CONCLUSIONS

VOLUME 5, SECTION 40

The Environmental Impact Statement (EIS) details the environmental assessment undertaken for the Site C Clean Energy project. The EIS includes the project rationale, identifies potential effects and proposes measures to avoid or mitigate these effects. The EIS also describes the benefits Site C would provide for customers, Aboriginal groups, northern communities and the province as a whole.

The purpose of the environmental assessment is to assess the potential residual adverse effects of the project and to determine whether each of those effects is significant when considered alone, and when considered as a cumulative effect in combination with the residual effects of other projects and activities.

SIGNIFICANCE OF POTENTIAL RESIDUAL EFFECTS

The substantial work undertaken to date indicates that the effects of the project can largely be mitigated through careful project planning, comprehensive mitigation programs and ongoing monitoring during construction and operations. However, a determination of significance has been made for the following VCs:

Fish and Fish Habitat

The transformation of a river ecosystem to a reservoir would create a new and productive aquatic ecosystem. This ecosystem is expected to support a community of equal or greater productivity than the existing riverine environment. With this change, however, three distinct sub-groups of species may be lost: the migratory Arctic grayling in the Moberly River, the migratory bull trout that spawn in the Halfway River, and the mountain whitefish that rely on Peace River habitat. However, these species would continue to be present in Peace River tributaries and downstream of the Site C dam, and may persist in the reservoir.

Wildlife Resources

Habitat for certain migratory birds (Canada, Cape May and Bay-breasted Warblers, Yellow Rail and Nelson's Sparrow) would be affected by the creation of the reservoir. Because these select migratory birds are considered species at risk, a determination of significance has been made. None of the other species of wildlife assessed are expected to be significantly affected by the Project as proposed mitigation would be effective or the populations are not at risk.

Vegetation and Ecological Communities

The creation of the reservoir and other project activities would alter and fragment some unique terrestrial ecosystems that include a marl fen, tufa seeps, and old and mature riparian and floodplain forests. In addition, some occurrences of rare vascular and non-vascular plants would be lost.

Current Use of Lands and Resources for Traditional Purposes

The creation of the reservoir would result in the loss of some important multi-use, cultural areas and valued landscapes, including sites at Attachie, Bear Flats and Farrell Creek. As a result, a determination of

significance has been made for the effect on the use of these areas by members of the Treaty 8 Tribal Association, Saulteau First Nations and Blueberry River First Nations. In addition, the effect on other cultural and traditional uses would be significant for McLeod Lake Indian Band at the confluence of the Peace River with the Halfway River. The effect on hunting, trapping and fishing opportunities and practices would not be significant.

Conclusion of the EIS

The environmental assessment was conducted to assess the potential effects of the project on 22 valued components, categorized under five pillars: environmental, economic, social, heritage and health.

- The effects of the project can largely be mitigated through careful project planning, comprehensive mitigation programs and ongoing monitoring during construction and operations.
- Based on BC Hydro's long-term planning process and analysis of alternative resources to meet need, the Site C project has been identified as the preferred resource option to meet both long-term energy and capacity requirements.
- Hydroelectric projects are complex and require a long lead time to plan, design and complete the rigorous environmental assessment process, and they take many years to construct. Therefore, Site C should proceed now to ensure that the energy and dependable capacity from the project is available to meet forecast customer demand.
- BC Hydro concludes that while the project has the potential to result in some significant residual effects, they are justified by:
    - The public interest served by delivering long term, reliable electricity to meet growing demand
    - The employment, economic development, ratepayer, taxpayer, and community benefits that would result
    - The ability of the project to meet this need for electricity with lower GHG impact than other resource options
    - The ability of the project to take advantage of water already stored in the upstream reservoirs to generate over 35 per cent of the energy from BC Hydro's largest facility with only 5 per cent of the reservoir area.

ABOUT THE SITE C CLEAN ENERGY PROJECT

Site C is a proposed third dam and hydroelectric generating station on the Peace River in northeast B.C. Site C would provide 1,100 megawatts (MW) of capacity, and produce about 5,100 gigawatt hours (GWh) of electricity each year – enough energy to power the equivalent of about 450,000 homes per year in B.C.

Site C is undergoing a cooperative environmental assessment by the Canadian Environmental Assessment Agency (CEA Agency) and the British Columbia Environmental Assessment Office (EAO). The environmental assessment process commenced in August 2011 and is anticipated to take approximately three years to complete.

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