

Quesnel Transit System

Targeted Transit Service Review



July, 2013

THE CITY OF
QUESNEL



ACKNOWLEDGEMENTS

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Executive Summary

This targeted transit service review provides a comprehensive analysis of the Quesnel transit system with a focus on specific routes and local constraints. The rationale for this review was based upon the following:

- Feedback from the City of Quesnel and the transit operating company (Five Five Transport) outlining the potential for areas of the city to be over- or under-served;
- An 11% decrease in ridership in the 2011-2012 fiscal year; and
- Completion of one year of service to the temporary expansion of Route 2: Red Bluff to South Hills and an associated opportunity to analyse customer use.

The purpose of this report is to receive feedback and approval by the City of Quesnel Council on preferred options for transit service change in Quesnel.

The first phase of public engagement was undertaken in fall and winter of 2012. Key themes heard throughout the consultation process included a desire for the following:

- Later service;
- Increased service frequency;
- Increased service on Saturdays;
- Express bus service between West Quesnel/downtown and South Quesnel (also requested to stop at the CNC/UNBC);
- Service on Sundays and public holidays;
- More direct service on Route 2;
- Better timing connections between Route 1 and Route 2;
- Re-instate North Fraser Drive Turnaround on every trip on Route 3;
- Make the riders guide less confusing;
- Taxi service for Taxi Supplement with fully accessible vehicles;
- Marketing and advertising on buses and promotion of service;
- Extended service areas.

In addition, since the fall of 2012, there has been a sharp increase in demand for handyDART service, resulting in an increase in unmet trips. There is difficulty in addressing the increase in demand with the current fleet vehicle allocation due to the extensive area the handyDART service covers (currently up to 20km outside the City of Quesnel boundary), the disconnected nature of the rural communities served and the high demand for subscription service for clients to attend daily programmes that begin at specific times of day. This is further compounded by the recent closure of the taxi company used by the transit system for Taxi Supplement service, with no alternative available.

Information collected through the review of the existing transit service, local plans and policy and analysis of public input was used to develop three short term and four longer term service change options and to make recommendations for optimization. Each option includes a projected number of additional service hours (revenue hours), vehicles required, projected passengers, revenue, total cost, and local government share.

Given the generally efficient nature of the existing system, demonstrated through benchmarking and data analysis and given the feedback from public consultation, it was determined that the proposed short-term service change options should focus on:

- The desire for an express bus service to South Quesnel shopping area;
- Options to address the increased handyDART demand and unmet trips;
- The desire for increased trips on Route 3 to North Fraser Turnaround; and
- Low ridership on Route 2 trips to the Westland neighbourhood.

Four long term options were also developed to address the feedback related to service on Sundays and public holidays, handyDART service on Saturdays, service to new neighbourhoods and increased frequency of service.

All options propose a reduction in service to the Westland neighbourhood by approximately 43% in order to re-allocate these revenue hours to other service. However, these reductions are in keeping with current ridership levels in this area and Westland will still continue to receive more service trips than South Hills and Carson.

Options 1 and 2 implemented in isolation address the desire for an express service to South Quesnel but do not address the immediate handyDART needs. Therefore, should Option 1 or 2 be considered for implementation, it is recommended that they are combined with Option 3: handyDART and the associated annual costs. This option includes additional flexible revenue hours for handyDART and would use the existing vehicle serving Route 30: Wells and Route 31: Nazko when it is not in service to these areas in order to deliver the supplementary handyDART hours without the need for an additional bus.

In addition to reduced service to Westland, Option 1 requires the deletion of several existing weekday trips on Route 2 in order to provide three to four express trips per weekday (two on Saturday), an additional late afternoon trip on Routes 1 and 3 and more consistent routing on every trip to North Fraser Turnaround. The reduced service will impact existing users. In comparison, Option 2 proposes adding a relatively small number of expansion hours to implement the express and late trip changes without needing to delete whole trips on Route 2. However, this does require additional costs.

The long term options are proposed to address additional feedback that, dependent upon the short term service changes and resulting system performance and local budget, may be deemed suitable for future consideration for additional service. It should be noted that Option 6: New Service Areas and Option 7: Increased Frequency will require an additional fleet vehicle to be implemented and the approximate order time for vehicles is currently between 12 to 18 months.

In addition to the proposed service change options, potential supporting measures or supplementary future actions have been identified to improve transit service in Quesnel. These include a monitoring program for the implementation of service changes; changes to the Riders Guide to improve usability; and options for marketing the transit service. Further, it is recommended that discussions continue between BC Transit, the City of Quesnel and the CRD to address the increasing custom demand and constraints and the respective funding for the provision of handyDART service within and outside the city boundary.

Table 1: Estimated Additional Annual Impacts for each Service Change Option

Service Proposal	Buses	Service Hours**	Rides	Total Revenue	Total Costs	Net Local Share of Costs	BC Transit Share of Costs
Proposals for Immediate Consideration							
1 No Cost Conventional Service Hours Re-allocation (with cut trips)	0*	0	1,500	\$2,400	\$0	-\$2,400 (due to revenue)	\$0
2 Low Cost Conventional Service Hours Re-allocation	0*	400	2,400	\$3,900	\$24,000	\$7,700	\$12,400
3 handyDART Option to supplement Option 1 and 2.	0*	1,000	4,500	\$15,800	\$57,300	\$11,900	\$29,600
Proposals for Longer Term Consideration							
4 Expansion – Sunday & Holiday Service	0*	350	1,400	\$2,300	\$21,000	\$7,800	\$10,900
5 Expansion – handyDART Saturday Service	0*	400	1,600	\$5,600	\$22,900	\$5,500	\$11,800
6 Expansion – New Service Areas	1*	330	2,000	\$3,300	\$80,700	\$35,600	\$41,800
7 Expansion –Increased Frequency	1*	2,430	14,600	\$23,800	\$207,900	\$76,600	\$107,500

* Vehicle requirements to be confirmed by BC Transit’s Fleet Standards department closer to implementation date.

**The actual service hours required would be confirmed through detailed scheduling.

Option 2 and Option 3 together present the preferred service changes needed to address the immediate issues and priorities identified for improvements to the Quesnel custom and conventional transit system. This option combination presents the greatest wins and long term gains for ridership through the provision of express service to South Quesnel shopping area and later service on Route 1 and Route 2. Option 3 would provide the necessary service hours required to address the existing custom service demand and constraints. However, should there be resource limitations, Option 1 and Option 3 together would achieve similar benefits to Option 2 and Option 3, albeit with a reduced number of total trips on Route 2. It is recommended that a high proportion of the 253 unallocated annual revenue hours within the Annual Operating Agreement (currently available as flexible hours) are allocated to support the service proposal option implemented.

It is recommended that a combined package of Option 2: Low Cost Conventional Service Hours Re-allocation and Option 3: handyDART is implemented in the short term and that the identified supplementary future actions be pursued. A marketing and public awareness exercise should be conducted on the approved options prior to implementation.

1 Introduction

This targeted transit service review provides a comprehensive analysis of the Quesnel transit system with a focus on specific routes and local constraints. It provides a background and context, a summary of the first phase of engagement and outlines draft short and long term options for the transit system. The intention is to receive feedback and approval by the City of Quesnel Council on preferred options for transit service change in Quesnel.

1.1 Rationale for Service Review

The targeted service review provides an analysis of specific routes within the Quesnel local transit system to determine how they meet current and future community needs. This report presents three short and four longer term options for changes to the transit system and also makes recommendations for system optimization predicated on data, public consultation and complimented by a review of key sustainability, planning and transportation documents. The rationale for this review is based upon the following:

- Feedback from the City of Quesnel and the transit operating company (Five Five Transport) outlining the potential for areas of the city to be over- or under-served;
- An 11% decrease in ridership in the 2011-2012 fiscal year; and
- Completion of one year of service to the temporary expansion of Route2: Red Bluff to South Hills (commenced 6th September 2011) and an associated opportunity to analyse customer use.

1.2 Service Review Objectives

The objectives of the targeted service review stem from consultation between BC Transit, the City of Quesnel and Five Five Transport. These were presented to Quesnel City Council for approval on September 10, 2012 and are outlined in Figure 1.1 below:

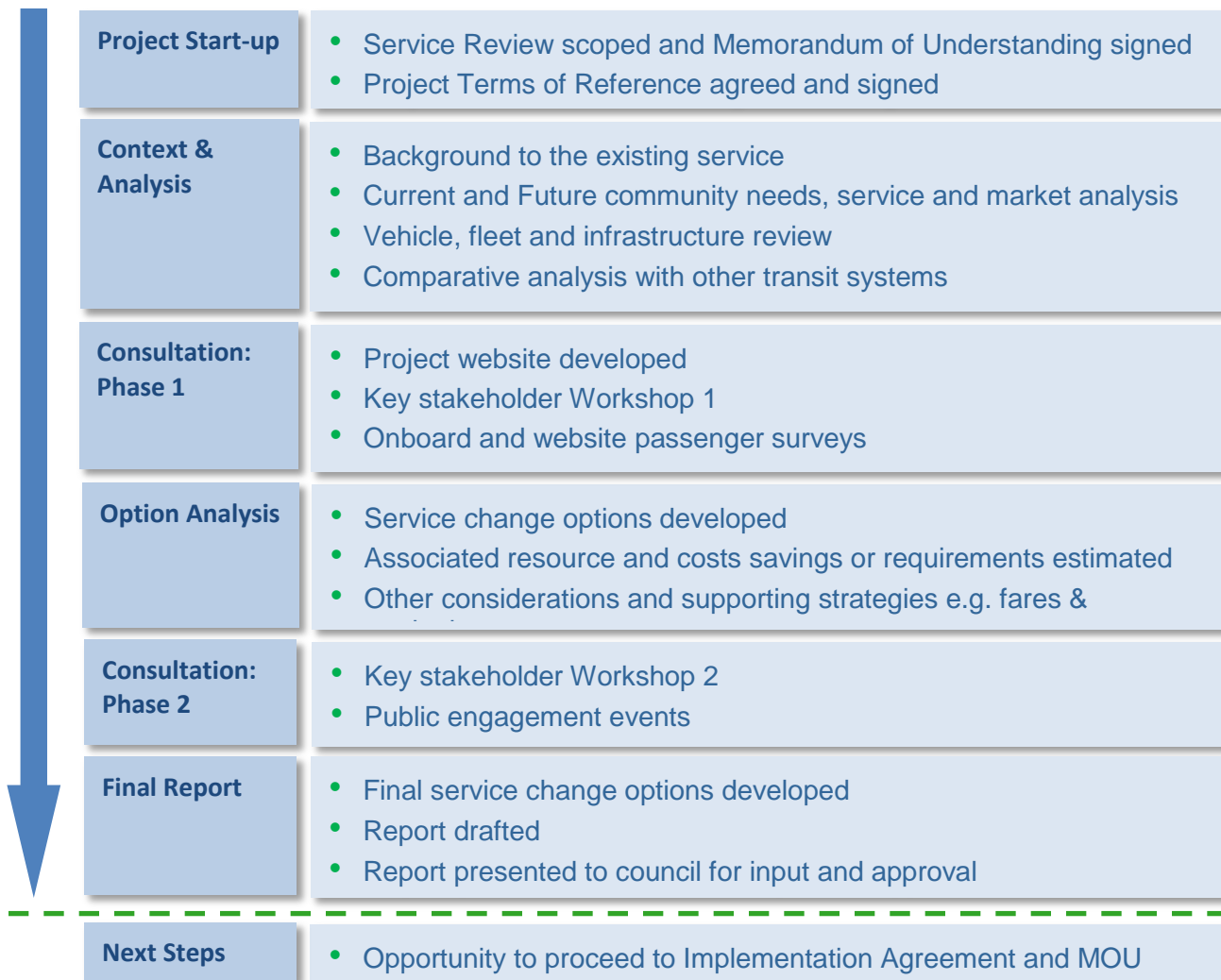
Figure 1.1: Quesnel Targeted Transit Service Review Objectives

