

# Reducing environmental impact

## Waste Management



On a full turnkey basis, SUEZ has provided one of the largest UK landfill sites with a sustainable solution to treat their leachate effectively that also reduces operating costs and the environmental impact.



## About the customer

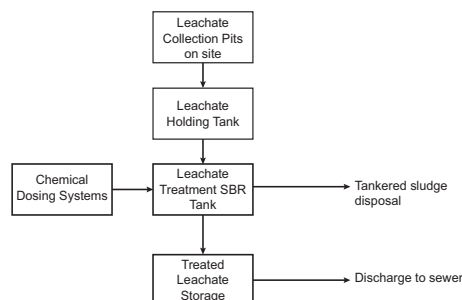
One of the largest waste management and recycling companies in the UK, with over 300 sites handling eight million tonnes of waste per year. The site at Packington is one of the country's largest landfill sites, covering 380 acres and containing more than 18.5 million tonnes of waste.

The site generates a liquid emission called leachate which contains various contaminants that need to be treated before being discharged or they would have a detrimental effect on the environment. The customer was removing the leachate off site by road tanker, but because of the volumes and quality of the waste stream this was costly and not environmentally sustainable.

## Solution implemented

Leachate is highly variable in terms of flow and quality, so it is imperative that it is treated and managed correctly. There are many leachate treatments available in the marketplace and it is important to identify the right process upfront. By following our proven staged approach we have been able to take this project from concept to conclusion to ensure the treatment capability meets and exceeds the customer's requirements.

After evaluating the leachate properties including the contaminants and flow



rates over a period of time, SUEZ was able to identify, design, supply, install and commission the most appropriate leachate treatment plant for the site. The 200m<sup>3</sup>/day treatment plant discharges to sewer and the main contaminant that it treats is ammonia whilst also reducing BOD (biological oxygen demand) and COD (chemical oxygen demand) levels to meet the regulated consent.

### Technology chosen

A Sequencing Batch Reactor (SBR) was chosen as the preferred technology to treat the leachate from this site. The SBR contains activated sludge which treats the leachate via a biological process by mixing air with the sludge. Although there are different types of SBR units available in the marketplace, the basic principles remain

the same and follow five main steps 1. Fill, 2. Aeration, 3. Sedimentation / Clarification, 4. Decant, 5. Idle.

## Benefits

- A safe and sustainable long term solution for leachate treatment
- Turnkey design and build project
- Meets its discharge consent including contaminants such as ammonia
- Eliminates costly removal of liquid waste by road tanker

### contact

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