

# Community Passenger Ferry Service Study

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Dodge Cove<sup>1</sup>



Oona River<sup>2</sup>



Hunts Inlet<sup>3</sup>

PREPARED FOR:  
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January 2015

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## **EXECUTIVE SUMMARY:**

Community members and stakeholders alike have expressed the desire to see improved access to the city of Prince Rupert via reliable year round passenger ferry services. Current services to and from Dodge Cove, Oona River, and Hunts Inlet are either limited or non-existent. This limited access to the mainland presents many barriers to the social and economic opportunities for these communities.

Research was undertaken to support the process of decision making and to assess the feasibility of a small passenger ferry service to these three locations. This report provides a summary of the comprehensive research conducted including: research of public information, literature review, previous work done by the Regional District such as the Expression of Interest document issued by the SQCRD on October 25, 2013, and case study comparisons. It also sets out market considerations, expected operational costs and revenues, and the potential for external funding for this project.

Based on this information it concludes that improving access by small passenger ferry service will result in direct benefits for the communities and the region over all. It also finds that enhancing Passenger Ferry Services in the Skeena-Queen Charlotte Regional District (SQCRD) requires a strategic balance between public and private entities to ensure the level of service offered to these communities is sustainable and cost effective over the long term.

## **COMMUNITY ASSESSMENTS:**

### **a. Dodge Cove**

Dodge Cove is situated 4.8 km west of Prince Rupert on Digby Island within Electoral Area A of the Skeena-Queen Charlotte Regional District. The community has a population of 30 permanent residents. In the summer season the population of Dodge cove is known to increase to 50 to 70 people. The community has no road connection and is dependent on the harbour for off-island access. The harbour facility has a harbour basin with a timber trestle approach. Services available at Dodge Cove include a wharf, floats, hydro, lights, moorage and derrick.

### **b. Oona River**

Oona River is located approximately 40 km southwest of Prince Rupert on Porcher Island within Electoral Area C of the Skeena-Queen Charlotte Regional District. The community has a population of 25 permanent residents. In the summer season the population of Oona River is known to increase to 50 to 70 people. The harbour facility consists of a timber trestle approach leading to two strings of floats. Harbour access is restricted by the tide. A tide gauge is installed approximately 1000 feet east of the breakwater, which shows the lowest point of water of the entrance. In addition, there are two range markers on the breakwater to assist. Services available at Oona River

include a wharf, floats, hydro, lights, unloading, water, plane float, moorage, pay phone, derrick and breakwater.

### c. Hunts Inlet<sup>4</sup>

Hunts Inlet is located approximately 27 km south of Prince Rupert on Porcher Island within Electoral Area C of the Skeena-Queen Charlotte Regional District. The community has a population of four permanent residents. The community can fluctuate up to 40 to 50 people on weekends and holidays.

With a minimum count of 59 permanent residents and up to 190 weekend/summer visitors the need for enhanced ferry transportation services to the mainland is clear. The information above also establishes that these communities are dependent on the harbour for off-island access.

In terms of the disadvantages associated with limited access researchers like Spilanis, Kizos, and Petsiotti stress that: **“For islands, if a service is not provided on the island, the cost and the time required to access it is disproportionately high compared to that on the mainland”**<sup>5</sup> This increased cost and time for essential products and services, is very problematic for remote communities like Dodge Cove, Oona River, and Hunt’s Inlet. Later in this report we will see more of the disadvantages of limited access and also some of the benefits that result with increased accessibility for island communities. For now it is important to note that some economic benefits are inherently connected to increased accessibility.

At the time of writing this report a community needs assessment survey was created but has not yet been conducted. The survey has been included in the appendix and once completed will provide important demographic information, input about services, and socio-economic information for the 3 communities. In the interim there are some indicators that can be drawn from the Skeena-Queen Charlotte Region generally that relate to this project. For example, the 2012 BC Stats show the following age estimates in the Region:

<i>Age Structure<sup>6</sup></i>					
	<u>Skeena-Queen Charlotte</u> <u>2012</u>	<u>Skeena-Queen Charlotte</u> <u>2012</u> <u>2022</u>		<u>BC</u> <u>2012</u> <u>2022</u>	
<u>Population Estimate</u>		<u>(Percent Distribution)</u>			
0-17 years	4,306	22.2	20.0	18.3	17.6
18-24 years	1,873	9.6	8.2	9.7	7.4
25-64 years	10,839	55.8	52.3	56.1	55.4
65+ years	2,398	12.4	19.5	15.9	19.6
Total	19,416	100.0	100.0	100.0	100.0
Dependency Rate (%)					
Child		33.9	33.1	27.7	28.1
<b>Elderly</b>		<b>18.9</b>	<b>32.3</b>	<b>24.1</b>	<b>31.1</b>
Total		52.7	65.4	51.8	59.2