Conduct analysis and make recommendations on:	
Objective 1	• Service to Westland Road (Route 2: Red Bluff) with a focus on frequency and schedule
Objective 2	• Service to North Fraser Drive (Route 3: North Fraser): to identify whether increased level of service is required
Objective 3	• Express bus options between West Quesnel/Downtown and the South Quesnel Shopping Area
Objective 4	• Information on ridership to the Red Bluff area of South Quesnel
Objective 5	• Analysis of existing schedule: opportunities for optimization
Objective 6	• Identify potential resource re-allocation to support any recommended service expansion

1.3 Scope

The scope of the targeted service review is outlined in Figure 1.2 below:

Figure 1.2: Quesnel Targeted Transit Service Review Scope



1.3.1 Data Collection & Analysis

Data for the review was obtained from a diverse range of sources including:

- Existing timetables for the Quesnel transit network and internal BC Transit documents
- On-board passenger and operator survey data (October 2012)
- Web-site passenger survey data (October 2012)
- On-board passenger count data (October 2012)
- Fare box summaries and revenue data
- Key Stakeholder Workshop (October 2012)
- The City of Quesnel Official Community Plan, 2007

- ourQuesnel: Sustainability in Action, 2012
- Statistics Canada Census Information

Manual counts of all fixed route trips within the Quesnel Transit System were conducted to develop an understanding of ridership on specific sections of the routes. On board Passenger Count Data was collected over a period of two weeks in October 2012. This data collection focuses on what is measurable and was used to identify data for the following variables for each route in order to analyze the Quesnel Transit System:

- Rides per route
- Rides per trip
- Boardings and disembarkings per stop for specific route sections
- Trip time & variability

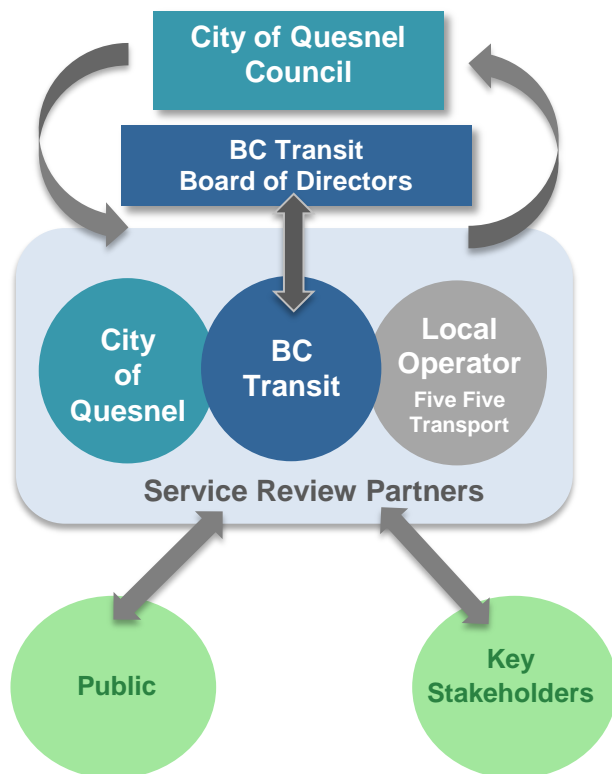
Information collected through the review of the existing transit service in conjunction with the analysis of survey responses was used to determine possible options for the highlighted routes outlined in the objectives and to make recommendations for optimization. Each option includes a projected number of additional service hours (revenue hours), vehicle(s) required, and as well as projected passengers, revenue, total cost, and local government share.

The options analysis was completed in support of the *Quesnel Official Community Plan (2007)*, *ourQuesnel: Sustainability in Action* (in progress) and other local planning initiatives and is in alignment with the Quesnel Local Transit Objectives outlined in Section 3.3 of this report.

1.4 Approach

The service review has been conducted via a collaborative approach between BC Transit, the City of Quesnel, the operating company (Five Five Transport) and other key community stakeholders, led by BC Transit. The approach is outlined in Figure 1.3.

Figure 1.3: Quesnel Targeted Service Review Approach



2 Context

This section provides an overview of the geography, demographics and land use within which the Quesnel transit system operates. This presents the context within which any options and proposed changes to the transit system must be analyzed.

2.1 Geographic Profile

Quesnel is a small city located at the confluence of the Fraser and Quesnel Rivers within the Cariboo Regional District (Figure 2.1, Figure 2.2 and Figure 2.3). It is situated approximately equi-distance between the cities of Prince George (122km to the north) and Williams Lake (119km to the south) on the main route to northern British Columbia and the Yukon. Wells, Barkerville and Bowron Lake Provincial Park are located approximately 80km east of Quesnel.

Quesnel is generally flat, with some steep inclines in West Quesnel that could impact the transit service in winter months.

Figure 2.1: Quesnel in the National and Provincial context

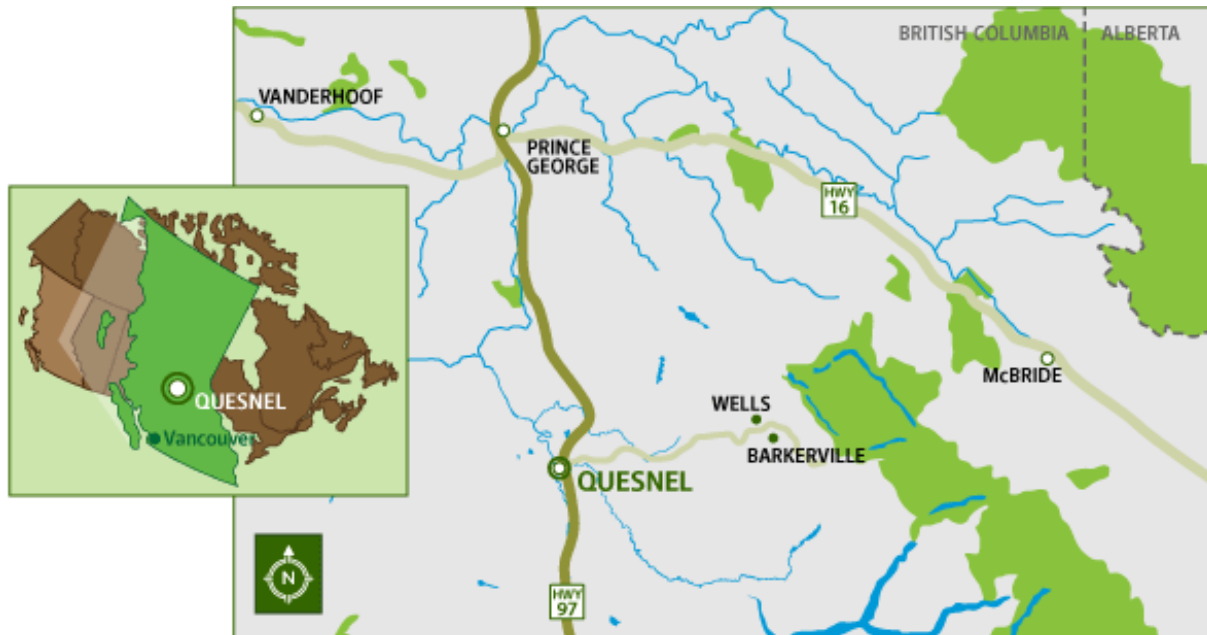
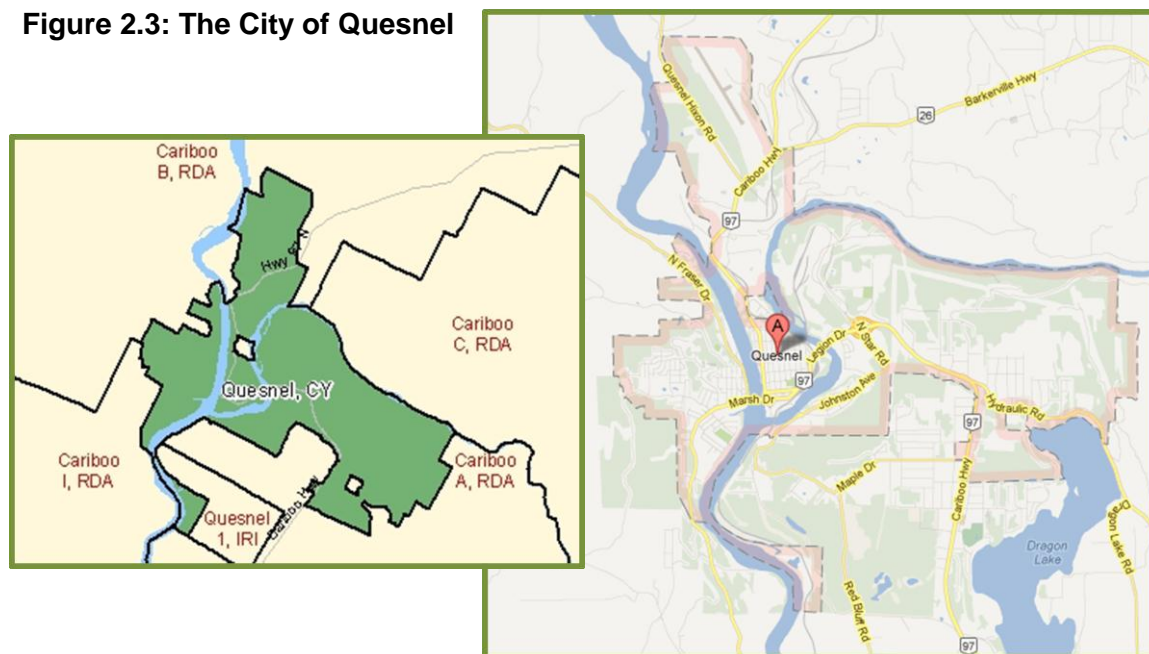


Figure 2.2: The Cariboo Regional District



Figure 2.3: The City of Quesnel



2.2 Climate

Quesnel is located in the upper Fraser Basin, approximately 500m above sea level on the leeward side of the Coast Mountains and consequently has a dry climate. It has an average of 2025 sunshine hours per year, experiencing warm summers and moderately cold winters (average min. temp. of -11°C in December).

