

DATE: January 5, 2021**FILE:** 1310-01**TO:** Chair and Directors
Electoral Areas Services Committee**FROM:** Russell Dyson
Chief Administrative OfficerSupported by Russell Dyson
Chief Administrative Officer***R. Dyson*****RE: Denman and Hornby Islands Internet Connectivity Opportunity****Purpose**

To consider the Comox Valley Regional District (CVRD) Board funding high speed fibre internet landing sites on Denman and Hornby Islands and whether to support in principle a funding commitment for 'last-mile' funding grant application purposes also on Denman and Hornby Islands.

Recommendations from the Chief Administrative Officer:

1. THAT the Comox Valley Regional District (CVRD) support the installation of high speed fibre internet landing sites on Denman and Hornby Islands through a financial contribution of \$142,000 to the Strathcona Regional District and the Connected Coast project, to be funded by the Denman and Hornby Islands community works funds;

AND FURTHER THAT the CVRD write a letter of support for the Strathcona Regional District and Connected Coast project for their efforts to secure all necessary permits on Denman and Hornby Islands, including identification of best sites, design and tenure agreements for landings, Points of Presence and Right of Ways.

2. THAT the Comox Valley Regional District (CVRD) Board support CityWest in applying to any and all Provincial and Federal programs for the construction of last mile fibre projects on Denman and Hornby Islands;

AND FURTHER THAT the Board consider funding beyond the 90% threshold subject to an assessment of a CVRD service delivery model to support broadband connectivity, including public engagement prior to any formal commitments being established.

Executive Summary

Internet service on Denman and Hornby Islands is below the national standard of 50/10 download/upload speed set by the Canadian Radio-television Telecommunications Commission (CRTC) and an opportunity may exist to support improved services through a partnership with the Strathcona Regional District (SRD) and the Connected Coast project.

A two-step approach is recommended where the CVRD provides:

- Funding to bring fibre to a landing site on each island, and
- Support in principle to allow CityWest, the internet service provider (ISP) that is partnering with the SRD on the Connected Coast project, to apply for grant funds to construct last mile infrastructure to homes, businesses, and institutions on the Islands.

The opportunity related to the landing sites exists in that a partnership with the Connected Coast project at this time (before the subsea fibre is installed) requires \$142,000 in funding from the

community whereas installing fibre on the Islands after the subsea fibre is installed would cost an estimated \$725,000.

Substantial effort to explore the CVRD's eventual funding model and engage with the public on the specific services to be delivered will be required, should the recommendations proceed. Further, supporting the concept of improved internet service on Denman and Hornby Islands may place restrictions on other priorities on the islands, due to staff capacities and/or fiscal limitations.

Prepared by:

J. Warren

James Warren
Deputy Chief Administrative
Officer

Government Partners and Stakeholder Distribution (Upon Agenda Publication)

Hornby Island Residents and Ratepayers Association	✓
Denman Island Residents Association	✓
Hornby Island Community Economic Enhancement Corporation	✓
Denman Works!	✓
Islands Trust	✓
Strathcona Regional District	✓

Background/Current Situation

Submitted in January 2020, a connectivity research and public consultation report prepared by the Hornby Island Community Economic Enhancement Corporation (HICEEC) for the CVRD describes the digital connectivity in the Denman Island and Hornby Island communities as poor. As documented, the CRTC declares “that a basic Internet service providing a minimum download speed of 50 Mbps and an upload speed of 10 Mbps, should be available to all Canadians”. This is not the case on Denman and Hornby Islands, and based on public engagement conducted for the report, public demands for better internet service are high.

At this time, two substantive opportunities exist for the CVRD to consider supporting better internet service.

- Connected Coast and Hornby/Denman Islands Landing Sites:** The SRD and its subsidiary, Strathcona Connected Coast Network Corporation (SCCNC) have received substantial federal and provincial funding to install undersea fibre along the British Columbia coastline, thereby creating opportunities for rural and remote communities to improve their internet service. Funding for the Connected Coast project did not include last mile service to the home, rather it funded ‘landing sites’ adjacent to coastal communities from which a ‘last mile’ connection can be constructed. The ‘last mile’ is a reference to the final leg of the telecommunications networks that deliver telecommunication services to retail end-users (customers). The Connected Coast project includes undersea fibre running between Denman and Hornby Island. As described in correspondence from the SRD (appendix A), opportunity currently exists to construct landing sites at Denman and Hornby Islands for \$142,000 provided the connection occurs when the subsea fibre is installed in

spring/summer of 2021; whereas the expense to connect after the subsea fibre is installed is estimated at \$725,000. The funds could be provided from the Denman and Hornby community works funds, further described below.

