West Kelowna Transmission Project

Stakeholder Communication and Consultation Summary

AUGUST 2015 — JANUARY 2016

FEBRUARY 2016

BC Hydro
Power smart

BCH16-017

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Introduction

The Stakeholder Communication and Consultation Summary, August 2015 – January 2016 presents the public consultation program and activities that have taken place in that time frame, as part of the Identification Phase of the West Kelowna Transmission Project.

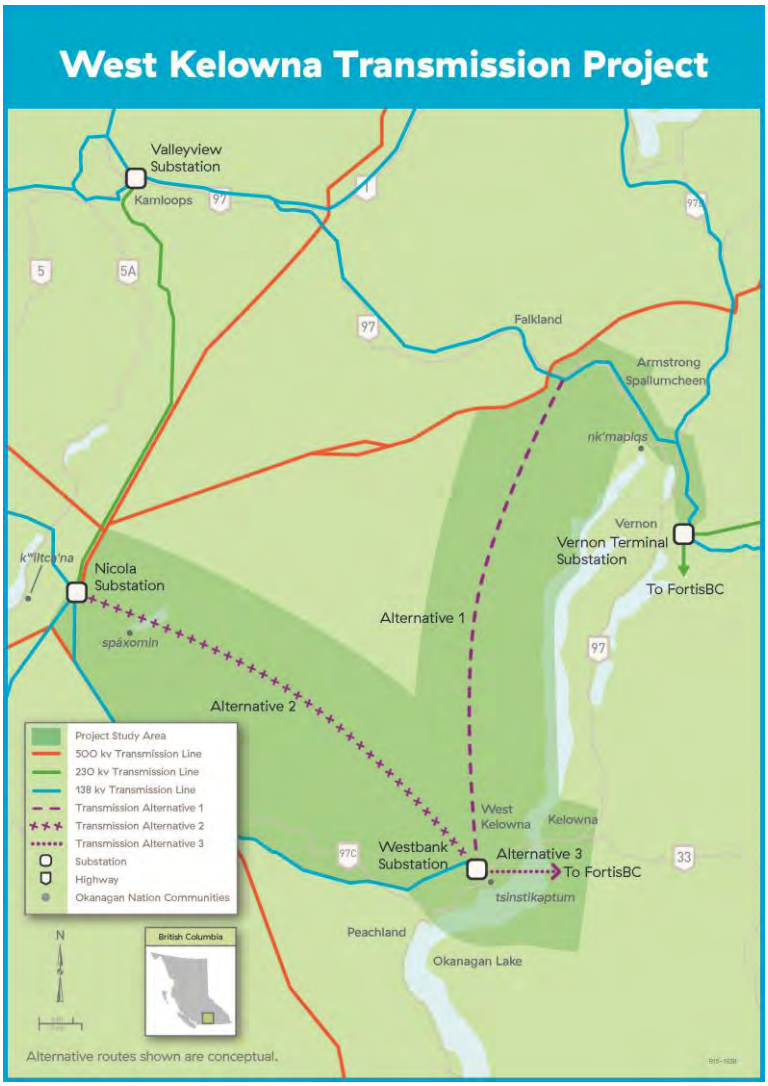
Interested parties and potential stakeholders were invited to participate in a second round of public communication and consultation on the West Kelowna Transmission Project, providing an opportunity to learn more about the project and share their input on the alternatives identified to date.

The project team will take the input received from the public and other stakeholders into consideration to build upon in the next round of consultation, and ultimately inform the identification of a leading alternative.

Overview

Project background

We're planning for a new, secondary transmission line to strengthen the transmission network delivering clean reliable electricity to the communities of West Kelowna and Peachland. The existing transmission line into the area has provided reliable power to the communities for decades. A new transmission line will provide a second source of power for the area, also called redundancy.



Based upon previous studies, we've identified the following alternatives and options to date:

Alternative 1:

- Build a new transmission line on the west side of Okanagan Lake, connecting Westbank Substation to the existing transmission line between Vernon and Valleyview substations.
- Options include connecting to the existing line somewhere between Falkland and Vernon or bringing the new line into Vernon Substation.

Alternative 2:

- Build a new transmission line to Nicola Substation using a different route than the existing transmission line.

Alternative 3:

- Build a new transmission line, including a submarine cable across Okanagan Lake, connecting Westbank Substation to the Fortis BC system.
- Options include connecting Westbank Substation to DG Bell Substation in the Fortis BC system, or Fortis BC building a new substation in West Kelowna and a transmission line crossing Okanagan Lake to Saucier Substation. We would then build a transmission line from Westbank Substation to the new Fortis BC substation.

We're exploring all options to provide redundancy to Westbank Substation; it's possible additional alternatives may be identified.

Communication and consultation program summary

Identification Phase communication and consultation began in February 2015 and is anticipated to continue until summer 2016, when a leading alternative is identified for further study.

On February 5, 2015, the Province of British Columbia and BC Hydro announced the West Kelowna Transmission Project. Following this announcement, the West Kelowna Transmission Project team introduced the project to stakeholders and the general public within the project study area, and held an initial round of stakeholder meetings and open houses. The document, Communications and Consultation Summary Feb 2015 – July 2015 can be found online at bchydro.com/energy-in-bc/projects/wktp/info-centre.

In the second round of consultation, from August 2015 – January 2016, we continued to build upon the consultation activities completed in the first round of consultation. The dialogue of the second round of consultation focused on:

- The need for the project;
- The three transmission alternatives identified to date, and associated options;
- What we're studying to identify a leading alternative;
- The results of the initial environmental and socio-economic studies;
- Project process and schedule, environment, First Nations consultation; and
- Next steps in the stakeholder consultation process, e.g. ongoing meetings with key stakeholders and the public, email updates to the stakeholder list and updates to the project website.

Key consultation activities included a project postcard, advertisements, open houses, meetings with local government and email and phone correspondence.

Methodology

Notification

The public was invited to participate in the second round of open houses through the following:

- A postcard sent by postal mail.
    - A double-sided 5” X 7” postcard was sent by unaddressed mail to the over 62,000 homes and businesses within the project study area. The postcard explained the project, invited the public to attend an open house and included contact information.
    - This was found to be particularly successful, as attendance at the second round of open houses more than doubled from the previous round. In addition, using a postcard ensured significant effort had been made to ensure all stakeholders within the project area are aware of the project and opportunities for consultation.
- Ad placement inviting the public to attend an open house in the following local media:
    - castanet.com
    - 1075 Kiss FM 1075 Vernon
    - SUN 99.9FM Kelowna
    - SUN FM 105.7 Peachland
- Social media notifications inviting the public to attend an open house via the BC Hydro Twitter, Facebook and LinkedIn accounts.
- Email notifications to mayors and council, senior staff of municipalities, Members of the Legislative Assembly and Members of Parliament within the project study area
- Stakeholder e-mail list
    - Multiple emails were sent to the stakeholder email list inviting them to attend one of the four open houses, or participate online.
    - At the time of the email notification, there were 131 email addresses on the stakeholder email list.
- Project website: www.bchydro.com/wktp.

A copy of the open house postcard and advertisements are included in Appendix A.

Open houses

The second round of open houses for the West Kelowna Transmission Project was held in November 2015. These open houses were held in a drop-by format, allowing visitors to learn about the project at their own pace, and to engage in conversation with the project team on the issues important to them.

The open houses were held in four communities within the project study areas:

Community	Date and time	Location
Vernon	November 23, 2015 5:00pm to 8:00pm	Best Western Vernon Lodge, 3914 – 32nd Street, Vernon, BC
Kelowna	November 24, 2015 5:00pm to 8:00pm	Kelowna Ramada Hotel & Conference Centre 2170 Harvey Ave, Kelowna, BC
West Kelowna	November 25, 2015 5:00pm to 8:00pm	Westbank Lions Community Centre, 2466 Main St, West Kelowna, BC
Peachland	November 26, 2015 5:00pm to 8:00pm	Peachland Community Centre 4450 6th Street, Peachland, BC

The focus of the information material at each open house was a set of display boards with text, graphics and maps (see Appendix B). These display boards included information on project need, the three alternatives identified to date, the project process and schedule, what we're studying to identify a leading alternative, environment (including the initial results of our environmental and socio-economic studies), First Nations consultation, stakeholder engagement and next steps. Open house materials were also made available on the project website.

The project team, including the project manager, stakeholder engagement, system planning, environment and aboriginal relations, were at the open houses to answer questions and hear comments. Participants were encouraged to complete a feedback form or to record their thoughts on a post-it note board, to help start discussion with other participants.

108 people attended the four open houses. Attendance was as follows:

- Vernon Open House: 18 participants
- Kelowna Open House: 32 participants
- West Kelowna Open House: 34 participants
- Peachland Open House: 24 participants

This attendance represented a more than 100% increase from the previous round of open houses in June 2015 which had a total of 40 participants.

Online consultation was also available as an alternate way to participate. As the project study area covers a large geographic area, making it challenging to hold in-person events that are easily accessible to all stakeholders, it was important that this option for participation be available.

Online consultation was available from November 23, 2015 until December 11, 2015 at bchydo.com/wktp. Participants found a link to online consultation where they could view the open house information boards and complete an anonymous online feedback form.

This same feedback form was available at open houses for participants to complete and deposit in a drop box at the event or submit at a later date. Twenty-nine feedback forms were submitted in-person at the open houses, one was submitted by fax, and five were completed online for a total of 35. In addition, feedback was also provided by email, phone and on post-it notes at the open houses.

Local government meetings

In November 2015, we met with senior staff and/or elected officials of local governments, to provide an update on the project. These meetings included a presentation reviewing the alternatives identified to date, providing an update on what's new since the last meeting, and outlining next steps in consultation.

These meetings built upon initial meetings held in March and June 2015. To date, we've had a total of 9 meetings with local governments.*

Local government	Meeting date
Central Okanagan Regional District	March 23, 2014
City of Kelowna	**November 14, 2015**
City of West Kelowna	**November 13, 2015** March 24, 2015
City of Vernon	**November 12, 2015** June 4, 2015
District of Peachland	**November 26, 2015** March 25, 2015
Township of Spallumcheen	June 4, 2015

**an update meeting with Central Okanagan Regional District staff is planned for February 17, 2016.*

Correspondence

The stakeholder engagement email address and phone number line has been included in all correspondence and advertisements, on business cards provided at open houses, and on the project website.

