

Veolia Mobile Water Services solves a contaminated water issue for FCC environment

Other | Case Study

The Client

FCC Environment is one of the UK's leading waste and resource management companies. The Company's approach is to minimise the amount of waste that ends up in landfill by transforming it into valuable resources wherever possible. The Company provides a range of services, from collecting business and municipal waste to recycling and processing, and the generation of green energy from waste. FCC Environment operates landfill sites for the disposal of waste from which no further value can be extracted.



Key Figures

- Major landfill site
- 40,000m³ rain water contaminated with leachate
- Could not be discharged to watercourse
- Storage lagoon at capacity

The Client's Needs

Rainfall run-off from FCC Environment's landfill site at Colsterworth near Grantham is collected in a lagoon and tested for contamination before being safely discharged into the local watercourse. Leachate, which all landfill sites produce, is collected by road tanker and taken to the local sewage treatment works for disposal.



The wettest winter since records began resulted in the run-off lagoon becoming full. Worse, the high rainfall generated more leachate than usual and this contaminated the lagoon.

Faced with 40,000m³ of contaminated water that couldn't be discharged onto the watercourse, experienced Leachate Manager Lorna Gibbs phoned Veolia Mobile Water Services. "We could only manage four tankers a day at this rural site, and that would take nearly a year to empty the lagoon if we had no more rain. We had to reduce the volume, therefore mobile Reverse Osmosis technology was the most suitable option".

The Solution

Veolia's reverse osmosis technology, complete with pre treatment filters to treat the contaminated water to a quality suitable for direct discharge to the watercourse. The concentrated reject stream from the reverse osmosis plant was tankered to the sewage treatment works, but the volume was reduced by two-thirds, reducing tanker movement, minimising environmental impact and saving money in tankering costs.

Process Description

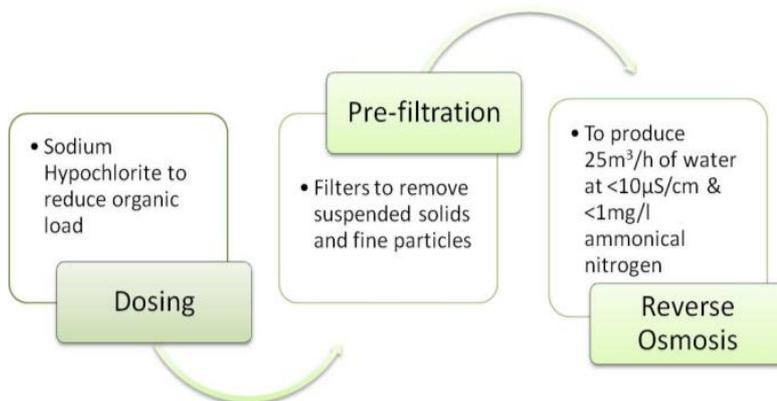
Continuity for any production cycle is essential. In the case of an emergency, Veolia can mobilise and send to your site a temporary water treatment system within a trailer or container. This can normally be with you in less than 24 hours, freight time dependant. This will either replace or supplement your existing water treatment facility and if required a Veolia engineer will operate the equipment.

In addition, Veolia offers to its customers the PRACT service. This is a comprehensive survey of your water treatment plant to develop a Site Response Pack in the event of an unplanned incident happening. If you are required to call us this ensures the correct equipment and ancillary items are delivered to produce treated water in the fastest possible time.



Benefits

- Treated wastewater meets existing consent
- Volume for tankering reduced by 60%
- Reduced carbon impact due to fewer road journeys
- Significant savings in haulage and treatment costs



Results

The Veolia system was installed in January 2013 and has been operating continuously since then reducing the lagoon volume by over 600m³/day. Without the mobile plant the whole of the 40,000m³ of contaminated rain water would have been considered leachate and would have been tankered to the sewage treatment works at the normal rate. Even allowing for the hire charge and operating cost of the mobile plant, the cost savings were considerable with the added environmental advantages of greatly reduced road tanker movement and more rapid disposal of the contaminated water.

Veolia Mobile Water Services

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