Precipitation is generally distributed evenly through the seasons with an annual snowfall of 180cm in winter. On average, there are 96 days with measurable rainfall and 54 days with measurable snowfall. The area is usually frost-free from mid-May through early September. In winter, snowfall can occasionally present difficulties for transit, primarily in the rural areas of the region and for handyDART service where there may be limited snow clearance and property access restrictions.

2.3 Governance Structure

The City of Quesnel is a municipality, providing a wide variety of services and core responsibilities that are reflective of the community's needs, for example transportation, police, fire, water treatment and supply, refuse collection, recreation and culture, land use planning etc. Municipalities have flexibility in how and what services are provided, including the ability to enter into private partnerships and an ability to generate revenue to finance operations through both property taxes and fees. However, the provision of schools, social assistance and hospitals remains a provincial responsibility.

The City of Quesnel is governed by Council; a democratically elected body, accountable to their electorate and comprised of a mayor and six councillors. It resides within the Cariboo Regional District (CRD) and one or more members of council are appointed to sit as the municipal representative on the CRD board. Incorporated in 1968, the CRD is a regional government that functions independently of the provincial government, working with a variety of community partners to *"make the Cariboo Chilcotin a socially, economically and environmentally desirable region to live, work and play."*¹ The Cariboo region encompasses an area of 80,000km² and consists of 12 electoral areas (A through L) and four incorporated member municipalities; 100 Mile House, Williams Lake, Quesnel and Wells. The CRD has a population of approximately 63,000 residents of which approximately 25,000 are within the Quesnel region and have access to the Quesnel transit system.

2.4 Demographic Profile

In 2011, the population of Quesnel totaled 10,007. This represented a 7.3% increase from 2006 (9,326). However, there was a gradual decline in population size between 1996 (10,532) and 2006 (9,326) and the population increase in the last five years has not yet reached 1996 levels. The Quesnel transit system also serves the greater metropolitan area, which has a population of approximately 23,000.

In 2011 the Cariboo Regional District population totalled 62,392. This is due to increase gradually by approximately 8% over the next 10 years by 2021 to a population of 67,630². Only part of this population increase will be located within Quesnel and the area serviced by the transit system. As such, the limited population growth in Quesnel is unlikely to result in an increased ridership or demand for transit service.

¹ Cariboo Regional District Mission Statement, available at: <http://www.cariboord.bc.ca/AboutUs/MissionStatement.aspx>

² BC Stats Population Projections, available at <http://www.bcstats.gov.bc.ca/StatisticsBySubject/Demography/PopulationProjections.aspx>

As with most Canadian cities, Quesnel has an ageing population; the median age has grown from 37 in 2001, to 41.9 by 2011. In 2011 16% of the total population were over 65 compared with 15.1% in 2006 and 12.5% in 2001. This compares with the national average of 14.8% of the total Canadian population being seniors aged 65 years and over³. As the population of Quesnel continues to age, this may have increasing impacts for transit in the city. Over 65's fall in to a category of comparatively heavy transit users and this age group is also generally eligible for discounting of fare products which will continue to have impact on the municipality's revenue collection. Further, this changing demographic will also likely increase the demand for handyDART service.

2.4.1 Employment & Education

Quesnel is the commercial centre of the North Cariboo and is divided geographically into four primary business and residential areas; South, West, North and Downtown. There are commercial zones located on either side of the Fraser River and along Highway 97 South and North of the city including several large anchor retail developments and a large hospital served by the existing transit system, all providing employment opportunities.

Forestry is the leading industry in Quesnel with two pulp mills, five lumber mills, a plywood and MDF plant, plus several smaller value-added manufacturing operations. The wood products industry workforce consists of approximately 3,500 Quesnel residents with additional workers in the surrounding metropolitan area. Agriculture, mining and tourism continue to be important sectors in Quesnel's economy. These employment areas are not located on the existing transit route. In addition, this type of industry usually includes shift work, which limits the ability of transit to efficiently serve. The 2006 census indicated that only 65 people (1.5% of the working population) travelled to work by public transit. .

The unemployment rate has fluctuated over the last decade at 13.4% in 2001, 9.9% in 2006. In addition, 10.7% of the population is classed as low income after tax. These groups are particularly vulnerable to changes in economic conditions and can be reliant on transit for travel.

In addition to 14 elementary and two secondary schools, the Quesnel School Board, the College of New Caledonia and University of Northern BC campuses are located in Quesnel and served by the existing transit system. The population of school and college student age (ages 5 – 24) has generally declined over the past ten years from 2,930 people in 2001 to 2,475 in 2011. Although the engagement results (Section 5) indicated that there are a few school and college student passengers who use the existing transit system, this number is not expected to increase significantly over the short or medium term.

2.5 Urban Form

Industrial sites with rail and highway frontage are located in the city and surrounding area. A comprehensive land inventory has confirmed that Quesnel and District has approximately 3,300ha of suitable land available for industrial applications. In addition, Quesnel is also expanding its industrial park by up to 60 acres on the City's airport lands connected to the north end of the current industrial park on Campbell Crescent. Recreational facilities include twin arenas, curling rink, two golf courses, riverfront trails and a large recreation center.

Residential development within the City has traditionally focused around the area where the Quesnel River and the Fraser River meet. As a result, low density residential growth has filled in the area between the Quesnel and the Fraser, as well as along the sides of the rivers.

³ Statistics Canada, 2006, 2011

Residential development is continuing to spread up the hillsides above the rivers and beyond the City of Quesnel municipal boundary.

There were a total of 9,140 dwelling units in Quesnel in 2006, approximately 80% of which are single-detached units. Duplexes and row houses make up a modest proportion of housing units and approximately 8% of the housing market is apartments. There are no apartment buildings taller than five storeys in Quesnel. In 2009, there were approximately 500 movable dwellings (such as mobile homes, houseboats and railroad cars) in Quesnel & Area⁴. The more dense housing forms are scattered throughout Downtown and West Quesnel but generally development is low density with 282 people per square kilometre⁵. This compares with Victoria, which has 1,142 people per square kilometre and Nanaimo, which has 918 people per square kilometre and therefore are both more transit oriented in their development patterns and enjoy the associated increased level of transit service.

⁴ City of Quesnel Affordable Housing Needs Assessment, 2010

⁵ Statistics Canada, 2011

3 Policy Context

This section outlines the relevant policy and plans that provide direction to the design and operation of the Quesnel transit system and influence the options for the targeted transit service review.

3.1 Provincial Transit Plan

The Provincial Transit Plan is British Columbia's \$14 billion strategy for expanding fast, reliable and green transit. The plan emphasizes that, from a transportation perspective, the best means of reducing greenhouse gas (GHG) emissions is to focus on dramatically increasing transit ridership (and thereby reducing single occupancy vehicles), linking transit to active modes of travel (walking and cycling) and having land use decisions, largely made by local government, focus on Transit Oriented Development (TOD) or at least transit friendly development.

The Provincial Transit Plan sets a number of quantifiable targets including:

- Reduce GHG emissions and air contaminants from cars by 4.7 million tonnes by 2020;
- Double transit ridership in British Columbia to over 400 million trips a year by 2020 (for Quesnel this would mean an increase from 80,750 rides in 2010 to 161,500 rides in 2020 compared with a 21% in the five years between 2005 and 2010); and
- Increase transit market share in regional centres by one per cent in 2020, and another one per cent in 2030.

Any service review recommendations for Quesnel will ultimately aim to support the achievement of the Provincial Transit Plan vision and targets.

3.2 BC Transit Strategic Plan

BC Transit's Strategic Plan is an overarching framework for BC Transit. Any service review recommendations will be made to align with the Strategic Plan priorities, including:

- Increase integration with other types of sustainable travel
- Influence land use and development patterns
- Identify and establish priority corridors for transit
- Enhance existing partnerships and develop new ones
- Increase our environmental, social and economic accountability

3.3 Quesnel Local Transit Objectives

Local transit objectives were established by the City of Quesnel during the development of the Quesnel Transit System Expansion Study, completed by BC Transit in 2000. They serve to define the expected role of transit in the region in terms of service levels. They also form the basic requirements that any proposed expansion or changes to transit must fulfill in order to be acceptable to the City. The objectives are as follows:

Quesnel Local Transit Objectives

1. To develop a local transit system, which emphasizes the needs of seniors, youths and persons with disabilities.
2. To focus on the built-up areas of the city, within the surrounding sub-regional recreation boundary.
3. To provide an integrated service, accessible to seniors, persons with disabilities and others in the community.
4. To accommodate the demand for non-discretionary trips (work, medical, education) and discretionary trips (social, shopping, recreation etc.)
5. To provide access to all major activity centres.
6. To address both the present and future travel needs of the City of Quesnel area.
7. To suggest transportation demand management strategies for major employers in the Quesnel area.
8. To consider all forms and combinations of transit, including conventional, custom, paratransit and taxi services, as well as subsidies for existing transportation networks.
9. To set service concepts and costs which are in line with the size of the population and area served, as based upon experience in similar communities throughout BC.

3.4 ourQuesnel: Sustainability in Action

Quesnel is in the process of developing an Integrated Community Sustainability Plan to achieve their long term vision of environmental, economic, social and cultural prosperity. This initiative, *ourQuesnel; Sustainability in Action*, has begun by identifying Desired Outcomes for the future. One of these desired outcomes relates to Transportation and Mobility and states:

Transportation and Mobility Desired Outcome:

1. Quesnel's transportation system is accessible by all users.
2. The transportation system is convenient, cost-effective and affordable, and allows for efficient and safe movement of people, vehicles and goods.
3. It is easy to get around Quesnel year-round using a variety of transportation options, including non-motorized modes.
4. Excellent access to regional and international travel supports a robust and diverse economy.
5. The transportation system uses increasingly sustainable technologies.
6. Existing roads and transportation infrastructure are used efficiently, reducing the need for new roads encroaching on natural areas.

3.5 Quesnel Official Community Plan

The Quesnel Official Community Plan (OCP) was adopted as bylaw in 2007 (as amended) and outlines a vision for a city that "*will enhance the quality of life of the citizens of Quesnel by*

providing: equitable, sustainable, fiscally responsible, physical and social infrastructure; and opportunities for diversified economic growth in a socially and environmentally responsible manner.” The OCP objectives and policies support three key public transit strategies that aim to reduce automobile use:

- Encouraging mixed-use development with transit and pedestrian linkages
- Increasing density
- Providing alternative forms of transportation

If implemented effectively, these objectives and policies support the viability of a successful transit system over the long term.

