



PUHDAS ITÄMERI JOHN NURMISEN SÄÄTIÖ

## Fund Report

2/2011 (1 December 2011)

Status as of 30 September 2011	€
<b>Donations</b>	7.2 million euros
<b>Expenditure</b>	4.7 million euros
<b>Commitments</b>	2.4 million euros

### Clean Baltic Sea projects in brief

The Clean Baltic Sea projects focus on two areas of operation: projects preventing the eutrophication of the Baltic Sea, and the project promoting the safety of oil tanker traffic in the Gulf of Finland. The eutrophication projects are managed by Marjukka Porvari, and the Tanker Safety project by Pekka Laaksonen. All in all, the projects and their support activities employ eight people, three of them part-time.

The target of the eutrophication projects is to reduce the annual phosphorus load to the Baltic Sea by a total of 2,500 tonnes. The efficiency of phosphorus removal in wastewater treatment plants is improved at the project targets so that wastewater leaving the treatment plants will have a maximum phosphorus content of 0.5 mg per litre. The Tanker Safety project aims at reducing the risk of oil tanker accidents in the Gulf of Finland through the introduction of the ENSI navigation service.

### Fundraising

The Clean Baltic Sea projects are funded entirely with donations. Currently, funds are being raised for the annual reduction of a further 400-500 tonnes of phosphorus that are still missing from the 2,500 tonne target of the eutrophication projects. Commitments, i.e. funds reserved for ongoing projects, amount to EUR 2.4 million, an amount that may still grow if project schedules are moved back.

Last spring, Ålandsbanken donated €51,000 of its Nature Account Bonus to the Clean Baltic Sea projects. During the summer, the projects also received several notable anniversary donations. In July, Kuusakoski Oy became a main supporter of the Clean Baltic Sea projects.

The Clean Baltic Sea projects and, specifically, the project completed at the St. Petersburg water treatment plants were highlighted during the summer in the marketing campaign implemented with Sanoma Magazines' publications and the Nelonen TV channel. In late August, project status and fundraising activities were presented at Club Itämeri, an event for partners and supporters organised at Nokia House.

### Eutrophication projects

Clean Baltic Sea eutrophication projects are currently underway in five countries and seventeen cities. Their combined effort will reduce the annual phosphorus load entering the Baltic Sea by approximately 2,000 tonnes.

The Foundation's St. Petersburg project is now complete. Chemical phosphorus removal equipment acquisitions for the Northern water treatment plant and related construction and installation works were completed in June 2011, resulting in all three major water treatment plants being now within the scope of

improved phosphorus removal. The improved phosphorus removal of community wastewaters in St. Petersburg reduces the phosphorus load of the Gulf of Finland by more than 1,000 tonnes annually.

The Foundation is in charge of drawing up technical plans for the town of Gatchina, in the vicinity of St. Petersburg, that would enable the implementation of improved phosphorus removal there in 2012-2013. According to plans, the John Nurminen Foundation will take care of equipment acquisition costs for improved phosphorus removal while the water utility will be responsible for related construction and installation costs. The project will reduce phosphorus loads entering the Gulf of Finland by 60 tonnes.

The phosphorus removal test runs initiated in the autumn of 2010 in cooperation with the Finnish Ministry of the Environment and Kemira are now complete. Chemical test runs demonstrated that chemical phosphorus removal is, on its own, an unsustainable solution for Vyborg. A combination of chemical and biological phosphorus removal is therefore recommended for Vyborg. The inclusion of biological phosphorus removal alongside chemical removal eliminates the pH problems related to chemical removal, and reduces the need for chemicals as well as total cost of ownership. The adjusted cost estimate is approximately €200,000 higher than the original estimate. In the summer of 2011, plans for a permanent biological/chemical phosphorus removal system were drawn up. The target is to complete all installation and construction work in 2012-2013. In Vyborg, too, the Foundation is responsible for equipment procurement while the plant takes care of installation and construction costs. Improved phosphorus removal at the Vyborg water treatment plant will reduce phosphorus loads entering the Eastern Gulf of Finland by 20 tonnes. Vyborg is not on a par with the other projects in terms of cost efficiency. It is, however, a special case, as the emissions from Vyborg are discharged directly to the territorial waters of Finland.

The John Nurminen Foundation is in charge of technical surveys and phosphorus removal investments related to the PURE project (Project on Urban Reduction of Eutrophication), coordinated by the Union of the Baltic Cities (UBC). The project is carried out with the support of EU's Baltic Sea Region Programme, and it will improve the efficiency of phosphorus removal in Belarus, Poland, Latvia and Estonia. In early 2011, equipment boosting the efficiency of phosphorus removal and sludge management was delivered to the Riga wastewater treatment plant. In addition to the PURE project, more efficient phosphorus removal in Riga will be promoted with direct support from the John Nurminen Foundation. On the basis of the technical surveys conducted by the PURE project, Jurmala in Latvia and Brest in Belarus will invest in improved phosphorus removal during 2011-2012. These projects will result in a total reduction of 300–500 tonnes of phosphorus.

In June 2011, EU's Baltic Sea Region Programme granted funding for the Foundation's second EU-funded project, PRESTO. The project makes investments to improved nutrient removal in the four Belarusian cities of Grodno, Vitebsk, Molodechno and Baranovichi. The project also includes an extensive training programme on wastewater nutrient removal. The training programme will be participated by all Belarusian wastewater treatment plants in the Baltic Sea catchment area, all universities training engineers, and various planning institutions. The project is co-ordinated by the Union of the Baltic Cities (UBC), and the training is implemented by TU Berlin.

### **Tanker Safety project**

The target of the Tanker Safety project is to improve maritime safety in the Gulf of Finland, and to reduce the risk of oil spill accidents through the creation and deployment of the ENSI navigation service (Enhanced Navigation Support Information). The service will improve communications between vessels and vessel traffic control, enabling forecasting vessel traffic management. Tankers, on the other hand, will be able to obtain navigation information through the ENSI portal. The Finnish Transport Agency is the project's main partner.

In the spring of 2010, the ENSI portal bidding competition documents were finalised. The actual bidding competition took place in the summer. Implementation of the portal is moving ahead according to the plans of the Finnish Transport Agency, and we look set to begin test use in the summer of 2012.

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