

## EXECUTIVE SUMMARY

The purpose of this Development Plan is to outline the activities that will be conducted for the Frosst Creek Hydroelectric Project (the Project) that Frosst Creek Hydro Inc. (FCHI) (Proponent) is proposing to develop. The proposed Project is a 4 MW run-of-river hydroelectric facility on Frosst Creek situated in Lindell Beach, British Columbia (BC). Key components include an intake structure, penstock, powerhouse, tailrace, and 500 m buried 25 kV power line. The powerhouse, tailrace, and power line will be located at 42892 Frost Rd., owned by FCHI. The anticipated temporary footprint of the Project is approximately 5.4 ha, and the proposed permanent footprint is approximately 1.6 ha.

During the Project development stage, FCHI has engaged First Nations, regulatory agencies, and other stakeholders, considering their interests in the Project and addressing their concerns through measures such as Project design modification, meetings, website updates, advertising, and site visits. FCHI has engaged the 16 First Nations and First Nations Organizations on the CAD list of First Nations provided by FLNRO (including People of the River Referrals Office), and Stó:lō Research and Resource Management Centre through letters, emails, phone calls, meetings, and site visits. Table 64 in Section 7.2 identifies the 16 First Nation Organizations. Table 65 in Section 7.5 outline details of FCHI's consultation with First Nations regarding the Project. FCHI has engaged regulatory agencies including FLNRO (Surrey Office), FLNRO (Natural Resource Office), Fraser Valley Regional District (FVRD), Transport Canada, Agricultural Land Commission (ALC), BC Parks (Cultus Lake), and Department of Fisheries and Oceans (DFO) through letters, emails, phone calls, meetings, and site visits. Table 1 below and Table 63 (Section 6.1) outline details of FCHI's consultation with regulatory agencies regarding the Project. FCHI has engaged the public and other stakeholders, including Lindell Beach and Columbia Valley residents, local water licence holders, a local trapline licence holder, Frosst Creek Development Ltd., Cultus Lake Salmon Research Laboratory (DFO), and Cultus Lake Aquatic Stewardship Society (CLASS) through letters, emails, phone calls, public meetings, and site visits. A summary table of the issues raised, solutions suggested or actioned, outstanding issues, and information distribution activities is provided in Tables 1-3 below, in Table 63 (Section 6.1), and in Table 65 (Section 7.5). For more information, see sections 6 & 7 of the Development Plan. FCHI will continue to engage First Nations, regulatory agencies, the public, and other stakeholders.

Key impact issues considered for the Project include, but are not limited to, the following:

1. First Nation engagement,
2. Project effects on aquatic habitat (including fish VCs outlined in Table 21 and ramping),
3. Wildlife valued components in the Project Area (primary VCs for this Project are Coastal Tailed Frog and Pacific Giant Salamander),
4. Recreation and access during construction and operation, and,
5. Visual quality during construction and operation.

These, and other, key impact issues are outlined in Sections 4-7 of this Development Plan. For First Nation engagement, Table 66 in Section 7.5 summarizes potential concerns raised by PRRO in its initial review of the proposed Project and potential accommodation strategies to address these concerns. The final DP will include any additional concerns articulated by Ts'elxwéyeqw Tribe, PRRO,

and other First Nations during consultation occurring in conjunction with regulatory review of the DP. Regarding project effects on aquatic habitat, Table 21 in Section 4.1.1.3, Section 4.5.4.3, and Appendix T outline proposed impact management measures that will address mitigation and residual impacts on fish VCs and ramping. The OEMP for Fish VCs and ramping is available in Appendix AA. For wildlife valued components in the Project Area, Table 57 in Section 4.6 outlines potential environmental effects, proposed mitigation measures, and assessment of significance of residual effects on wildlife and wildlife habitat. Regarding recreation and access, Section 5.2.3 outlines proposed mitigation measures to minimize potential adverse effects on access and recreational activity within the Frosst Creek watershed during Project construction and operation. For visual quality, Section 5.3.3 outlines proposed mitigation measures to minimize potential adverse effects on the visual quality of the Project area (Note that the Project development is not located within a designated Scenic Area).

Maps of the Project area and general arrangement are included in Appendix A. Map 1 locates the Project in the Fraser Valley and Map 4 locates the Project in the Lindell Beach area. Map 2 outlines the Project footprint and Map 3 outlines the general arrangement of Project works within the Project area.

The estimated total direct labour force in person years required during construction, operation, and decommissioning is 150 person years (PY). The construction phase of the proposed Project is anticipated to create 20 PY of direct employment. During the operational phase, the Project is anticipated to create 120 PY of employment, with an average of 3 full time positions for 40 years distributed among tasks such as operational monitoring, administrative/office work, plant operation, and plant maintenance. Decommissioning is expected to require 10 PY of direct employment (See also Section 1.2).

The estimated capital cost for development and construction of the Project is \$12 million and the annual operating cost associated with the Project is \$700,000 (See also Section 5.1.2).

