Stormceptor®

CASE STUDY

Stormceptor EOS chosen for Gas Bar Treatment

Project: Glooscap Landing

Location: Hantsport, Nova Scotia, Canada

Owner: Glooscap First Nation

Engineer: CBCL Limited

Contractor: Dexter Construction

Approving Agency: Municipality of the County of Kings

Product: Stormceptor® EOS 750

Glooscap Landing is a multi-phase 11-hectare development located right off the 101 Highway nearby Hantsport, Nova Scotia. Based on the location, once completed, this new commercial site will create employment for roughly 200 people, and will provide more resources and general economic prosperity to Glooscap First Nations and the surrounding communities.

The project's first phase is roughly 0.5 impervious hectares which picks up stormwater runoff from a multi-pump gas bar island, a convenience store, coffee shop and over 20 parking spaces. Based on the land use and foot traffic, the site will be expecting continual in and out vehicle traffic. From this comes the typical drips and leaks experienced from vehicles, and accidently when using the pumps at gas bars.

The Glooscap First Nation, owner of the development, has a mission statement as clear as the project's focus. "Do something today that makes our community more prosperous than it was yesterday, with a core value which resonates throughout the community consistent with the Municipality of the County of Kings... Do no harm (to self, to others, the earth)."

Stormwater research from the US EPA's NURP studies and more recent global research has demonstrated that gas stations and convenient stores have been classified as hotspots, as they have high potential to contribute significant amounts of hydrocarbons, sediments laden with toxic metals and other pollutants. It has been reported that there are 5 to 10 oil spills reported in Canada each day. Oil and hydrocarbon breakdown compounds are known to interfere with animal metabolic activity and membranes, which is damaging to fish and other ecology. As such, the greatest environmental risks at gas bars are hydrocarbon spills gone uncaptured, and untreated stormwater that allow pollutant-laden sediments deposited in downstream lakes and estuaries.

To mitigate the environmental impact from the common pollutants washed off this type of site from rain and snow melt, and to provide required sediment and hydrocarbon treatment and storage for the Glooscap Landing phase one development, CBCL Limited selected a Stormceptor EOS. The Stormceptor EOS is an Extended Oil Storage stormwater runoff treatment system, designed to capture and retain hydrocarbons, sediment and debris.

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Taking into account the gas bar and conveniece store, the Stormceptor EOS unit chosen over other oil grit separator (OGS) units based on its increased hydrocarbon storage capacity and cost efficacy. Additionally, Stormceptor EOS's ability to capture and retain over 95% free oil without pollutant resuspension during infrequent, large intense storm events like most API separators designed for a limited maximum flow rate, or the use of absorbents made it easy to select. The exceptionally large hydrocarbon storage volume is a key Stormceptor EOS's value attribute for safe capture and containment of accidental oil, fuel and hydrocarbon spills.

The water quality performance attributes coupled with design flexibility, made it seamless to incorporate the Stormceptor EOS into the site to meet the water quality performance requirements, and help protect the downstream Minas Basin and the Bay of Fundy.