During the period between July 16, 2015 and January 15, 2016, the project team responded to approximately 7 telephone calls and 9 emails from stakeholders about the project.

A stakeholder list was developed prior to the first round of open houses to keep interested parties informed about the project. This list is continually updated and is comprised of members of the public who attended open houses or requested to be kept informed, community groups, businesses, regional districts, senior municipal staff, mayors, councils and current MPs and MLAs in the project area. There are currently 283 contacts on the West Kelowna Transmission Project stakeholder list.

Summary of findings

Open houses

The following summary reflects key themes derived from:

- Questions and comments received from one-on-one conversations between open house participants and the project team about the three alternatives presented
- Feedback forms
- E-mails
- Telephone conversations

Much of the feedback focused on further information participants would be interested in at future consultation. A more detailed summary of comments received at the open houses can be found in Appendix D.

Process and timeline

A number of participants expressed they were interested in more details about the alternatives, for example the pros, cons and timeline of each, prior to providing their input on a leading alternative. Participants also wanted to see a more detailed project schedule, including when construction would begin. Comments were made that the timeline for a new transmission line seems too long. One participant suggested that a Community Liaison Committee be created to assist as a third-party review group for this project.

Open house and communications

Participants commented that the open houses were interesting and worthwhile, and staff was friendly, informative and able to answer technical questions.

Environment

A number of participants noted that environmental impacts should be minimized, while others specifically felt that work near water sources, grazing areas and protected areas for wildlife be minimized. One participant noted soil erosion as a concern.

Participants expressed interest in receiving more information on environmental areas of concern, how environmental sensitivity is determined in such a broad area, impacts on local wildlife and environmental restoration plans.

Other alternatives and operations

Suggestions for additional alternatives included bringing a new transmission line south from Vernon and then across Okanagan Lake, extending a transmission line from Vaseux Substation to West Kelowna, as well as local generation. One participant expressed an opinion that a

voltage of 138 kilovolts for a secondary line would not be sufficient; a voltage of 238 kilovolts would be preferred.

Cost

Many participants requested more information on cost, including the project budget, estimates for each alternative and what impact the project will have on rates. One participant was interested in how the cost of a new transmission line compares with that of placing manpower/power source for emergencies.

Alternative selection

Participants expressed opinion that the leading alternative should:

- Minimize cost.
- Maximize sustainability.
- Minimize risk.
- Result in two separate sources of power for Westbank Substation.
- Promote and enhance the possibility of generating wind energy in the region.
- Connect to the greenest source of energy.
- Be secure from other system bottlenecks and constraints.
- Promote the public utility over private utilities.
- Support and enhance First Nation treaty rights.
- Enhance the Climate Action Plan.

Participants were also interested in understanding the details of what BC Hydro considers when identifying upon a leading alternative.

Routing and aesthetics

There was a lot of interest in the possible routing of a new transmission line, with many participants asking for more information on possible routes when it is available.

A number of participants expressed that a new transmission line be located away from populated areas for various reasons including viewscapes, electric and magnetic fields and property values. Other participants felt a new transmission line shouldn't be routed through forested areas, parklands or camp grounds.

Other factors that were suggested for consideration when determining routing included integration into the existing system, cost effectiveness, use of existing rights-of-way, risk of damage to the transmission line and potential to place underground.

One participant felt that routing should consider impacts to mineral tenures in the area, while another participant noted that cleared rights-of-way create both benefits and concerns for grazing cattle.

Need

A number of participants expressed support for the project. Some participants felt a second transmission line is not needed, that planning and provision for emergency response would mitigate the need. One participant was interested in knowing if BC Hydro will provide redundancy to other communities served by radial lines.

Alternative 1 (to Vernon): build a new transmission line on the west side of Okanagan Lake, connecting Westbank Substation to the existing transmission line between Vernon and Valleyview substations.

A number of participants expressly supported Alternative 1. It was noted that Alternative 1 is similar to Alternative 2 in length and terrain, and that Alternative 1 is in an area of high forest fire risk. Input on Alternative 1 focused on routing, with many participants requesting information on how close a new transmission line in this Alternative would be to a variety of locations. A number of participants were opposed to a transmission line being routed along Westside Road for a variety of reasons. One participant suggested that mineral tenures be avoided if this alternative is selected. One participant opposed Alternative 1 as it does not benefit residents of Westside Road, is an environmentally sensitive area, and felt it would have a negative impact on property values and tourism.

Alternative 2 (to Nicola Substation): build a new transmission line to Nicola Substation using a different route than the existing transmission line.

A number of participants expressed support for Alternative 2, some feeling it would be the most cost effective and have the least environmental impact. A number of participants felt Alternative 2 was the least desirable, viewing it as high risk terrain, prone to forest fires, and from the same power source as the existing transmission line. The opinion was shared that Alternative 2 would provide lower reliability, as it connects to the same source (Nicola Substation) as the existing line. One participant felt a new line in Alternative 2 would be threatened by the same forest fires as the existing line.

A number of participants suggested that Alternative 2 be built on the existing rights-of-way, next to the existing line.

Alternative 3 (to Fortis BC): build a new transmission line, including a submarine cable across Okanagan Lake, connecting Westbank Substation to the Fortis BC system.

Considerable support for Alternative 3 was expressed by participants, in comparison to the other alternatives. Participants felt that Alternative 3 was most desirable for a number of reasons including:

- Underwater, therefor not prone to forest fires and less visual impact.
- Opinion it's most practical, with the shortest length.
- Opinion it has the least environmental impact, staying close to the human population using the electricity.

- Seen as a good location for an underground transmission line.
- Fortis BC seen as a strong power source, most reliable of the alternatives.

A number of participants questioned if the Fortis BC system is robust enough to support West Kelowna with an interest in more information about the details of a connection with Fortis BC. One participant suggested a separate mailing be sent to stakeholders advising that if and when used, power from Fortis BC will not create an extra charge on their bill.

A few participants expressed the least support for Alternative 3, seeing it as being the most expensive, raising concerns about wheeling charges and having the most environmental impact. Participants were also concerned how a transmission line would reach the lakeshore in both Kelowna and West Kelowna, as the area is developed.

Participants also provided suggestions for future planning in the event Alternative 3 is selected as follows:

- Route up Gellatly Road (West Kelowna) to minimize disruption.
- Route should not impact bridge traffic.
- Utilize 138 kilovolt transmission cable, combination of underground and submarine cable.

Next steps

The input summarized in this report will be used to inform the next round of open houses, tentatively planned for spring 2016. This input, in addition to input gathered through future Identification Phase consultation and open houses will be considered to help in the identification of a leading alternative for further study.

Our identification of a leading alternative will also be informed by:

- Input from First Nations,
- Discussions with local government and other parties interested in the West Kelowna Transmission Project,
- Results of the Area Planning Study.
- Results of the Environmental Socio-economic Studies

Once a leading alternative is identified, we'll present details about the leading alternative and seek further input from you in future open houses and consultation.

Ongoing communication

We'll continue to provide information and respond to your enquiries as the project proceeds. If you'd like to learn more about the project or provide your feedback, please get in touch with us:

- Phone: 1 866 647 3334
- E-mail: stakeholderengagement@bchydro.com
- Website: www.bchydro.com/wktp

Appendix A:

Open house advertisement and postcard

Open houses

West Kelowna Transmission Project

Come see what we're studying! We're planning for a new secondary transmission line, to strengthen the transmission network delivering clean, reliable electricity to West Kelowna and Peachland. Join us at an open house to hear what we've learned so far and to share your feedback.

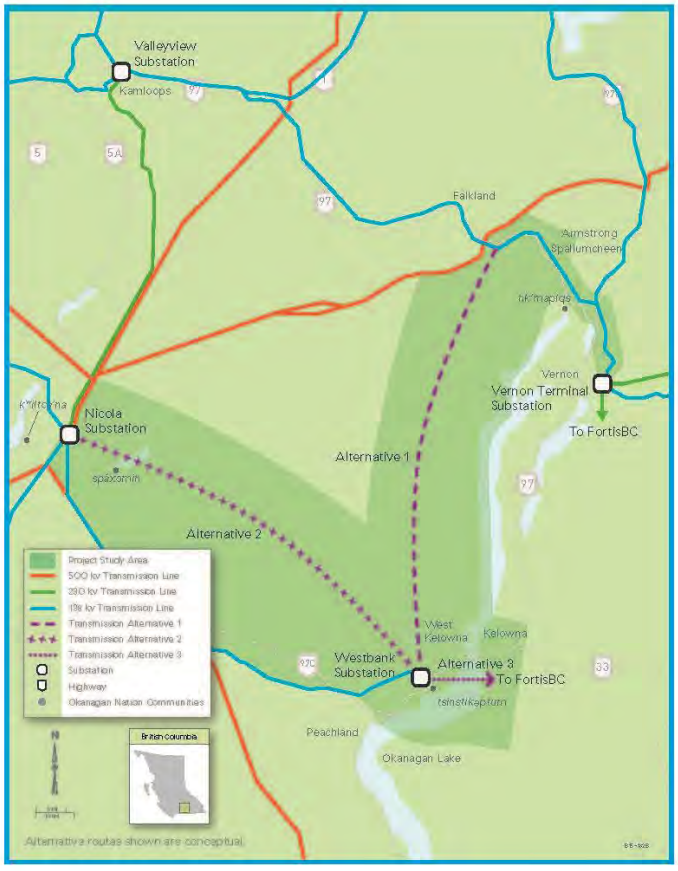
You can drop in anytime between 5 p.m. and 8 p.m.

