

PROJECT REPORT

Sir Adam Beck Power Station Cofferdam
Niagara Falls, Ontario



The cofferdam during construction.



As one of North America's largest and most high profile civil engineering endeavors, Ontario Power Generation's billion dollar, 11 1/2 km long tunnel will carry water from the Niagara River to the Sir Adam Beck Power Station. Bermingham Foundation Solutions was brought on board to construct a critical component of the project; one of the world's largest cofferdams.



The completed cofferdam, drained of water.

For this project, the cofferdam was utilized to create a safe area for a tunnel boring machine to exit the completed tunnel. The cofferdam was designed to withstand the large volume of water as well as extreme stress from ice during the winter months while still being able to be quickly and efficiently removed once tunnel boring was completed. The cofferdam, is of a cellular, gravity type design and consists of seven interlocked islands constructed on the bare rock.

For this project, one of the most challenging aspects was an extremely short timeline - the Bermingham team pulled out all stops to face an accelerated construction schedule, completing the work in less than half of the original two-year timeframe.