Stormceptor®

CASE STUDY

Protecting Alberta's Water Supply

Project: Alberta Liquor Distribution Centre

Location: City of St. Albert, Alberta

Owner: Alberta Gaming and Liquor Commission & City of St. Albert

Engineer: ISL Engineering and Land Services Ltd.

Contractor: Lorac Construction

Approving Agency: City of St. Albert

Product: Stormceptor MAX & Stormceptor STC 6000

The Alberta Gaming and Liquor Commission chose the Campbell Industrial site to construct a new 534,000 square foot warehouse. This facility will be the central hub for Alberta's alcohol storage and distribution, set to experience between 120-200 trucks per day moving on and off the property. The site, located within the City of St. Albert, Alberta, was chosen due to its proximity to the highway for ease of transportation and proximity to the existing main liquor warehouse.

Previously no stormwater quality treatment existed, so this redevelopment project provided an opportunity for an upgrade. The treatment strategy included implementation of a Stormceptor STC 6000 to treat runoff from the new distribution center to immediately capture any leaks or spills from the on-site truck traffic. The City of St. Albert also decided to implement a Stormceptor MAX unit to provide treatment of the entire upstream catchment, prior to discharging into a pond that will be used as a wet land providing habitat for ducks and other wildlife. The stormwater management plan required a high level of TSS removal, with ease of inspection and maintenance, and spill protection. Stormceptor was chosen to provide pretreatment to the pond, offering protection from typical drips, leaks and spills from the daily land use, while keeping long-term overall site maintenance costs mitigated.

Lafarge North America, a Stormceptor licensee designed and supplied both Stormceptor units for this project. Stormceptor MAX units are modular and design-flexible, and can easily be customized to meet the site's needs. A major construction and timing challenge was that the existing property already had a large drainage network in use. This active drainage network was successfully cut, and connected to the Stormceptor MAX unit in-between wet weather events without delaying site construction.

This site falls within the Sturgeon River Watershed which covers 3,301 km^2, and is only fed by the annual rain and snowmelt. Protected by the Stormceptor units, water discharged from the pond will move downstream to the Sturgeon River and Red Willow Park. Alberta has roughly 10% of Canada's population and 7% of the land area, but only 2% of Canada's water supply (Alberta Water Smart 2011), so protecting this natural resource is critical. "Stormceptor was ideal for any possible clean-up of contaminants coming from the new developed 128 hectare site," explained Steve Faulkner with the City of St. Albert