Monday, November 23, 2015
Best Western Vernon Lodge
3914 32nd Street, Vernon

Tuesday, November 24, 2015
Kelowna Ramada Hotel & Conference Centre
2170 Harvey Avenue, Kelowna

Wednesday, November 25, 2015
Westbank Lions Community Centre
2466 Main Street, West Kelowna

Thursday, November 26, 2015
Peachland Community Centre
4450 6th Street, Peachland



Can't make it? Contact us at **1 866 647 3334** or **stakeholderengagement@bchydro.com** or visit **bchydro.com/wktp** to learn more.

Collaboration with the Okanagan Nation and other First Nations is underway. Stakeholder engagement activities with local governments in the project area are ongoing.

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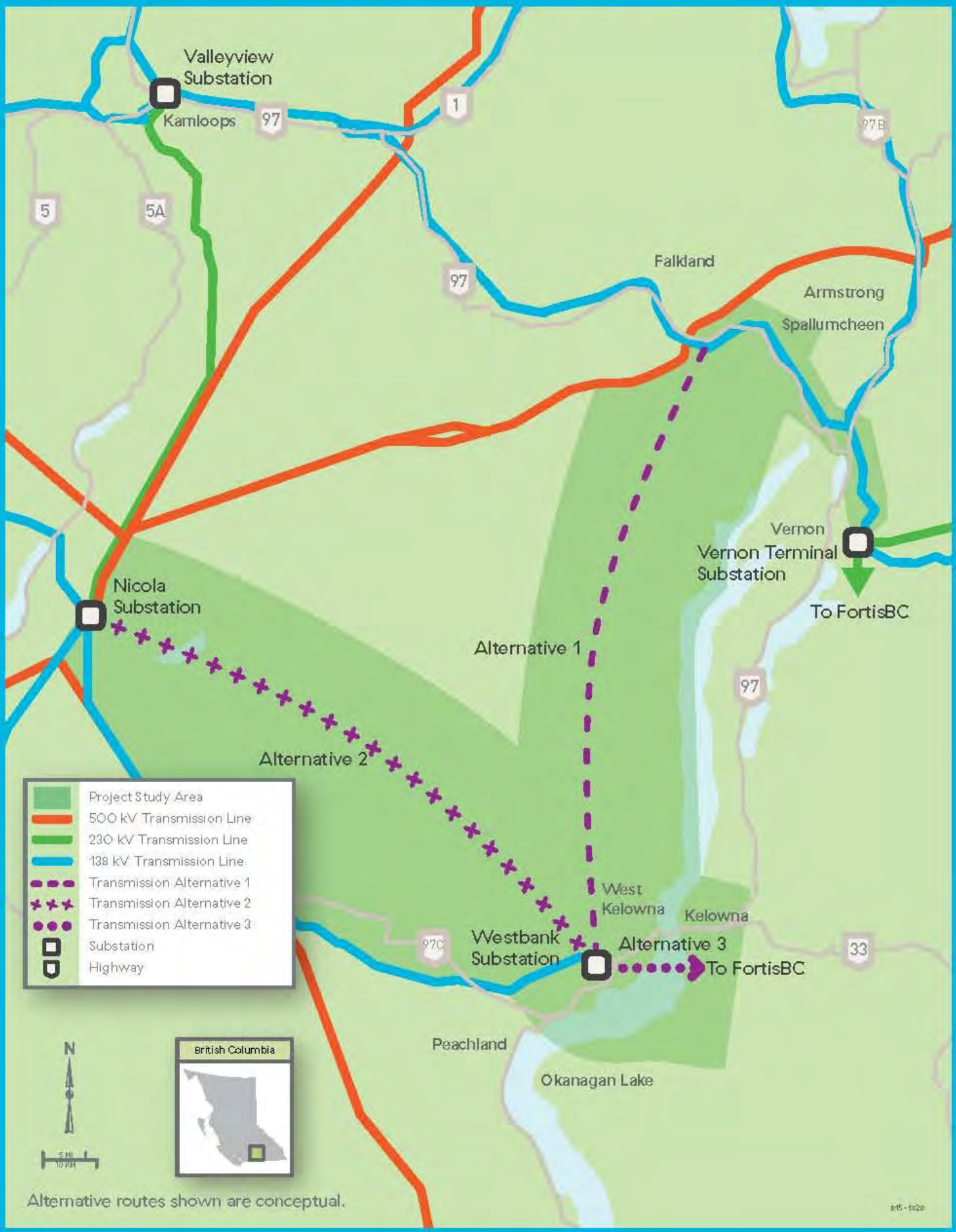
West Kelowna Transmission Project



Alternative routes shown are conceptual.

Come see what we're studying!

We're planning for a new secondary transmission line, to strengthen the transmission network to deliver clean, reliable electricity to West Kelowna and Peachland. The project is in its earliest stages, and we're currently looking at three alternatives. You can join us at an open house to hear what we've learned so far and share your feedback.

You can drop in anytime between 5:00 p.m. and 8:00 p.m. on:

Mon, Nov. 23, 2015 — Vernon

Best Western Vernon Lodge
3914 32nd Street, Vernon

Tues, Nov. 24, 2015 – Kelowna

Kelowna Ramada Hotel & Conference Centre
2170 Harvey Ave, Kelowna

Wed, Nov. 25, 2015 — West Kelowna

Lions Community Hall
2466 Main St, West Kelowna

Thurs, Nov. 26, 2015 – Peachland

Peachland Community Centre
4450 6th St, Peachland

Can't make it?

Contact us at **1 866 647 3343** or **stakeholderengagement@bchydro.com**, or visit **bchydro.com/wktp** to find out about the project and how to share your input.

Collaboration with the Okanagan Nation and other First Nations is underway. Stakeholder engagement activities with local governments in the project area are ongoing.

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Appendix B:

Open house storyboards

Welcome to the BC Hydro public open house

West Kelowna Transmission Project

We're here to share the most recent project information and to gather your comments on what we know so far. We hope you'll share your local knowledge of the project study area with us.

Our project team is here to answer your questions.

Please take the time to fill out a comment form before you leave.

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West Kelowna Transmission Project

We're planning for a new, secondary transmission line to strengthen the transmission network delivering clean reliable electricity to the communities of West Kelowna and Peachland.

The existing transmission line into the area has provided reliable power to the communities for decades. A new transmission line will provide a second source of power for the area, also called redundancy.

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Why it's important

Approximately 22,000 customers are served by the Westbank Substation and a single 138 kilovolt transmission line. The West Kelowna Transmission Project will add a second power source for the area.

We've prioritized the West Kelowna area as needing a redundant supply of power because of:

- The large number of customers served by a single transmission line.
- The challenge of restoring power on the existing transmission line resulting from its 80 kilometre length, remote location and rough terrain.
- The risk of destructive forces like forest fires and landslides.

In the meantime, we'll continue to monitor and manage any risks to the existing transmission line.

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.

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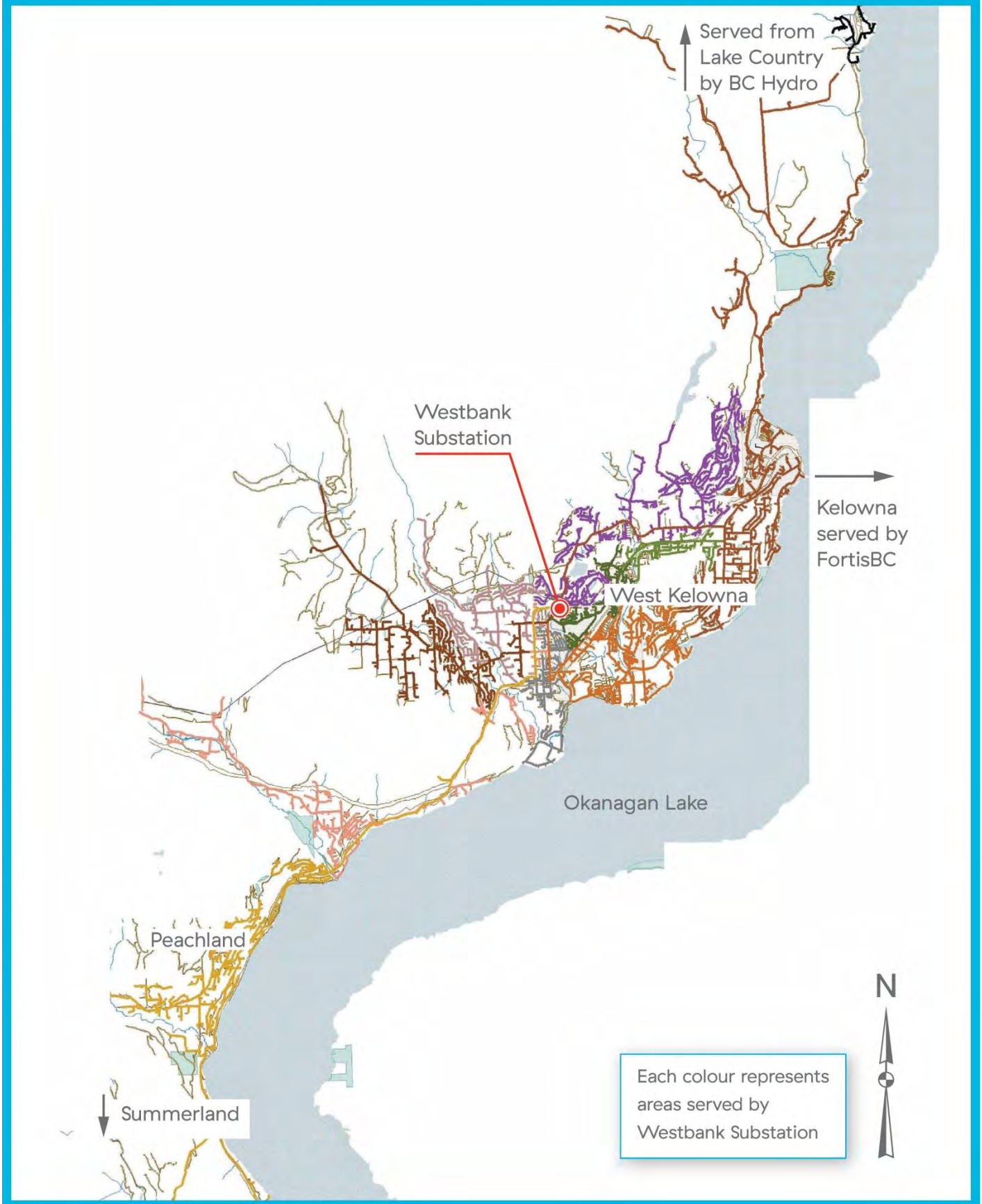
Area served by Westbank Substation



The electricty system

Generation

Electricity is generated by BC Hydro and independent power producers.