3.6 Quesnel Measure Up Strategic Plan

The focus and the purpose of this Strategic Plan (2008) are to provide a starting point for improving accessibility and inclusion in the community. Through community consultation and stakeholder input, it highlights specific issues associated with transit and accessibility in Quesnel and includes goals to increase use of the transit system with improved service to people with disability and seniors and focuses on reducing the number of unmet requests for handyDART service.

3.7 Cariboo Regional District Quesnel Fringe Area Official Community Plan

The review of the Quesnel Fringe Area OCP commenced in 2009 and the draft plan (April 2012) is currently being reviewed and presented for approval. The draft Plan OCP indicates that the City of Quesnel is the regional centre of employment and services and it proposes a number of goals including increased residential development density.

3.8 Summary

The provincial Transit Plan outlines ambitious targets to double transit ridership from 2010 to 2020 across the province. Local and regional plans outline policies which encourage increased density, mixed-use, compact development and integrated methods of mobility in the future and, as such, would support an effective transit system. However, the limited projected population increase and current low density land use patterns would indicate a continued pattern of development that is less transit supportive. Quesnel local transit objectives and sustainability goals focus less on ridership and more on a community style service that is accessible and inclusive, meeting the needs of the changing local demographics and aging population. Given this, the targeted transit service review options will primarily focus on supporting existing ridership in core developed areas rather than expanding service area coverage and with particular emphasis on accessibility.

4 Current Transit System

The Quesnel Transit System is currently operated by Five Five Transport. The system is classified as a Paratransit system, which offers a mixture of conventional fixed-route, fixed-schedule service and custom, door-to-door service for persons with disabilities known as handyDART.

This section outlines the existing conventional transit system routes, frequency, ridership, fleet, infrastructure, costs and revenues and benchmarks this against similar systems in Canada. Specifically, the section focuses on the routes identified for review within this report and also provides an overview of the custom handyDART service.

4.1 Service History

In April 1982 BC Transit entered into a funding agreement with the City of Quesnel and the Cariboo Regional District for the provision of paratransit service. Operated by Quesnel's Community Aid Society, this door-to-door, demand responsive service was targeted to seniors and persons with a disability.

The City of Quesnel and BC Transit first implemented limited fixed route service in September 1993. This program was cancelled in May 1995 due to cost pressures. The system continued to offer primarily custom style service until fixed route service was re-introduced to Quesnel in April 2001. Since that time ridership has experienced double digit increases in each of the past five years from approximately 34,400 in 2001/02 to 80,800 in 2010/2011 until a recent decline in ridership in 2011/2012 of 11% from the previous year to 73,000.

Panda Transportation Services took over operation of the system in October 1996, followed by Polar Transportation Services in April 1999 and then the current operating company, Five Five Transport since April 1st, 2004.

4.2 Conventional Service Routes & Frequency

The existing transit system in Quesnel is comprised of five conventional routes operated by Five Five Transport. Routes 1, 2 and 3 are largely structured in a “hub-and-spoke” pattern that connects neighbourhoods with the central area where passengers can access other transit routes to the rest of the city (Figure 4.1).

Quick Facts ⁶	
Ridership	77,642
Conventional Service hours	10,141
Rides per hour	7.3
Fleet (excluding custom)	7 ⁷
Number of routes	5

All routes begin and end at St. Laurent & Reid in downtown Quesnel, with the exception of Route 31: Nazko which begins and ends at the Nazko Band Office in Quesnel.

- **Route 1: West Quesnel** - besides the Downtown shopping area and West Park Mall, major destinations served by this route include Quesnel Senior Secondary School, the Baker Memorial Hospital, City Hall and the neighbourhoods of West Quesnel, including service to Voyager and Baker Elementary, and Correlieu Secondary Schools.
- **Route 2: Red Bluff** - this route also covers the Downtown shopping area and City Hall as well as the neighbourhoods of the Carson Subdivision, South Hills, and Red Bluff. In

⁶ 2012/13 Quesnel data from Information & Performance Summary (IPS) Actuals corporate

⁷ Includes in service and spare vehicles

addition, it serves the Quesnel & District Arts & Recreation Centre, the University of Northern British Columbia (UNBC) and College of New Caladonia (CNC) campus, Maple Park Mall, South Quesnel Shopping Area and Red Bluff Elementary School.

- **Route 3: North Fraser** - this route also covers the Downtown shopping area, Quesnel Secondary School, and the hospital as well as the West Quesnel neighbourhood including West Park Mall, Riverview Elementary School and North Fraser Drive.
- **Route 30: Wells** - this route provides a direct service from downtown Quesnel to Wells with two trips a week on Thursdays only. From June 1st to September 30th, this route also stops at Cottonwood House Historic Site and Barkerville Historic town on both the morning and afternoon trips if there is passenger demand.
- **Route 31: Nazko** - this route provides a direct service from the Quesnel Nazko Band Office to Nazko with two trips a week on Wednesdays only.

Figure 4.1: Quesnel Transit System

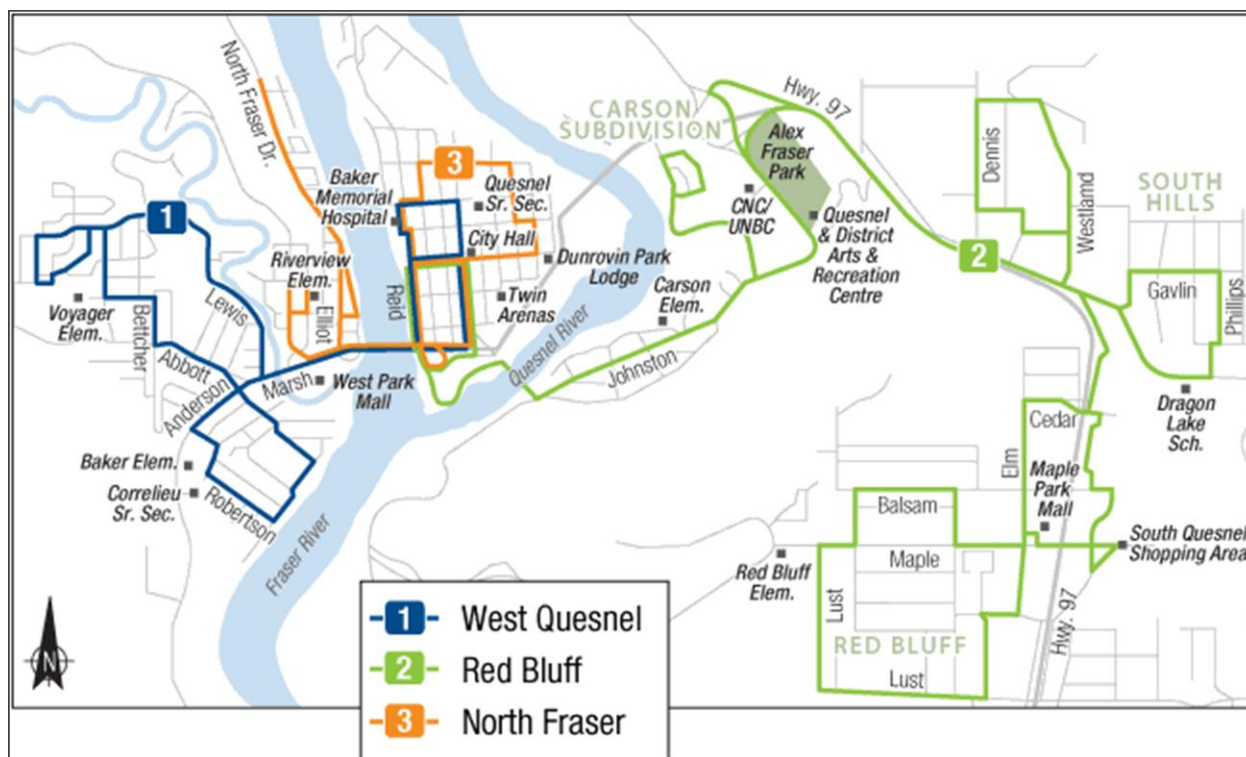


Table 4.1 below provides information regarding the frequency of service for each route. The service for both Route 1 and Route 2 currently operates from approximately 7:00 a.m. to 5:45 p.m. Monday to Friday and from 8:30 a.m. to 3:45 p.m. on Route 2 and 9:40 a.m. to 4:00 p.m. on Route 1 on Saturdays. The service for Route 3 operates from 8:45am to 5:50 p.m. Monday to Friday and 10:00 a.m. to 4:30 p.m. on Saturdays. Route 30 operates two trips on Thursday only to Wells and Route 31 runs two trips on Wednesday only to Nazko.

Table 4.1: Existing Service on Quesnel Routes

FREQUENCY				
	Route Description	Weekday	Sat	Sun
Route 1	West Quesnel	Approx. 60 min with peak times at 30-45min	Approx. 60 min	No service
Route 2	Red Bluff	60 min	Approx. 60 min	No service
Route 3	North Fraser	60min	3 trips	No service
Route 30	Wells	Thursday only 2 trips	No service	No service
Route 31	Nazko	Wednesday only 2 trips	No service	No service

4.3 Conventional Service Hours

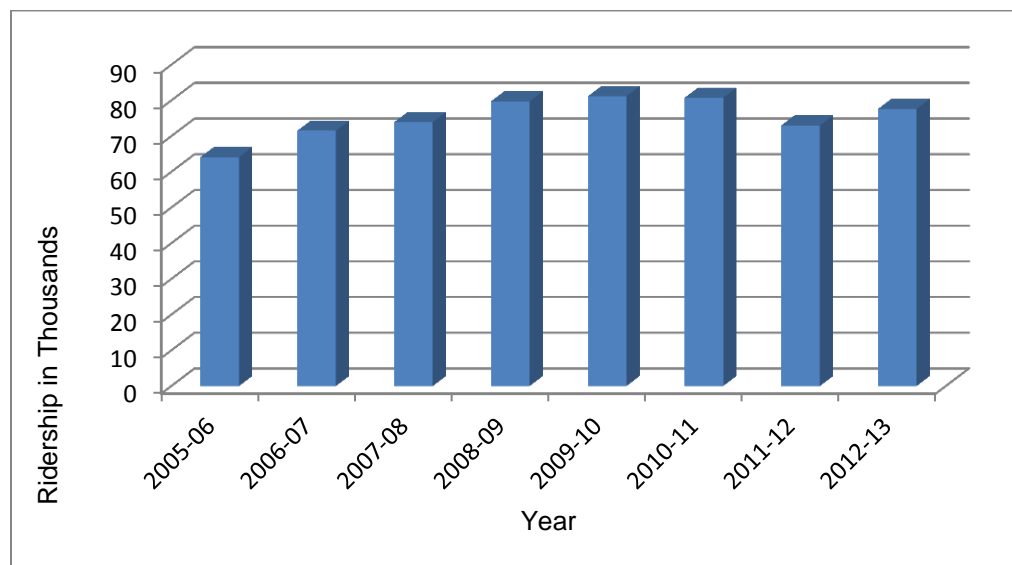
Approximately 65% of the total service hours are budgeted for conventional service (59% on Routes 1, 2 and 3 and 3% on both Routes 30 and 31), 33% are budgeted for handyDART and approximately 2% of hours are spare to be used flexibly as required.

