

## O2 - Best Practice Data Sheet

People and Water NGO, Slovakia

e-mail : [danka.kravcikova@gmail.com](mailto:danka.kravcikova@gmail.com), phone:00421 908 322 135, [www.ludiaavoda.sk](http://www.ludiaavoda.sk)

**Name of the Project:** KOŠICE WATER PROTOCOL – ecosystem restoration of damage urban landscape in Košice

**Carrier of the Project:** Košice City

**Country:** Slovakia / Košice

**Contact:** Košice City Hall, [www.kosice.sk](http://www.kosice.sk)

**Duration:** study and construction from 2005-2007



**Reference:**

<https://static.kosice.sk/s/15acf68da6f00a9acb044>

<http://www.waterparadigm.org/download/KosickyProtokol.pdf>

### **Origin and Context of the Project**

On 24 February 2005, Košice City Council approved the Košice Protocol for Water in the 21st century as a strategic document for the protection of water in Košice agglomeration as a prevention of floods, drought and climate change.

The aim of the Protocol was to enforce the retention of rainwater directly in urban landscape, thereby restoring damaged ecosystems into healthy climate.

Following the approval of the Protocol by Košice Parliament, pilot projects were launched to demonstrate the effectiveness of the solution, the impact on water, ecosystems and the climate. Projects carried out in 2005 and 2006 confirm that damaged ecosystems can be regenerated, if rainwater remains in them.





The idea was to retain rainwater and create appropriate humidity conditions for optimal growth of new vegetation.

Infiltration strips were installed perpendicularly to erosive grooves on the site with an area of three hectares, these can hold about 300 m<sup>3</sup> of rainwater at one time. The project was implemented in November 2005. In the first years, the strips were regularly filled with rainwater, which soaked in and subsequently evaporated.

Gradually, vegetation was restored on the site, its species diversity took over the function of rainwater retention.

We estimate that over the period of 13 years since 2006, more than 60,000 m<sup>3</sup> of rainwater has been retained in the revitalized ecosystem. In the past, this water was just drained without use and, moreover, it damaged the ecosystem by intense erosion. Now rainwater remains in the locality and the dominant part of this water turns into the vapor.

This means that in a hot summer, about 200 m<sup>3</sup> of water, which previously threatened the tennis courts with water and mud erosion, evaporates from the site every day. We estimate that the temperature in the location is permanently lower by about 2 degrees due to increased evaporation.

The idea of the impact of rainwater retention in ecosystems on restoration processes is very interesting and brings several inspirational solutions to methodically manage soil protection against erosion, how to protect water in the ecosystem, how to reinforce slope stability by overgrowing soil horizon by root systems, if there are appropriate ecosystem conditions for the growth of vegetation, and also how to create growth of diverse vegetation in the city.

The innovative idea of the project lies in the restoration of dry landscape, erosion-damaged ecosystems, by retention of rainwater, how to influence the quality of meadow vegetation, its diversity and the diversity of its species.



Photo: Michal Kravčik