Transmission

Electricity is moved from where it's produced to where it's used.

Substations

Voltage is reduced at substations to provide power suitable for use in your home or business.

Distribution

Low voltage electricity is provided to your neighbourhood.

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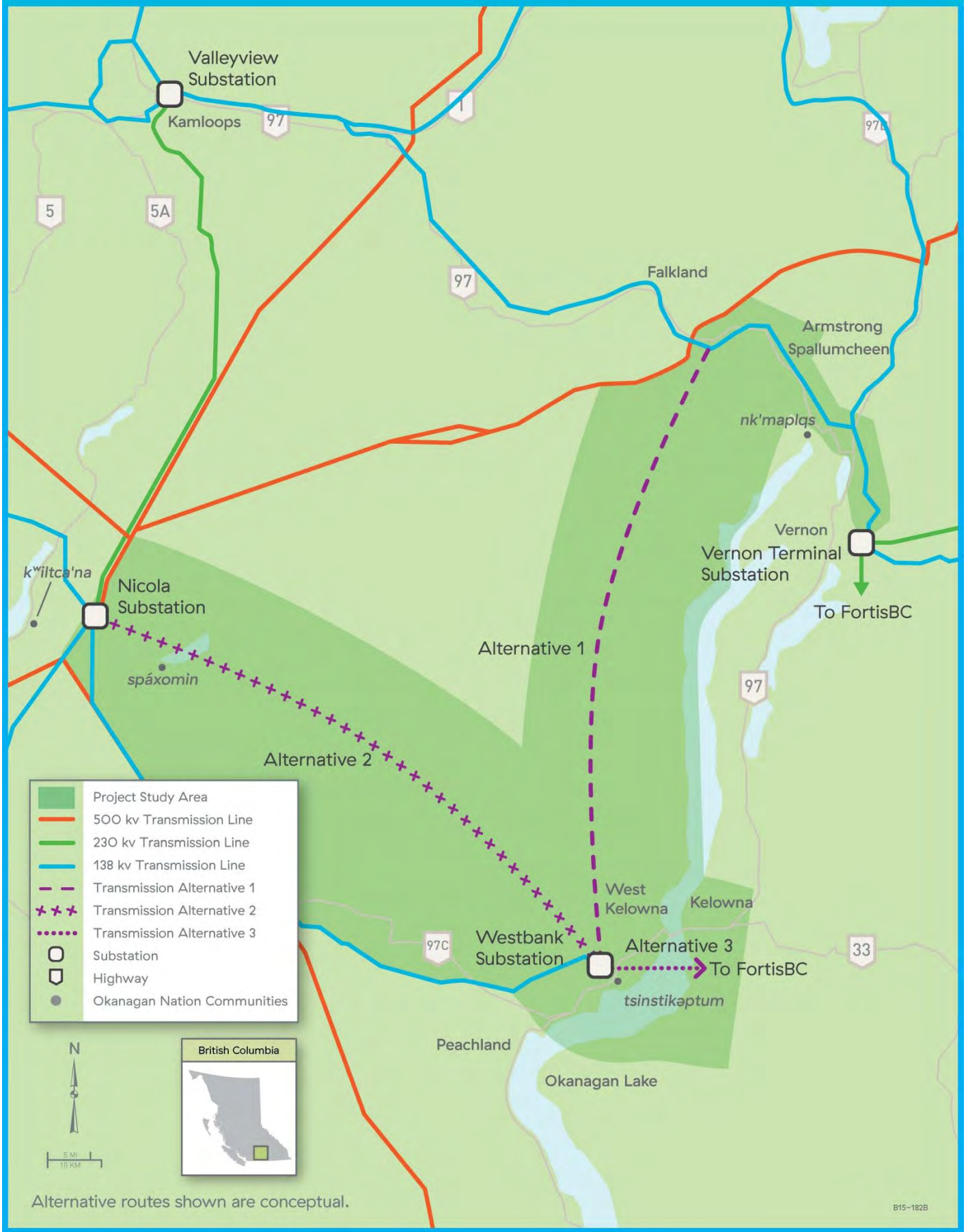
West Kelowna Transmission Project



Alternative routes shown are conceptual.

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Alternative 1

West side of Okanagan Lake

- Build a new transmission line on the west side of Okanagan Lake, connecting Westbank Substation to the existing transmission line between Vernon and Valleyview substations.
- We would need new rights-of-way.
- Routing hasn't yet been identified (conceptual only).

WE'RE CURRENTLY EXPLORING THE FEASIBILITY OF TWO OPTIONS FOR ALTERNATIVE 1:

- Connecting to the existing line somewhere between Falkland and Vernon.
- Bringing the new line into Vernon Substation.

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Alternative 2

Nicola Substation

- Build a new transmission line from Nicola Substation to Westbank Substation using a different route than the existing transmission line.
- We would need new rights-of-way.
- Routing hasn't yet been identified (conceptual only).

What are rights-of-way?

Our power lines cross all kinds of property: residential, agricultural, industrial, commercial and recreational. We negotiate with the land owner (private property owners, First Nations, municipalities and the provincial and federal Crown) to acquire rights-of-way to construct, operate and maintain a power line and the right to keep the rights-of-way clear of all structures, fire hazards, vegetation and any other use that might interfere with our power lines.

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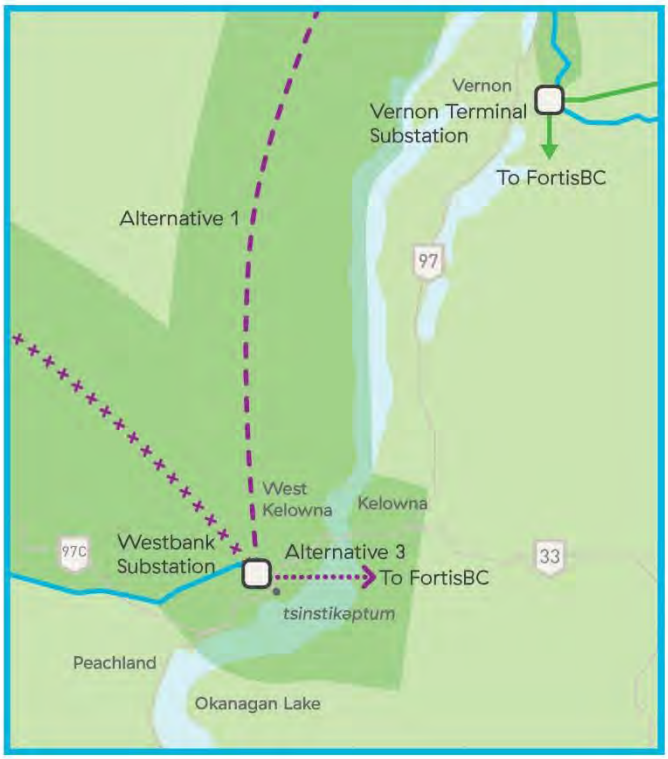
Alternative 3

Fortis BC



- Build a new transmission line, including a submarine cable across Okanagan Lake, connecting Westbank Substation to the FortisBC system.
- We would need new rights-of-way.
- Routing hasn't yet been identified (conceptual only).

WE'RE CURRENTLY EXPLORING THE FEASIBILITY OF TWO OPTIONS FOR ALTERNATIVE 3:

- Connecting Westbank Substation to DG Bell Substation in the FortisBC system.
- FortisBC building a new substation in West Kelowna and a transmission line crossing Okanagan Lake to Saucier Substation (part of the FortisBC system in Kelowna). In this option, we would build a new transmission line from Westbank Substation to the new FortisBC substation.

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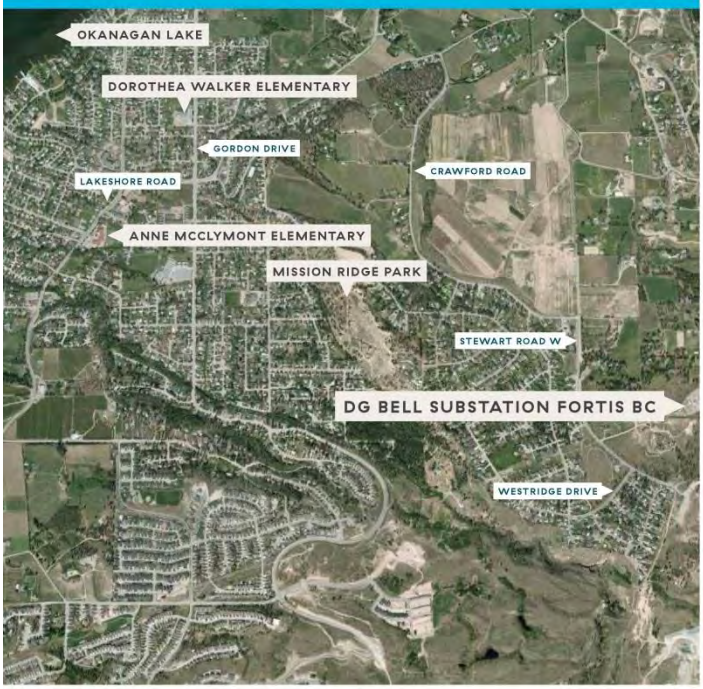
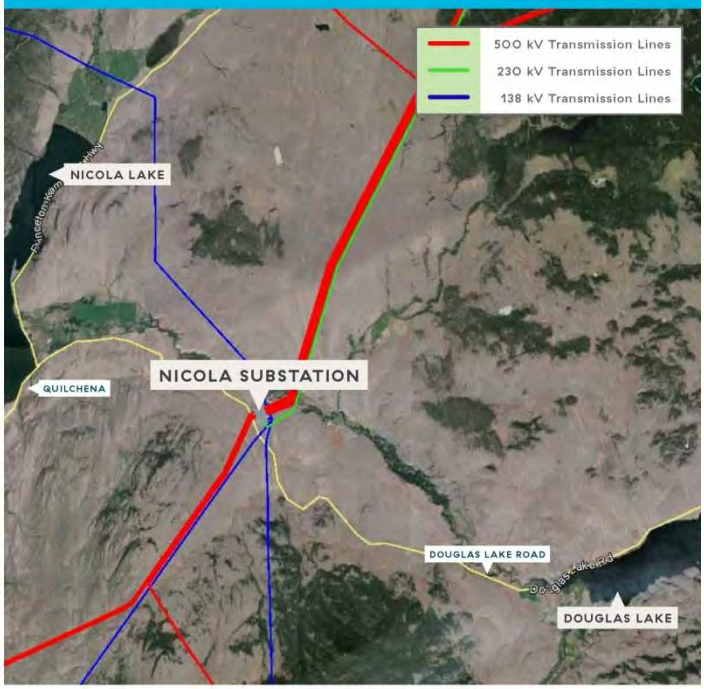
Project area substations