Approximately 7.5% of these conventional service hours relate to service within the Cariboo Regional District (CRD)⁸. This is provided on Route 2: Red Bluff in South Quesnel from Maple Drive to Lust Road including Elm Street and Cedar Avenue.

4.4 Conventional Ridership

In the 2012/13 fiscal year, the Quesnel system served approximately 77,600 riders. The current ridership performance of the Quesnel Transit system is outlined in Figure 4.2, which highlights a general increase in ridership since 2005 with a slight decline of approximately 11% from 2010 to 2012. However, ridership has since increased again by approximately 6% in 2012/13. Of these riders, approximately 24% of revenue relates to BC Bus Pass.

Figure 4.2: Quesnel Transit Ridership 2005-2013



⁸ Based upon an estimated 9minutes of service within the CRD, Red Bluff location, per Route 2 trip.

Figure 4.3: Quesnel Ridership Variation by Month for 2011/2012

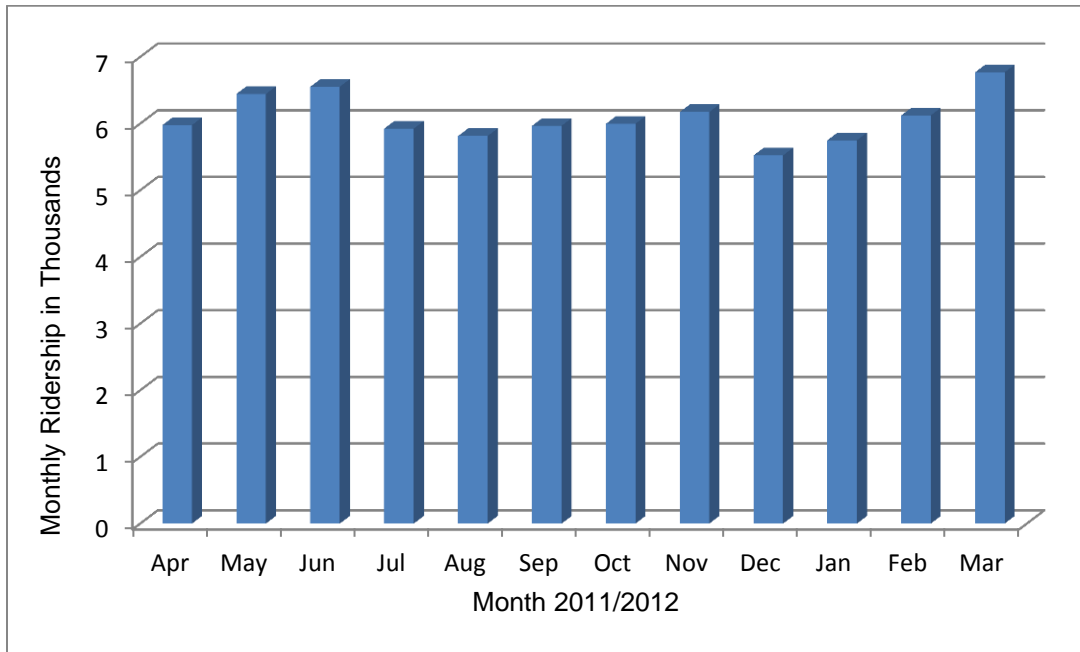
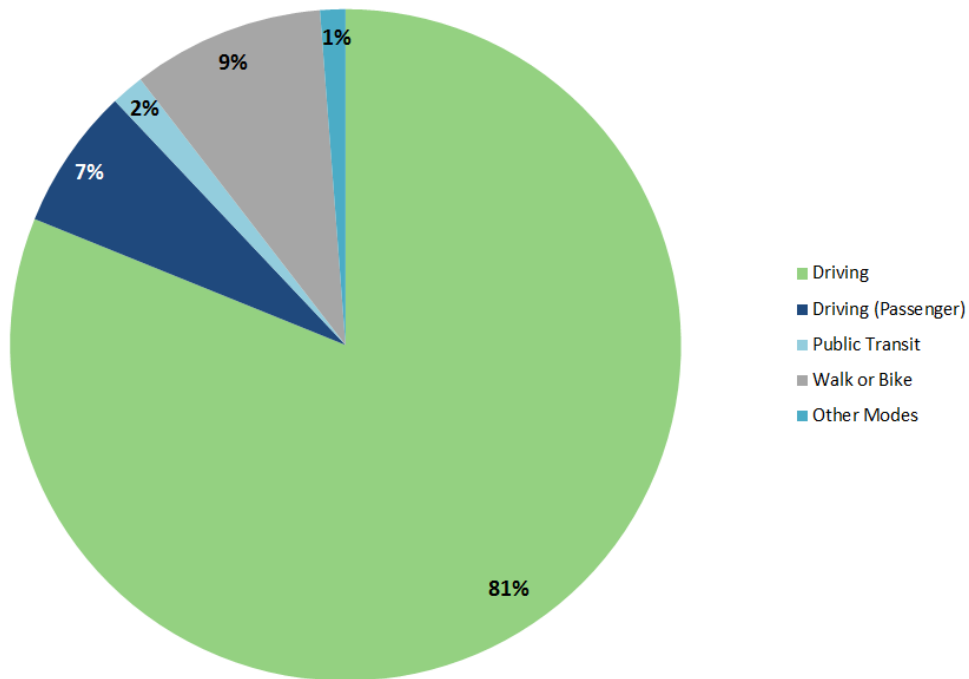


Figure 4.3 demonstrates a slight fluctuation in ridership per month with the expected decrease in December-January and the summer months associated with holidays.

Figure 4.4 presents details of the different modes of transportation taken by the employed population on their daily commute to work (Statistics Canada, 2006). This demonstrates that public transit in Quesnel is used minimally as a commuter service.

Figure 4.4: Quesnel Commuter Transportation Mode Choice, 2006



Onboard passenger count data was used to estimate the ridership within and outside the City of Quesnel boundary (Section 5). Approximately 90% of conventional weekday and Saturday ridership is within the City of Quesnel and 10% from within the CRD (Electoral Area A - Red Bluff Quesnel South). Approximately 4% of conventional weekday ridership and 2% of Saturday ridership is on Lust Road (south) bordering the Lhtako Dene Nation (Red Bluff Indian Band).

Fares for the conventional service are outlined in Table 4.2 below. Several discounted fare programs are offered including books of ten tickets, day passes and monthly passes.

Table 4.2: Quesnel Conventional Transit Fares (as of January, 1, 2011)

One-way Trip	Cash	10 Tickets	Day Pass	Monthly Pass
Adult	\$1.75	\$15.75	\$3.50	\$35.00
Senior	\$1.50	\$13.50	\$3.00	\$25.00
Student to Gr. 12	\$1.50	\$13.50	\$3.00	\$25.00
College Student	\$1.50	\$13.50	\$3.00	\$25.00
Child 5 yrs. & under	No charge	-	-	-

4.5 Custom (handyDART) Service

Custom transit service, also known as handyDART, provides door-to-door transit service for people who are unable to use the conventional system without assistance. The objective of custom service is to provide eligible customers with access to their community and is not focused on ridership growth.

The system provides both a regular subscription service as well as one-time trips between 8:00 a.m. and 4:00 p.m. on weekdays. There is no service on weekends or public holidays. The current service operates with one bus on full-time service from Monday to Friday and a second bus operating on 26 hours per week from Monday to Thursday. Quesnel handyDART charges its clients based upon a zone system as outlined in the Table 4.3 below:

Table 4.3: Quesnel handyDART Charges

One-way Trip	Zone 1	Zone 2	Zone 3
Passenger & Escort	\$3.00 (each)	\$4.00 (each)	\$4.00 (each)
Tickets (5)	\$15.00	\$20.00	\$20.00
Attendants	No charge		

Zone 1: Within city boundaries and Red Bluff conventional transit service area

Zone 2: Outside of Zone 1 to 15km from the city boundaries

Zone 3: Plus \$5.00 per kilometer from 15 to 20km outside of the city boundaries

4.6 Custom Service Hours

Approximately 33% of the total transit system service hours are budgeted for handyDART and approximately 2% of hours are spare to be used flexibly as required. An estimated 42% of handyDART service hours are dedicated to service within the CRD⁹.

⁹ Based upon address and time information taken from the February and March 2013 handyDART passenger booking log.

4.7 Custom (handyDART) Ridership

In 2011/12 there were 202 Ambulatory registered users (i.e. handyDART eligible riders not using a wheelchair, or other mobility device) and a total of 86 registered wheelchair users (i.e. passengers using mobility devices such as a wheelchair or scooter). A high proportion of registrants are residents of the Cariboo Regional District (CRD) and are located a significant distance beyond the City of Quesnel boundary. Approximately 37% of handyDART trips are outside the City of Quesnel, primarily within CRD Area A: Red Bluff Quesnel South and CRD Area B: Quesnel West Bouchie Lake.

Up until January 2013, the Quesnel handyDART service also offered a taxi supplement program. This is a service where a privately owned taxi is dispatched through the transit operator for custom transit service when the regular handyDART service is not available. For example, this could occur when a passenger takes handyDART to an appointment that finishes after 4:00 p.m. when the handyDART service has ended; the taxi supplement program enables the passenger to return home after their appointment. The taxi supplement budget is \$500 monthly. However, the taxi company providing taxi supplement service closed in January 2013 and the remaining Quesnel taxi company is unable to guarantee pick-up and delivery for advance bookings. As such, the Quesnel transit service is unable to currently use the taxi supplement program. In addition, the private taxi service available in Quesnel does not have wheelchair accessible vehicles, which further limits the transportation options available to handyDART clients.

Figure 4.5 and Table 4.4 outlines that custom ridership saw a 22% decrease in 2011/12, reflective of a decrease in ridership across the whole system. It should be noted that wheelchair use increased whereas ambulatory use has decreased. Taxi supplement use also decreased by more than 50% in 2011.

