



KALMAR, SWEDEN

MAKING CENTRAL KALMAR SUITABLE TO SWIM

THREE MOMENT partners are working intensely with storm water solutions. In this newsletter, we want to inform you about the process we are making in this part of the project.

Kalmar is a city built on a series of islands at the Baltic Sea coast and that is one of the reasons its attractiveness is largely dependent on the quality of the water in the sound and the sea. The most important water bodies in the city are Malm bay, Fredriksskans canal and the Systra stream among with the many small fjords. The water quality has been relatively poor, partially because of sedimentation and therefore reduced flushing of the bays. Nutrients and pollution have to a large extent been flushed out to the water by the storm water system. Improving the water quality in one of the major bays is one of the tasks within MOMENT.

A new technique

The plan for restoring the bay and making it safe and suitable to swim will be realised by testing a new technique. The technique will focus on a cost effective and gentle way to remove the sediment as well as on the possibility to reduce the income of new sediment and water removal from sediment in situ. Dewatering on site has the big advantage of reducing transport costs but working in the heart of the city, the installation is not allowed to cause any nuisance or disturbance. The idea is to use the sediment as soil improving material on arable land or for the production of biogas.

At the same time, Kalmar Water as another partner in the MOMENT project for Kalmar city is working with innovative techniques for the treatment of storm water. The goal is to clean the stormwater from pollution before it reaches the bays or canals in the city. The outcome of this pilot project should be able to inspire large scale investments in storm water treatment in urban areas.

Results

The dewatering of the sediment shows good results in the lab. A study visit was organised to the Odensviholm farm where manure is dewatered by centrifugation instead of pressure. The company Teknikmarknad has assisted the municipality to do some minor dredging, showing a reduced impact of this technique. The municipality has sent in an environmental impact assessment of the project to the Regional County Administration who in its turn approved the environmental permission for the project.

Vision

The municipality of Kalmar wants to have clean and clear bays and water bodies in the city centre to invite people to swim and fish. The idea is to bring the water as close as possible to the people. To realise this vision, a lot of effort and new techniques will be necessary in order to reach the water quality standard needed for recreation and people enjoying being around and in the water.



STORM WATER MODELLING FOR SYSTRASTRÖMMEN IN KALMAR

Kalmar Water has made modeling of the drainage area to find the most polluted sub-catchments in Systraströmmen and taken two sets of samples of stormwater at six selected sites to calibrate and validate the results of the modeling. The results will be used to decide suitable places for pilot measures. The measures are now being decided and we are planning for permit applications to construct devices. The Linnaeus University is also involved in the project with the objective to find a suitable pilot site to test new filter materials for stormwater treatment.

In cooperation between seven regions in four countries around the South Baltic Sea area the project MOMENT aims at reducing the outflow of nutrients and hazardous substances by modern water management. This includes the establishment of Water User Partnerships allowing a "bottom up" approach starting at a local level and working within river basins letting the water set its own independent borders. The project is co-financed by the South Baltic cross-border programme 2007-2013 and runs from September 2009 until August 2012.

SHORT UPDATE ON THE DISSEMINATION MEETING IN KALININGRAD, RUSSIA



The first day of the dissemination meeting in Kaliningrad was dedicated to an exchange of international, national, regional and local experiences with water management. Speakers from all participating countries and all pilot areas presented the state of the art of their water bodies, described the environmental problems they were facing and the pilot area coordinators described the ongoing work with the Water Users Partnerships and the concrete investments to be made. Moreover, some external guest like Ms Ulla-Britt Fallenius from the Swedish Environmental Protection Agency described the work done in the Russ-NIP project. The first conference day ended with a panel debate with representatives from the different participating countries.

During the second day, a field visit brought the group to many interesting places in the region like the rural settlement Divnoe, the Baltijsk's city wastewater treatment plant, the wastewater treatment plant of settlement Kosa and the Vistula Lagoon. Please find more information under publication and events on the MOMENT website.

THE FINAL CONFERENCE AND 5TH ERB WATER FORUM

We hereby would like to invite all to the Final Conference of the MOMENT project, held in Kalmar, Sweden, the 27th and 28th of November 2012. More information and practical details will be communicated soon but you can of course already book these days in in your calendar.

THE PONDS OF HAGBYGÄRDE

Kalmar Water has created a set of ponds to reduce the concentration of heavy metals and nutrients in storm water effluent. Because of the increased volumes of storm water linked to this ditch during the development of the Hansa City area, the need for water treatment became even more acute.

Even though some modifications will be made to the construction in the future, an initial complex of three ponds will be monitored to assess the effectiveness of the water treatment for metals and nutrients.

It is expected that the ponds need to be dredged every ten years to take out (polluted) sediment.



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