MEDIA BACKGROUNDER: Quick Facts on Phosphorus Recovery

Engineer, educator, entrepreneur and world expert in wastewater treatment, Dr. Donald S. Mavinic is the creative force behind a unique technology to recover the vital nutrient phosphate from otherwise pipe-clogging and polluting compounds in wastewater. The innovation turns a costly problem into a valuable product while addressing major environmental concerns of our time. The efficient recovery process not only lowers maintenance costs for wastewater treatment facilities: Instead of releasing phosphorus into waterways where it can do harm, it is harvested in the form of a high-quality fertilizer, marketed by Ostara Nutrient Recovery Technologies Inc. under the brand name Crystal Green®.

Who?

- The 2010 winner of the $25,000 Dave Mitchell Award of Distinction from the Ernest C. Manning Awards Foundation is Dr. Donald S. Mavinic, P.Eng., Professor and Associate Head of the Department of Civil Engineering at the University of British Columbia.

- Mavinic spear-headed design and development of a unique technology to recover pipe-clogging phosphorus from wastewater, thereby saving treatment plants money, reducing pollution and rescuing a dwindling resource.

- Mavinic chairs the technical advisory board of Ostara Nutrient Recovery Technologies, Inc., the company that markets the Pearl® reactor and recovery product, Crystal Green®. He served on the board of directors from 2005–2009.

- Ostara's management includes President, CEO, Director and Co-founder Phillip Abrary, COO and Co-founder Edward Jones and CTO and technology co-inventor Ahren Britton. Ostara's board of directors includes environmental lawyer and activist Robert F. Kennedy, Jr.

What?

- Crystal Green® is an environmentally friendly, slow-release fertilizer recovered from wastewater. The chemical name for Crystal Green® is magnesium ammonium phosphate (MAP), also known as the mineral, struvite.

- The Pearl® Nutrient Recovery Process is the patented technology that recovers nutrients from wastewater and produces Crystal Green® slow-release fertilizer pellets.

Where?

- Ostara Nutrient Recovery Technologies Inc., a company of 25 employees, is based in Vancouver, British Columbia. Ostara's CTO, Ahren Britton, is a graduate of the University of British Columbia's civil engineering program.

- Commercial scale Pearl® Nutrient Recovery Facilities operate at wastewater treatment facilities serving several cities near Portland, Oregon, as well as the region of Suffolk, Virginia and, as of September 16, 2010, York, Pennsylvania, both near the ecologically-sensitive Chesapeake Bay Watershed. A demonstration plant has operated since 2007 at the Gold Bar wastewater treatment plant in Edmonton, Alberta.

- Successful pilot installations have been tested in the United States, Europe and Asia.

The Ernest C. Manning Awards Foundation (www.manningawards.ca) recognizes the importance of Canadian innovation in strengthening our nation's capacity to compete in the global economy. The Foundation annually supports and celebrates Canadians with the imagination to innovate and the stamina to succeed.