DG Bell Substation
FortisBC – Kelowna (an option on Alternative 3)



Nicola Substation
(Alternative 2)



Saucier Substation
FortisBC – Kelowna (an option on Alternative 3)

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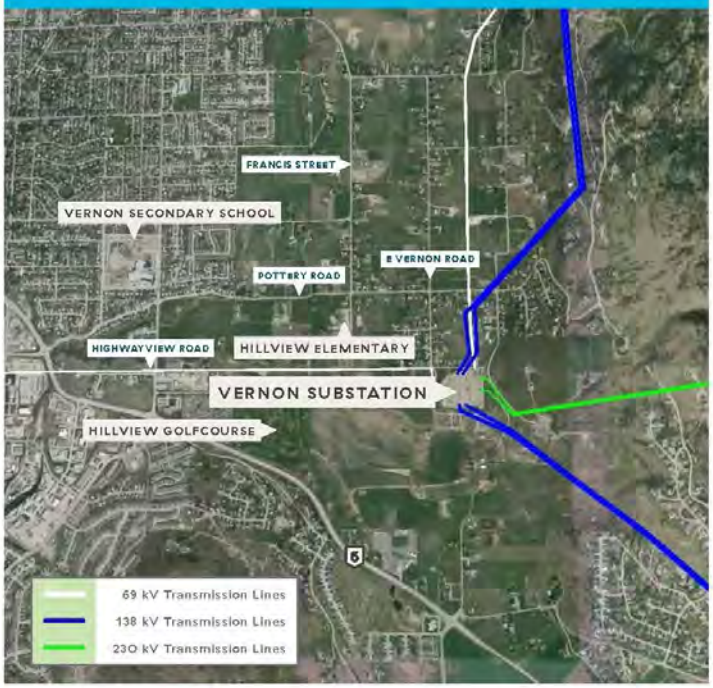
Project area substations

Vernon Substation
Vernon (an option on Alternative 1)



Westbank Substation
West Kelowna (Alternatives 1, 2 and 3)

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Studying the alternatives

Desktop environmental and socio-economic studies

- These studies will provide an overview of the environmental and socio-economic issues identified within each alternative.
- We expect to complete the studies in early 2016, at which time we'll be back to share the results with you.

Area planning study

- This long range planning study will give us a technical evaluation of the alternatives.
- We're exploring all options to provide redundancy to Westbank Substation; it's possible additional alternatives may be identified.
- We expect to complete this study in early 2016, at which time we'll be back to share the results with you.

Identifying a leading alternative

- Once these studies are complete, your input, along with input from other stakeholders will help inform our identification of a leading alternative, on which to do further study.
- We're also collaborating with the Okanagan Nation and other First Nations to understand and address their interests throughout the life of the project.
- We expect to identify a leading alternative by summer 2016.

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Project process

Identification

- Initial studies
- Identify leading alternative
- Additional studies
- Confirm preferred alternative

Definition

- Preliminary design

Implementation

- Final design
- Procurement
- Construction
- Commissioning

Operations

Feb 2015 **2016** **2017** **October 2020 earliest**

BC Hydro is in the early stages of the project. Consultation is ongoing throughout Identification, Definition and Implementation.

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Environmental and socio-economic studies

We've begun a preliminary environmental overview assessment of the alternative corridors looking at the following:

- Socio-economy and community
- Wildlife and vegetation
- Geo-hazards and terrain
- Fish and aquatic resources
- Air quality and noise
- Surface and groundwater
- Archaeology and heritage

The following three maps, show some of the key areas of importance we've identified so far.

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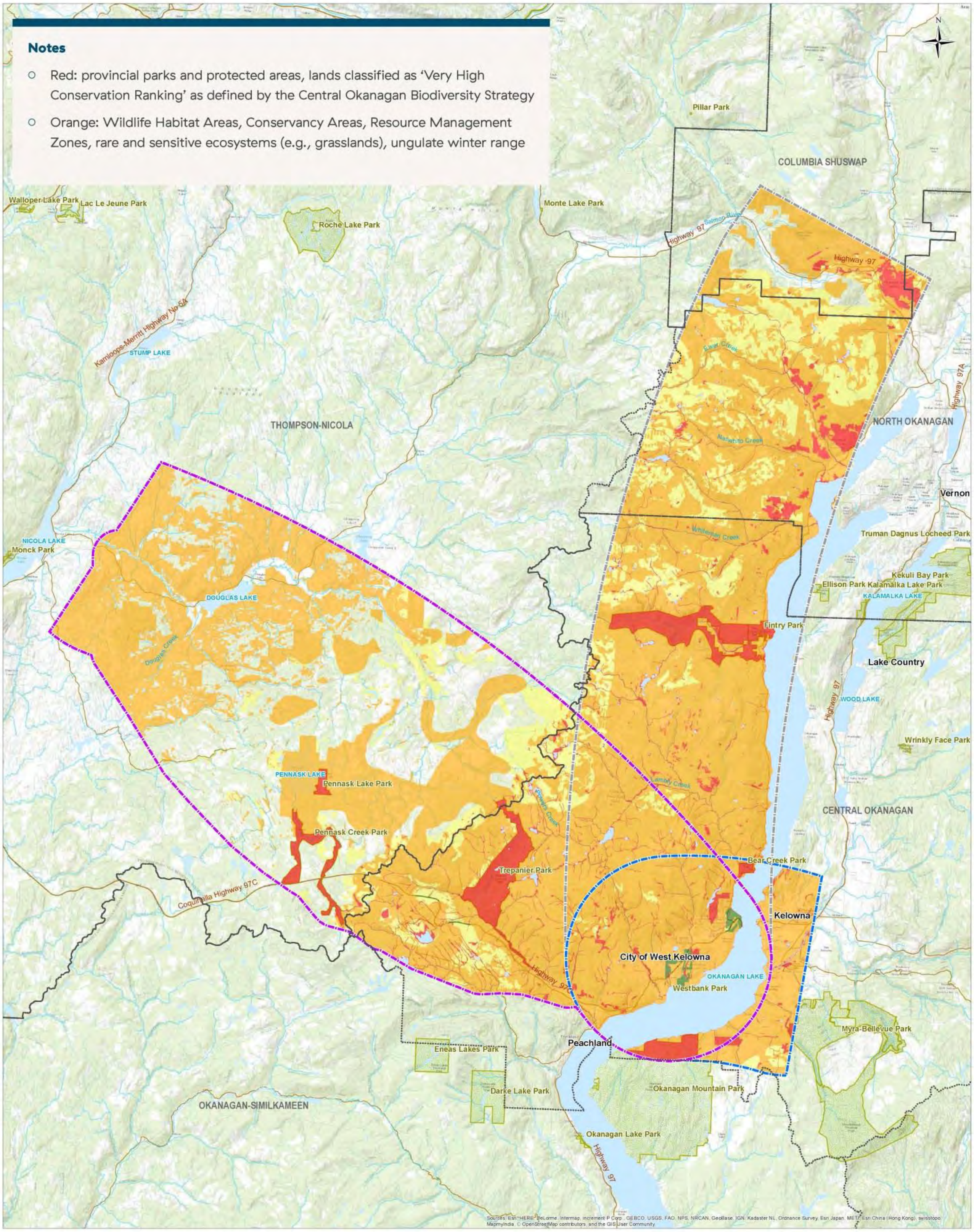

LEGEND

- Alternative 1
- Alternative 2
- Alternative 3
- Roads
- Streams
- District Boundary
- Parks and Protected Areas
- Lakes
- Low environmental sensitivity
- Moderate environmental sensitivity
- High environmental sensitivity
- Very high environmental sensitivity

Notes:
1. Intended for Illustration purposes only.
2. Original in colour.

