

Project Case Study

Winterhope Water Treatment Works

Client	:	West of Scotland Water
Value	:	£4.3 million
Flow Rate	:	3.5 MLD
Population	:	4,300
Process	:	Clarification using Flocculation Dissolved Air Flotation Rapid Gravity Filtration
Chemicals	:	Hypochlorite, Lime, Alum, Sulphuric Acid
Civils	:	George Leslie Ltd (Consortium)
Contract Type	:	Turnkey (Red Book)
Scope of Works:	:	Process, Mechanical, Electrical & ICA Works



Description

The original works—about 10 miles east of Lockerbie—was constructed in the 1930s. It comprised six pressure filter shells supplied from an adjacent reservoir. Due to the demands placed on the works and the lack of a clarification stage, West of Scotland Water made the decision to replace the original works with a new three stage plant and simultaneously increase the treated water storage reservoir easing water distribution problems.

The place was designed with clarification using 2-stage flocculation and dissolved air flotation followed by primary and secondary open rapid gravity filters. The contract also required the provision of:

- Chlorine contact tank
- Treated water storage reservoir
- Sludge treatment consisting of wastewater tank, sludge thickening, storing and pressing
- All chemical handling, dosing and control
- Water quality monitoring at all stages of the process
- Various process guarantees.

