

## Reference project

### INFILTRATION TRENCH FOR URBAN ROADS

**Sustainable water pollution control solution:** TenCate GeoClean<sup>®</sup> Origin active oil-biodegrading aquatextile.

**Function:** Fixation of hydrocarbons and PAHs, then activation and amplification of their natural biodegradation in the long term.

**Context:** Management of run-off water from roads, car parks and roofs as part of a project to create a Nexity housing estate in Dordives (France, Centre-Val de Loire, 44).

**Challenge :** The design office "ALP Géomètres" has studied solutions for infiltrating run-off water in situ, to follow the recommendations of the building permit excluding any discharge into the public sewer. The concerned land is favourable to local water infiltration thanks to hydraulic conductivities between  $10^{-4}$  and  $10^{-5}$  m/s, which allows for land plot water management. As the common areas are to be reassigned to the Dordives town, a single structure was essential, by taking into account the risks of diffuse or accidental pollution.

**Date:** March 2021

**Location:** Dordives (44) - France

**Application:** Infiltration trench

**Contractor:** Nexity

**Project Manager:** ALP Géomètres

**Public works company:** Eurovia



### Discarded technical solutions:

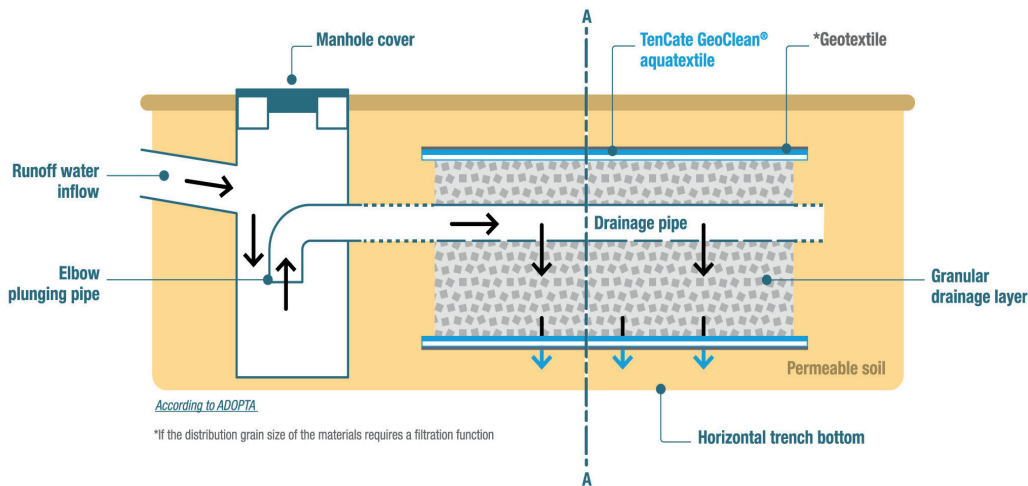
- ❑ Swale in the garden: The site topography and the location of the overflow did not allow for the use of swales for the run-off water from the roof, and urban road water still had to be treated.
- ❑ Oil separator: requires a single injection point and treatment, before being discharged into the infiltration structure. The configuration of the project was unsuitable for this intervention and it was impossible to provide a sectioning and containment valve.

### Technical solution chosen:

The TenCate GeoClean® Origin aquatextile has made it possible to design a simplified solution to implement, quicker to install, and above all, environmentally friendly.

The infiltration trench including a 1000 mm diameter perforated drain placed into a body of gravel, creates an underground reservoir to store run-off water. It collects the runoff water from the entire housing estate. An overflow has also been installed in case of exceptional rainfall.

The water stored in the trench infiltrates first through the aquatextile, which envelops the outer surface of the trench, then flows into the surrounding land.



With the natural growth activator available on the blue continuous filaments of the aquatextile, the microorganisms present in the soil and in the water will rapidly colonise its porous structure to degrade the fixed hydrocarbons and maintain the aquatextile's retention capacity on the long term.



For more information on projects, installation of the aquatextile, the added value of the solution and project savings, please contact us:



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