

WATER REUSE IN KALMAR

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Abstract

Conventional water and drainage system provide people with clean water and sewer, and protect surface water against eutrophication. Today, essentially all of the water used in Swedish society is water of drinking water quality according to the Swedish Food Administration's regulations. As the water and drainage system works today, it consumes energy, chemicals and other resources at a level that hardly can be considered sustainable. Water of drinking water quality is used as flushing water in our toilets, for washing cars, facades, workshop floors, patios, lawn irrigation and many other uses. Drought in the Kalmar / Öland region in 2016, and even declining groundwater levels in 2017, has put the development of a sustainable water and drainage system in Kalmar on the agenda. A sustainable water and drainage system is not just about how drinking water is produced and how wastewater and storm water are treated, but also about how water resources are used in a cost-effective and environmentally sustainable manner. This project will contribute to the development of a more sustainable water and drainage system in Sweden.

The purpose of the project is to investigate legal, economic, technical, environmental and health conditions for water reuse in Sweden with a big focus on end-users' needs. The following reuse areas will be explored: potable reuse, non-potable urban reuse, industrial reuse, and reuse in irrigation for agriculture and landscapes. The project will show the best reuse areas in Kalmar from an environmental and cost-effective perspective.

Keywords: drinking water, drainage system, wastewater