Figure 4.5: Quesnel Custom Ridership 2008-2013

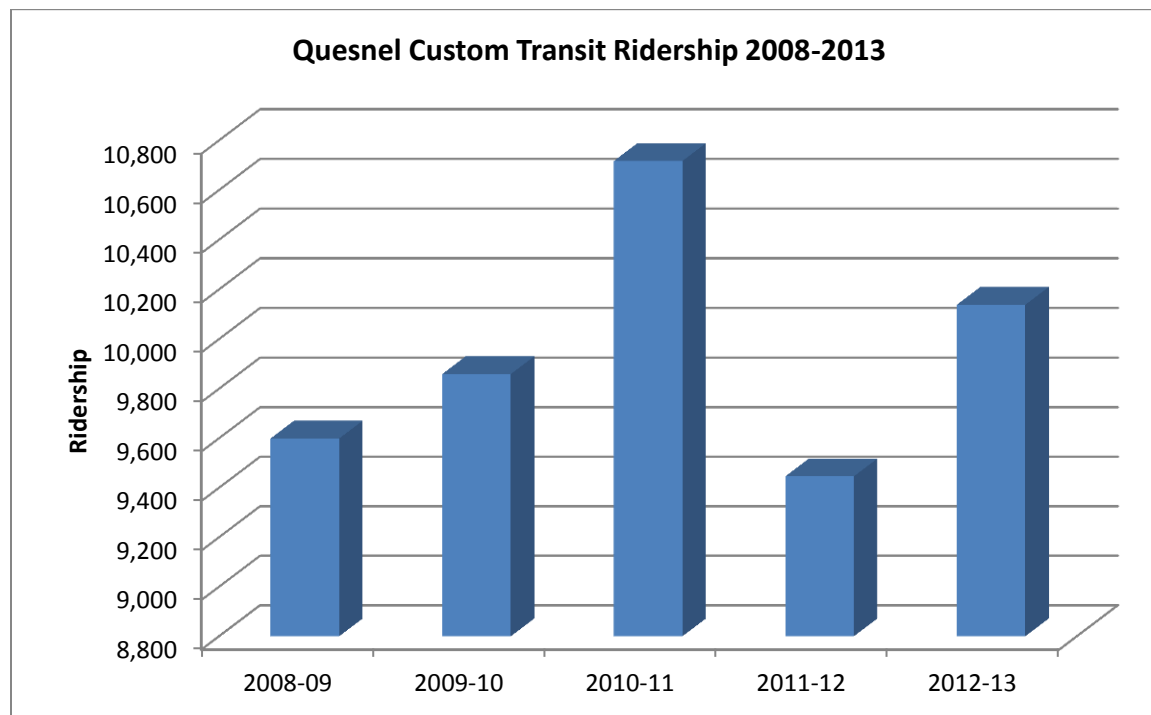


Table 4.4: Quesnel Custom Ridership by Type

Mode	Custom Ridership				
	2008/09	2009/10	2010/11	2011/12	2012/13
Ambulatory	7,359	7,091	7,662	6,290	6,789
Wheelchair Users	1,747	2,131	2,270	2,653	2,983
Attendants ¹⁰	402	410	512	385	356
Companions ¹¹	5	17	27	12	10
Taxi Supplement	86	210	246	106	275
Total Custom Ridership	9,599	9,859	10,717	9,446	10,413
Total Rides (Custom & Paratransit)	79,766	81,169	80,750	73,014	77,642
Unmet trips ¹²	744	2,225	2,270	527	662

Feedback from the operating company and City of Quesnel outlined that the handyDART service lost ridership in 2011 due to several factors including clients passing away, clients moving and fare increases. In addition, some community programs were transporting people to their facility rather than using the handyDART service as they did in the past.

4.7.1 Custom Ridership Constraints

Since the fall of 2012, there has been a sharp increase in demand for handyDART service. Table 4.5 below shows the increase in handyDART ambulatory and wheelchair rides and unmet trips for comparable months in 2011 versus 2012.

Table 4.5: Quesnel handyDART rides for comparable months in 2011 and 2012

Month	handyDART rides							
	2011/2012				2012/2013			
	Ambulatory	Wheelchair	Total Trips	Unmet Trips	Ambulatory	Wheelchair	Total Trips	Unmet Trips
July	497	207	704	32	459	216	675	4
August	606	192	798	35	514	228	742	4
September	529	253	782	10	583	226	809	80
October	469	233	702	17	705	247	952	87
November	514	284	798	11	621	294	915	85
December	446	231	677	9	523	240	763	81
January	439	204	643	21	682	307	989	87
February	438	195	633	13	615	224	839	97
March	471	268	739	2	603	214	817	97

¹⁰ **Attendant** - someone whose help is required by a handyDART passenger (rides free)

¹¹ **Escort** - someone who accompanies a handyDART passenger (pays regular fare)

¹² **Unmet trips** - requested trips during regular service hours which could not be served due to vehicles being fully booked

This increase in demand is likely the result of a local service agency returning to handyDART following previously providing private transportation for their clients. In addition, there has been an increase in the number of clients requiring handyDART from several other local service agencies and a general increase in demand relating to an aging population. There is difficulty in addressing the increase in demand due to a variety of constraints:

- The extensive area the handyDART service covers (up to 20km outside of the city boundaries);
- The disconnected nature of the rural communities served - for example, the Fraser River divides the communities north east of Quesnel (e.g. Bouchie Lake) from those north west of Quesnel (e.g. Ten Mile Lake), requiring buses to return to Quesnel after visiting the north east communities prior to going to the north west communities and vice versa.
- The nature of handyDART requirements in Quesnel - there is a high demand for subscription handyDART service for clients to attend daily programmes that begin and end at specific times of day (9:00am and 3:00pm) e.g. Quesnel Community Living Association (QCLA), PRIMA Enterprises Ltd (Quesnel Day Programme).

Given the current handyDART resources, this necessitates that large distances and multiple communities e.g. Ten Mile Lake in the North East, Bouchie Lake in the West, South Hills and Red Bluff to the South, are served by only two buses between Monday and Thursday and one bus on Fridays. This is further constrained by the high demand in multiple, often unconnected communities at peak times of day.

The operating company has discussed the need for flexibility in programme times with both clients and programme providers and ensures trip locations and times are organized to maximize efficiency. However, demand remains high and unmet trips continue to be over 90 per month in comparison to approximately 13 per month for comparable months in 2011. Albeit there are daily requests for handyDART within the city boundary that result in unmet trips, it has been estimated that over half of the unmet trips are for clients within the CRD. It should be noted that prior to 2011, unmet trips for handyDART service were also high, averaging 172 unmet trips per month in 2010/2011.

To specifically address the issue of unmet trips, the use of taxi supplement was increased from 11 trips in July and August 2012 to between 31 and 51 trips per month by December 2012. However, given the recent closure of the taxi company used for Taxi Supplement service, this has added an additional demand to the handyDART bus service.

4.8 Transit Infrastructure

There are currently seven vehicles that form part of the Quesnel transit fleet. These consist of five Ford Polar (Community) buses and two Chevrolet ARBOCs. Two of the Ford Polars will be replaced by new Vicinity buses in August 2013. The Vicinity buses are low floor vehicles with a front entrance ramp which will support an aging population, assist parents with strollers and potentially allow some limited current handyDART riders who live on the conventional service routes to use the conventional transit system. The Vicinity buses also have a higher passenger capacity (23 seated and 16 standees versus 20 seated and no standees in the Ford Polar). The remainder of the Ford Polars will be phased out and replaced with new community/handyDART vehicles, Chevrolet ARBOCs, which also have a low floor entrance ramp.

There are currently 133 bus stops within the Quesnel transit system of which twelve have shelters and benches.

4.9 Benchmarking for Quesnel Transit System

Transit system performance for Quesnel was compared to similar paratransit systems within the province as outlined in Table 4.5. The similarity is based on a variety of criteria such as population, ridership and revenue hours for 2012/2013 data.

Table 4.5 outlines that the Quesnel system supports approximately 10,100 hours of service with an annual ridership of 77,642 rides. The Quesnel transit system performs well in comparison to the average for all BC community transit systems with 7.6 rides per revenue hour in comparison to 4.4 rides per revenue hour at a cost of \$9.96 per ride in comparison to \$15.40 per ride and a total cost of \$75.95 per revenue hour in comparison to \$72.80 per revenue hour. In addition, cost recovery for Quesnel in 2012/2013 was 22.5%, which is an increase from 21.0% in 2011/12 and compares to an average of 28.7% for all BC communities, albeit comparable communities tend to have lower cost recovery.

In summary, the Quesnel transit system is performing above average in most areas and well in cost recovery compared to similar communities. Given the nature of the Quesnel transit service, where conventional and handyDART service are interrelated, it is difficult to distinguish between the costs for each. However, it should be recognized that given the custom door-to-door service and, consequently, the lower number of rides per hour, handyDART service is more costly than conventional. On average, handyDART service is 3 to 4 times more costly than conventional service.

Table 4.5: Transit Performance Criteria for Quesnel and Similarly Sized Cities or Areas

	AOA Service Area Population	Service Area Population	Annual Service Revenue hours	Fixed Routes	Vehicles	Annual ridership	Revenue (\$)	Total Cost (\$)	Cost Recovery (%)	Total Cost per Ride	Total Cost per Hour	Rides per Revenue hour	Adult Cash Fare
Quesnel, BC	23,000	10,000	10,140	5	7	77,642	173,860	773,701	22.5%	9.96	75.95	7.6	1.75
BC Community Average									28.7%	15.40	72.80	4.4	
Williams Lake, BC	21,900	8,600	9,254	4	7	86,026	99,327	839,191	11.8%	9.76	90.12	9.2	1.25
Agassiz-Harrison	86,400	9,300	5,379	1	3	39,484	90,624	377,084	24.0%	9.55	70.10	7.3	2.50 (1zone)
Castlegar, BC	13,400	9,400	7,519	8	6	65,145	69,345	827,080	8.4%	12.70	109.87	8.7	1.75
Merrit & Area, BC	8,900	5,900	4,518	4	2	58,959	54,151	264,295	20.5%	4.48	58.50	13.1	1.50
North Okanagan	226,800	19,100	6,342	12	5	75,153	116,659	726,400	16.1%	9.67	108.34	11.2	2.00
Powell River	13,100	15,600	5,865	6	4	19,005	33,633	333,325	10.1%	17.54	56.31	3.2	2.00
Revelstoke, BC	7,100	5,900	4,231	2	3	22,262	45,877	410,771	11.2%	18.45	71.74	3.6	2.00
Shuswap, BC	29,400	15,700	11,693	8	8	114,660	153,499	1,100,129	14.0%	9.59	92.01	9.6	1.5

Source: Operating Data & BC Transit Information & Performance Summary Data, 2012/2013

5 On Board Passenger Count Data Results

On board Passenger Count Data was collected over a period of two weeks in October 2012. Two counts were performed for each trip during weekdays and a single count for every trip on Saturdays in order to provide information on boardings per trip, total route ridership and ridership on specific route sections.

