The importance of an extended monitoring program and the WFD requirements

Cristina Santos, Alexandra Barreiros, Zélia Figueiredo, Ascensão Trancoso, Justina Catarino, Carla Garcia, Catarina Lopes

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SANEST – Saneamento da Costa do Estoril, S.A., is a public sanitation company that manages the Estoril Coast Wastewater Treatment System, located on the west coast of Lisbon, Portugal. This company collects and treats the sewage of four municipalities (Amadora, Cascais, Oeiras and Sintra) with an estimated 800 000 population equivalent, thus being one of the biggest sanitation companies in Portugal.

The Estoril Coast Wastewater Treatment System includes a treatment plant, located in Guia (Cascais), which discharges the effluent into the Atlantic Ocean through a long sea outfall, some 2800 m off the coast at a depth of 40 m.

A large monitoring program was implemented 16 years ago in order to survey the impact of the effluent disposal and includes measurements of physical, chemical, biological and microbiological properties in the effluent and in the receiving waters, these being accomplished by State Laboratories and Universities.

This monitoring program has been upgraded through the years to comply with updated national regulation aligned with the Water Framework Directive 2000/60/EC.

Indeed, Water Framework Directive (WFD) has been the tool for water management based on river basins, the natural geographical and hydrological unit. The WFD establishes a framework for the protection of inland surface waters, transitional waters, coastal waters and groundwater and aims at achieving *good water status* for all waters by 2015.

Although Member States are expected to adopt these measures and goals, SANEST has demonstrated a proactive behavior extending the monitoring program, by means of enlarging the number of parameters and improving new analytical methodologies. This action usefully contributes to accomplish WFD requirements.

The treatment plant is being upgraded to fulfil, by the end of 2009, an advanced primary treatment level that includes disinfection during the bathing season.

The aim of this work is to present the monitoring program, its suitability according to legal requirements, and reveal that the procedure carried out by this sanitation company does not adversely affect the environment.