

## Leachate Treatment

### West Sussex Landfill, United Kingdom

#### Background

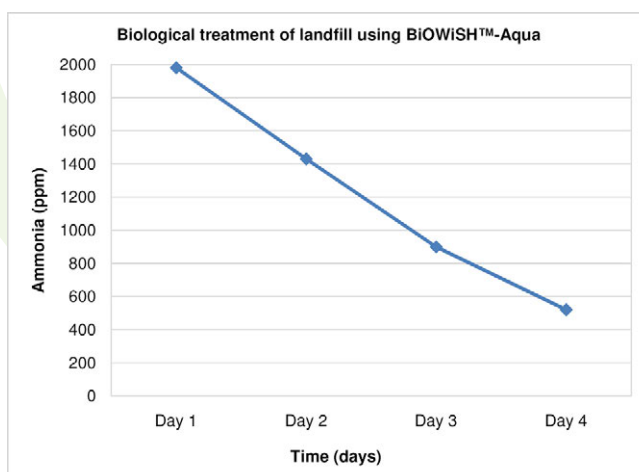
The West Sussex Landfill disposes leachate in two ways. Firstly, by off-site hauling at a cost of approximately \$35/1,000 litres. Secondly, the landfill uses an on-site biological treatment utilizing a sequential batch reactor (SBR) followed by discharge to public sewer. The on-site leachate treatment system could not achieve the desired treatment outcomes.

#### Objectives

Use BiOWiSH™ technology to biologically pre-treat strong leachate on-site and to reduce ammonia concentrations. The end goal is to increase the volume of leachate suitable for adding to the SBR for final treatment and discharge.

#### Outcome

Testing showed that leachate ammonia levels were reduced from approximately 2,000ppm to approximately 500ppm, after four days of biological treatment using only BiOWiSH™. The graph below illustrates the significant reduction.



Pre-treated leachate was suitable for processing by the SBR in a single batch, which was a significant improvement on the 9,500-19,500 litres of raw leachate normally introduced at one time.

#### BiOWiSH™ Odor Benefits

- Removes odors at source
- Reduces Volatile Organic Compounds (VOC) emissions
- Helps break down organic waste
- Reduces waste volume
- Accelerates composting time
- Improves leachate water quality
- 100% natural and non-toxic

#### Available sizes

- 100g
- 1kg



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## Detailed Implementation Program

BiOWiSH™ was applied on four successive days to a single 72,000 litre batch of strong leachate, which was being aerated in an outdoors tank located near the SBR. Pre-treated leachate was pumped into the SBR on Day 5.

The product was pre-activated and applied in step-reduced doses (20ppm Day 1, 10ppm Day 2, 5ppm Days 3 and 4). Preparation involved mixing BiOWiSH™ with clean water and a smaller volume of raw leachate, followed by aerating the mixture for 24 hours before pumping it into the treatment tank.

## Benefits

- Increased on-site leachate treatment throughput
- Reduced leachate volume being hauled off-site
- Financial savings in the form of lower disposal costs.

## Contacts

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