

# SEYMOUR ARM SERIES CAPACITOR (SASC) STATION PROJECT UPDATE

JULY 2011

## PROJECT DESCRIPTION

To ensure the province of B.C. continues to have the electricity it needs, BC Hydro is working to install two additional 500 MW generating units into existing turbine bays at Mica Generating Station. This capacity addition to our generating system is cost-effective, has a low environmental impact, and will improve system reliability and system operations.

To reliably deliver the additional electrical generation at Mica, a series capacitor station is required to increase the capacity of the transmission lines that connect Mica to the rest of BC Hydro's system. The station will be located near the midpoint of the existing 500 kV transmission lines that connect Mica to Nicola Substation, approximately 10 km from Seymour Arm.

The capacitor station will require an approximately 3–4 hectare site underneath and adjacent to the existing 500 kV transmission lines located north of Seymour Arm.

## COMMUNICATING WITH THE CAPACITOR STATION

The capacitor station needs to communicate with the BC Hydro control system via a directional microwave radio signal. It was initially planned to install a passive reflector, which is a billboard like structure, on a site near the station. Further testing has revealed a microwave repeater is required rather than a reflector. The repeater will be built adjacent to an existing telecommunication tower on Aline Hill, east of Eagle Bay.

By locating next to an existing telecommunication site we will eliminate the need for access road construction and will make use of an existing low voltage powerline to power the repeater. This location reduces the potential environmental impacts by minimizing new access and power requirements.

Please see attached map for information on the repeater site on Aline Hill.

## WHAT IS A CAPACITOR STATION?

A capacitor station is a facility in which electricity from high voltage transmission lines moves through a series of devices called capacitors. These capacitors can store electrical charges which maintain voltage levels in power lines for greater system stability and improve electrical system efficiency and capacity.



FOR GENERATIONS

## FIRST NATIONS

BC Hydro continues to work with First Nations that have interests in the area, including the Adams Lake, Neskonlith and Little Shuswap First Nations to further identify means to avoid, mitigate, minimize and otherwise accommodate any concerns or issues relating to the project.

## PROJECT STATUS

The SASC project is on schedule for a spring 2012 construction start. Project definition and preliminary engineering has been completed and some clearing and site preparations are scheduled for fall 2011.

The target in-service date for the SASC Project will coincide with the in service date for Mica Unit 5, which is planned for 2014.

## PROJECT NEED

British Columbia is growing and so is the need for electricity. BC Hydro is dedicated to meeting at least 66 per cent of the province's future electricity needs through conservation by 2020. In order to meet the remaining demand and continue to ensure a clean, reliable supply of energy, BC Hydro is investing now in projects that are needed to keep the lights on in BC for future generations.

## PROVINCIAL ENVIRONMENTAL ASSESSMENT

Although the installation of Mica Unit 5 and Unit 6 was previously licensed, BC Hydro opted into the provincial environmental assessment process under the British Columbia Environmental Assessment Act (BCEAA). The capacitor station was included as part of the Mica Unit 5 application.

BC Hydro received Environmental Assessment Certificates (EAC) for the projects in April 2010 after a two-year environmental review. An update to the Mica Unit 5 EAC to address the Aline Hill Repeater change will be submitted later this summer.

## ADDITIONAL INFORMATION

Please visit our website at [bchydro.com](http://bchydro.com) for more information about this project.

Questions? Please Contact:

