

Svenska erfarenheter av minireningsverk,

Maria Hübinette, Länsstyrelsen Västra Götalands län.

Small wastewater treatment plants appear in many models, manufactured by several companies. This means difficulties in deciding which facilities the customer should choose and which the local authorities should permit because it's unknown whether the facilities that are used today have a good function.

In 2008 the County administrative board of Västra Götalands län performed one of the most extensive investigations on small private wastewater treatment plants ever done in Sweden. This project aimed to investigate whether small private wastewater treatment plants, in this case small package plants, comply with the demands of the Swedish environmental laws and the Swedish environmental protection agency for the purification of wastewater. To reach this aim effluent water samples from a large number of small package plant models which are available on the Swedish market, was collected, analyzed for BOD₇, P, N and E. coli and evaluated due to purification efficiency.

The technique, where mechanical, chemical and biological reduction of pollutants is being used in the same facility, is presumed to be an efficient way of reducing nutrients in household wastewater. However, our project and several other projects in Finland and Norway have shown that the functions of private wastewater treatment units are in many cases insufficient. Not many of the plants give the reduction that is promised by the manufacturer.

Operation and maintenance of the plants are considered to be important issues and should be given much more attention.

The key issue is that the small package plants need more care than they usually get today. To prevent low purification efficiencies, regular service and supervision by a professional is needed. Lack of proper attention by service personnel seems to be part of the reason for unsatisfactory plant performance and the result of this will be faulty equipment, lack of chemicals, improper chemical dosage et cetera.