It should be noted that these results reflect ridership specific to a snapshot period of time. Ridership can vary due to different factors such as time of year and weather. As such, this data is used as an indication of system performance along with a variety of other data and engagement input in order to explore service options.

The data indicated that the route with highest ridership is Route 1: West Quesnel with an average of 122 passengers boarding per week day and 42 passengers on Saturdays. This was followed closely by Route 2: Red Bluff with an average of 118 passengers boarding per week day and 34 passengers on Saturday. Route 3: North Fraser had an average of 45 passengers boarding per weekday and no passengers boarding on Saturday but four passengers did disembark on Route 3 on Saturday.

5.1 Route 1: West Quesnel

The busiest bus stop on Route 1: West Quesnel was A - St Laurent & Reid with a total of 27 passengers boarding at the beginning of the trips and 49 disembarking at the end of the trips for the whole day. Ridership was highest at timing points D - Lewis & Dawson, E - Abbot & Blair, F - Robertson & Winder and W - West Park Mall.

The busiest time of day for this route is the midday period with ridership peaks between 7:40 a.m. and 9:15 a.m., 12:15 p.m. and 2:15 p.m. and with a final peak at 4:15 p.m. with between 19 and 29 riders per trip between these time periods. Saturday ridership peaks reflect the weekday, with the peak trip at 12:11 p.m. followed by 15:07 p.m.

5.2 Route 2: Red Bluff

The busiest bus stops on Route 2: Red Bluff were A - St Laurent & Reid with a total of 46 passengers boarding at the beginning of the trips and 22 disembarking at the end of the trips for the whole day. Ridership was highest at timing points S-South Quesnel Shopping Area with 14 boardings and 28 disembarkings during the day, L – Spruce & Balsam with 12 boardings and 11 disembarkings during the day, K – Maple Park Mall with four boardings and nine disembarkings during the day and J- Phillips & Hydraulic with eight boardings and nine disembarkings during the day. Eight passengers boarded and three passengers disembarked at timing point I- Recreation Centre.

The busiest time of day for this route is the early morning and midday period with ridership peaks on the 8:02 a.m. trip, between 11:10 a.m. and 12:10 p.m. and with a final peak between 2:10 p.m. and 4:10 p.m.

N: Carson - no passengers boarded or disembarked at the Carson loop.

G: Johnston & Gardner – on average only three passengers boarded and three passengers disembarked on G-Johnston & Gardner. One passenger boarded on the outbound afternoon trip and two passengers boarded on a morning and afternoon inbound trip. All disembarking passengers were in the afternoon of the inbound trip.

X: Westland & Hydraulic – on average only three passengers boarded and three passengers disembarked daily at X – Westland and Hydraulic. These were primarily on the 8:02 a.m. and 10:10 a.m. outbound trips and the 8:02 a.m. inbound trips.

Only one person used the second loop to South Quesnel Shopping Area from Red Bluff during the day.

The high ridership in Red Bluff primarily concentrated on bus stops located at Maple Park Mall, stops 635 and 636 on Lust Road, timing point L – Spruce & Balsam (Stop 639) and timing point P – Elm & Maple (Stop 647).

5.3 Route 3: North Fraser

The busiest bus stop on Route 3: North Fraser was A - St Laurent & Reid with a total of seven passengers boarding at the beginning of the trips and five disembarking at the end of the trips for the whole day. Ridership was highest at timing points C – 7-11 and W- West Park Mall. The busiest time of day for this route is between the 10:45 a.m. and the 1:45 p.m. trips. Two people boarded and two people disembarked at T-North Fraser Turnaround on the limited trips (five) taking this route out of a total of 45 passengers.

6 Engagement

Key stakeholder and public consultation for the service review is incorporating several strategies from the spectrum of engagement, including:

- **Inform** – provide information that will assist key stakeholders and public in understanding issues, problems, alternatives, and/or solutions;
- **Listen and learn** – BC Transit, partners, key stakeholders and public listen to and learn about each other's views, plans, concerns and expectations;
- **Consult** – public feedback is obtained through consultation to analyze issues and build alternatives and thereby the public make contributions to the decision making process; and
- **Collaborate** – BC Transit, the City of Quesnel and Five Five Transport are considered partners in the service review process, including collaboration on analyzing issues, developing options, identifying preferred solutions and making recommendations. Recommendations are presented to the City for approval.

6.1 Phase 1- Listening Phase

Engagement consists of a two-phased approach. The objective of Phase 1 of the public engagement (listening phase) was to provide information about the existing transit system and service review process and ask the public for their feedback on how the existing transit system is performing and to what degree it meets or does not meet their needs. The “Listening Phase” participation strategies included an online survey, print survey, on-board transit passenger survey, Key Stakeholder Workshop and one-on-one meetings throughout September, October and November 2012.

- **Quesnel Project Website** - A dedicated web page has been established for the Targeted Transit Service Review on the Transit Future section of the BC Transit website. This provides information on materials that will be developed throughout the service review, as well as updates on upcoming events, reports, presentations and for providing online surveys to solicit feedback during the two consultation phases.
- **Online/Print Survey** - local residents, workers and visitors to Quesnel were encouraged to complete a Travel Habits survey, available online and in hard print copy in a variety of community locations from October 10 – October 31, 2012.
- **On-Board Engagement** – transit riders were encouraged to complete one on-board passenger survey between October 10 and October 24, 2012, including questions related to travel habits and feedback on the existing transit system.
- **Key Stakeholder Workshop** – 39 organizations (Appendix A) were invited to participate in a Key Stakeholder Workshop to provide feedback on existing user groups, destinations, future development and issues and opportunities with the existing transit service.
- **One-on-One Meetings** – numerous one-on-one meetings were held with key community, education, government and business groups as well as transit drivers to garner feedback on user groups and issues and opportunities with the existing transit system and in order to raise awareness with their customers, members, staff and clients about the project and ability to provide feedback.

Feedback was gathered from the following sources for Phase 1 of the Quesnel Targeted Transit Service Review engagement:

- Stakeholder Workshop – 15 representatives from local organizations
- One-on-One meetings – 17 organizations
- On-board passenger surveys – 185 (Conventional – 152, handyDART – 18, Wells & Nazko – 15)
- Print Surveys – 14
- Web Surveys – 85

6.1.1 Stakeholder Workshop Feedback

Identify Transit System Needs

- Key customers include students, seniors, adults, day program attendees, employees and recreation users.
- Key destination points are downtown, West Park Mall and South Quesnel shopping, schools, community centres, health care facilities, seniors' centres and major non-retail employers.
- Due to the nature of major employers in Quesnel, there are long opening hours, some 24hour operations, shift work and therefore diverse timing needs. Baker Memorial Hospital has also recently begun Saturday appointments.
- There are changing demographics and desires including an aging population and desire for greater accessibility to amenities on weekends and later hours.
- There is limited future development and projected population increases.
- The various support organizations are experiencing more and more shared clients meaning more places that transit is required and more clients being placed into employment.

Identify Potential Improvements

- There is high appreciation for the existing transit service. Positives include personable drivers, reliable service, reasonable fares, all major neighbourhoods served, quick response to vandalism, clean shelters, bike racks and a valuable handyDART service with supporting taxi supplement.

Primary Priorities

- Express Bus between West Quesnel and South Quesnel.
- Provincial and/or Federal funding for taxi companies to make vehicles fully accessible.

Secondary Priorities

- Increased frequency – from hourly to half hour service.
- Increased service hours into the evenings or Saturday and Sunday.

Tertiary Priorities

- Evening handyDART service.
- Marketing and advertising on buses and shelters to gain additional funds.
- Advertising & promotion of the service to encourage ridership e.g. partner with local retailer to provide discount coupon or free ride.

Additional Actions

- Improve bus stop amenities (e.g. shelters), signage, safety features and timetable information.
- Accessible buses with space for grocery shopping.
- Increase the number of vendors who sell bus tickets.
- Timetables/Riders Guides need to be simpler and include public education.
- Seasonal service e.g. increased frequency or hours during the Christmas period.
- Potential for a different summer/winter schedule to save hours.

6.1.2 Onboard Passenger Survey Feedback & Ride Check Data - Conventional

Response Rate

185 onboard passenger surveys were completed. This represents a significant proportion of existing riders in Quesnel.

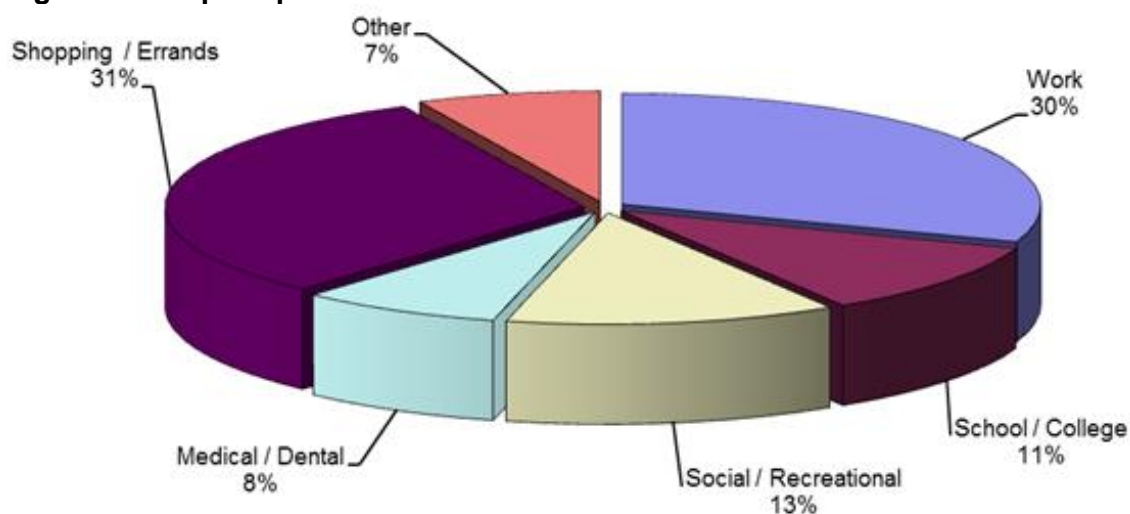
User Group and Ridership

The majority of passengers completing surveys were adults, followed by seniors and a smaller number of school and college students. These passengers are generally frequent transit riders with 79% using the bus 2-3 times a week or more.

