Case Study

WPL supplies Farne Salmon and Trout with a substantial new effluent treatment plant

A new effluent treatment plant designed by WPL is ensuring that Farne Salmon and Trout Ltd in Berwickshire - one of Europe's largest smoked salmon facilities - complies with tighter local trade effluent discharge regulations, whilst significantly reducing its sewer discharge costs.

WPL worked with Farne and Scottish Water from an early stage to design and supply a substantial, energy efficient solution which is odour-controlled and creates minimal visual impact.

Large scale DAF

Searching for the right plant

Previously, Farne discharged effluent from its factory to a foul sewer, but increased production and staffing levels, together with tighter trade discharge consent criteria set by Scottish Water, required the company to find an alternative. Since it was set up in 1982, Farne has expanded from a workforce of just six to 500 people, rising to 1,000 in the run-up to Christmas to meet seasonal demand for high quality smoked salmon and related products. The company's search for the right effluent treatment plant prompted a visit to a trade exhibition where they met WPL. "We discussed our requirements with WPL's team and were confident that they could supply a solution to meet our needs," says Martin Smith, Farne's Project & Site Services Manager.

Coil pipe flocculator and DAF

Designing the new plant

As part of its comprehensive product and service package, WPL sampled effluent from the factory and undertook the design of Farne's new effluent treatment plant, including calculating the correct chemical dosing regime. Almost all equipment for the system is manufactured in stainless steel and features high quality pumps and controls to ensure reliability in use and a long service life.

Effluent is collected in a 100,000 litre balance tank and mixed with air to prevent it deteriorating and causing an unacceptable odour. The effluent is then pumped to a rotary drum to separate screenings, which fall into a skip. Effluent is then pumped into a coil pipe flocculator for chemical dosing before being transferred to a Dissolved Air Flotation (DAF). Effluent is finally discharged to a V-notch weir for volume monitoring and final pH correction prior to sewer discharge. The residual sludge is transported into a storage tank, and with tight control over control on chemical dosing, Farne may be able to sell this by-product to a local composting facility.

0845 450 4822 | www.wpl.co.uk | enquiries@wpl.co.uk

Economical and Energy Efficient

WPL also considered energy consumption in the plant's design and utilised the power of gravity wherever possible to reduce the number of pumps. In addition, the system is designed with adequate natural ventilation to avoid the use of large extraction units. Andrew Baird, WPL's Business Development Manager explains: "WPL used its considerable buying power to reduce the cost of this plant and we applied our design expertise to provide a user-friendly operator interface. The result is a simple and cost-effective solution that ensures Farne operates within its local trade effluent discharge consent."

About WPL Ltd

WPL Ltd provides innovative and reliable wastewater treatment, rainwater harvesting and grease management systems for domestic, commercial and industrial markets as well as holding a prominent position as a supplier to the water utilities. As an internationally recognised leader in the design, manufacture and supply of both standardised, and bespoke environmental solutions, WPL is dedicated to ensure the provision of high quality products and services.

Environmental Policy

WPL is ISO14001 accredited.

WPL rigorously fulfils its vision of protecting the environment by delivering reliable wastewater solutions. A strong focus on quality and compliance ensures that all wastewater treatment systems are designed to work within the guidelines of the British Water Code of Practice and exceed all present and proposed discharge consent standards enforced by the Environment Agency, SEPA and other European regulatory authorities.

0845 450 4822 | www.wpl.co.uk | enquiries@wpl.co.uk