Context and objectives

The LIFE ADSORB project is testing new ways of depolluting water that comes mainly from rainwater run-off from the ring road, with occasional contributions from wastewater. The goal is to remove 95% of the mineral and organic pollution (macro and micro pollutants).

Achieving good status for surface water bodies is one of the key environmental challenges facing European cities. Stormwater runoff from heavily trafficked roads is one of the major polluting pressures in terms of micropollutants, and if it is not treated (or treated inadequately) it constitutes an obstacle to achieving good status. This is particularly true of dissolved pollution, which is not intercepted by conventional management systems involving decantation or filtration.

In Paris, an area that is emblematic of environmental issues in urban areas, the Bugeaud structure (Bois de Boulogne) discharges rainwater from a section of the ring road directly into the Seine.

In order to improve both the quantitative and qualitative management of these urban rainwater discharges (RUTP), the City of Paris has set up a full-scale reed filter demonstrator in the Bois de Boulogne as part of the European LIFE ADSORB project. The substrate of this filter (i) retains particulate pollutants associated with suspended matter on the surface and (ii) adsorbs dissolved metallic or organic micropollutants (metals, hydrocarbons, alkylphenols, phthalates) by incorporating a material with specific properties. The aerobic conditions prevailing in the filter between two rainfall events also make it possible to implement biodegradation processes for the organic pollutants adsorbed in this way.

The goal of the Life Adsorb project is to test this new method of pollution control, which focuses on dissolved and/or particulate pollution in run-off water from heavily trafficked roads, integrated with a natural stormwater management/treatment solution.

> *Considering the specific context of this project, which is located in a classified wooded area that is a reservoir of biodiversity, it will also be necessary to demonstrate the compatibility of the challenges of managing contaminated stormwater with those of preserving the natural heritage and biodiversity.*

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