

WILDFIRE RISK ASSESSMENT

A wildfire risk assessment will be a part of our studies in this stage of the project. An initial wildfire risk assessment was completed in the summer of 2016 by Bruce Blackwell and Associates and assessed the project alternatives and the existing transmission line.

The wildfire risk assessment will be updated to cover the Preliminary Study Corridors, to include:

- A comparison of the wildfire risk for each study corridor.
- Study of the risk of simultaneous outage to existing line and a line in each of the study corridors.
- A review of the finding of occurrence of wildfires with a diameter larger than 20 km based on the lessons learned from the 2017 wildfire season.
- Recommendations on the mitigation required for each of the study corridors.

What’s next for Alternative 3: to FortisBC

In this stage we’re looking at:

- Whether a cable can be placed on the bridge;
- Potential transmission routing options and overhead versus undergrounding required;
- Distribution system requirements from the new substation in West Kelowna (option 3b); and,
- Clarifying power flow studies carried out by FortisBC.

Identifying a preferred alternative

We expect to make a decision on our preferred alternative in 2018.

Desktop and field studies, First Nations consultation and stakeholder engagement will inform our decision making process.

Key aspects will include:

- Safety
 - Environment
 - Cost
 - Socio-economic
- First Nations and stakeholders
 - Wildfire
 - Geotechnical

Project timeline



For more information

Visit www.bchydro.com/wktp | Email stakeholderengagement@bchydro.com | Call 1 866 647 3334

*Construction will not commence until the project is approved by the BC Utilities Commission (if required) and a final investment decision is supported by BC Hydro's Board of Directors.



On February 5, 2015, the Province of British Columbia and BC Hydro announced the West Kelowna Transmission Project. We’re in the early planning stage for a new, secondary transmission line delivering clean, reliable power to the communities of West Kelowna and Peachland.

The existing line into the area has provided reliable power to the communities for decades. The new line will strengthen and reinforce the existing transmission network.

What’s happened to date

Between spring 2015 and fall 2016, BC Hydro studied three alternatives for a new, secondary transmission line.

- Alternative 1 (to Vernon Terminal Substation): build a new transmission line on the westside of Okanagan Lake, connecting Westbank Substation to the Vernon Terminal Substation.
- Alternative 2 (to Nicola Substation): build a new transmission line from Nicola Substation to Westbank Substation using a different route than the existing line.
- Alternative 3 (to FortisBC): build a new transmission line, including a submarine cable across Okanagan Lake, connecting Westbank Substation to the FortisBC system.
 - 3a: connecting Westbank Substation to DG Bell Substation (Kelowna – Mission area)
 - 3b: FortisBC builds a new substation in West Kelowna and a transmission line crossing Okanagan Lake to Saucier Substation (downtown Kelowna). BC Hydro would build a new transmission line from Westbank Substation to the new FortisBC substation.
 - 3c: Similar to 3b above except it proposes no new substation in West Kelowna.

