

# Dredged Materials in DiKE Construction

Implementation in the South Baltic Region using Geosynthetics and Soil Improvement

## Editorial

This is the sixth newsletter of the DredgDikes project. 2014 started busy with the organisation of the two project conferences in Rostock and Gdansk and the planning for the field experiments to be performed in spring 2014. The construction of the pilot dike paused during the winter months due to high water levels in the K rkwitzer Bach but will be resumed shortly. Detailed information about all activities can be found on the project web site [www.dredgdikes.eu](http://www.dredgdikes.eu).

## Conference Updates

### South Baltic Conference on Dredged Materials in DiKE Construction

The date for the *Rostock* conference is getting closer. There will be 20 oral presentations and additional poster presentations from Poland, Germany, Sweden, Finland, France, UK, Belgium and the Netherlands. Also, there will be a small exhibition area. Registration is still open and interested people are very welcome to register to the conference. An online registration tool is available on the web-site [dredgdikesconf.auf.uni-rostock.de](http://dredgdikesconf.auf.uni-rostock.de). The conference will have a strong focus on dredged materials to be used in geotechnical applications, particularly dike constructions, and will be held *10-11 April 2014* in the Yachthafen Residenz Hohe D ne, directly at the seaside and very close the Rostock test dike facility. An excursion to the research dike is included in the conference programme where ongoing experiments will be shown to the audience.

### South Baltic Conference on New Technologies and Recent Developments in Flood Protection

In *Gdansk* the conference with a wider focus on modern flood protection technologies, including the use of dredged materials and CCP composite materials in dike constructions, will be held *5-6 June 2014* at Gdansk University of Technology. Online registration is now open using the web-site [www.dredgdikes.org.pl/](http://www.dredgdikes.org.pl/). Presently 19 oral presentations are planned on the topics *Materials and Technologies*, *Modelling and Monitoring* and *Legal and Administrative Issues*.

Both conferences are designed to inform researchers, planners, authorities and state agencies, companies and the public about the findings of the DredgDikes project as well as associated research and development projects. Therefore, there will be *simultaneous translation* on both conferences to give the local people the possibility to follow the presentations, which will be held in English.



## DredgDikes Application in the 3rd Mini-Call of the South Baltic Programme Approved!

The DredgDikes consortium is happy to announce that the application for additional funding in the 3rd Mini-Call of the South Baltic Programme was approved. The additional tasks for which the funding was applied are mainly connected to component 2 (dissemination), component 3 (field and laboratory testing) and component 5 (guideline).



Fig. 1: German research dike - summer 2013

In component 2 additional publications and conference presentations are planned to disseminate the project findings. For the two project conferences the simultaneous translation of the English presentations into German (Rostock) and Polish (Gdansk) can now be realised.

In component 3 a number of field and laboratory vegetation tests will be performed based on the findings from the dike greening in Rostock. Also, a number of sediment samples from Denmark will be analysed regarding their applicability in dike construction. Also, an additional installation test for

the Rostock dredged materials will be performed based on the knowledge gained so far.

In component 5 a study will be produced which will contain information about the legal background of dredged materials and dike construction in Denmark as well as the perspectives to use dredged materials in Danish dike construction. This information will be added to the best practice guideline.

## DredgDikes Welcomes New Associated Partner: Danish Coastal Authority

The DredgDikes consortium welcomes the Danish Coastal Authority (DCA) as new associated partner in the project. DCA is the official coastal and port government agency – a division of the Danish Ministry of Environment. DCA manages the governmental interests of ports and the socioeconomic interests within the field of coastal protection. Regulatory tasks concerning coastal protection, ports and the state territorial waters are carried out by the means of analyses, project planning, construction, operation, and warning and done in broad-based cooperation with many different parties all over Denmark. The DCA is located in Lemvig in Western Jutland. DCA is adviser for the Danish Minister for the Environment (formerly: Transport) and provides advice to other national and regional authorities, municipalities and the public. DCA will contribute to the DredgDikes project with respect to dissemination of project findings in Denmark. They are also actively supporting the lead beneficiary in the procurement procedure for the project tasks that are planned to take place in Denmark and contribute to the discussion of the project findings. The associated partnership of DCA is of high value to the DredgDikes project, adding Danish knowledge to the findings in Poland and Germany.





## Pilot Dike Construction Paused due to High Water Levels of the Körkwitzer Bach

Since Christmas 2013 the works at the pilot dike construction site have been suspended. The works will be resumed in March to be finished in April 2014. In the beginning of 2014 continuous north-east winds lead to high water levels in the inner coastal water „Saaler Bodden“ into which the Körkwitzer Bach flows. This caused backwater with high water level in the stream - a general problem that will also

## Planned Activities at the Research Dikes in Rostock and Gdansk

In the first half of 2014 the next set of experiments will be performed on the DredgDikes research dikes. The instrumentation of the Rostock dike has been reorganised recently based on the knowledge gained in the previous experiments and numerical analysis. Seepage tests will be performed in April and additionally, the second set of overflowing experiments will be performed in May. There will be



Fig. 2: Flood at the pilot dike construction site - Jan 2014



Fig. 3: Frozen pilot dike construction site - Feb 2014

be addressed by the dike reconstruction. During the long period of high water levels frost came to the north-east of Germany, resulting in an ice cover of the whole construction site. Presently the good weather conditions help to drain the site so that the works can be resumed shortly. After finalisation of the construction the instrumentation will be installed and a site visit will be organised for the interested public.

the possibility to visit the experiments in the frame of organised excursions. Also in Gdansk the seepage tests will be continued. In the summer, there will be joint actions of the University of Rostock and Gdansk University of Technology to perform overflowing tests on the Gdansk research dike. Based on the experimental results and additional numerical modelling best practices will be derived to be concluded in the DredgDikes guideline document.



## DredgDikes will be Presented on a Variety of Events and Conferences in 2014

- 10-11 April South Baltic Conference on Dredged Materials in DiKE Construction, Rostock
- 24 April BWK-Küstentag, Heiligendamm
- 21-23 May HTG-Congress, Berlin
- 5-6 June South Baltic Conference on New Technologies and Recent Developments in Flood Protection, Gdansk
- 14-19 Sept 60<sup>th</sup> Scientific Conference of Committee of Civil Engineering and Hydroengineering, Polish Academy of Sciences
- 21-25 Sept 10ICG - 10<sup>th</sup> International Conference on Geosynthetics, Berlin
- 24-25 Sept 8. Rostocker Baggergutseminar, Rostock
- 10-14 Nov 7th International Congress on Environmental Geotechnics, Melbourne

## DredgDikes Project Events Organised in 2014

- 10-11 April: South Baltic Conference on Dredged Materials in DiKE Construction, Rostock
- May: Open day on the Rostock research dike during overflowing experiments (to be dated)
- May: Site visit to the Pilot DiKE Construction (to be dated)
- 5-6 June: South Baltic Conference on New Technologies and Recent Developments in Flood Protection, Gdansk
- July: Site visit to the Gdansk research dike during overflowing experiments (to be dated)
- Oct/Nov: Fact finding workshop to develop follow-up projects

## Imprint

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