

FilterClear™

Harby STW, Phosphorus Removal

Project Description

Harby STW is a small trickling filter works in Nottinghamshire, treating domestic sewage and trade effluent, containing dairy wastewater from a cheese factory. The works treats a FFT of 31 l/s.

The consent limits are: TSS 30 mg/l, BOD 20 mg/l.

In AMP6, under the Water Framework Directive (WFD), the site has to meet more stringent discharge standards, including a new total phosphorus (TP) consent of 0.25 mg/l, and Fe of 2.5 mg/l. To achieve these new consent standards, Nomenca (Severn Trent's main contractor) installed a chemical dosing facility and a FilterClear plant. The decision was based on a comprehensive whole life cost (WLC) assessment of various tertiary solids removal (TSR) plants.

The FilterClear skid was fully assembled and hydraulically tested off-site at Bluewater's works, before being transported to site for installation on a flat concrete slab.

Scope of Works

Design, procurement, manufacture, installation and commissioning of Bluewater Bio's proprietary FilterClear 3v2040 plant. Fully automated and instrumented tertiary filtration system for Total Phosphorus removal.

Project Duration

Award to delivery to site ~ 12 weeks

Installation time ~ 4 days

Commissioning time ~ TBC

Client Contact

Client organisation: **Severn Trent**

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| Project Name: | Harby STW |
| Client: | Severn Trent |
| Capacity: | 31 L/s |
| Main Contractor: | Nomenca UK |
| Project Scope: | Design, supply & commission |

Project Highlights

- Off-site manufacture
- Consent of 0.25 mg/l TP and 2.5 mg/l Fe
- Rapid installation and commissioning
- No separate flocculation tank needed

Harby STW Process Parameters

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|------------------------------------|--------------------------------|
| DWF | 1,200 m3/d |
| FFT | 2,700 m3/d (82 l/s) |
| Design Influent TSS concentration* | 49 mg/L ave 111 mg/L 95%ile |
| Influent TP concentration | 1 mg/L 95%ile |
| Effluent TP consent | 0.25 mg/L (average) |
| Effluent Fe consent | 2.5 mg/L |

FilterClear®



A BLUEWATER BIO TECHNOLOGY

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