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FECAL CONTAMINATION MODELING IN COASTAL WATERS USING A WEB SERVICE APPROACH

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Abstract

In the framework of the Lenvis project, a web service infrastructure able to provide professional users with field data and model results in real time was developed. One of the web services developed (web service model) executes a particle tracking model to simulate the dispersion of sewage discharges. This web service is comprised of a web client with multiple features. The client allows users to explore hydrodynamic forecast results in a GIS environment and define sewer discharges. The web client using the web service model simulates (1 day simulation takes less than 5 minutes to run) the impact over the water quality. The tool was tested for the Estoril coastal area (Lisbon – Portugal), specifically for the Carcavelos, Torre and Oeiras beaches.

Key words: bathing water, fecal, modeling, particle tracking, web services

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