- **Last Mile Grant Funding:** In support of providing basic internet service to support the CRTC's declaration, grant funding opportunities exist wherein an internet service provider (ISP) may receive up to 90 per cent of the costs to construct a community's last mile infrastructure. In most cases, the community must provide the remaining 10 per cent. Through the Connected Coast project, partnerships exist between communities and CityWest, a telecommunications provider and subsidiary of the City of Prince Rupert. CityWest is able to apply for the grant funding as the ISP and then partner with the community to install the last mile infrastructure. In discussions with CityWest and the SRD, CityWest states that it could develop world class connectivity solutions for local communities such as Denman and Hornby Islands. Those solutions could include using CityWest's expertise to drive the rapid identification and cost of developing world class fiber connectivity to communities, identifying and soliciting all available public funding programs and designing and developing the infrastructure and deploying its operating model to provide for a full connectivity solution. CityWest then seeks out residents to subscribe for internet, cable and telephone services through the newly installed last mile connections. At this time, CityWest could apply for grant funding for Denman and Hornby Islands with support in-principle from the CVRD to cover the communities' costs. According to the January 2020 connectivity report, constructing last-mile infrastructure on Denman and Hornby Islands is estimated at \$10 to \$11 million, and therefore the CVRD would be responsible for up to \$1.1 million, should the grant applications be successful. If the Board supports this staff report's recommendations, a number of opportunities to recover those funds would be explored. A subsequent report would be presented to the Board to consider the funding models which may include public engagement. If the grant is successful and the CVRD cannot determine how to provide its share of funding, or the public rejects the proposal, the last-mile project would not proceed.

Despite the two opportunities noted above, consideration must be given to other pressing needs on Denman and Hornby Islands. Various existing services either have planned expansions/increases to respond to public interest or new programs are being contemplated. The following demonstrates the range of new or expanded services being contemplated. Should the Board consider supporting the improved internet service on Denman and Hornby Islands, future funds for other services may be limited.

- Hornby Island Arts Council – the CVRD anticipates that operating funds may be requested to support the arts council facility, which is currently under construction
- Hornby Island transfer station – operating expenses are expected to increase given greater demands and costs for service delivery
- Denman Island community facilities – the community hall and activities centre recently combined under one service, and enhanced services may result
- Parks services – capital improvements for parks and trails on both islands are regularly considered and may increase budget pressures

Policy Analysis

Regional Districts must deliver services through authorized functions. No specific service exists for broadband internet provision, however opportunities to support community interests are evident and exploring options is appropriate.

Options

Three options are included in this report for consideration. The recommendations align with option one.

1. Proceed with recommendations to a) fund the landing sites and b) support in-principle grant applications and 10 per cent CVRD funding. Should the Board support this option, considerable efforts will be required in 2021 to define the CVRD's funding model for the last mile project. Substantive engagement was conducted with the public for the January 2020 report, however specific research will be needed to explore the service under which this concept would exist as well as potentially further public engagement on a specific approach.
2. Fund landing sites and support ISPs to advance independently. The Board may consider only providing community works funds to fund the Connected Coast landing sites, and then support the ISPs to advance independently. It is possible that an ISP, including the large telecommunications providers such as TELUS, Shaw or Rogers, may recognize a business opportunity and choose to invest in local infrastructure without a community's 10 per cent contribution. This option includes the risk that ISPs may not invest independently, the community would not have input in the timing of the last mile infrastructure, the type of technology deployed to serve the community and/or a partnership agreement that could provide support to the community.
3. The Board may opt to not proceed with this project given other priorities.

Financial Factors

In order to provide the \$142,000 in funding for the Denman and Hornby Islands landing sites, community works funds could be used. Up to \$270,506 is currently available from the Denman and Hornby Islands allocations, which would significantly diminish amount of uncommitted funds left available and therefore limit future opportunities.

