

# Tertiary Nitrifying Copa®SAF Submerged Aerated Filter

Washwell Lane WwTW, Wadhurst, UK

#### How we created value

- Works meets new final effluent discharge consent without major modification to existing plant
- Bespoke single cell arrangement eliminated expensive modifications to narrow access road with lightweight bridge
- Compact above ground design reduced excavation and piling costs on a difficult sloping site



# **Project Completed**September 2011

## Background

Southern Water's Washwell Lane WwTW serves the village of Wadhurst in East Sussex. The works treats domestic waste from approx 850 people using traditional pyramidal primary tanks, percolating filters and conical final tanks.

#### **Brief**

The works required upgrading to reduce the AmmN discharge quality from 5mg/I to 3mg/I and a new tertiary nitrifying SAF was identified by the client as their preferred option.

A major obstacle to the work was a narrow, steeply graded access road, unsuitable for articulated vehicles and large cranes. The road also crossed a lightweight bridge without a safe load classification.

### Solution

Working with 4D, Southern Water's main delivery contractor, Ovivo designed and installed a bespoke tertiary nitrifying SAF plant based around its successful Copa® SAF treatment systems.

The Copa SAF treatment plant was modified to create eight individual treatment tanks, allowing the SAF plant to be transported to site using small, rigid vehicles. This new design also reduced the size of the crane required for the installation.

The Ovivo scope of work included the design, manufacture, testing, installation and commissioning of the SAF plants as well as operator training. Duty/duty/standby air blowers in an acoustic enclosure; a form 4 control panel in a kiosk; a flow distribution system; a walkway and all the necessary interconnection pipework were also supplied under the same contract.

