

## A Specialized Wastewater Recovery Project



### Ostara Nutrient Recovery

Technologies is a Vancouver-based company that recovers nutrients from wastewater and transforms them into revenue-generating, environmentally friendly commercial-grade fertilizer.

The company needed a reliable bulk bag-filling system for its premium slow-release fertilizer and turned to Spiroflow Systems for its custom needs.

Spiroflow is a worldwide leading supplier of standard and custom powder-handling equipment. The company specializes in bulk bag dischargers and fillers; mechanical, flexible and pneumatic conveyors; and bag-packaging equipment.

Ostara, which markets its formula under the brand name Crystal Green®, also needed a partner who could reliably supply new bulk bag-filling systems to each new wastewater treatment facility. Additional nutrient recovery systems were to be installed using Ostara technology.

The nutrient recovery system developed by Ostara recovers phosphorous and other essential nutrients from wastewater, leading to financial and operational gains in wastewater treatment facilities.

Located in Oregon, Clean Water Services is a water resource management utility that is widely recognized for its forward thinking and innovation.

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Clean Water Service's Durham Advanced Wastewater Treatment Facility was the first wastewater facility in the United States to install a commercial nutrient recovery facility using Ostara technology. The wastewater facility was equipped with a \$2.5 million nutrient recovery system with three reactor vessels in June 2009.

The system has the capabilities to produce 500 tons of the premium slow-release Crystal Green®, which is being sold across the United States. More than 1 million pounds of Crystal Green® has been produced and the innovations from Ostara help the treatment facility meet environmental regulations. It will pay for itself in five years, saves energy and maintenance costs, increases capacity at the treatment facility and provides a reliable revenue stream.

In addition to Clean Water's Oregon plant, Spiroflow has successfully designed and installed bulk bag fillers in some of Ostara's other nutrient recovery facilities in York, Pennsylvania and at the Hampton Roads Sanitation Facility in Suffolk, Virginia.

"We were evaluating various suppliers and felt that Spiroflow was a good fit. They had the right experience, and we were confident that they could handle our fertilizers effectively," said Aynul Dharas, vice president of projects for Ostara.

"Spiroflow engineers have made mechanical changes to the newer systems that improve the automation process, which has been very helpful. We were also very comfortable working with Spiroflow's support team and engineers. Any issues that came up were resolved quickly and completely. It's a good partnership, and we have a strong working relationship."

Clear Water Services plant operator Brett Laney oversees the Ostara nutrient recovery system at the Durham plant in Oregon. He is equally happy with the equipment installed and designed by Spiroflow.

"From an operational perspective, we've had a great experience with Spiroflow. It works very well, and is fast and simple to operate," Laney said.

"I will be running another Ostara nutrient recovery system currently being built at our Rock Creek operation in Hillsboro, Oregon, and I'm glad Spiroflow Systems will be providing the bulk bag-filling system there. I know we won't have any problems."

*For more information, please email [info@spiroflowsystems.com](mailto:info@spiroflowsystems.com) [1] or visit [www.spiroflowsystems.com](http://www.spiroflowsystems.com) [2].*

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