HYDROFLUX epco

INT: +61 2 9089 8833 **Toll Free:** 1300 417 697
Level 26, 44 Market Street Sydney, NSW 2000
Email: info@hydrofluxepco.com.au

RECOLAB: WORLD'S LARGEST SOURCE - SEPERATED SANITATION PLANT IN SWEDEN

CASE STUDY

Agent for: NX filtration

THE CLIENT'S NEEDS

The City of Helsingborg pioneers an energy-efficient, circular sanitation process that source-separates blackwater, greywater and food waste through separate pipelines to recover nutrients, produce biogas and recycle wastewater to drinking water quality. They were looking for a solution to remove micropollutants and nutrients.

OUR SOLUTION

We applied our dNF40 nanofiltration membranes for the removal of micropollutants (amongst others pharmaceuticals, estrogens, micro plastics, antibiotics, and personal care products) from the wastewater after conventional activated sludge treatment to recover water of drinking quality. For this project, NX Filtration partnered with DeSaH (process design) and Jotem (membrane skid).

OUTCOME

The project sets the standard for sustainable, circular water and waste management at a local level. Treated effluent passes through our direct nanofiltration system that removes micropollutants and nutrients which are then sent to a factory to produce fertiliser pellets and treated water is directed to a nearby swimming pool. By producing biogas and fertiliser, and recucling 80% of greywater to potable standrad, the project contributes to lower eutrophication, increased renewable energy output and lower water consumption. The plant also provides a model for a collaborative approach to domestic waste management between water, waste water and energy utilities that maximises environmental sustainability.