KEY INFORMATION:



approximately one Olympic-size swimming pool. Storage of polluted rainwater running off the ring road



People worked on the projet



A computer application to help design reed beds



Of experimental monitoring to study an innovative solution for reducing micropollutants in rainwater using reed bed filter.

The LIFE ADSORB project is co-funded by the european commission, the Métropole du Grand Paris and the Seine Normandie water agency.









95%

Pollution reduction of the

flow discharged into the

Seine by the Bugeaud

combined sewer overflow

Succeed

Integrating the site into a listed woodland

4,6 M€

Invested by the european

LIFE programme, Metropole



The LIFE ADSORB project brings together the city of Paris, a multidisciplinary team made up of academics, operational partners and an engineering office.





LIFE17 ENV/FR/000398





INNOVATE IMPROVING RAINWATER TREATMENT IN PARIS WHILE PRESERVING BIODIVERSITY



WHY TREAT RAINWATER ?

Stormwater pollution comes from a variety of sources: traffic, industry, solid waste produced by urban activities, building sites and soil erosion, animals, construction materials, etc.

In rainwater, pollutants are mostly associated to solid particles, also called suspented matter. Water from the ring road is particularly contaminated with hydrocarbons, heavy metals and tire residues.





WHAT IS A REED BED FILTER ?

A reed bed filter is a water purification process that consists of infiltrating water through a mass of sand and gravel in which bacteria develop. The solid matter is separated from the water by filtration. Filtration and infiltration are highly effective methods of purification.

WHAT IS THE ROLE OF REEDS?

reeds are aquatic plants that help to clean up pollution by creating a favourable environment for water treatment. Their root system plays a physical role, preventing the filter from clogging up thanks to the effect of the wind on the stems, and plays a biological role by creating a favorable zone to the development of bacteria in the soil.







FOCUS ON THE SYSTEM

It consists of two reed bed filters designed to purify polluted rainwater that has run off a 21-hectare section of the western ring road. The Bugeaud sewer collects rainwater, which is then stored upstream of the filters. The stored water is then pumped and sent alternately to filter 1 (F1) or filter 2 (F2).

One of the filters is used as a reference (F1), the other is made of a specific adsorbent material designed to capture micropollutants (F2).

In case of a heavy rain, both filters can be used simultaneously.

