



SOURCE SEPARATION, THE FUTURE OF RESOURCE RECOVERY FROM SEWAGE

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ABSTRACT houses and three office buildings

Domestic sewage contains various resources, like nitrogen phosphorus, potassium, organic matter and water. Potassium and phosphorus and also several trace elements are finite resources, with limited global availability. The high dilution of conventionally collected sewage generally prevents the energy efficient recovery of these resources. Source separation based sanitation (“New Sanitation”) results in a highly concentrated Blackwater (BW) and relatively low polluted Grey Water (GW). A new concept for recovery of resources from BW and GW, with anaerobic treatment of BW in a UASB as the core technology, is being developed and already applied at four locations in the Netherlands, viz. a housing estate of 250 houses and three office buildings. Quantity and quality of recovered resources will be presented and costs discussed. New applications, in different parts of the Netherlands, elsewhere in Europe and in Canada are in preparation or under construction. At the same time improved concepts are under development, aiming at reduction of complexity and increased resource recovery and reuse in agriculture.