From this chart we can see that 22.2 % of the population in the Skeena-Queen Charlotte Regional District is between 0-17 years of age, and this age distribution will likely drop slightly in the next 10 years. This information can also be used to show that there are approximately 4309 school aged children in the Region who potentially need access to transportation for

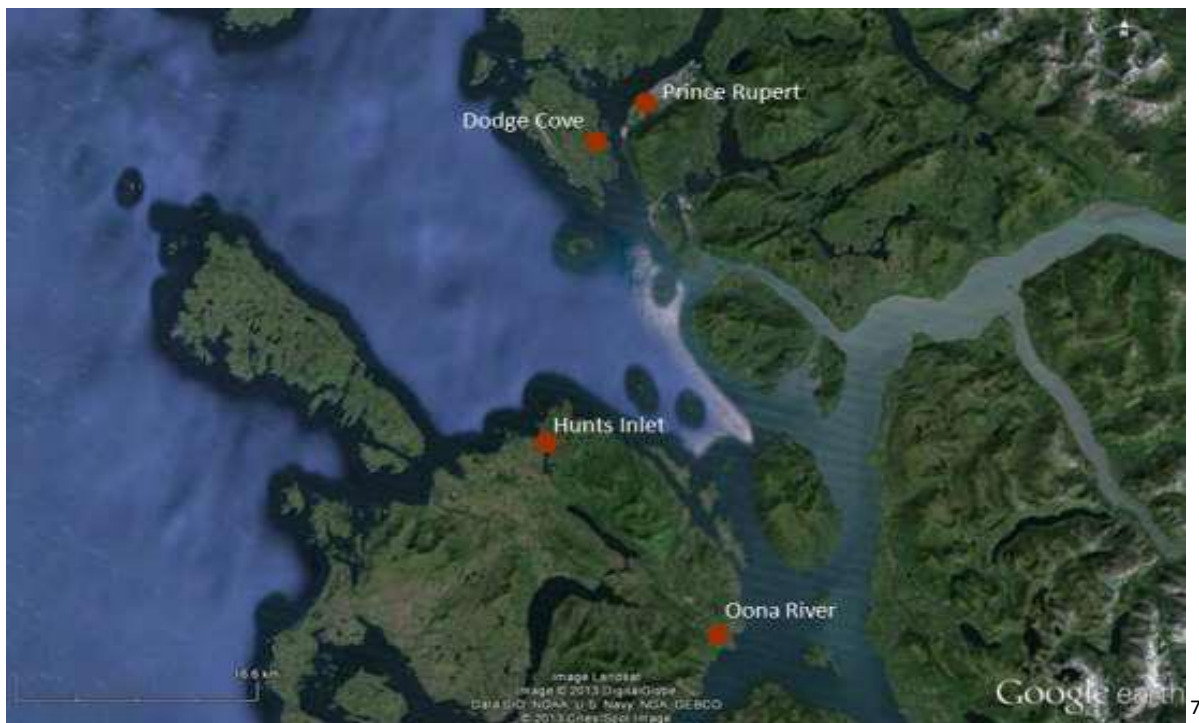
educational purposes. It also tells us that approximately 65.4 % of the Region’s population is composed of adults and the remaining 12.4% are elders.

These numbers along with information collected from the survey can be used to determine how much of the population will need to access the proposed ferry services for the purpose of attending elementary or high school. It is also helpful in predicting how much of the Region’s population may need to access the ferry service for purposes other than education. Furthermore, these specific details also offer a way to show measurable changes. For example, an average one way travel fee paid by community members can be created, based on this number we can measure the amount of savings that flows from enhanced ferry services. As with any statistical analysis there are likely to be slight variations in the data as well as assumptions that must be identified.

**Recommendation #1** Conduct the Community Needs assessment so that its socio-economic data can be analyzed and be used to determine the specific needs of the community, as well as to predict the types of uses. This information can then be used to strengthen any funding related proposals for this project. As stated above it can also be an invaluable tool to measure economic benefits.