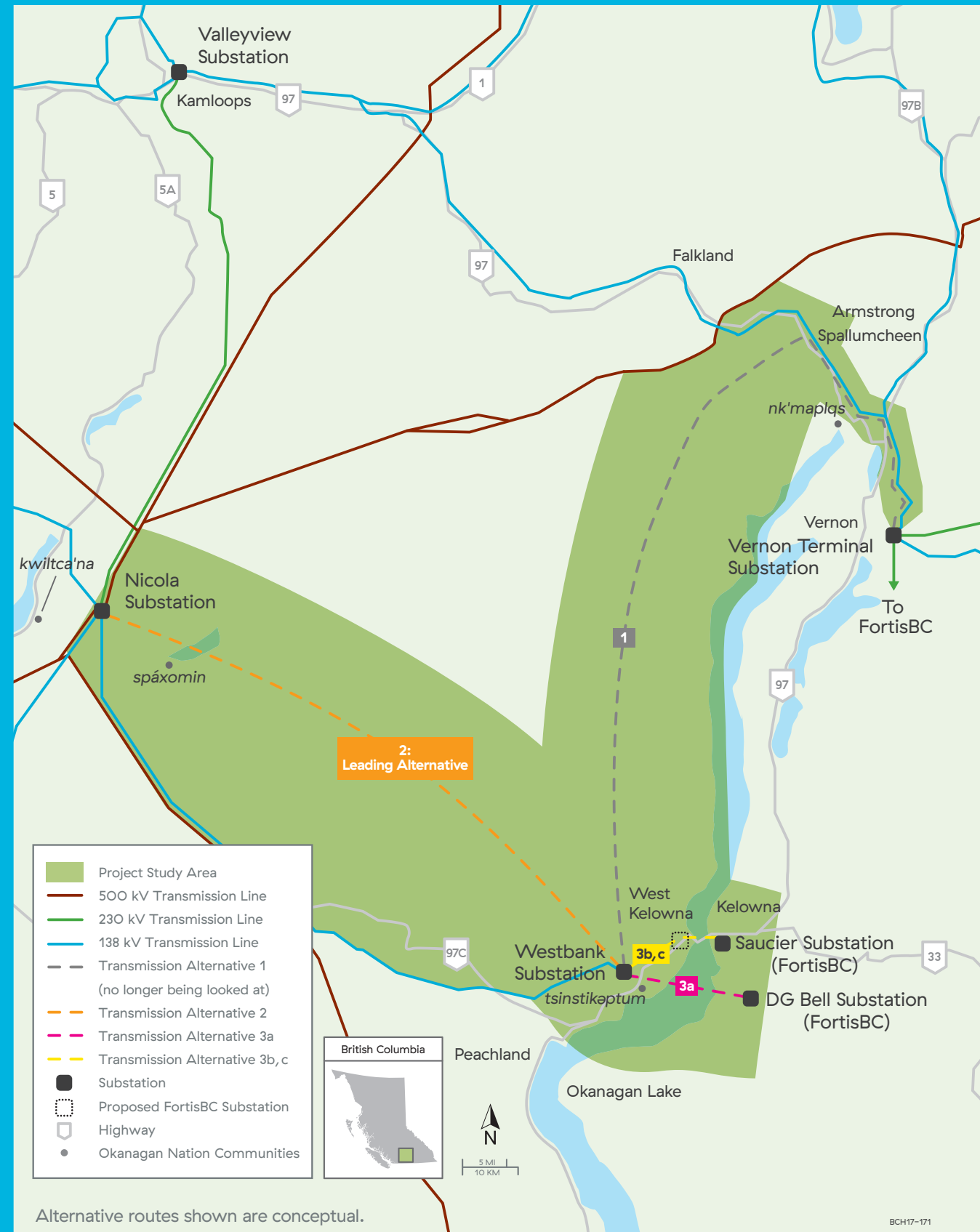
Our work on all three alternatives included engineering and environmental desktop studies, wildfire and geotechnical risk assessments, as well as First Nations consultation, stakeholder engagement and discussions with all levels of government.

In November 2016, we identified Alternative 2 as the leading alternative. This alternative involves building a new transmission line from Westbank Substation to Nicola Substation. It’s been assessed as more favourable from an overall safety, environmental, socio-economic, cost, geotechnical and wildfire risk perspective compared to Alternative 1: to Vernon Terminal Substation, and Alternative 3: to FortisBC.

Fast facts

- WHAT:**
We’re in the early planning stages for a new transmission line.
- WHERE:**
In and around West Kelowna and the Central Okanagan.
- TIMING:**
Earliest in-service date is 2022.
- WHY:**
To provide redundant transmission service to Westbank Substation in West Kelowna.
- WHAT’S REDUNDANT SUPPLY?**
Redundant supply means there is more than one source (for example, a transmission line) providing power to the community or “back-up” power. That way, if one source is taken out of service, the other can still supply the community with electricity.
- HOW MANY PEOPLE BENEFIT?**
About 22,000 BC Hydro customers are served by the Westbank Substation.

West Kelowna Transmission project



What's happening now

During the current stage of the project, we're undertaking environmental, socio-economic, archaeological, traditional use and engineering studies for Alternative 2 as the leading alternative.

A wildfire risk field and desktop study will also be completed for Alternative 2. Studies are expected to take place from mid-June 2017 through 2018 and include both the Okanagan and Nicola watersheds. These studies will inform our project planning including line routing and access plans. An additional review of Alternative 3 is being undertaken in order to confirm the preferred alternative.

There are no plans to continue to study Alternative 1 as it poses the highest level of safety, environmental, socio-economic, cost, geotechnical and wildfire risk. At the end of this stage, we will make a decision on our preferred alternative.



Leading alternative, Alternative 2: to Nicola Substation

In this stage we are:

- Continuing to consult with First Nations and stakeholders.
- Conducting desktop and field environmental, socio-economic, archaeological, traditional use and engineering studies.
- Completing an area survey by air and geotechnical investigations on the ground.
- Completing a field wildfire risk assessment.
- Selecting transmission line structure type, conductor size, configuration and substation layout requirements.
- Beginning to look at routing options.

PRELIMINARY STUDY CORRIDORS

We've also assessed the area and have identified three preliminary study corridors based on the following information:

- Environmental and archaeological studies
- Wildfire risk and terrain
- Road access and land ownership
- Consultation with First Nations, the public and government

The selected corridor will be refined over the next few years.

