



**Clean Water Services' wastewater treatment facility conducts trials  
of new environmentally-friendly technology from Canadian company**

**FOR IMMEDIATE RELEASE:**

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**PORTLAND, Oregon & VANCOUVER, British Columbia** — A pilot project at Clean Water Service's Durham Advanced Wastewater Treatment Facility in Tigard is one of two sites in the U.S. demonstrating a new technology that removes phosphorus and other nutrients from wastewater and recycles them into environmentally safe commercial fertilizer.

The technology was developed by Ostara Nutrient Recovery Technologies Inc. of Vancouver to help wastewater treatment plants solve environmental problems, increase plant capacity and reduce maintenance costs, while also creating a revenue-producing by product.

Mark Poling, Wastewater Department Director at Clean Water Services, said the Ostara pilot facility began operating in May 2007 at the Durham Advanced Wastewater Treatment Facility located in Tigard. Clean Water Services is monitoring the Ostara pilot plant results and will consider whether to build a fullscale plant using the new technology.

"The Ostara technology has the potential to provide some attractive operating efficiencies and capacity increases to the plant, as well as some important environmental benefits. We are closely monitoring the pilot plant operation to determine whether a full-scale commercial facility would be an appropriate addition to our Durham Advanced Wastewater Treatment Facility," said Poling.

Phillip Abrary, President and CEO of Ostara, said many wastewater treatment plants are effective at removing phosphorus and other pollutants and diverting them into a sludge stream of liquids and solids — but are left with the problem of handling this sludge.

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Treatment systems typically separate sludge solids from liquids. Treated solids can be recycled as soil amendments, as the Durham facility does. Liquids are typically reprocessed back through the wastewater system, which adds costs to the system by clogging pipes with a concrete-like scale called struvite — the result of phosphorus and ammonia (nitrogen) combining with magnesium —and by consuming up to 25 per cent of the system’s capacity.

“Our technology integrates into the treatment system, processes the sludge liquids and recovers phosphorus and other nutrients — and then converts them into a high-quality environmentally friendly commercial fertilizer that can generate revenue for the local utility,” said Abrary. “Our pilot plant at Durham has been able to consistently recover more than 90 per cent of the phosphorus and 20 percent of the ammonia that would normally be recycled back to the plant from the solids processing.”

Abrary said the first commercial scale plant using his company’s technology was commissioned last month in Edmonton, Alberta. As many as 400 municipalities in North America and 500 in Europe are potential customers for the Ostara process.

The fertilizer byproduct from the Ostara process, named Crystal Green™, is the only slow-release fertilizer with a combination of nitrogen, phosphorus and magnesium. Unlike most fertilizers, Crystal Green™ dissolves slowly over a nine month period and therefore is environmentally safe because it does not leach into the water table. Crystal Green™ is an ideal product for turf (golf courses) markets, container nurseries, specialty agriculture and other markets that value slow-release fertilizers.

A commercial-sized Ostara reactor would produce as much as 1,000 pounds of Crystal Green™ per day. The product is dried and bagged on site and is immediately ready for commercial sale. No further processing is required, although for some applications fertilizer distributors may wish to blend Crystal Green™ with other fertilizer components to match the agronomic needs of the crop.

### **About Clean Water Services**

Clean Water Services is a water resource management utility for more than 500,000 people in urban Washington County and small portions of Multnomah County, Clackamas County, Lake Oswego, and Portland. Clean Water Services operates four wastewater treatment facilities, constructs and maintains flood management and water quality projects, and manages flow in the Tualatin River to improve water quality and protect fish habitat. Although Clean Water Services maintains a close working relationship with Washington County government, it is a separately managed and financed public utility.

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**About Ostara**

Ostara Nutrient Recovery Technologies Inc., founded in 2005, is a Vancouver based company commercializing proprietary technologies that recover resources from wastewater and recycle them into valuable products. Ostara's struvite recovery process, developed at the University of British Columbia, recovers pollutants that would otherwise be released into the environment, helps wastewater treatment plants reduce operating costs and meet environmental regulations, and provides municipalities and utilities with revenue from the sale of the recovered pollutants that are recycled into environmentally safe slow-release fertilizer.

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