The second recommendation in this staff report commits the CVRD, in-principle, to providing the 10% funding for the last mile infrastructure. Based on the January 2020 connectivity report this could be up to \$1.1 million. If the recommendation is approved, staff will explore the potential funding models which may include short- or long-term borrowing, a combination of borrowing and other grant funds and taxation. Staff would also explore whether the last mile concept could be delivered through an existing CVRD service or a new service would be required. Many other regional districts provide broadband internet as a direct service or through a contribution to an ISP. Assessment of relevant agreements with third parties will also be explored. Several options exist and a fulsome staff report would be prepared for Board consideration later in 2020.

Legal Factors

As noted in the SRD correspondence (appendix A), the landing sites on Denman and Hornby Islands would be owned by the Connected Coast partners. The CVRD's contribution to the landing sites would simply be providing funds to help realize that project.

With respect to the last mile project, the support in principle allows CityWest to make applications for grant funding. Board direction would also then allow for the research into the CVRD's funding models, as noted under the financial factors section. Should the Board not determine a funding model for its portion of the last mile project or the public reject the concept, the CVRD could determine at that time to not proceed. That may result in successful grant funding being returned to the funders. To ensure some clarity on this project, a few key principles can help define the path forward.

- The CVRD is seeking to provide high quality internet services to its residents
- Service costs must also consider a homeowner's other expenses such as monthly subscription fees

- Balance between costs for internet services as other CVRD services must always be sought

These principles may also help to define the CVRD's eventual funding model.

Intergovernmental Factors

Several partnerships are required to realize connectivity improvements on Denman and Hornby Islands, including with provincial and federal agencies for funding purposes. The Strathcona Regional District and its subsidiary, SCCNC, are leading the way to provide landing sites at remote communities along the BC coast. Should the Board approve the recommendations in this report, agreements between the CVRD and others will be needed to identify funding and potentially high speed internet services.

Interdepartmental Involvement

The Office of the Deputy Chief Administrative Officer and the Financial Services department are leading the discussions and planning efforts for this project.

Citizen/Public Relations

As noted earlier, the January 2020 connectivity report relied on extensive public engagement on Denman and Hornby Islands and that report indicated positive public support for improved internet services. Should the Board approve this staff report's recommendations, the subsequent research into the CVRD's funding model may result in further public engagement on a specific service delivery approach.

Attachments: Appendix A – “Correspondence from the Strathcona Regional District dated December 1, 2020 regarding a request to add fibre landings for Denman and Hornby Islands”



**OFFICE OF THE
CHIEF ADMINISTRATIVE OFFICER**

December 1, 2020

Comox Valley Regional District
770 Harmston Ave
Courtenay, BC V9N 0G8

Attention: James Warren, Deputy Chief Administrative Officer

Dear Mr. Warren:

RE: Request to add Fibre Landings for Denman and Hornby Islands

The Strathcona Regional District (SRD) has been requested by the Comox Valley Regional District (CVRD) and the Area A Director to provide information and estimated costs to include fibre landings at both Denman and Hornby Islands as part of the Connected Coast project.

Background Information

The Connected Coast project will bring new and improved high speed internet accessibility to 154 rural and remote coastal communities, including 51 Indigenous communities representing 44 First Nations along the BC coast from north of Prince Rupert to Haida Gwaii, south to Vancouver and around Vancouver Island, with approximately 3,400 km of subsea fibre optic cable. In total, it is estimated that the project has the potential to benefit 175,000 British Columbians, living in 90,000 households.

The impact of the project and the opportunities it will provide to these communities will be enormous. Access to reliable high-speed internet and cell phone service means that residents will be able to access online education, health services, emergency notifications, news and participate in online information sharing. It will also open new economic development opportunities for residents who will be able to work remotely and participate in e-commerce and online business development regardless of geographic location.

The Project Partners

The project ownership, operation and management is a joint venture partnership between City West Management Corporation (CWMC) a wholly owned subsidiary of the City of Prince Rupert, and the Strathcona Connected Coast Network Corporation (SCCNC), a wholly owned subsidiary of the Strathcona Regional District. The two organizations combined their funding resources from the Connect to Innovate Program realizing the increased benefits for both project areas could be obtained by connecting the two networks. By providing links from Northern BC, and around Vancouver Island to the Vancouver Internet Exchange VIE, the infrastructure will provide internet connectivity to dozens of British Columbian communities and increase system stability, reliability and resilience by providing an alternate (redundant) route for service.