## **CURRENT FERRY SERVICES:**

### **Area Map**



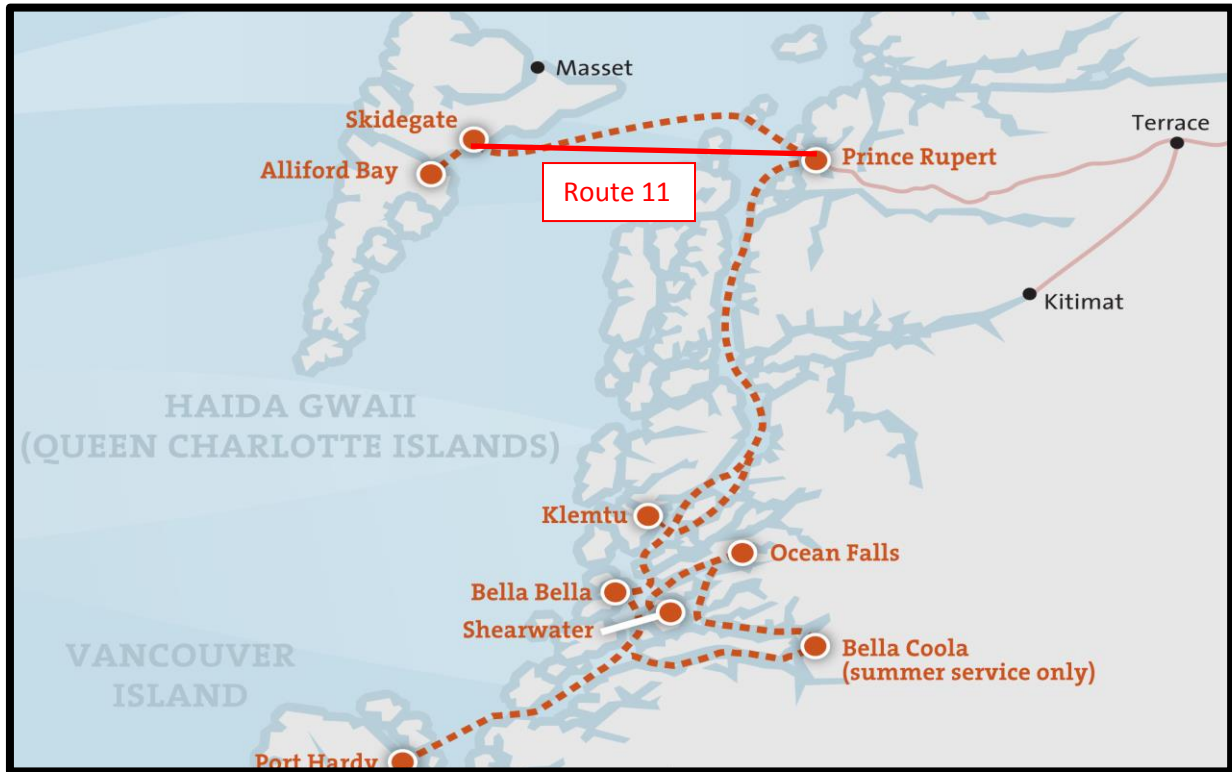
In assessing the type of passenger ferry service being proposed for the communities pictured above we find the following:

- a. **Dodge Cove** currently has a three day per week service offered by a private business. Ferry trips commence Monday morning, Wednesday morning and evening, Friday morning and evening, and Saturday noon and evening.
- b. **Oona River** and **Hunts Inlet** currently have no ferry service.<sup>8</sup>

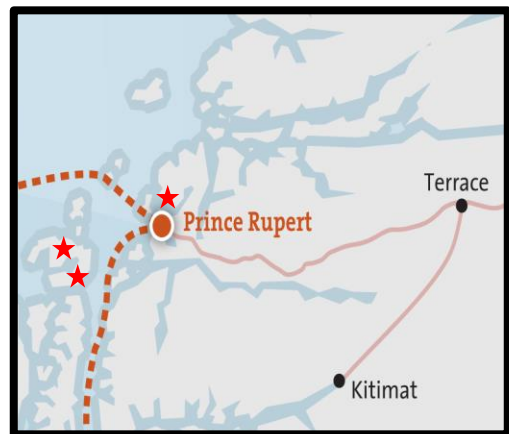
Other ferry service options in the Region are provided for by a number of different operators and serve a variety of purposes including: Education, Tourism & Leisure, Mixed Purposes, and Private Charter. Separated into 3 types below:

- a. **Education:** week day student transportation during the school year is provided by School District 52.
- b. **Tourism & Leisure:** is provided by a number of independent operators in the area by Charter. Ferry Service providers in the Prince Rupert area include:
  - **Metlakatla First Nations:** service to Hartley Bay (145km from Price Rupert), Kitkatla, Metlakatla. Average travel time varies ~3.5 hours, ~2 hours, ~15 minutes. The one way fare for persons aged 12-64 are \$45, \$23 and \$6 respectively<sup>9</sup>
  - **West Coast Launch:** water taxi service to Dodge Cove. Travel distance by ferry is 5 km. The fare for one person travelling one way is \$5.
  - **Digby Island Ferry:** airport ferry operated by City of Prince Rupert. Travel time is 20 minutes and Passenger fare included in Airline Tickets<sup>10</sup>
  - **BC Ferries:** service to Port Hardy (Overnight) and Haida Gwaii. Fares and travel times vary. For Route 11 the one way fee is \$45.50 for passengers over 12 years of age.<sup>11</sup> The distance is ~507 km.
  - **Alaska Marine Highway Ferries:** service to Alaska USA, Washington USA. The Metlakatla route adult fare is \$23<sup>12</sup>
- c. **Mixed purposes:** BC Ferries Corporation provides a range of larger capacity passenger, vehicle, and cargo service routes in the area. BC Ferries also offers services for unregulated routes, which they contract out to private operators, no information on fares is provided, but route 54 is listed as Dodge Cove and route 60 is listed as Hartley Bay-Kitkatla-Oona River-Metlakatla-Prince Rupert. See BC Ferries schedule map below.

