

British Columbia Deltaport Balances Economic Growth with Environmental Protection

Project: Deltaport, Third Berth Project (DP3)

Location: Roberts Bank, British Columbia, Canada

Owner: Port Metro Vancouver – Deltaport, and TSI Terminal Systems Inc.

Engineer: Omni Engineering Inc.

Approving Agency: Port Metro Vancouver

Product: Stormceptor®



One of the most daunting economic development challenges communities face is creating sustainable jobs for local residents and preserving the communities' environmental integrity. Accomplishing this balancing act requires creative environmental stewardship, combining community participation with proven technology to match the required environmental goals.

Last year, government officials and port industry leaders ceremoniously opened the Deltaport Third Berth Project (DP3) at the Deltaport container terminal at Roberts Bank in British Columbia. DP3 is a joint venture between Port Metro Vancouver (PMV) and TSI Terminal Systems Inc. (TSI). This \$400 million expansion project was designed to increase the terminal's capacity from 1.2 million TEUs to 1.8 TEUs by adding a new berth, three quad gantry cranes, 20 hectares of container storage and additional facilities. Port traffic is measured globally by the flow of containers transported. The metric used is the standard-size container, a twenty-foot equivalent unit (TEU).



Central to its environmental planning, Deltaport installed 14 Stormceptor stormwater treatment systems, in addition to the original 43 Stormceptor units installed during Stage 1 development in 1996. Stormceptor's patented stormwater treatment systems capture and retain stormwater sediment and pollutants loads such as metals, nutrients and hydrocarbons. Stormceptor's unique design allows it to trap hydrocarbons in rainwater runoff, and also accidental oil and chemical spills.

In Phase 1, Deltaport's engineers installed groups of smaller Stormceptor units working in tandem, rather than one or two large end-of-pipe units. This has proven to be the best solution for the site conditions. With less contributing drainage area to handle and less dilution, the concentrations of pollutants are the highest at the immediate sources, and the tandem systems achieve optimum removal capacity. The 3rd Berth project will similarly install Stormceptor units in tandem.

By stretching conventional wisdom involving infrastructure development, seeking an open dialogue with British Columbia community leaders, and thinking creatively regarding environmental concerns, Port Metro Vancouver and the DP3 project team accomplished tremendous results and can claim a remarkable win.

“Successful engineering projects located in sensitive coastal ecosystems must give top priority to water quality and environmental sustainability. Cities, port authorities and developers recognize the need to take the long view on water quality and environmental protection ... what they all want are simple, bulletproof stormwater treatment devices and technologies that deliver performance and reliability. That’s where Stormceptor fits in.” *David Stewart, P.E. – Omni Engineering, Inc., Vancouver, BC*