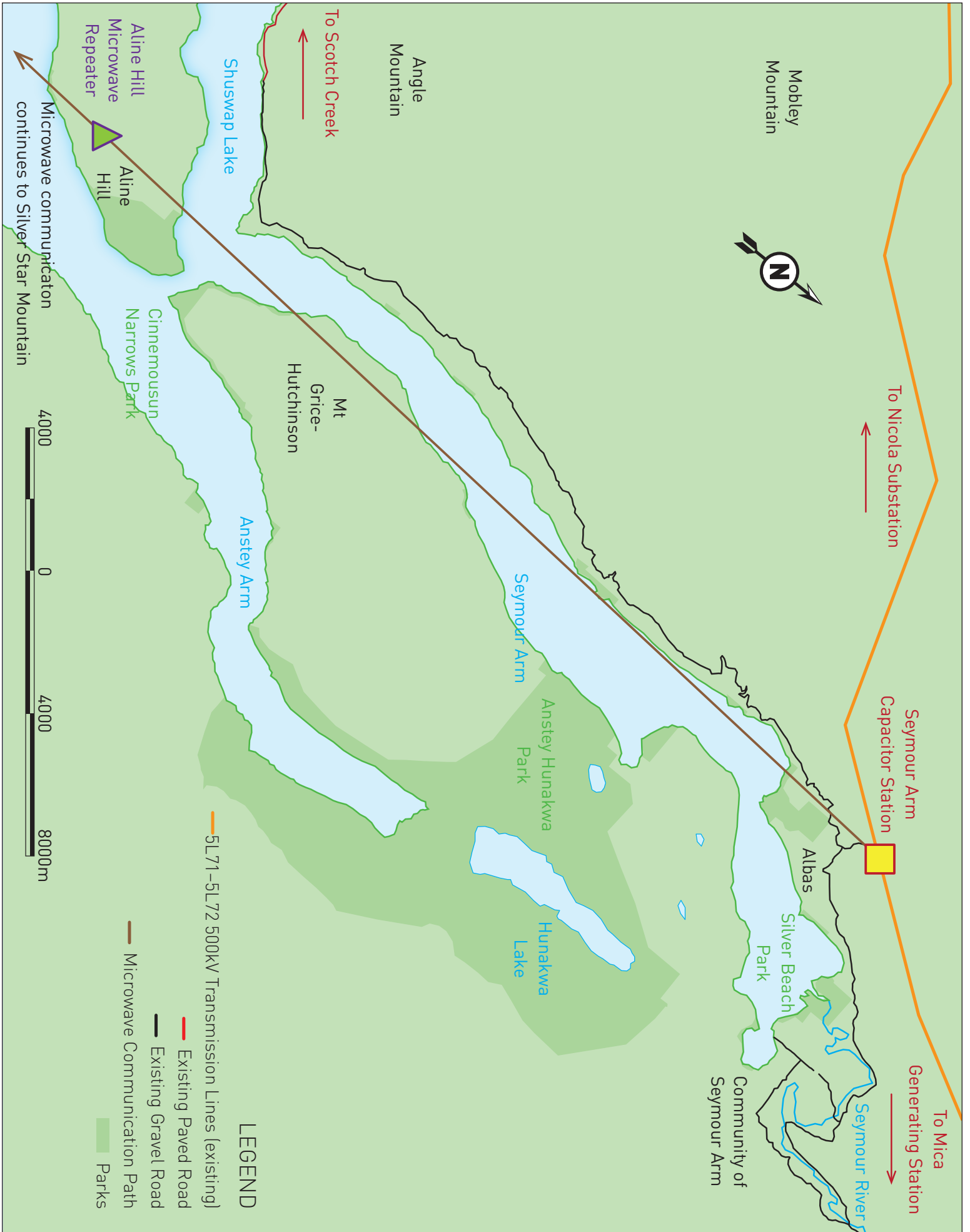
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To Scotch Creek

To Nicola Substation

Seymour Arm Capacitor Station

To Mica Generating Station

Mabley Mountain

Angle Mountain

Shuswap Lake

Aline Hill Microwave Repeater

Aline Hill

Cinnemousun Narrows Park

Mt Grice-Hutchinson

Anstey Arm

Seymour Arm

Anstey Hunakwa Park

Hunakwa Lake

Albas

Silver Beach Park

Community of Seymour Arm

Seymour River

4000 0 4000 8000m

LEGEND

- 5L71-5L72 500kV Transmission Lines (existing)
- Existing Paved Road
- Existing Gravel Road
- Microwave Communication Path
- Parks