### BC Ferries North Coast Service Route 2014<sup>13</sup>



### Target Service Area for SQCRD Small Passenger Ferry Services



Overall the information above including the maps shows that the communities of Dodge Cove, Oona River, and Hunt's Inlet are under serviced areas and the current transportation options for everything but educational (elementary/ high school) purposes are limited. The next section describes a potential solution that addresses the needs of these 3 communities with cost efficient transportation options.

## **PROPOSED FERRY SERVICE CHARACTERISTICS AND PLAN:**

The proposed service requirements, as indicated in the SQCRD Expression of Interest document, are as follows:

- The proposed ferry route will provide a consistent year round service.
- The ferry service to Dodge Cove will be increased to six sailings per week with a return trip each day, including a Monday evening service. (The SQCRD will consider a minimum of four sailings per week with a return trip each day).
- The ferry service to Hunts Inlet and Oona River will be three sailings per week with a return trip each day on Monday, Wednesday and Saturday.
- Ferry craft will have the capacity to carry a minimum of 12 passengers with additional small freight capacity for light cargo.
- The Operator/Proponent shall abide by all the regulations set out by Transportation Canada for transporting passengers.
- The Skeena-Queen Charlotte Regional District and the Proponent will work together to determine the cost, scope and frequency of the proposed services.

## **PROJECT BENEFITS AND POTENTIAL RISKS:**

Three immediate strengths that support the feasibility of this project include: outsourcing to a private operator, smaller vessel, enhancing existing services rather than creating a complete business and operation from the ground up. The resulting benefits of these project specifications are: less overall associated costs, no capital costs, very little start up investment, and no major infrastructure needs. Additionally, the service options are shared with marine transportation experts (Owners and Operators) in the area.

The timing of this project fits well with the current trend toward major coastal services in Canada returning to the private sector, or a combination of private and municipal, control and management in innovative ways.<sup>14</sup> This suggests that if government subsidies are applied for at this time there is a greater likelihood of success as there is a National mandate for innovation in the Canadian transport sector and it is a current priority area.<sup>15</sup> There are also some examples of small private operations as well as a number of private-public (government subsidized), such as the one being proposed here, that are successful and profitable. These business case examples will be explored further in a later section of this report.

Based on information from other example ferry service operations<sup>16</sup> and this project's specifications the chart below highlights the main benefits and risks to consider:

STRENGTHS	WEAKNESSES
A Smaller vessel- means less environmental impact, less fuel required, shorter trips, less cost for service and operation. Purchasing a Ferry would be very expensive.	The Prince Rupert port is very active, there is a potential for traffic congestion to cause schedule changes.
Local Private Proponent- means a transport expert that is familiar with area geography, weather, safety, licensing/ leases fees, and regulations.	Need to ensure the Proponent has a back-up vessel and personnel to prevent service interruptions. Vessel repairs should also be carefully planned and accounted for in the contract.
Existing harbour Infrastructure means less capital/operational costs and also means a quicker start-up of services is possible.	Future maintenance and upgrades should be anticipated because of the increased traffic on docks.
Improved Access to the mainland and essential services.	Potential delays caused by Weather or Tidal restrictions.
Increased economic impact as a result of accessibility to the mainland.	Environmental and increased tourist traffic impacts are not yet known.
A collaborative approach to meeting the changing needs and future expectations of the communities within the Skeena Queen Charlotte Regional District.	Continued assessment and evaluation mechanisms to allow for service improvements.
This project fits in with provincial and federal transport mandates.	Further funding options such a community grants and governmental subsidies need to be applied for once the project is approved.

Finally, the most direct and lasting benefit associated to dedicated passenger ferry service like this is the regional economic and social development<sup>17</sup>

## **MARKET CONSIDERATIONS:**

The 2013 Transport Canada Annual Report provides a “broad overview of the state of Canada’s transportation system at the end of 2013.”<sup>18</sup> For the purposes of this study the information presented here is related directly to Ferry transportation activities in British Columbia only. The main points to be drawn from this document are that Ferry operations in BC create a considerable amount of revenue, millions of people rely on ferry transportation each year, and

that provincial and federal governments both offer substantial subsidies towards ferry transportation services in BC. Below are some of the key highlights from the annual report:

- “Total transport-related revenues for federal plus provincial/territorial governments amounted to \$18.9 billion, up 0.5 percent from the prior fiscal year. Fuel revenues were flat at \$14.3 billion, while licences and registrations were also flat relative to the previous year. Air and marine revenues were higher due to increased passenger volumes and port returns.”
- “In 2012–13, TC spent \$32.8 million on the Ferry Services Contribution Program, which supports the private operators of three interprovincial ferry services in Eastern Canada; the amount of that contribution is expected to be approximately \$27.3 million in 2013–14. In addition, TC provided a \$28.4-million grant in 2013–14 to the Government of British Columbia for ferry services operated by BC Ferries.”<sup>19</sup>
- “BC Ferries carried 16.1 million passengers in 2013, down 0.5 percent compared to 2012.”

