

Sewer Mining technology: a sustainable solution for urban recreation areas irrigation

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The performance of the compact sewer mining unit that is located in the EYDAP 's Research and Development Premises is discussed in this paper along with the prospect of this technology application to produce reclaimed water suitable for urban irrigation and fertilisers in remarkable recreation Athenian areas. A new pilot that applies this technology is currently located in the Athens urban tree nursery.

Sewer mining is a quite new decentralized treatment method that addresses the need for water at the point of demand. EYDAP's unit, comprising a membrane bioreactor (MBR) followed by an RO, extracts raw sewage directly from the sewer network, treats it on site and since 2017 produces water for irrigation in the surrounding area of R&D department. According to the Greek Legislation, the effluent quality is suitable for irrigation of urban recreation areas. The same technology applied in the Athens plant nursery integrates urban sewage treatment as well as UV disinfection and water reuse with the production of compost-based eco-engineering growing media for the tree nursery needs.

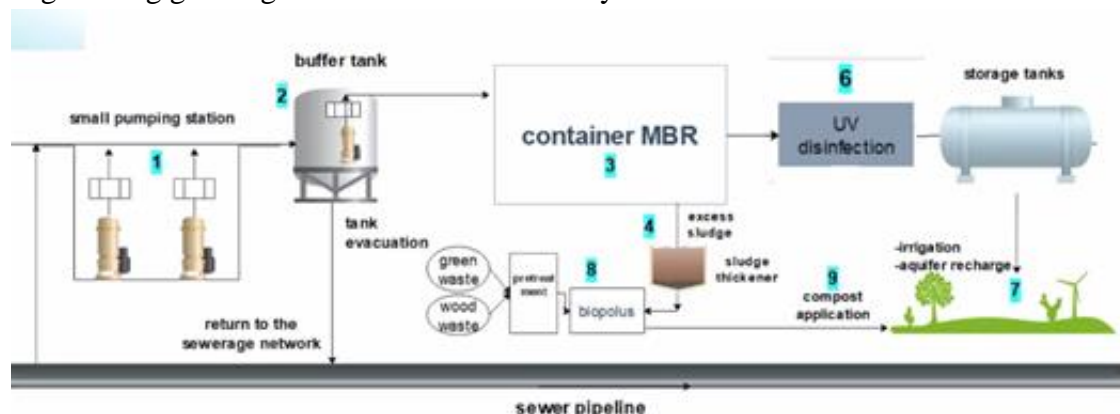


Figure 1: Flow diagram for water and material recovery system

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