M13-24_Willow plantations_FINAL, and available at: <http://switchlodz.wordpress.com/implementation/>).

6. Development of a project of the information brochure for the promotion and successful replication of the Sokolowka river demonstration activities;

The whole set of the brochures will include 9 parts, describing different the Lodz rivers and its tributaries. The Sokolowka river brochure will include information about the results and benefits of the ecohydrology application within the SWITCH project. The brochure project will be finalised in March 2008, and published by the end of the year. The draft project of the brochure is attached (Sokolowka brochure_page1, Sokolowka brochure_page2, and available at: <http://switchlodz.wordpress.com/implementation/>).