



# BX CREEK DAM MAINTENANCE VERNON, BC

RDNO/GVW and City of Vernon

EIA Spring 2018 | Construction November 2018

## Summary

Sage Environmental worked with Interior Dams (Kelowna) to conduct an Environmental Impact Assessment (EIA), prepare a Construction Environmental Management Plan (CEMP), and oversee Environmental Monitoring to ensure environmental protection and compliance during operational maintenance at the BX Creek Dam. Working with a team of experts, Sage completed an in-depth study of wildlife, vegetation, fisheries, ecosystems and species at risk in the project area. The construction work plan primarily involved significant instream works to remove aggraded sediment behind the dam.

## Event

The existing BX Creek Dam once provided potable water to the City of Vernon. In 2003 the Greater Vernon Water utility (GVW) inherited the dam which at that point was no longer used as a potable water source due to reduced water quality. The GVW continues to maintain and monitor the dam as a sediment control structure. During 2017 and 2018 freshets high flows within BX Creek caused significant sediment deposition filling the dam reservoir. The dam reservoir was overtopped, and water flowed around the dam causing damage to an existing park access route.

## Solution

The goal for the dam in 2018 was to provide operational maintenance to reduce the sediment loading on the dam. Works had to be planned to accommodate multiple species of fish in the creek at various life stages, as well as to prevent impacts to wildlife in the park. A temporary bypass was constructed to divert stream flows around the work area and isolate the construction work from the stream flows. Prior to start of instream work, a fish salvage by electrofishing was completed to ensure the work area was fish free. Sediments were removed from the dam reservoir to increase the dam capacity. Ongoing monitoring of the site was carried out daily while in-stream work occurred to ensure no impacts to water quality were transmitted downstream from the work site. The stream was recommissioned to full flow after construction.



Wildlife Species at  
Risk



Environmental  
Assessment



Construction  
Management



Environmental  
Monitoring



Aquatic Work Zone

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