



## **Madison Metropolitan Sewerage District and Ostara Partner to Install Commercial Nutrient Recovery Facility**

**MADISON, WISCONSIN and VANCOUVER, CANADA – October 7, 2010** – The Madison Metropolitan Sewerage District (MMSD) and Ostara Nutrient Recovery Technologies Inc. have partnered to install a new Nutrient Recovery Facility at MMSD’s Nine Springs Wastewater Treatment Plant. The District, which serves 340,000 people in the cities, towns and villages surrounding Madison, selected Ostara’s Pearl® Nutrient Recovery technology for its Nine Springs plant over two competing technologies offered in response to their March 2010 Request For Proposals.

A common challenge in plants practicing biological nutrient removal and anaerobic digestion -- which use microbes to remove phosphorus and nitrogen pollutants from wastewater -- is the formation of struvite scale, a concrete-like mineral deposit which chokes process equipment, increasing operation and maintenance costs, and threatening plant reliability. Further, the breakdown of these microbes in the digestion process causes the phosphorus and nitrogen to be released back into the water which is returned to the treatment plant, requiring the pollutants to be removed repeatedly.

The Pearl process will help the District tackle these challenges at the Nine Springs WWTP by recovering the phosphorus and ammonia from the wastewater and converting them into an environmentally friendly, slow-release fertilizer marketed as Crystal Green®. Ostara’s complete nutrient recovery solution will provide the District with an environmentally sustainable management technique for compliance with the State of Wisconsin’s progressive environmental regulations, and for the recovery of valuable nutrients in the form of a high-purity commercial fertilizer product. The advanced technology is also highly cost-effective, with the District set to benefit from both increased operational efficiency and a share of the fertilizer revenues.

“This partnership between the Madison Metropolitan Sewerage District and Ostara provides an important mutually-beneficial relationship,” said Jon Schellpfeffer, Chief Engineer and Director of the District. “With capacity to produce nearly 1,300 tons of sustainable and environmentally friendly fertilizer per year, the MMSD expects to see operational process and maintenance improvements as well as overall cost reductions, all while enhancing our position as a good steward of the environment.”

The launch of the Ostara Nutrient Recovery Facility at the MMSD is a unique partnership where Ostara will provide the core technology and assist engineering of the facility to fully integrate it into the Nine Springs Wastewater Treatment Plant. Ostara will provide ongoing technical support to ensure process performance and fertilizer product quality is maintained. Further, Ostara will manage commercial sale of the Crystal Green fertilizer product, being marketed

throughout North America and Europe, and share revenue with the District to offset operating costs.

“The State of Wisconsin has been a strong champion for environmental issues and specifically the recovery and reuse of phosphorus,” said Phillip Abrary, Ostara’s president and CEO. “From the onset, the District had very clear goals to recover precious nutrients from their sewage and have moved forward aggressively to identify the right solution and chose Ostara as the cost-effective and environmentally sound choice. We’re delighted to partner with MMSD on this state-of-the-art Pearl deployment.”

### **Successful Study Results in Full Commercial Deployment**

MMSD and Ostara successfully completed a demonstration project in March 2009. Ostara’s Pearl Nutrient Recovery Process effectively reduced the nutrient load in the liquid wastewater stream, reducing the phosphorus concentration by 80 percent and ammonia by 28 percent. Based on the results of this pilot project, the MMSD and Ostara agreed to build a commercial Nutrient Recovery Facility featuring the newly designed Pearl 2000. Ostara’s facility at the Nine Springs plant will feature two Pearl 2000 reactors, providing the capacity to produce 1,300 tons of Crystal Green per year, significantly larger than the systems currently installed at Ostara’s other operational commercial sites in York, PA, Suffolk, VA, and Tigard, OR. The facility is expected to be fully operational by 2013 along with other improvements to the plant being constructed as part of MMSD’s 11<sup>th</sup> Addition project.

Robert F. Kennedy, Jr., an Ostara board member representing VantagePoint Venture Partners, notes that the commercial incorporation of the Ostara technology at the Nine Springs plant is the kind of infrastructure solution needed in hundreds of municipalities across the United States. "Local and state governments are taking notice of the improved economics and reduced environmental impact which can be achieved through this kind of this public/private partnership. This groundbreaking approach ultimately saves money for ratepayers while also reducing the impact that wastewater treatment plants have on local waterways, all without onerous regulation," said Kennedy.

### **About the Madison MMSD and Nine Springs Wastewater Treatment Plant (WWTP)**

The Madison Metropolitan Sewerage District was created in 1930 by state statute to protect the environment in the region of lakes and streams that comprise the upper Yahara River watershed. MMSD provides wastewater conveyance and treatment services to 340,000 people in the cities, towns, and villages in the Madison area. The Nine Springs Wastewater Treatment Plant (WWTP) is owned and operated by the MMSD and treats an average of 43 million gallons per day.

### **About Ostara Nutrient Recovery Technologies Inc.**

Ostara Nutrient Recovery Technologies Inc. designs, builds and sells a new generation of water treatment systems – a nutrient recovery solution that creates value from waste by removing nutrients from wastewater and transforming them into revenue-generating, environmentally friendly commercial fertilizer, called Crystal Green®. Ostara is backed by VantagePoint Venture Partners in the U.S. and Frog Capital in the UK. In September 2010, Ostara was named a 2011 Technology Pioneer by the World Economic Forum. In 2009, Ostara was named one of the Top 100 Global CleanTech Companies by The Guardian, a London-based media group. For more information: visit [www.ostara.com](http://www.ostara.com) and [www.crystalgreen.com](http://www.crystalgreen.com).

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