

atac



Case Study WRC Site Upgrade Phosphorus Removal

 atacsolutions.com

 01622 882400

atac[™]   EOSi[™] <MITAwt>[™]
 NAPIER-REID[®]  Nexom[®]  triplepoint[™]

Axius Water companies

CASE STUDY

North Norfolk, WRC Site Upgrade — Phosphorus Removal



The Challenge

A Water Recycling Centre in north Norfolk, serving approximately 7,600 residents, needed to meet new Environmental Agency requirements for improved water quality standards, particularly regarding iron and phosphorus levels in effluent.

This site is a part of an AMP8 Habitats scheme which forms part of the AMP7 Accelerated Infrastructure Delivery (AID) to meet Nutrient Neutrality targets. The current Phosphorous limit of 1mg/l will be tightened to 0.25mg/l for the purposes of this Nutrient Neutrality driver

Target Requirements

- TSS concentration: <5 mg/l (95%ile)
- Total Phosphorus: <0.25 mg/l
- Iron: <4 mg/l

Our Solution

To meet these strict standards, our process team carefully designed and installed two MITA filters. The filters were selected based on detailed process calculations and comprehensive datasheets. The choice of 12/60 Model ensured the system achieves redundancy in case one filter goes out of service.

Key parameters included:

- Average Flow: 72.0 l/s
- Max Feed Flow: 103.0 l/s
- TSS Concentration: 25.0 mg/l (including chemicals)
- Design Peak TSS Loading: 14.1 kg/h (peak flow)

Challenges

During the installation process, we faced a few unexpected challenges. The cable containment routes from our control panels to the equipment (drum motors, probes, backwash skids, and pressure transducers) were not designed in advance. This required us to design and build these routes as we progressed, adding complexity to the installation process.

Current Status

The project is now in its final stage, awaiting completion of the dosing installation before fully automatic mode can commence.

This installation is another step forward in our commitment to delivering innovative water treatment solutions that help protect our environment and serve our communities.



 atacsolutions.com

 01622 882400

   
  

Axiom Water companies