In addition, by pooling resources and sharing common costs the project will achieve economies of scale not otherwise possible.

The SCCNC and CWMC will work together to engage and consult with local communities, regional districts and first nations to ensure that the project meets the needs of communities now and into the future. The SCCNC and CWMC will also work with local communities and anchor institutions such as BC Ferries, Canadian Coast Guard and the Department of National Defense that are interested in connecting to the network and provide opportunities for financial partnerships with infrastructure and last mile projects.

Project Funding

The Connected Coast backbone fibre project is estimated to cost \$47 million and will place sub-sea fibre infrastructure in and around Vancouver Island, the southern and north coast up to Prince Rupert and Haida Gwaii. Funding for the project is being provided by the Government of Canada's Connect to Innovate (CTI) program, Indigenous Services Canada, and the Province of BC through the Connecting British Columbia program administered by Northern Development Initiative Trust. The funds do not include any local community last mile projects to connect individual households and businesses to the backbone infrastructure other than for the landing sites identified by the CRTC in the CTI program. There are a number of Federal and Provincial programs currently in place such as the Economic Recovery Intake and the Universal Broadband Fund to address community last-mile infrastructure projects.

Sites Within the CVRD & Proposed New Sites

The Connected Coast project currently includes two sites within the CVRD (Williams Beach and the Town of Comox) and while the Connected Coast partners have developed a design that will see the backbone fibre route run between Denman and Hornby islands, these two landing sites were not included in the CTI funding award. It is important to note that all of the 154 landing sites for the Connected Coast project were chosen by the funding partners as part of the CTI program. Applicants to the program such as the SRD and CityWest did not have a part in selecting which communities would receive a funded landing site. The CRTC has set new target internet speeds where all Canadians homes and business have access to broadband internet speeds of at least 50 Mbps for downloads and 10 Mbps for uploads. According to the National Broadband data, Denman and Hornby islands have 0-25% service coverage with 50/10 Mbps.

Costs

As part of the Federal and Provincial Connected Coast contribution agreements, the supply and installation of the Connected Coast infrastructure was publicly and competitively procured with the successful contractor being Baylink Network Inc. located in Vancouver, BC. The SRD has subsequently worked with Baylink over the last several weeks to prepare a detailed cost estimate for two additional landing sites (Denman/Hornby) based on our current design. The estimates for each site are \$61,000 for Denman and \$81,000 for Hornby. The breakdown of costs for each site includes the supply of materials and labour for additional fibre, permitting, vaults, landings, trenching and network electronics. The estimates do not include an additional \$59,000 required at each landing to bring in power and connection to the cabinets. It is our opinion that the cost of these works can either be included in a future last mile application and/or shared with another institution such as BC Ferries that has requested connections at their terminals.

The costs included in this report reflect estimates from the contractor if the work is done in parallel with the first phase of fibre deployment in the spring/summer of 2021. If the Denman and Hornby landings are not constructed during the first phase of the project and landings were requested at

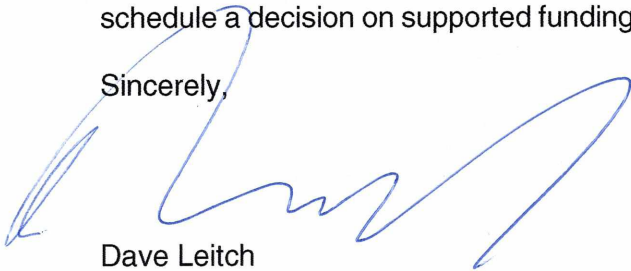
a later date, the contractors estimate for this work is approximately \$725,000 as there would be a significant amount of additional labour, mobilization and fibre required.

The Federal and Provincial contribution agreements require that the joint venture partnership maintain operations and ownership of the network infrastructure including maintenance and repairs of the network for several years following completion of the project and therefore the infrastructure installed for these landings would be the responsibility of the SCCNC and CWMC rather than the local community.

Schedule

The Connected Coast project will be built in phases with deployment of fibre and landing site construction for Phase One (including CVRD locations) anticipated to start in spring/summer 2021. In order to include Denman and Hornby Islands as part of the phase one construction schedule a decision on supported funding will need to be confirmed by January/February of 2021.

Sincerely,



Dave Leitch
Chief Administrative Officer