

# Recycling of housing sewage for agricultural purposes

**Project:** Recirculation of nutrients from small-scaled treatment plants

**Project owner:** Telge Nät AB, Sweden

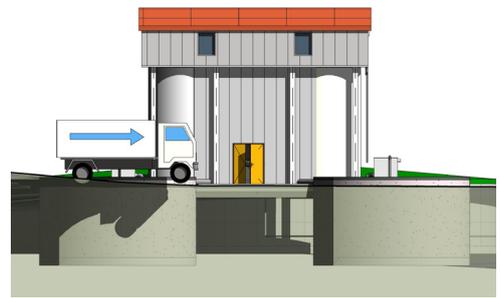
**Duration:** January 2012–March 2013

**Year of BSAP funding:** 2011

**Approximate total budget:** SEK 8.1 million

**BSAP funding:** SEK 3.5 million

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**A local treatment facility is to be established for the collection and treatment of organic waste and wastewater in a sensitive rural area in Södertälje, Sweden. The treatment facility will provide recycling of nutrients in order to create valuable fertiliser.**

The establishment of recyclable sewage systems for individual sewage creates a positive environmental impact as the nutrient emissions, primarily from Stavbofjärden and its catchment area, will be reduced. The facility is planned to be constructed in the spring of 2012, with a capacity of between 500 and 700 households.

The project is in line with the Swedish Government's targets to recycle 60% of the phosphorus from sewage to productive

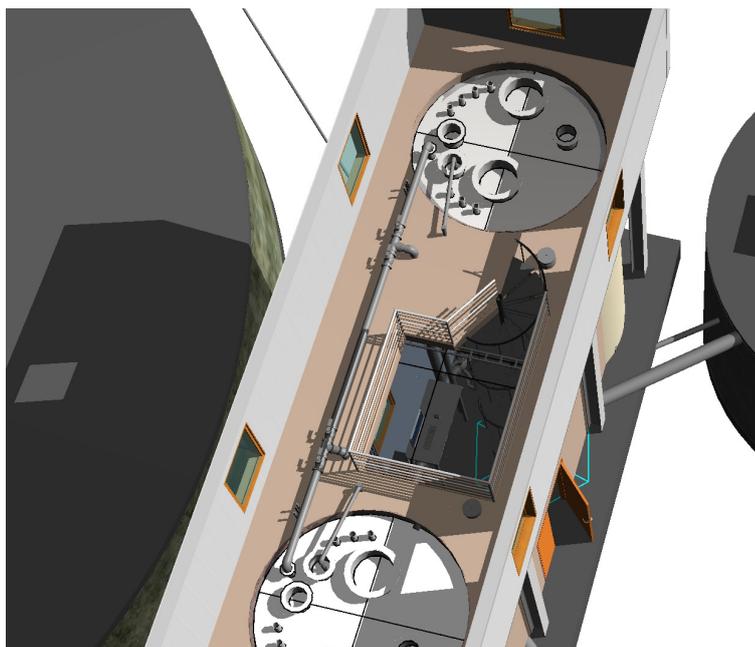
agricultural land by 2015 and the environmental wording on resource conservation and recycling.

In a pilot area, the project will demonstrate the use of new technology for recycling nutrients from scattered households and small settlements into valuable manure acceptable by the local farming community. The pilot project has large demonstration potential and can be applied elsewhere in countryside and urban areas.

The establishment of recyclable sewage systems for individual sewers has a positive impact on the social and rural development as areas that previously could not be developed, due to a restrictive water and wastewater sewer situation, can now be opened up for settlement. In comparison to the costs of deploying municipal water and sewage system, this local treatment of source separated blackwater is very economical.

This project puts Telge Nät and the municipality of Södertälje at the forefront regarding existing individual sewers. The project has attracted considerable international interest. It is also in line with Telge's economic, social and environmental sustainability work, which goes under the name Telgemodellen.

With its innovative and unique treatment facility, the project aims to lead the development and optimisation of technology for recyclable sewage systems for individual sewers. The project, developed in collaboration with Swedish Agricultural University (SLU) in Uppsala, uses an innovative process, known as the "Combined Method", for the sanitisation of wet compost and urea hygienisation. This method meets the requirements for sanitation set in the action plan for the recycling of phosphorus by the Swedish Environmental Protection Agency (EPA). The method means that treatment of substrates with low dry matter (DM) content can be achieved and additional substrates to increase the DM content is not needed, which will increase the capacity of the plant and improve transport logistics.



## Baltic Sea Action Plan Fund

The BSAP Fund is a fund managed by the Nordic Investment Bank (NIB) and the Nordic Environment Finance Corporation (NEFCO). The fund provides grants for technical assistance to projects that support the implementation of the HELCOM Baltic Sea Action Plan (BSAP). The aim of the BSAP is to help restore the ecological status of the Baltic Sea.

Recipients eligible for financing through the BSAP Fund include both public and private entities operating in the agricultural and wastewater treatment sectors, shipping and ports, as well as those working to reduce hazardous waste in the Baltic Sea catchment area. A key purpose of the fund is to facilitate and speed up the preparation of bankable projects. The fund provides grant financing for the following:

- Project preparation and development, including feasibility studies, development of business ideas, and cash-flow models
- Technical assistance for institutional support, that is, training and support needed for project preparation, development and implementation
- Measures that improve efficiency and quality in project implementation (e.g., the acquisition of equipment for demonstration purposes).

Sweden has committed SEK 90 million (EUR 9 million) to the BSAP Fund and Finland EUR 2 million.

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