

Britannia Mine Water Treatment Plant



“ Partnerships like this one at Britannia Mine are a great way for governments to provide the best value for the project and for the public. It builds on private sector creativity and innovation and delivers results. ”

– John Les, Former Small Business and Economic Development Minister

Project Overview

The \$15 million Britannia Mine water treatment plant means a cleaner future for Howe Sound and the Sea-to-Sky corridor. The Britannia Mine is located approximately 48 kilometres north of Vancouver at Britannia Beach, on the east shore of Howe Sound. In operation from 1904 to 1963, the mine was one of the biggest copper producers in the British Empire.

Now, the Britannia Mine is one of the largest metal pollution sources in North America and left untreated, contaminated water from the site could continue to deposit, on average, 600 kilograms of metals into Howe Sound, daily.

The Britannia Mine water treatment plant is an integral part of the Province’s environmental remediation of the abandoned mine site. Now in operation, the plant treats up to 500,000 cubic metres of contaminated water per year before it drains into Howe Sound.

The development and operation of the water treatment plant is expected to achieve the following objectives:

- Ensure the quality of treated water is compliant with regulations under the Environmental Management Act;

- Minimize any residual potential environmental liabilities to the Province;
- Establish public confidence in the treatment of acid rock drainage at the site;
- Optimize the Province’s life cycle investment; and
- Protect taxpayers from cost overruns, schedule delays, and costs related to water treatment technology and plant operation.

Partnership Highlights

The Britannia Mine water treatment plant was designed, built and financed and is being operated as a partnership with EPCOR Water Services Inc. (EPCOR), a Canadian leader in delivering water and wastewater services. This partnership maximizes value, minimizes cost to taxpayers, and raises the bar on innovation and accountability.

Benefits of the partnership:

- EPCOR’s experience provides technological and process innovations related to the design of the plant, the treatment of the water, the management of the resulting sludge, and a reduction in operating costs;

- The contract ensures regulatory compliance by transferring risk of financial penalties for non-compliance to EPCOR; and
- EPCOR designed, built and financed the plant in one year and will operate the plant for 20 years, handing it back to the Province at the end of the agreement in an acceptable condition.

Expected Benefits

By entering into a partnership with EPCOR Britannia Water Inc., the Province has a better water treatment plant, at a lower cost and with less risk to taxpayers. This project demonstrates value for money because:

- The partnership agreement between the Province and EPCOR cost the public sector approximately \$27.2 million over the 20-year contract period. This compares favourably to the Province’s estimate of \$39.7 million had they built it alone, which represents expected life cycle savings of approximately \$12.5 million.
- The Province only began performance payments to EPCOR when the plant was producing clean water at the standards required by regulators.
- EPCOR took on the risk of incurring financial penalties if the plant was not built and in operation on time, or if the treatment of water is not in compliance with environmental regulations.

Public Sector Partners

- Ministry of Agriculture and Lands
- Ministry of Environment

Private Sector Partners

EPCOR Water services Inc.

- Lockerbie Stanley Inc.
- Stantec Consulting Ltd.
- BioteQ Environmental Technologies Inc.

Partnerships BC’s Role

Partnerships BC acted as the business adviser and procurement manager for this project.