In addition to receiving federal subsidies the BC Ferry Corporation also receives a service fee subsidy of 1.7 Million dollars from the Province of British Columbia for their unregulated routes.<sup>20</sup> The unregulated routes include: Dodge Cove-Prince Rupert, Lasqueti-French Creek, Kyuquot-Tahsis-Gold River, Bamfield-Barkley Sound-Port Alberni, Ahousat-Hotsprings Cove-Port McNeil, Prince Rupert-Tuck Inlet, Hartley Bay-Prince Rupert (Metalkata, Kitkatla, Oona River)

This contract is for an 8 year period which means BC Ferries receives a subsidy of approximately \$212,500 per year to service these routes. Assuming that BC ferries places equal weight on each service we find that (somewhat artificially) dividing the fee by the 7 routes each run is subsidized by the province of BC \$30,357 each year.

In researching ferry service transportation in BC, it is readily apparent that the monopoly and corresponding research focus has been on the BC Ferries Corporation. What this means in terms of research is that the existing data on current services and operations is unusually restricted to BC Ferry’s which uses larger vessels, carries hundreds of passengers at a time, and which have larger operating costs. As a result this study also includes references to other Canadian ferry services for comparison and assessment. Overall there is an established market and demand for efficient and cost effective transportation services in BC.<sup>21</sup>

### **Growth Potential:**

The history of Granville Island Ferries suggests that over time the demand for ferry transportation will increase and additional vessels and services will be needed to meet that demand.<sup>22</sup> However, the location of this particular service is highly dependent on tourism. In

the SQCRD the potential for growth related to tourism is not yet known. The focus of this study is to assess the needs of locals and ensure that access to the main land is a priority. The point here is that there is a potential market for tourism to enhance the economic benefits of creating year round ferry transportation. For example, the current option for tourists to explore the area is to charter a vessel for private use or to board a BC ferry on one of the larger routes. Both of these options limit access or flexibility.

If tourists had the option to travel from Prince Rupert to the areas of Oona River, Hunts Inlet, and Dodge Cove it is likely that choosing an established service would result. It is well known that residents value the protection of the environment in the area, as such, if tourism and the additional traffic created by tourism is opposed then a resident passenger priority should be established at the outset and any future expansions to the service should be restricted. The main disadvantage foreseen by this option is that economic contributions provided by tourism will not be available as a way to reduce costs of providing passenger ferry services.

**Recommendation # 2:** If this project is approved and it is decided that additional funding is necessary to ensure the long term affordability of this service, there are a number of funding options that can be explored further and various subsidies for transportation that can be applied for including: through Transport Canada, the federal government and provincial government as well as community development or economic development grants.

## **ESTIMATED COSTS AND REVENUES:**

The best source of information about operational costs is the School District 52 ferry service for students only. It provides transportation 5 days a week to and from Dodge Cove and Metlakatla.<sup>23</sup> Unfortunately the annual financial costs associated with ferry transportation are lumped together with school bus costs. For example the Annual budget for April 15, 2014 lists student transportation under special purpose fund on page 9. The total operating expense is \$444, 259.<sup>24</sup> The problem with this number is that student transportation would also include daily bus service. However in the School Districts 2013 financial report to the provincial government we can see that they paid Metlakatla Ferry Services Ltd. \$123, 049.20.<sup>25</sup>

From this information we can see the annual operational costs for ferry services to and from Metlakatla and Dodge Cove, round trip 5 days a week throughout the year is approximately \$123, 050. Metlakatla Ferry Services also provided transportation between Kitkatla and Prince Rupert which is similar to the distance between Prince Rupert and Oona River. As such, they would be in the best position to assess the operational costs associated to the proposed Hunt's Inlet and Oona River route.<sup>26</sup>

**The sample Dodge Cove schedule below shows the Potential Revenue generated by passenger fees to be between \$18,720 and \$22,464 per year.**

Note: the projection is subject to considerable uncertainty related not only to passenger volume but also to vessel and crewing cost, fuel prices and to the effect of competition on achievable fare revenue. For example the Travel Time does not include time for loading and unloading of passengers.

- Fare for 12 passengers based on current fees of \$5 and \$6 for services provided by 2 different operators in the Region, (West Coast Launch and Metlakatla Ferry Service Ltd.).

-Annual totals are based on a minimum of 12 passengers per trip 6 times per week for a period of 52 Weeks, whereas an average school year is about 32 weeks.

	Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Weekly Totals	Yearly Totals
Dodge Cove	No service	X	X	X	X	X	X	6 days	312 days
Round Trip Distance	No service	~10 km	~10 km	~10 km	~10 km	~10 km	~10 km	60 km per week	3,180 Km
Travel Time*	No service	30 minutes	30 minutes	30 minutes	30 minutes	30 minutes	30 minutes	3 hours	156 hours
Fare for 12 passengers	No service	\$60-\$72	\$60-\$72	\$60-\$72	\$60-\$72	\$60-\$72	\$60-\$72	\$360-\$432	\$18,720-\$22,464

In searching at least 8 of the ferry operations in BC for comparable distances of travel and vessel size it has been found that none of these operations are comparable enough to the proposed service. Two of the operations are for 12 passenger ferry services, but none travel distances in excess of 20km. The ones that provide longer travel distances of travel do so with vessels with the capacity to carry more than 45 passengers or more. For the purposes of this study the known data from the Metlakatla First Nations service from Kitkatla to Prince Rupert was used to get the following estimates (guideline only):

**The sample Hunt's Inlet and Oona River schedule below shows the Potential Revenue generated by passenger fees is around \$86,112.**

	Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Weekly Totals	Yearly Totals
Hunts Inlet and Oona River	No service	X	No service	X	No service	X	No service	3 days	156 days
Round Trip Distance	No service	~90 km	No service	~90 km	No service	~90 km	No service	~270 km per week	~14,040 Km
Travel Time*	No service	4 hours	No service	4 hours	No service	4 hours	No service	12 hours	624 hours
Fare for 12 passengers	No service	\$552	No service	\$552	No service	\$552	No service	\$1656	\$86,112

Note: Oona River is approximately 40 km from Prince Rupert and Hunt's Inlet and Kitkatla is approximately 45 km from Prince Rupert. Travel Time does not include time for loading and unloading of passengers.

- Fare for 12 passengers based on current fees of \$23 per person 1 way.

-Annual totals are based on a minimum of 12 passengers per trip 3 times per week for a period of 52 Weeks.

**Recommendation #3:** Consider commissioning an operator to conduct a "Test run" of the route to get more accurate travel times.

## OVERVIEW OF RESEARCH FINDINGS

Researchers generally conclude that an important element of community growth and prosperity is access to essential products and services. For coastal communities that rely solely on ferry and boat transportation for access to employment, health care, education, as well as food supplies and other products this service is vital. Or as on academic states: "Ferry service quality is important to the economic and social prosperity of remote island and coastal communities."<sup>27</sup> Researchers Spilanis et al., and Stephen A. Royale list the following as disadvantages of limited accessibility from the point of view of island residents: "... the excessive or total dependence on public transportation compared to mainland areas; the cost of travel to and away from an island; the availability of connections to access services required to cover the needs of residents that may not be available locally; the different destinations where these services may be available; and the availability of overnight return from these destinations."<sup>28</sup>

Transport Canada also strongly supports the fact that marine transportation systems are integrally linked to economic growth. They say: "Canada's ports and harbours are integral to Canada's transportation system. They serve as vital links and gateways that facilitate domestic and international economic activities. Canada is home to more than 540 ports and more than 940 small craft and fishing harbours."<sup>29</sup>

The BC Chamber of Commerce is also pushing for what they call "regional equality" they also suggest the following: "Alternatives may be more cost-effective for short runs connecting islands, or mainland communities which could have toll bridges or water taxis. It is in the interests of the businesses and residents of coastal communities and the government of BC to explore more affordable and reliable options. Impacts to local economies and the provincial economy as a whole should be analyzed with the economic concepts of price equilibrium and price elasticity;"<sup>30</sup> What the research and policy trends tells us is that there are many social and economic disadvantages associated with limited access to reliable and affordable transportation options. That improving access to remote island communities has not been a governmental priority in the past. That the major proponent of services since 2003 has been the BC Ferries Corporation and this operator has a large service area and receives a large portion of funds from the government in the form of subsidies. This corporation itself

recognized the need to create most cost efficient services in the Northern Regions.<sup>31</sup> As seen earlier the government is encouraging innovative solutions to BC's current transportation needs and demands. The Skeena-Queen Charlotte District is in a unique position to capitalize on this opportunity to provide enhanced ferry services to the mainland that will have considerable economic and social impacts on these 3 communities. What this report establishes is:

- 1) There is a transportation demand and an established need in the Region ,
- 2) This project is a viable solution to that demand,
- 3) There are a number of risks and benefits that need to be balanced before a final decision to proceed is made,
- 4) There is a definitive market for the proposed services and in addition to the potential revenue created by passenger fees, there are opportunities to have the service subsidized.

## **NEXT STEPS/Implementation and Actions**

Consider the 3 recommendations set out in this report:

**Recommendation #1** Conduct the Community Needs assessment so that its socio-economic data can be analyzed and be used to determine the specific needs of the community, as well as to predict the types of uses. This information can then be used to strengthen any funding related proposals for this project. As stated above it can also be an invaluable tool to measure economic benefits.

**Recommendation # 2:** If this project is approved and it is decided that additional funding is necessary to ensure the long term affordability of this service, there are a number of funding options that can be explored further and various subsidies for transportation that can be applied for including: through Transport Canada, the federal government and provincial government as well as community development or economic development grants.