0 3,750 7,500 15,000 22,500 30,000 Meters

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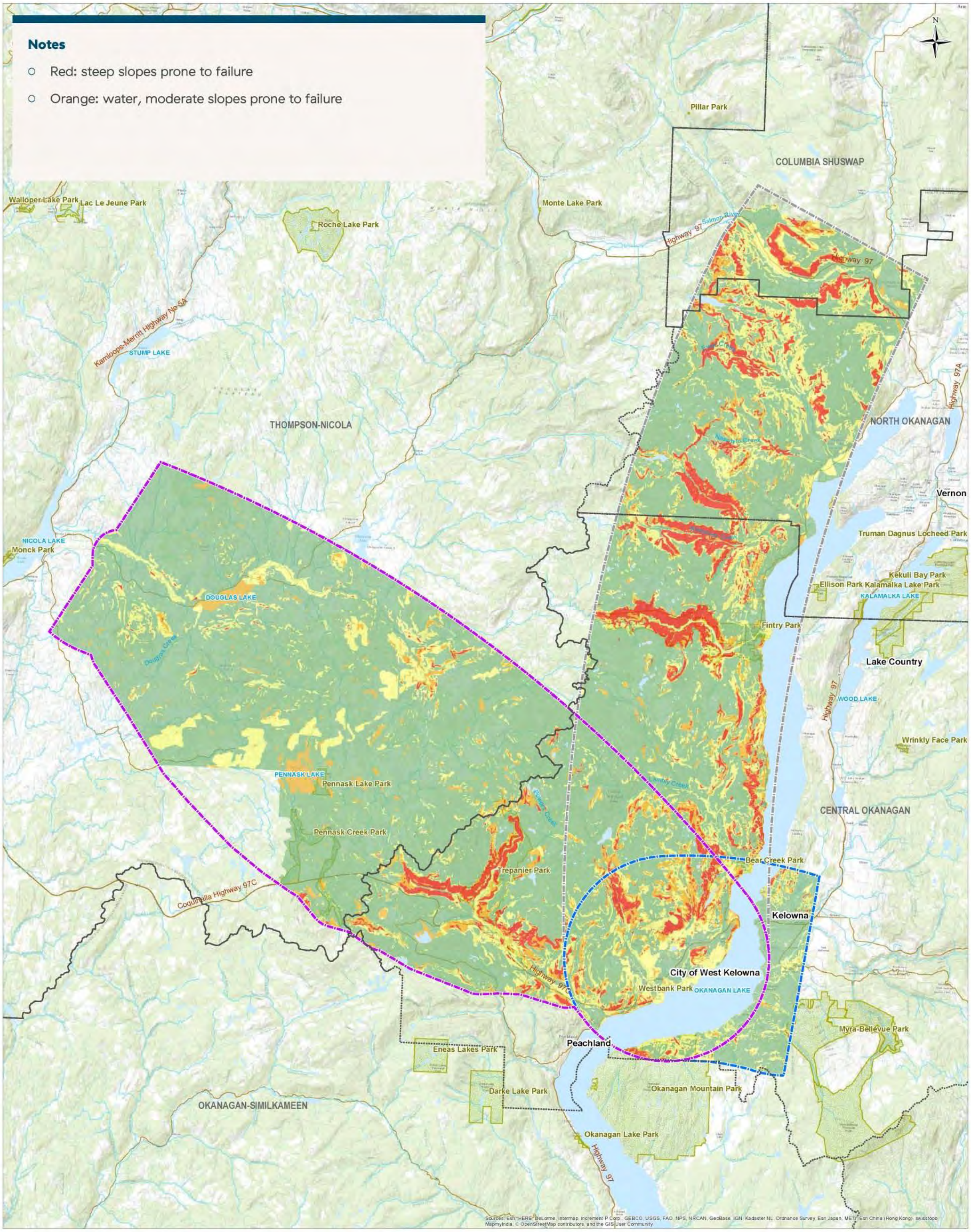
CLIENT NAME: BC Hydro Power smart

PROJECT LOCATION: Okanagan

West Kelowna Transmission Line Project
Wildlife and Terrestrial Ecosystems

BY: SS	DATE: 2015/11/05	SCALE: 1:175,000	REF No: 630167-01-002 REV: 0
CHK'D: SH	PROJ COORD SYS: NAD 1983 UTM Zone 11N		



LEGEND

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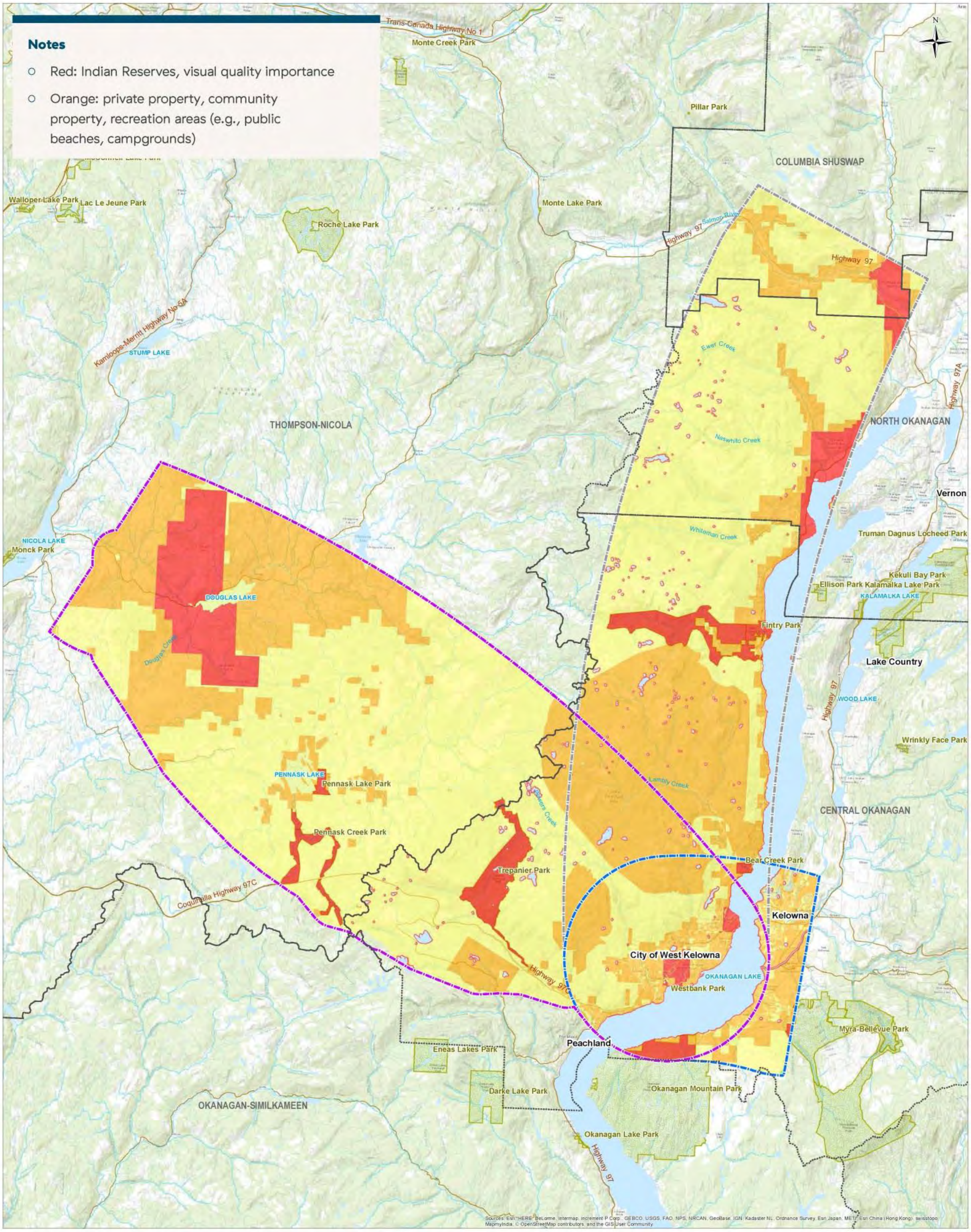
CLIENT NAME: BC Hydro Power smart

PROJECT LOCATION: Okanagan

West Kelowna Transmission Line Project
Geo-hazards and Terrain

BY: SS	DATE: 2015/11/05	SCALE: 1:175,000	REF No:	REV: 0
CHK'D: SH	PROJ COORD SYS: NAD 1983 UTM Zone 11N		630167-03-002	

Notes
- Red: Indian Reserves, visual quality importance
- Orange: private property, community property, recreation areas (e.g., public beaches, campgrounds)



LEGEND
- Alternative 1
- Alternative 2
- Alternative 3
- Roads
- Streams
- District Boundary
- Parks and Protected Areas
- Lakes
- Moderate environmental sensitivity
- High environmental sensitivity
- Very high environmental sensitivity

0 3,750 7,500 15,000 22,500 30,000 Meters

Notes:
1. Intended for Illustration purposes only.
2. Original in colour.

SNC • LAVALIN

CLIENT NAME: BC Hydro Power smart

PROJECT LOCATION: Okanagan

West Kelowna Transmission Line Project
Socio-economy and Community

BY: SS	DATE: 2015/11/05	SCALE: 1:175,000	REF No: 630167-05-008	REV: 0
CHK'D: SH	PROJ COORD SYS: NAD 1983 UTM Zone 11N			

Collaborating with First Nations

We place a high value on our relationship with First Nations; the input and participation of First Nations is crucial to all of our projects.

We're collaborating with the Okanagan Nation and other First Nations to understand and address their interests throughout the life of the project.

We're collaborating with the Okanagan Nation and other First Nations to find opportunities for their participation in work at different stages of the project.

BC Hydro
Power smart

Stakeholder engagement

We want to develop mutually beneficial relationships with communities, stakeholders and members of the public by:

- Encouraging your participation
- Providing you with timely information
- Receiving your input; and
- Letting you know the outcomes of the engagement process.

SO FAR WE'VE:

- Launched a project website at **bchydro.com/wktp.**
- Informed the public about the project through local media and direct mail.
- Held public open houses in June 2015, and posted a communication and consultation summary online.
- Met with the City of West Kelowna, District of Peachland, Central Okanagan Regional District, City of Vernon, Township of Spallumcheen and City of Kelowna.

GOING FORWARD WE'LL:

- Continue meeting with/updating key municipalities, regional districts and other stakeholder groups.
- Provide project updates to interested stakeholders.
- Hold additional public open houses, as we learn more about the alternatives.

Consultation will be ongoing throughout the life of the West Kelowna Transmission Project.

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Next Steps

We're still in the early stages of this project and have a lot of work to do. We'll be back to consult with you further as we have more details on the alternatives in 2016.

For more information, please visit **bchydro.com/wktp** or contact us at **1 866 647 3334**, or **stakeholderengagement@bchydro.com**.

Your input is needed to help us evaluate the alternatives, please fill out a feedback from before you leave.

Thank you!

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Appendix C:

Project fact sheet and feedback form

West Kelowna Transmission Project

November 2015

We're in the early planning stages for a new transmission line

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.

