

business stream

A SCOTTISH WATER COMPANY



marineharvest

excellence in seafood

case studies

Economic and environmentally friendly waste processing Business Stream helps Marine Harvest drive costs down and environmental standards up

Global demand for salmon has increased significantly over the past decade. This demand has resulted in Marine Harvest, the world's largest producer of farmed salmon, seeing output at their Fort William processing plant more than quadruple at peak times.

This has placed obvious infrastructure and environmental demands on the plant, demands that intensified when Marine Harvest was chosen as the major supplier of salmon for one of Britain's leading supermarket chains. To help meet these stringent demands Marine Harvest called on Business Stream.

Business Requirements

Marine Harvest knew that as a major supermarket supplier, particular attention would be focused on how they handled the fish and water waste produced

by their plant. Having a sound environmental policy that could be implemented fully, even during peak times, meant that a top-to-bottom review of the plant's water use and waste handling was necessary.

Dealing effectively with the waste from a fish processing plant is fundamental to its profitability, as inefficient methods can easily lead to excess water being used. Not only does this result in increased bills but it also increases the company's carbon footprint as every 1,000m³ of water used results in three quarters of a tonne of CO² being produced.

Salmon processing requires mains water to be used during gutting and cleaning, whilst machinery needs to remain spotlessly clean for hygiene purposes. As the water used becomes waste water, increased production levels led inevitably to environmental compliance questions being raised.

Solution

Initial discussions led to Business Stream conducting an end to end study of Marine Harvest's water use and waste disposal. This would help highlight areas where losses were being made due to inefficient procedures.

As part of this study, our experts benchmarked the processing plant's water consumption and waste production against industry averages, highlighting above average levels for both.

The next step was for the team to conduct an environmental audit to identify precisely where water was used and waste water created. This allowed them to highlight potential environmental and process improvements.

After this, the team installed smart meters that allow peaks and troughs in water usage to be remotely monitored. These loggers transmit a reading every



15 minutes from the plant's water meters, and show them graphically in real time on a dedicated website. This allowed us to focus Marine Harvest's spend and maximise their return on investment.

Business Benefits

From our studies of Marine Harvest's water usage, we were able to implement an economic and environmentally friendly waste water handling plan that has led to the company making year on-year savings that total in excess of £400,000.

By modernising and automating the waste and waste water handling process, staff numbers could be rationalised, freeing up previously committed finances. The installation of a dewatering sludge press reduced the water content of the waste from 95% to 70%, making a saving of £160,000 per year and significantly reducing the company's carbon footprint.

Contact information

To find out how we can make water work for you, please get in touch

- **Online:** www.business-stream.co.uk
- **By email:** customer.service@business-stream.co.uk
- **By phone:** 0845 602 8855
- **By post:** 55 Buckstone Terrace, Edinburgh, EH10 6XH

The amount of fish solids being transported from the processing plant was also reduced from 10 tankers per month to just four as water content was again reduced using the new system. In addition, as the waste solids now hold less water due to the press more can be sold for use in fertiliser or animal feed, helping to increase the company's profitability and environmental credentials.

Business Stream's expert advice and integrated approach to Marine Harvest's water management problems led to the installation of a system that improved environmental compliance whilst reducing long term operating costs. By discharging less water to sewer, producing less waste and lowering staffing costs, Marine Harvest has achieved their environmental and economic aims all from the implementation of an integrated approach to water management.

Iain Johnston

Stores and Effluent Manager,
Marine Harvest, Fort William

"We noticed benefits immediately when we put in the sludge press. We no longer spend time moving sludge about the site in tanks and our bills for disposing treated effluent fell from £9,000 to £3,600 in the first month after installation.

"Over the past four years, we have worked in partnership with Business Stream and by implementing their innovative ideas we have made long term savings whilst taking significant steps toward reducing the site's environmental impact."