**Recommendation #3:** Consider commissioning an operator to conduct a "Test run" of the route to get more accurate travel times.

Other areas to consider include the following:

- Environmental assessment for noise and pollution.
- Create a Comprehensive Project Plan that includes weather/ tidal data, current Route uses ie. to prevent over congestion, especially during peak seasons (summer) and finally once approved pursue selected funding options.

## **APPENDIX**

### **1. Community Survey**

# Community Needs Assessment Survey-2015

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This Survey was created for the Skeena-Queen Charlotte Regional District to obtain community input for Electoral areas: **A-** Dodge Cove, **C-** Oona River and Hunts Inlet. This information will be used to secure funding for reliable year round ferry services in the region. We appreciate your help.

**To preserve confidentiality do not put your name on the survey.**

{Please circle the number that corresponds to your answer.}

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**(1) Are you?**

1. MALE 2. FEMALE

**(2) Which category best represents your age?**

1. 18-24 2. 25-34 3. 35-44 5. 55-64 4. 45-54 6. 65 OR OLDER

**(3) How many family members reside in your home?**

- 1 2 3 4 5 6 7 8 OR MORE

**(4) How many dependents (Elders or Children) live with you?**

- 1 2 3 4 5 or more

**(5) Which Electoral Area do you currently reside in?**

1. A 2. C

**(6) How many years have you lived in this community?**

1. 0-3 YEARS 2. 4-6 YEARS 3. 7-10 YEARS 4. 11-15 YEARS 5. 16-25 YEARS 6. OVER 25 YEARS

**(7) Which of the following best describes your current employment status ?**

1. FULL TIME 2. PART TIME 3. RETIRED 4. SEASONAL WORKER 5. NOT EMPLOYED

**(8) In what industry is the major wage earner in your home employed?**

1. CONSTRUCTION 4. FORESTRY 7. SERVICES (INCLUDES RETAIL) 10. STUDENT  
2. FISHING 5. TRANSPORTATION 8. RETIRED 11. OTHER  
3. FINANCE 6. HOMEMAKER 9. GOVERNMENT (INCLUDES EDUCATION)

**(9) Which of the following categories best describes your gross total family income during the last year?**

1. LESS THAN \$10,000 3. \$15,000 - \$24,999 5. \$35,000 - \$49,999 7. \$75,000 - \$99,999  
2. \$10,000 - \$14,999 4. \$25,000 - \$34,999 6. \$50,000 - \$74,999 8. \$100,000 OR MORE

**(10) To what extent do you agree or disagree with the following statements?**

My Community has:

