## FilterClear

# Phoophorus Domoval

### Bolsover STW, Phosphorus Removal

#### **Project Description**

The FilterClear installation at Bolsover forms part of the national CIP program, to ascertain the feasibility and real costs associated with achieving low (0.5 mg/L) to ultralow (0.1 mg/L) total phosphorus consents. The project has entailed us working closely with the main contractor Eric Wright, consultant Arup and Yorkshire Water to build a chemical dosing and tertiary treatment plant with the target of 0.1 mg/L TP. As part of the ongoing optimisation the plant operated with first point dosing only and achieved TP concentrations around 0.2 mg/L. The FilterClear skid was fully assembled and tested off-site in our fabricator's works in Chesterfield, including the HMI software by MCS. Following the FAT the skid was transported to site, installed on a flat slab in February and commissioned by 31st March. The trial was operated by the main contractor for a 12 month period with YWS and Arup conducting the sampling and analyses.



Design, supply, installation, commissioning and operational support of proprietary FilterClear plant 3v1840.

#### **Project Duration**

Manufacture 12 weeks Installation time 1 week Commissioning time 3 weeks

#### **Client contact**

Client organisation: **Yorkshire Water** Contact person: **Rob Hoyle** 

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Bolsover STW	
Average Flow	3,639 m³/d
FFT	5,010 m³/d 58 L/s
Design Influent TSS concentration*	27 mg/L ave 57 mg/L 95%ile
Influent TP concentration	13 mg/L 95%ile
Effluent TSS	1-2 mg/L
Effluent TP target	0.1 mg/L

<sup>\*</sup> An additional 10 mg/L was added for chemical solids



Project Name:	Bolsover STW
Client:	Yorkshire Water
Capacity:	58 L/s: 10,000 P/E
Project Value:	£330k
Main Contractor:	Eric Wright Group UK
Project Scope:	Design, supply & commission

#### **Project Highlights**

- Off-site manufacture
- Ultra-low TP
- Rapid installation and commissioning



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