

# CASE STUDY

## Phosphorous



One approach to recovering phosphorus from wastewater is through the use of chemical precipitation; however, this approach is expensive and results in the production of excess sludge which requires further processing. Fortunately, Vancouver based Ostara Nutrient Recovery Technologies Inc. has a different solution. Ostara is a leading provider of a technology designed to assist cities and municipalities in managing excess nutrients through recovery, converting the nutrients into a Root- Activated™ fertilizer, sold as Crystal Green®.

### **CUSTOMER**

Ostara Nutrient Recovery Technologies Inc.

### **INDUSTRY**

Wastewater treatment

### **MATERIAL**

Waste and Recycling, Friable Materials

### **EQUIPMENT**

TipTrak TT500

# CHALLENGE

Ostara voiced three key challenges for their application. Firstly, they had a restricted area within the municipality's facility for their process, and needed any conveyor they chose to work within a small and compact footprint. Secondly, since the product they convey is of high value, product integrity and spillage of the product out of the system was a great concern. Read the featured story below for more details on the TipTrak bucket elevator in the Ostara process.

# CUSTOMERIZATION

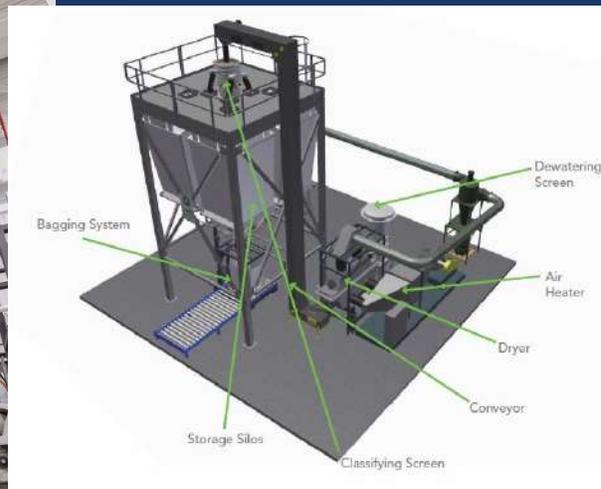
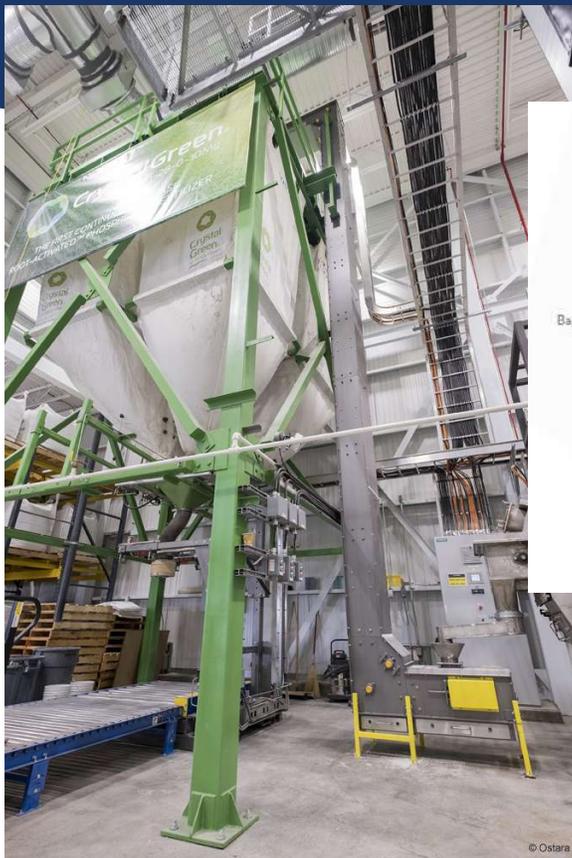
Working with Ostara, UniTrak determined that a TT500 PEC TipTrak™ bucket conveyor would be the best solution to convey the struvite prills to the screener that feeds product into the silos. The TT500 would have to operate at a very low speed of 8 feet per minute, and typically convey about 1,100 pounds per hour.

The TipTrak™ conveyor's interlocking bucket design, where each bucket is connected to its neighbour via a rubber joint strip, ensures gentle product handling and minimizes spillage from infeed to discharge. The small footprint of the TipTrak™ met Ostara's process needs: with a minimum lower horizontal length of less than five feet, the TT500 was easy to integrate into confined spaces within facility layouts. See more details on the installation in the downloadable feature story below.



# SOLUTION

With more than ten municipalities in North America adopting the Ostara system, and several more installations on the horizon, UniTrak has demonstrated that its TipTrak™ line of equipment is an excellent choice for applications where gentle-handling conveyors for wastewater phosphorus recovery are required.



“UniTrak’s ability to provide a customized, easy to install and maintain solution has made the material handling aspect of the process much simpler and Ostara have now standardized on this equipment at all of its sites in North America and Europe.”

**Ahren Britton Ostara Chief Technology Officer**

# LET'S TALK

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