

Cost-benefit analysis case study visit: Lahti

Time: 12 December 2013

Place: Lahti, Finland

Natural storm water management in Lahti is one of the five case studies in the CITYWATER cost-benefit analysis study. Project experts **Ms. Eliisa Punttila** and **Ms. Kajsa Rosqvist** participated from the City of Helsinki.

The visit to Lahti, located about 100 km north-east from Helsinki, was made to learn more about their constructed storm water wetlands. Two storm water management systems were built up in a new residential area in Karisto, Lahti in 2006-2008. Both systems consist of a sedimentation bond and a wetland area. Systems retain and purify the water before it flows into lake Kymijärvi, and they have also recreational functions.



Photo 1. Wetland part of the Kivipuro storm water system

The visit began with lunch together with environmental director **Mr. Kari Porra**, head of water protection, **Mr. Ismo Malin** and project coordinator **Ms. Taru Hämäläinen** from the City of Lahti. We discussed about storm water management in the city of Lahti and learned that they have long experience in urban storm water management. After the lunch we continued the visit at Technical and Environmental Services in the meeting room. Planning architect **Ms. Päivi Airas** who has involved in planning the Karisto area joined in our meeting. Kajsa Rosqvist presented the Life+ CITYWATER project and Eliisa Punttila introduced the cost-benefit analysis. Then we discussed about the open questions concerning the case study of the constructed wetlands in Karisto, for example the potential positive and negative impacts related to the wetlands, estimating the nutrient load from existing sample data and the current state of Lake Kymijärvi. Discussion about the wetlands continued after the meeting on site where Ismo Malin and Taru Hämäläinen introduced the wetlands and the Karisto area.



Photo 2. Sedimentation pond of the Rantakylä storm water system

The visit included an excursion to see the constructed storm water wetlands in a new residential area Karisto, which is located on the coast of Lake Kymijärvi. There is two constructed wetlands in Karisto, and we went to see both. Kivipuro wetland (Picture 1) consists of a sedimentation pond and a wetland area and smaller Rantakylä wetland consists of a sedimentation pond and a wetland area which consists of small ditches (Picture 2). We are used to see storm water management systems as green, as they are in the summer in Finland, but now we experienced how they look like during the winter when they are covered under snow.

Text and photos: Eliisa Punttila