

FilterClear®

Brockhampton STW, Phosphorus Removal

Project Description

Brockhampton STW is a medium sized activated sludge works treating the Cheltenham catchment, comprising domestic sewage, trade effluent and the effluent from the Cheltenham race course. The works treats a FFT of 105 l/s. The consent limits are: TSS 25 mg/l, BOD 15 mg/l, AmmN 5 mg/l.

In AMP6, under the Water Framework Directive (WFD), the site has to meet more stringent standards, including a new total phosphorus (TP) consent of 0.25 mg/l, and Fe of 4 mg/l. To achieve these new consent standards, CiM6 (Severn Trent's main contractor) installed a chemical dosing facility and a FilterClear plant. The decision was made based on a comprehensive whole life cost (WLC) assessment of various tertiary solids removal (TSR) plants. The FilterClear plant was fully assembled and hydraulically tested off-site at Bluewater Bio'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 4v2040 plant. Fully automated and instrumented tertiary filtration system for Total Phosphorus removal. MCC and cabling by main contractor.

Project Duration

Award to delivery to site ~ 12 weeks
Installation time ~ 4 days
Commissioning time ~ 7 days

Client Contact

Client organisation: **Severn Trent**
Contact person: **Jeremy Swift**
(MEICA Manager) +44 (0)7881 105717
jeremy.swift@costain.com

Brockhampton STW Process Parameters

DWF	4,220 m ³ /d
FFT	9,072 m ³ /d (82 l/s)
Design Influent TSS conc. (incl. chemical solids)	34 mg/L ave 39 mg/L 95%ile
Effluent TP consent	0.25 mg/L (average)
Effluent TP achieved	TBA
Effluent Fe consent	4.0 mg/L



Project Name:	Brockhampton STW
Client:	Severn Trent
Capacity:	105 L/s ; 16,000 PE
Main Contractor:	CiM6
Project Scope:	Design, supply & commission

Project Highlights

- Off-site manufacture
- Consent of 0.25 mg/l TP and 4.0 mg/l Fe
- Rapid installation and commissioning
- No separate flocculation tank needed

FilterClear®
A BLUEWATER BIO TECHNOLOGY

London Office

Bluewater Bio Ltd Winchester House,
259-269 Old Marylebone Road London, NW1 5RA
Int: +44 (0)20 7908 9500 | UK: +44 (0)845 519 5800
info@bluewaterbio.com