CASE STUDY

CAFFINO BRIDGE LEISURE CENTER

2017

Distributor	**DBO Expert France**
Project	Installation of a System O)) at a leisure center in France
Treatment Capacity	**29,950 L/Day**
Soil Analysis	**Permeable**
System Surface Area	**510 m²**
Particularities of the Site	The system is located beside a river with rocky cliffs nearby. This is a 2-level System O)) with both infiltration and discharge. -

Treatment results available upon request.

Laying the collection pipes and geogrid

BACKGROUND

The Caffino Bridge Leisure Center is a hub for outdoor activities in western France. It is located beside a river surrounded by rocky cliffs. People who visit often spend time in the river, so an advanced level of treatment was necessary to reduce any risks associated with poorly treated wastewater entering the river. The treated wastewater is infiltrated into the soil and discharged into a nearby ditch as well.

PRIMARY TREATMENT

The System O)) is preceded by a primary treatment unit. Raw wastewater is collected in a 70,000 L septic tank made out of reinforced concrete and equipped with a prefilter. Inside the septic tank, the wastewater separates into layers as the fats float to the top and the solids sink to the bottom.

DISTRIBUTION

The septic tank effluent flows into a pumping station where it is then pumped into the System O)). The proper functioning of the System O)) depends on a uniform distribution of wastewater between the Advanced Enviro))Septic pipe rows. This is achieved with a Low Pressure Repartition System. This pressurized system ensures that all of the rows of pipes are evenly supplied with wastewater with less than a 2% water volume variation between the rows.

The rows of Advanced Enviro))Septic pipes

System O

DBO INTERNATIONAL

ADVANCED SECONDARY TREATMENT

This hybrid System O)) uses two cells of rows of four parallel Advanced Enviro))Septic pipes.. This increases the treatment capacity while minimizing the surface area required for the system. The wastewater is pumped to the entrance of the rows of Advanced Enviro))Septic pipes and then flows along the lenght of the pipes, where it is treated by bacteria living in the pipes and in the filter sand suring the infiltration process.

RECUPERATION OF TREATED WATER:

Underneath the System O)), there is a network of collection pipes.

These pipes ensure that any water that isn't sufficieentrly infiltratedis evacuated from the area.

SYSTEM FEATURES AND BENEFITS

- All wastewater at the site is treated passively,
- No maintenance is required,
- No energy is spent on wastewater treatment,
- No products are required for wastewater treatment,
- Wastewater odours cannot develop,
- The treated water is perfectly clear and free of pollution.

ECONOMIC ADVANTAGES

By using a System O)), the client saves money in the long term. A System O)) costs roughly the same as a conventional system, but has a lifespan of over 30 years. Conventional installations can start to fail after 15 years even if they are treated well. System O)) requires no maintenance and there isn't any filter media to replace or parts that can break. Due to the client's reliance on the nearby river for part of their business, having wastewater leak into this watercourse would force them to partly close certain activities, which could drastically reduce profits. By installing the System O)) in two layers, twice as many Advanced Enviro))Septic pipes are able to be installed without increasing the area required for the system and minimizing the amount of filter sand needed.

ENVIRONMENTAL ADVANTAGES

This System O)) was designed specifically to protect the nearby river. The permeability of the soil was good, but collection pipes were installed to evacuate any slow draining treated water from the area to prevent it entering the watercourse.

Wastewater treatment performance well below national standards of the country:

- Less than 25mg/L of BOD_5 (5-day biochemical oxygen demand)
- Less than 25mg/L of suspended solids (SS)

The treatment process of a con-ventional installation occurs in the soil, while System O)) treats the wastewater within the system, protecting the native soil.

Installing the Low Pressure Repartition System Headers

System O)) CE NSF AVIS DBO INTERNATIONAL