Why it's important

About 22,000 customers are served by the Westbank Substation and a single 138 kilovolt transmission line. We've prioritized the West Kelowna area as needing a redundant supply of power because of:

- The large number of customers served by a single transmission line.
- The challenge of restoring power on the existing transmission line resulting from its 80 kilometre length, remote location and rough terrain.
- The risk of destructive forces like forest fires and landslides.

In the meantime, we'll continue to monitor and manage any risks to the existing transmission line.

What's happening

We're in the early stages of this project, which will involve consultation with communities and stakeholders. Collaboration with the Okanagan Nation and First Nations is underway in a parallel process. We're also initiating a number of studies, including a review of three previously identified alternatives (see map on back). As these studies move forward it's possible that additional alternatives will be identified.

Once these studies are complete, your input, along with input from other stakeholders will help inform our identification of a leading alternative, on which to do further study. We expect to identify a leading alternative by summer 2016.

Fast facts

WHERE:
In and around West Kelowna and the Central Okanagan.

TIMING:
Earliest in-service date is 2020.

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 – or an estimated 60,000 people.

See map on back page

BCH15-154
Nov 2015

BC Hydro
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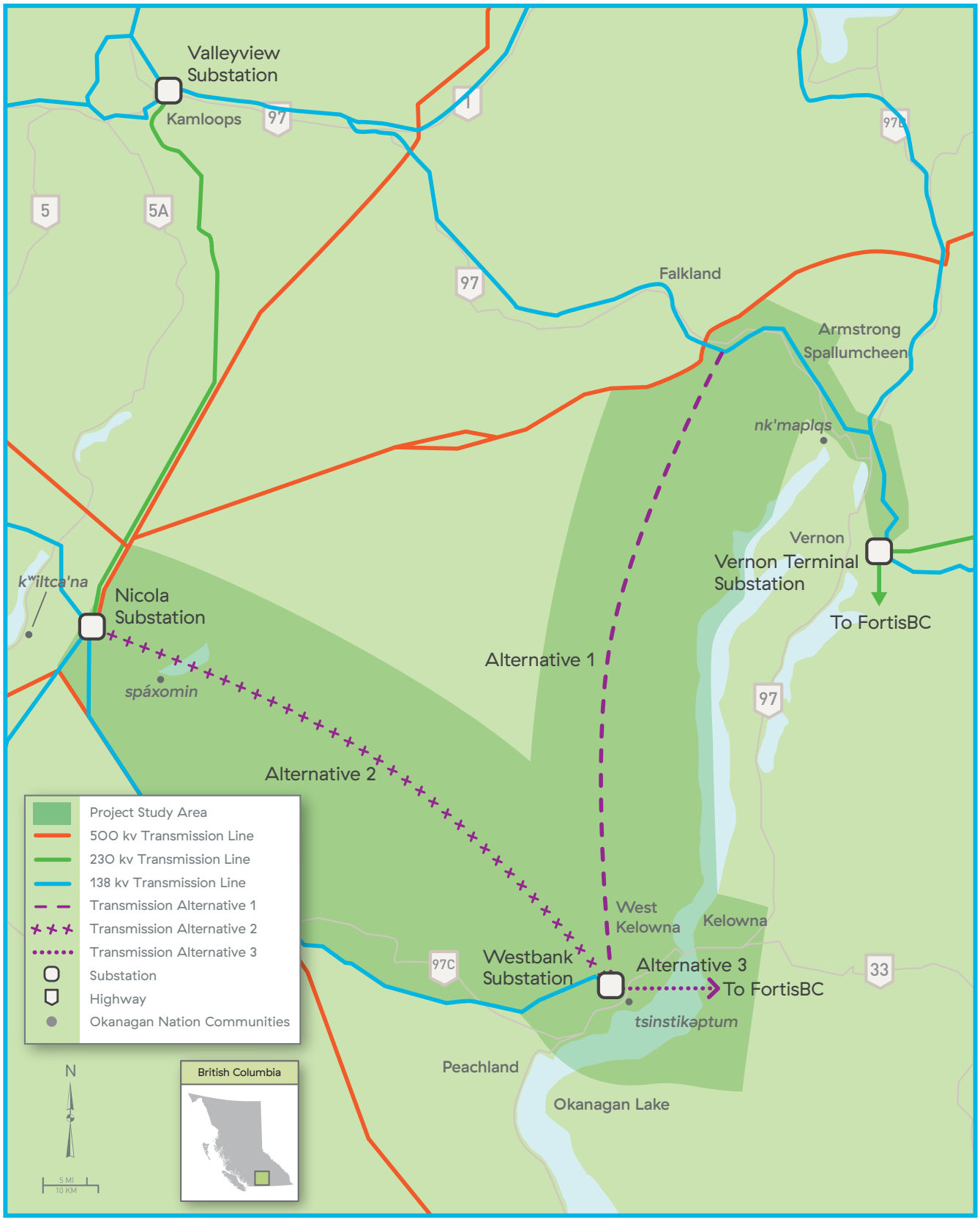
West Kelowna Transmission Project



How to reach us

Stakeholder Engagement, BC Hydro

TOLL-FREE: 1 866 647 3334

EMAIL: stakeholderengagement@bchydro.com

WEBSITE: bchydro.com/wktp

West Kelowna Transmission Project
Public Open House

Feedback Form

Thank you for attending the open house. Your feedback is an extremely important element of our consultation process. Input provided on this form will be compiled with other public comments and summarized for consideration by the project team as we move through the project process. All comments will remain anonymous.

Feedback forms may be:

Deposited: In the box provided or handed to staff at the meeting tonight.
Mailed: BC Hydro Stakeholder Engagement
15th Floor – 333 Dunsmuir Street, Vancouver, BC V6B 5R3
Faxed: 604 623 3937
Emailed: stakeholderengagement@bchydro.com

What comments do you have on the proposed alternatives to date?

What other information would you be interested in at future open houses on this project?

What community do you live in?

_____

The information presented today helped me understand the scope of the project.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

The information was presented in a format that was easy to understand.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

Open house staff was able to adequately answer my questions.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

How did you hear about the open house?

☐ Print advertising ☐ Radio advertising ☐ Email

☐ Word of mouth ☐ BC Hydro social media ☐ BC Hydro website

☐ Other (please specify): _____

Additional Comments:

_____

_____

_____

_____

_____

_____

OPTIONAL SECTION
If you'd like to be added to our stakeholder list to receive information about the project, please clearly print your email or mailing address below. Contact information provided voluntarily to BC Hydro will be used solely to distribute information to you. Your contact information won't be sold or used for other purposes. You may "unsubscribe" from the distribution list at any time by emailing stakeholderengagement@bchydro.com or phoning 1 866 647 3334.

Name: _____

Email Address: _____

OR

Mailing Address: _____

Appendix D:

Open house public feedback

Appendix D: Open house public feedback

The following summary is derived from:

- questions and comments received from one-on-one conversations between open house participants and the project team
- comment forms
- e-mails
- telephone conversations

Comments have been summarized and grouped into themes to show the types of input received. The number of comments may exceed the total commenting, as respondents may have commented more than once, or on more than one topic.

General

BC Hydro and Project

- Noted interest in job opportunities.
- Noted found alternatives interesting for routes and very eye opening with the challenges of each route.
- Noted satisfaction in project process, getting closer to a secondary line.
- Expressed interest in more information on outage reports for West Kelowna over the years, specifically if 2009 and 2014 are average years.

Process and Timeline

- Expressed interest in more information on routing, including pros and cons, as they're prioritized.
- Requested to be kept informed of emerging options that include new infrastructure on both sides of the lake.
- Expressed interest in more detail on the alternatives, providing opportunity for input prior to decisions being made.
- Suggested BC Hydro consider creating a Community Liaison Committee to assist as a third-party review group for this project.
- Suggested that a Community Liaison Committee be initiated at the proposal stage and assist throughout the construction and commissioning phases, providing an interested, local voice on the project.
- Expressed interest in more information on possibility of forming a Community Liaison Committee.
- Noted that the project should be completed in a timely manner.
- Expressed interest in information about the duration of construction for each alternative.
- Questioned the project timeline; expressed that 2020 seems to be rather lengthy given the current scenario.
- Expressed concern that the project timeline is very long.

- Expressed interest in information about when construction will begin.
- Expressed interest in information on the pros and cons of each alternative.
- Expressed interest in information on the time line to complete each alternative.
- Expressed interest in seeing a projection of how each alternative will benefit the project's service area.
- Expressed opinion that BC Hydro should have started the project a decade or so earlier, given the long time line for planning and construction.

Open Houses and Communications

- Noted that open house staff were informative and friendly.
- Noted that the open house was interesting, and that staff were informative.
- Expressed thanks for an informative open house.
- Expressed opinion that the open house was informative and simple to understand.
- Noted appreciation for technical staff at the open house who were familiar with the current electrical system and able to answer technical questions.
- Expressed opinion that the open house was worthwhile and well done.
- Expressed thanks for a great display and people to answer questions at open house.

Environment

- Suggested that environmental effects be minimized (*noted by 4 participants*).
- Expressed interest in more information about environmental areas of concern.
- Expressed interest in more information on level of impact the project will have on local wildlife.
- Suggested that minimal work be conducted around creeks and water sources.
- Suggested that intrusions upon grazing and protected areas for wildlife be minimized.
- Suggested that soil erosion be minimized.
- Expressed interest in more information on how BC Hydro will determine environmental sensitivity in such a broad area.
- Expressed interest in information about the total environmental impact for each alternative, and restoration plans.

Operations

- Expressed opinion that a voltage of 138 kilovolts for a secondary line would not be sufficient, a voltage of 230 kilovolts would be better.

Other alternatives

- Suggested BC Hydro consider bringing a new transmission line south from Vernon and then across Okanagan Lake.
- Suggested BC Hydro considers an auxiliary power generator in West Kelowna (diesel, natural gas, alternative power like wind or solar) as an alternative.
- Suggested BC Hydro considers extending a 138 kilovolt line from Vaseux Substation to West Kelowna.

