Improving water quality compliance

Collaborating with the Stonbury team, we were enlisted to provide a chemical clean and baffle curtain modifications within a treated water reservoir to reduce the potential presence of bacteria and remove dead spots within the tank.

Panton McLeod
A Stonbury company

In summary

→ Specialist chemical cleaning removed biofouling and contaminants from reservoir surfaces

→ Baffle curtain modifications eliminated dead spots and improved water circulation

→ Improved water quality compliance while reducing operational and regulatory risks

The **need**

Following repeated bacteriological test failures and detections of coliforms within a treated water reservoir, our client identified a need to improve water quality compliance and reduce the risk of bacterial growth. Computational Fluid Dynamics (CFD) modelling highlighted several dead spots around the reservoir's baffle curtains where water circulation was poor, creating conditions that could impact water quality.

The **solution**

We collaborated with water specialist Stonbury, to deliver a comprehensive reservoir improvement programme. The project combined a specialist chemical clean with modifications to the existing baffle curtains to improve water flow throughout the tank.

The reservoir was divided into sections to minimise service disruption and improve efficiency. While our team carried out the chemical clean to remove biofouling and contaminants from the concrete surfaces, Stonbury modified the baffle curtains in accordance with CFD modelling recommendations. Slots were created within the curtains to eliminate stagnant areas, with DWI-approved reinforcement materials installed to maintain structural integrity.

The **benefits**

- Improved water circulation throughout the reservoir by removing identified dead spots.
- Reduced conditions that could contribute to bacterial growth and recurring bacteriological failures.
- Enhanced reservoir hygiene through a specialist chemical cleaning process capable of removing biofouling and heavier staining.
- Reduced potential for trihalomethane (THM) formation by minimising stagnant water areas.
- Efficient project delivery through close collaboration between specialist teams, ensuring the critical asset remained operational with minimal disruption.

12,500
m^2, approx tank roof size

2
specialst teams collaborating