The Project will result in a number of social, environmental, and economic benefits. The social benefits of the Project include providing potential islanding opportunities for the residents of Lindell Beach and improved road conditions in the Frosst Creek watershed, which may benefit the public (i.e. recreational users). Environmental benefits of the Project include the generation of sustainable clean energy in a way that maintains the natural biological processes of the Frosst Creek Watershed. Furthermore, the data collected and reports written during baseline studies contributes to the existing body of research on environmental Valued Components (VC) in this watershed. The Project is expected to result in beneficial regional economic effects due to job creation for locals and First Nations, purchasing most Project components from Canadian suppliers, and taxation for government. The Project will contribute funds to the First Nations Clean Energy business fund.

The QPs' conclusions from the environmental and socio-economic assessments are outlined in the following table.

Table 1 Qualified Professionals' conclusions from environmental and socio-economic assessment.

| Valued Component                   | Development Plan Section | Conclusions  | Appendix               |
|------------------------------------|--------------------------|--|------------------------|
| Air Quality                        | 4.2.1                    | Given the prescribed mitigation measures, there are no anticipated residual adverse effects on air quality within the Project area resulting from the proposed Project.  | -                      |
| Archaeology (First Nations)        | 7.4                      | Given the SRRMC's AIA results and the prescribed mitigation measures for discovering previously unrecorded cultural materials and features during Project development, no residual adverse effects on archaeology are anticipated to result from the proposed Project.   | H, I                   |
| Fish and Fish Habitat              | 4.1.1                    | Given the prescribed mitigation measures and prescribed OEMP monitoring measures, the Project is expected to have non-significant effects on Fish and Fish Habitat.  | N, O, P, Q, R, U, V, W |
| Water Quality                      | 4.1.2                    | Given the prescribed mitigation measures, the proposed Project is expected to have non-significant effects on water quality during the Construction, Commissioning, and Operation phases of the Project.   | K                      |
| Forestry Opportunities             | 5.3                      | Given the prescribed mitigation measures, no residual effects on forestry opportunities are anticipated to result from the proposed Project.   | J                      |
| Geomorphology                      | 4.3.3                    | Given the prescribed mitigation measures for scouring the headpond, no residual adverse effects on the geomorphology of the creek are expected to occur as a result of the proposed Project.   | G                      |
| Geotechnical and Slope Stability   | 4.3.2                    | Given the prescribed mitigation measures and the proposed Project design's inclusion of management of potential geotechnical hazards and geotechnical/slope stability considerations, there should not be a significant increase to the existing geotechnical and slope stability hazards within the Project area. | C                      |
| Human Health and Safety            | 5.4                      | No residual adverse effects to human health and safety are anticipated to occur as a result of the proposed Project. The Project will comply with health and safety regulations during all project phases.   | -                      |
| Surface Hydrology and Hydrogeology | 4.3.1                    | The Project is anticipated to have non-significant effects on Surface Hydrology and Hydrogeology. Any residual effects resulting from reduced  | D, F                   |

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|  |       | water flow will be limited spatially to the diversion reach and temporally to the commissioning and operation phases of the Project.   |         |
| Rare Plants, Plant Communities, and Ecosystems at Risk | 4.4.1 | Given the prescribed mitigation measures, no potential residual adverse effects on rare or endangered plants are expected to occur as a result of the Project. Potential residual effects on three Blue-listed ecological communities are predicted to be non-significant. Potential residual adverse effects of the Project on riparian habitat are will be minimized and mitigated to the extent possible.   | L, M    |
| Recreation and Access                                  | 5.2   | Given the prescribed mitigation measures, no residual effects on recreation and access are anticipated to result from the proposed Project. Some benefits may exist for the public with respect to improved road conditions.   | -       |
| Regional Economy                                       | 5.1   | The Project is expected to result in beneficial regional economic effects due to job creation and taxation for government. No adverse residual economic effects are predicted with respect to the local economy as a result of the proposed Project.   | -       |
| Water Rights   | 5.5   | Given mitigation measures to maintain the water quality and quantity of existing water licence holders in the vicinity of the Project, no residual adverse effects to water rights are anticipated to occur as a result of the proposed Project.   | -       |
| Wildlife and Wildlife Habitat                          | 4.5   | Given the prescribed mitigation measures and prescribed OEMP monitoring measures, the Project is expected to have no residual adverse effects on avian and mammal species, and non-significant effects on amphibian and invertebrate species.  | X, L, M |
| Amphibian species                                      | 4.5.1 | The prescribed mitigation measures are expected to fully mitigate most adverse Project effects on Red-legged Frog and Western Toad. The impact of predicted residual adverse Project effects on Red-legged Frog and Western Toad is expected to be non-significant. Given the prescribed mitigation measures, potential residual adverse effects of the Project on Coastal Tailed Frog and Pacific Giant Salamander are expected to be non-significant, and are not expected to noticeably change these species' populations in the creek. | X       |