- Suggested BC Hydro considers bringing a new transmission line south from Vernon and then across Okanagan Lake.
- Suggested BC Hydro considers local generation by renewable sources.
- Suggested that a new line be routed to Vernon crossing the lake.

Cost

- Expressed interest in information on the cost of each alternative (*noted by 4 participants*).
- Expressed interest in more information on the approximate future cost per household for each of the three alternatives.
- Expressed interest in information on how the cost of a new line compares with the cost of placing manpower in optimum locations to address emergencies.
- Expressed interest in information on how the cost of a line compares with the cost of a new physical source of power to address emergencies.
- Expressed concern about the costs associated with the West Kelowna Transmission Project.
- Expressed interest in more information on how each of the alternatives will affect BC Hydro rates.
- Expressed interest in more information on the estimates for initial construction and operation of each alternative.
- Expressed interest in seeing a projected budget for the year in which the project will be built.

Need

- Expressed support for the project due to the nine hour outage in 2014.
- Expressed support for the project due to recent forest fires and power outages demonstrating vulnerability created by one transmission line.
- Expressed interest in knowing how many other communities are served by a single transmission line.
- Expressed opinion that a secondary transmission line is not needed; planning and provisions for emergency response would mitigate the need.
- Expressed opinion that a secondary transmission line is not needed; noted that outages to thousands of people at a time occur in Vancouver.

Alternative Selection

- Noted preference for two sources of supply into West Kelowna as more reliable.
- Expressed interest in details of what BC Hydro considers for selecting an alternative.
- Suggested BC Hydro provide the details of what is considered for selecting an alternative; suggested this be done in a timely manner, allowing the public to provide informed input prior to decisions being made.
- Suggested that the alternative selected should maximize sustainability.
- Suggested that the alternative selected should minimize risk.
- Suggested that the alternative selected be cost effective.

- Suggested that the alternative selected be the least cost.
- Suggested that the alternative selected should promote and enhance the possibility of generation of wind energy along the route.
- Suggested that the alternative selected should connect to the greenest sources of energy.
- Suggested that the alternative selected be secure from other system bottle necks and constraints.
- Suggested that the alternative selected should promote the public utility and not a privately owned utility.
- Suggested that the alternative selected should support and enhance First Nation treaty rights.
- Suggested that the alterative selected should enhance the Climate Action Plan to assist in the electrification of the provinces transportation, industrial and other carbon intensive sectors.
- Suggested that BC Hydro build sustainably to address need over 50+ years.

Routing and Aesthetics

- Expressed interest in more information on the routing details of each alternative (*noted by 2 participants*).
- Noted that without details of routing, cannot determine if there is any potential impact to personal property.
- Suggested that routing be cost effective and least prone to risk of damage.
- Suggested that new infrastructure be integrated with the existing system.
- Suggested that routing address concerns regarding proximity to populated areas and Electric and Magnetic Fields (EMF).
- Suggested that electric and magnetic fields be minimized.
- Expressed concerns about health effects of electric and magnetic fields if a new line is routed near populated areas.
- Suggested that BC Hydro route a new line away from homes.
- Suggested a new transmission line not be routed near private property.
- Noted that most people will be interested in knowing if the project will be in proximity to their homes, as homes constitute most people's most significant asset.
- Expressed concerns about reduced property values if a new line is routed within viewscape.
- Expressed opinion that proximity to a transmission line will de-value a property.
- Expressed interest in more information on what occurs if BC Hydro wants to cross private property, and those property owners do not agree.
- Suggestion that visual impacts from clearing and new line be considered.
- Suggested that BC Hydro place a new transmission line underground in urban areas.
- Suggested routing considers potential impact on mineral tenures at the planning stage.
- Noted that cleared rights-of-way can create grazing potential.
- Noted that cleared rights-of-way can cause concern over cattle drift.
- Suggested that a new line be routed to the existing West Kelowna substation at the base of the Telus slope through the Shannon Lake area.

- Suggested that a new transmission line not be routed through any forested areas due to potential impact to recreation.
- Suggested that a new transmission line not be routed through forested areas, unless following a fire break.
- Expressed concerns about impacts to park land and camping grounds if a new line is routed through them.
- Expressed concerns about the routing of a new line into Westbank Substation.
- Suggestion that BC Hydro maximize the use of existing rights-of-way.

Alternative 1 (to Vernon):

General

- Expressed support for Alternative 1 (*noted by 3 participants*).
- Expressed support for Alternative 1 as it comes from a separate transmission source.
- Noted that Alternative 1 and 2 are similar in length and type of terrain.
- Noted that area of Alternative 1 is at high risk from forest fires.

Routing

- Suggested that BC Hydro consider and avoid mineral tenures if selected.
- Expressed interest in the proximity of Alternative 1 to Salmon River Bench Road.
- Expressed concern that Alternative 1 would be routed near 6-Mile Creek and Indian Creek.
- Expressed interest in potential for routing near Glenrosa area (Westside Road).
- Noted that routing along the west side of Okanagan Lake would be difficult to construct and maintain due to the difficult terrain.
- Opposed to a routing along Westside Road; expressed opinion this would lower property values and have a negative impact on tourism.
- Opposed to routing along Westside Road as project will not benefit residents of Westside Road.
- Opposed to routing high above Westside Road; environmentally sensitive wildlife (mountain sheep, flammulated owl, painted turtles, etc.) and virgin land.

Alternative 2 (to Nicola Substation):

General

- Expressed support for Alternative 2 (*noted by 3 participants*).
- Expressed support for Alternative 2; expressed opinion it has the least environmental impacts and would be most cost effective.
- Expressed opinion that Alternative 2 is the least challenging based upon landscape stability.
- Expressed support for Alternative 2 as there is already existing rights-of-way.

- Expressed least support for Alternative 2; expressed opinion it is high risk terrain that may require towers.
- Expressed least support for Alternative 2; expressed opinion it would be most difficult and expensive to maintain as forest fires are difficult to fight in this area.
- Expressed opinion that Alternative 2 is least favourable due to similar route and terrain to existing line.
- Expressed least support for Alternative 2 as it would bring power from the same source as the existing line.

Routing

- Suggested that BC Hydro build a new 230 kilovolt transmission line along the existing rights-of-way and the existing transmission line be removed.
- Suggested that a new line be built upon the existing rights-of-way.

Reliability

- Expressed opinion that Alternative 2 would provide lower reliability than other alternatives as is from same source as existing line (*expressed by 2 participants*).
- Expressed concern that a forest fire threatening the existing line would also threaten Alternative 2.

Alternative 3 (to Fortis BC):

General

- Expressed support for Alternative 3 (*noted by 3 participants*).
- Expressed support for Alternative 3 as it's the shortest in length (*noted by 2 participants*).
- Expressed support for Alternative 3 as it is underwater.
- Expressed support for Alternative 3; opinion it would be most expensive but also most practical.
- Expressed support for Alternative 3; opinion the time line would be shorter than other alternatives.
- Expressed support for Alternative 3; opinion that the long term maintenance would be less than other alternatives.
- Expressed support for Alternative 3; opinion that environmental remediation and ongoing monitoring would be less than other alternatives.
- Expressed support for Alternative 3; opinion this alternative is not subject to environmental or political changes to the same degree as other alternatives.
- Expressed support for Alternative 3; opinion that a lake cable would be challenging, but wouldn't be at risk from forest fires.
- Expressed support for Alternative 3 as it will not be threatened by forest fires; opinion that forest fire problem will continue to increase with global warming.
- Expressed support for Alternative 3; opinion it would have less environmental impact.

- Expressed support for Alternative3; opinion there would be fewer property owners to negotiate with.
- Expressed support for Alternative 3; opinion that a reciprocal power agreement would be made with Fortis BC.
- Expressed least support for Alternative 3; concerns over costs for upgrades needed in Fortis BC system and wheeling charges.
- Expressed support for Alternative 3; opinion it would provide a strong source of power.
- Expressed support for Alternative 3; opinion it would require the least amount of infrastructure.
- Expressed support for Alternative 3 as a submarine cable is not visible.
- Expressed support for Alternative 3; opinion it's the most cost effective, environmentally friendly and the safest (forest fires, traffic) of the three alternatives.
- Expressed support for Alternative 3; opinion that location of Westbank Substation is conducive to underground transmission line into Kelowna.
- Expressed least support for Alternative 3.
- Expressed least support for Alternative 3; opinion that a lake crossing would be the highest cost.
- Questioned if the Fortis BC system has the capacity to support West Kelowna (*expressed by 2 participants*).
- Interested in more information about how a connection to Fortis BC would work; interest in possibility of BC Hydro alternatively providing power to Fortis BC.

Routing

- Suggested Alternative 3 is routed across the lake and up Gellatly Rd (West Kelowna); opinion this would minimize disruption, amount of transmission lines, and environmental impacts.
- Suggested Alternative 3 be built entirely with 138 kilovolt cable (combination of underground cable and submarine cable) surfacing at the West Kelowna substation.
- Expressed concern over challenge of getting to the lakeshore in West Kelowna and Kelowna, as the area is already developed.
- Suggested that the bridge not be blocked if this alternative is selected.
- Expressed opinion that option to Saucier Substation is more desirable than to DG Bell as there are already a lot of transmission lines in the Mission area.

Cost

- Noted that a power wheeling arrangement would have to be made with Fortis BC.
- Suggested that BC Hydro send a separate mailing to stakeholders advising that, if and when used, power from Fortis BC will not create an extra charge on their bill.

Environment

- Expressed support for Alternative 3; opinion it would have the least environmental impact and that infrastructure should stay within human population since they use it.

- Expressed opinion that Alternative 3 would have less environmental impact; other alternatives would open up new land leading to illegal dumping and increased forest fires from human activity.
- Expressed opinion Alternative 3 would have the least risk from forest fires.
- Expressed opinion Alternative 3 would have the least environmental impact as land is already disturbed.
- Expressed opinion that Alternative 3 would have the most environmental impact; impact on pure bred horses in Mission (DG Bell option).

Reliability

- Expressed support for Alternative 3 as it comes from a separate transmission source.

WEST KELOWNA TRANSMISSION PROJECT

BC Hydro
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BCH16-017