**a) Adequate and accessible health care and medical services**

1. Agree strongly 2. Agree 3. Neither agree nor disagree 4. Disagree 5. Disagree strongly

**b) Good access to secondary school**

1. Agree strongly 2. Agree 3. Neither agree nor disagree 4. Disagree 5. Disagree strongly

**c) Adequate public transport (including ferry services)**

1. Agree strongly 2. Agree 3. Neither agree nor disagree 4. Disagree 5. Disagree strongly



## 2. References

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- <sup>1</sup> Photo from a video clip of Dodge Cove created by Leo Rutherford and Uploaded to Youtube on Feb 19, 2012, online at: <<http://youtu.be/LO-BpkNoLas>
- <sup>2</sup> Photo by miguelb, oona-river-4, Taken on July 12, 2006, online at: <<http://www.flickr.com/photos/mig/188495088/>
- <sup>3</sup> Hunts Inlet summer of 2007 photo by Tony Bigras, online at: <<http://www.ideaintegrator.com/boats/cruise2007/north6.html>
- <sup>4</sup> Skeena-Queen Charlotte Regional District, "Request for Expression of Interest", 2014, online at: <[http://www.sqcrd.bc.ca/images/uploads/docs/ROI\\_\\_Small\\_Community\\_Passenger\\_Ferry\\_Service.pdf](http://www.sqcrd.bc.ca/images/uploads/docs/ROI__Small_Community_Passenger_Ferry_Service.pdf), [ROI].
- <sup>5</sup> Spilanis, I. Kizos, T., and Petsioti, P. (2012), Accessibility of peripheral regions: evidence from Aegean islands. *Island Studies Journal*, 7(2), 199-214. Online at: <<http://www.islandstudies.ca/sites/islandstudies.ca/files/ISJ-7-2-2012-Spilanis-et-al.pdf>, emphasis added, [Spilanis et al., 2012].
- <sup>6</sup> Government of British Columbia, BC Stats, 2012, online at: <<http://www.bcstats.gov.bc.ca/StatisticsBySubject/SocialStatistics/SocioEconomicProfilesIndices/Profile.aspx>
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- <sup>8</sup> [ROI]. see note 4.
- <sup>9</sup> Nor Co Corp, Metlakatla First Nations Ferry Services, 2015, online at: <[http://www.metlakatla.ca/development\\_corp/marine\\_transportation/metlakatla\\_ferry\\_service](http://www.metlakatla.ca/development_corp/marine_transportation/metlakatla_ferry_service)
- <sup>10</sup> City of Prince Rupert, Digby Island Ferry Services, 2015, online at: <<http://www.ypr.ca/ferry.html>
- <sup>11</sup> British Columbia Ferries Inc., Ferry Fares 2014-2015., online at: <[http://www.bcferries.com/files/fares/pdf\\_format/BCF\\_Fares.pdf](http://www.bcferries.com/files/fares/pdf_format/BCF_Fares.pdf)
- <sup>12</sup> Alaska Marine Highway Ferries, 2015 Fares, online at: <<http://www.dot.state.ak.us/amhs/fares.shtml>
- <sup>13</sup> Map courtesy of BC Ferries, this one has been modified in size, and stars have been added as points of reference. Original is available online at: <[http://www.bcferries.com/travel\\_planning/maps](http://www.bcferries.com/travel_planning/maps)
- <sup>14</sup> Joseph Monteiro, Gerald Robertson and Darryl Anderson, "Changing Currents in the Canadian Ferry Transport Sector", Canadian Transport Research Forum, online at: <<http://www.ctrf.ca/conferences/2011Gatineau/2011Proceedings/49MonteiroRobertsonAndersonCanadianFerryTransport.pdf> [Monteiro *et al.*].
- <sup>15</sup> Government of Canada, Transport Canada Mission and Mandate, see <https://www.tc.gc.ca>
- <sup>16</sup> Victoria Harbour Ferry; Malaspina Water Taxi; Tancock Island Ferry; Black Ball Ferry Line; Clipper Vacations.
- <sup>17</sup> Laird, James J. "Comparing the efficiency of public and private ferry services on the Pentland Firth between mainland Scotland and the Orkney Islands," *Research In Transportation Business & Management* 4. *Management of Transport in Remote Regions* (2012): 79-89, Science Direct, Web, 5 Jun. 2012; Government of Canada, Transport Canada Policy, Marine Transportation 2015, online at: <<http://www.tc.gc.ca/eng/policy/anre-menu-3019.htm>
- <sup>18</sup> Government of Canada, "Transportation in Canada 2013," Transport Canada Annual Reports, online at: <<https://www.tc.gc.ca/eng/policy/anre-menu.htm>, [2013 Annual Report].
- <sup>19</sup> 2013 Annual Report, at pages 6-14.
- <sup>20</sup> BC Ferries Corp, Coastal Ferry Services Contract, online at: <[http://www.bcferries.com/files/AboutBCF/Coastal\\_Ferry\\_Services\\_Contract.pdf](http://www.bcferries.com/files/AboutBCF/Coastal_Ferry_Services_Contract.pdf), at page 12 and 15. See 161 for route 11 info, 163 for province to BC Ferries Corp 1.7 million for unregulated routes.

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<sup>21</sup> Monteiro et al., see note 14; Transport Canada website at: <<http://www.tc.gc.ca/eng/policy/anre-menu-3019.htm>

<sup>22</sup> False Creek Ferries, "The Story of False Creek's Original Ferry Fleet," 2014, online at: <[http://www.granvilleislandferries.bc.ca/our\\_story.htm](http://www.granvilleislandferries.bc.ca/our_story.htm)

<sup>23</sup> School District 52, 2015, online at: <<http://www.sd52.bc.ca/>

<sup>24</sup> School District 52, 2015, online at: <<http://sd52.bc.ca/sd52root/sites/default/files/2014-15%20Annual%20Budget.pdf>

<sup>25</sup> Province of British Columbia, BC Education, "School District 52 (Prince Rupert) Financials" for the end of fiscal year 2013. Online at: <<http://www.bced.gov.bc.ca/accountability/district/sofi/2013/SD52.pdf>

<sup>26</sup> See <http://www.metlakatla.ca>, Exact Financials for this company were not publicly available at the time of this study.

<sup>27</sup> Laird, James J. "Valuing the Quality of Strategic Ferry Services to Remote Communities," Research in Transportation Business & Management 4. Management of Transport in Remote Regions (2012): 97-103, Science Direct, Web, 6 Dec. 2014.

<sup>28</sup> [*Spilanis et al., 2012*], at p 201, see note 6.

<sup>29</sup> See Transport Canada Website at: <<http://www.tc.gc.ca/eng/policy/anre-menu-3019.htm>

<sup>30</sup> BC Chamber of Commerce, 2015, online at: <<http://www.bcchamber.org/policies/fiscal-fairness-coastal-transportation-and-ferry-dependent-communities-2014-0#sthash.n83PknXW.dpuf>

<sup>31</sup> BC Ferries website, see:

<[http://www.bcferries.com/files/asp/northernroutes/RFEOI/Appendices/Prince\\_Rupert\\_Terminal\\_Description.pdf](http://www.bcferries.com/files/asp/northernroutes/RFEOI/Appendices/Prince_Rupert_Terminal_Description.pdf)