



Keswick Stormwater Outfall



Aqua-Barrier™ provides an economical and safe alternative to conventional dam methods.

LOCATION:

Edmonton, Alberta

PRODUCT:

Aqua-Barrier

PROJECT PARTNERS:

Owner

City of Edmonton

Consultant

Stantec

Contractor

Raywalt Construction Ltd.

Completion Date

September 2013

The City of Edmonton was developing a new subdivision in southwest Edmonton — Keswick on the River — representing one of the last pieces of riverfront real estate in the City's prestigious community of Windermere. The contract for the Keswick subdivision included the construction of a stormwater outfall discharging into the North Saskatchewan River.

Challenge

The North Saskatchewan River is a major waterway with varying depths, fast flows and strict environmental monitoring requirements providing a unique challenge to the construction of the stormwater outfall. The client required a temporary cofferdam solution which would allow them to complete their work within a narrow window. With no previous experience installing a cofferdam, the client was looking for on-site expertise to ensure safe installation.

Solution

The client approached Nilex for a temporary solution that would allow them to complete the portion of their work adjacent to the North Saskatchewan River. Nilex recommended Aqua-Barrier portable cofferdams — water-inflated temporary dams that provide an economical and safe alternative to conventional dam methods such as sand bags, earthen berms and mechanical barriers. The Aqua-Barrier utilizes a unique system with internal restraint baffles that allow it to stand alone without external mechanical stabilization. The system can be installed in multiple segments which makes it

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easier to install and remove than monolithic cofferdam systems. Nilex also provided a custom fabricated woven silt curtain for sediment control in the river while the work was being performed.



Installation

As this was the first time the contractor had used the Aqua-Barrier system, Nilex contracted Hydrological Solutions to provide an on-site consultant for the installation. The consultant remained on-site to ensure the Aqua-Barrier was installed quickly and safely. The system was installed in two days by a crew of seven. Nilex conducted a site visit post-installation to verify that the cofferdam was performing safely as required.

Results

Nilex's recommended Aqua-Barrier solution allowed the client to complete their work within the time frame and environmental guidelines provided by the Municipal and Provincial regulators. Using Aqua-Barrier eliminated the environmental impact the alternative solution,

earthen berm, would have had due to its construction. The Aqua-Barrier was supplied in multiple segments which will allow it to be re-used on future projects.

The Nilex Advantage

Nilex is committed to unearthing better results. Whether it's for a civil, resource or environmental project, we offer the latest engineered and technically superior materials and techniques to save our customers time and money, and minimize the need to move or remove earth, and reduce the need for granular materials.

With over 35 years experience, a long-standing commitment to the environment and highly qualified staff, Nilex delivers the products and technologies that give clients an economic advantage with environmental benefit.