Trip Origin and Destination

- Most surveys were completed on Route 1: West Quesnel (45%) and Route 2: Red Bluff (48%) with only 8% on Route 3: North Fraser
- Majority of riders live in West Quesnel (51%), with then a general split between North Quesnel (9%), Red Bluff (8%), South Hills (including Westland) (8%)
- Most boardings were Downtown (39%), West Quesnel (19%) followed by Red Bluff (13%), Correlieu Secondary School (10%) and South Quesnel Shopping Centre (9%)
- Key destination points were Downtown Quesnel (49%), South Quesnel Shopping Centre (16%), West Quesnel (10%), Correlieu Secondary School (7%) and North Fraser Road (6%)
- Route #2: Red Bluff is used most often (49%) followed by Route 1: West Quesnel (44%).

Figure 5.1: Trip Purpose



Express Bus Options

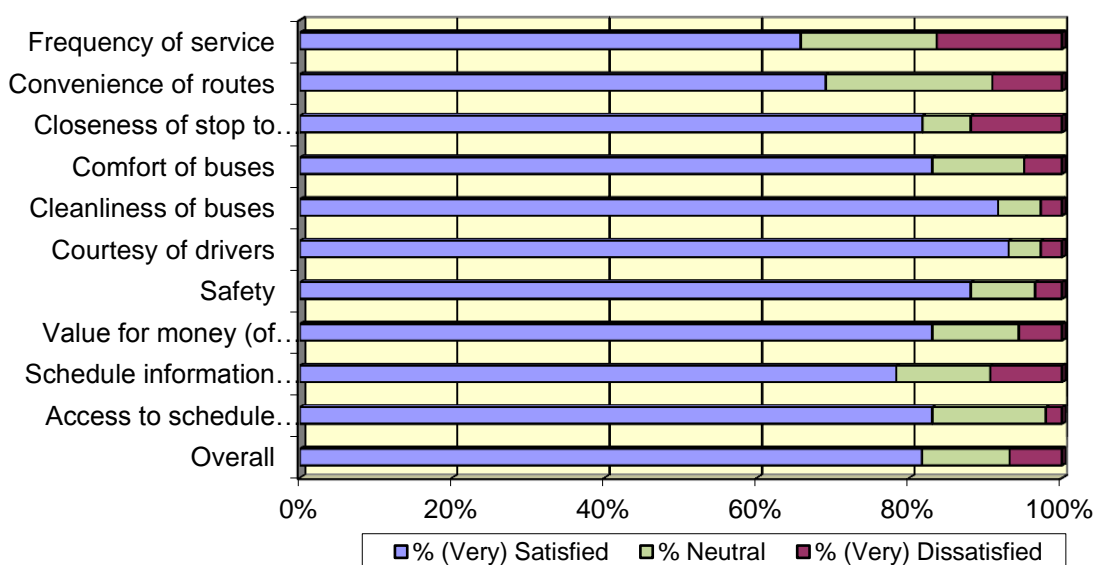
80% of respondents said they would use an Express Bus were it available from West Quesnel/Downtown to South Quesnel shopping area with an even split between those likely to board at West Quesnel or Downtown. Weekday morning was the most preferred time for an Express Bus option (54%) followed by weekday afternoon (29%) then lower preference for weekday evening (13%) and Saturday (4%).

Customer Satisfaction

Ratings for different aspects of transit service were fairly high, with the highest ratings for courtesy of drivers (93% very satisfied or satisfied), cleanliness of buses (91% very satisfied or satisfied), safety (88% very satisfied or satisfied), comfort of buses (83% very satisfied or satisfied) and closeness of stop to home (82% very satisfied or satisfied).

Frequency of service and convenience of routes had lowest scores (Figure 5.2).

Figure 5.2: Customer Satisfaction Survey Response



Suggestions for Improvement

- The most common request listed by 20% of respondents was for later service. 13% of respondents asked for more frequent service and 7% of respondents asked for more Saturday service.
- Other suggestions included Sunday service (6%), more early service (6%), improved service to Wal-Mart/express (5%), new bus stops (5%), new or extended routes (4%), more comfortable buses (4%), bigger buses (4%).

6.1.3 Online Website Survey Responses

Response Rate

There were 85 responses to the online website survey. The majority of responses were adults (54%) and college students (38%). The high number of college students was a result of a lunch

time open-house style event held at the CNC/UNBC campus. It should be noted that 80% of respondents indicated that they take transit less than once a month or never.

Travel to School/College and Work

Of those travelling to school or college, most drive or are passengers with 6% taking public transit. Similarly, of those travelling to work outside the home full time, 80% drive with 6% taking public transit. This correlates with the response that 6% of respondents have no licensed vehicle in the household.

Purpose for Transit Trips

Those that do use transit use it primarily on Route 1: West Quesnel (44%) and Route 2: Red Bluff (44%) and the main purpose of their trips is varied as outlined in Figure 5.3 below.

Figure 5.3: Transit Trip Purpose

Response	Chart	Percentage	Count
Work		19%	9
School/College		13%	6
Social/Recreation		11%	5
Medical/Dental		2%	1
Shopping/Errands		26%	12
Other, please specify...		30%	14
Total Responses			47

48% of the respondents work downtown, 11% at Red Bluff and 9% at West Quesnel with 40% at other locations primarily at 2Mile Flat or the mill locations north of Quesnel.

Transit Improvements

Suggested improvements to the transit system are outlined in the summarized points below:

- Express Bus between South Hills to downtown early on weekdays
- Express bus for college students early mornings
- Increased frequency – half hour service
- Longer hours – earlier and later service, specifically to arrive downtown, college campus and South Quesnel prior to 8am
- Longer hours on Saturday
- Connect West Quesnel and Red Bluff bus routes
- Advertising, promotion of bus service
- Service on public holidays
- Extended service areas and service to rural areas out of town e.g. Maple Drive and Red Bluff Road, Gook Road, West Fraser Road, Bouchie Lake, 2 Mile Flat, mills, Barkerville highway, airport
- Re-introduce bus stop at college campus

6.1.4 One-on-One Meetings

Several local organizations were engaged in one-on-one meetings and provided hard copies of the online survey. Organizations included:

- Dunrovin Park Lodge Day Care Facility
- Quesnel & District Seniors Society
- Prima Enterprises
- Golden Centre Seniors Centre
- North Cariboo Aboriginal Family Program Society
- Quesnel & District Child Development Centre
- Northern Health
- Royal Canadian Legion
- Quesnel Women's Resource Centre
- Quesnel Library
- Helen Dixon Centre
- Quesnel Arts & Recreation Centre'
- West Park Mall
- Walmart
- Transit Drivers

Additional comments from these sources included:

1. West Quesnel and South Quesnel are key origin/destinations with high ridership with morning and early afternoon being peak times. Christmas is also a peak period.
2. West Quesnel would benefit from a later service after the last Red Bluff trip.
3. Passengers express that the Route 2: Red Bluff route is too long when serving Carson and South Hills. There may be opportunity to reduce the number of reverse runs particularly on Saturday or reduce the number of trips to the Westland area.
4. There are many requests to re-instate North Fraser drive on every trip.
5. Route 1: West Quesnel can be tight for running times and Front Street is often busy with logging trucks and backed up.
6. Those using wheelchairs/mobility aids generally use handyDART. Occasionally walkers and strollers are used on the conventional system - some strollers are too large. The bike racks are used well.
7. Passengers can find the Riders Guide confusing, mainly due to the Saturday and weekday schedule being different.
8. Bus stops signs in West Quesnel and North Fraser read Red Bluff or West Quesnel and can be confusing without the Route #.
9. Road clearing within the city is very efficient. The road surface on Dennis Road would benefit from improvements.
10. Some service agencies have recently returned to using handyDART or have an increased number of clients requiring handyDART service. This has meant an increase in demand, which is focussed on delivering passengers to programs by 9am.
11. Due to the extensive distances the handyDART service covers, explore the possibility of serving rural communities north east of the city and Fraser River (e.g. Bouchie Lake) and rural communities north west of the city and Fraser River (e.g. Ten Mile Lake) on different days of the week in order to serve these two areas with one bus.

6.2 Phase 2

The second phase of public consultation includes the presentation of the service review options for information, review and feedback. This phase began in early 2013 with the review of draft

service options by City of Quesnel staff and Five Five Transport. Feedback was used to refine the proposed options.

Following this, in early May 2013, a meeting was held with representatives from BC Transit, the City of Quesnel and the Cariboo Regional District (CRD) directors to discuss the service review findings and options relevant to the CRD. This meeting focussed primarily on the constraints associated with custom service (identified in Section 4.7) and potential options to address these, including the recommended service change Option 3: handyDART hours (identified in Section 7.2) and a review of the handyDART service area boundary. The meeting discussion addressed conventional service hours, ridership and revenue generated from the Red Bluff area of Route 2 (within the CRD) and custom revenue hours, ridership and revenue generated from handyDART service to clients within the CRD. The information and analysis provided an understanding of the significant cost of providing handyDART service outside of the City of Quesnel boundaries. The CRD is aware of the funding shortfalls and is reviewing ways to provide more funding, whilst working with The City of Quesnel and BC Transit to address the handyDART issues and constraints. Feedback from the City of Quesnel and the CRD was used to refine the service review.

The second phase of public engagement will conclude with a second public consultation exercise, following approval of the service change option(s) and/or direction by the City of Quesnel Council. This second phase of public consultation would include a presentation of the approved service option(s) for information and feedback prior to implementation. This will likely occur in late 2013.

7 Service Change Options

As a result of the engagement feedback, on-board passenger counts and data collection the following options have been drafted for review. Associated revenue hours, fleet vehicles and costs have been estimated for each option.

7.1 Existing Conventional Timing and Revenue Hours

The existing Quesnel Transit system is allocated 10,163 revenue hours annually. This includes both the conventional transit service (Routes 1, 2, 3, 30: Wells and 31: Nazko) as well as custom service (handyDART). There are 21hrs 50min of revenue hours allocated to conventional weekday service daily and 11hrs and 39min of revenue hours allocated to conventional Saturday service. The following outlines details for the existing conventional transit system:

Route 1: West Quesnel	15 round trips on weekdays and 7 trips on Saturdays.
Route 2: Red Bluff	11 round trips on weekdays (22 in each direction) and 7 trips on Saturdays (14 in each direction). Timing is dependent upon route: <ul style="list-style-type: none"> • Red Bluff (Loop R) is included for every trip (22 one way trips) = 8 min • Westland (Loop X) is included for 21 one way trips (10 outbound and 11 inbound) = 5min • South Hills (Loop J) is included for 12 one way trips (mix of outbound and inbound) = 7min • Carson (Loop N) is included for 5 one way trips(mix of outbound and inbound) = 6min
Route 3: North Fraser	10 round trips on weekdays, five of which include North Fraser Turnaround and three trips on Saturday all of which include North Fraser Turnaround.

Given the generally efficient nature of the existing system, demonstrated through the benchmarking exercise (Section 4), the data analysis and feedback from public consultation, it was determined that any proposed short-term service change options should focus on:

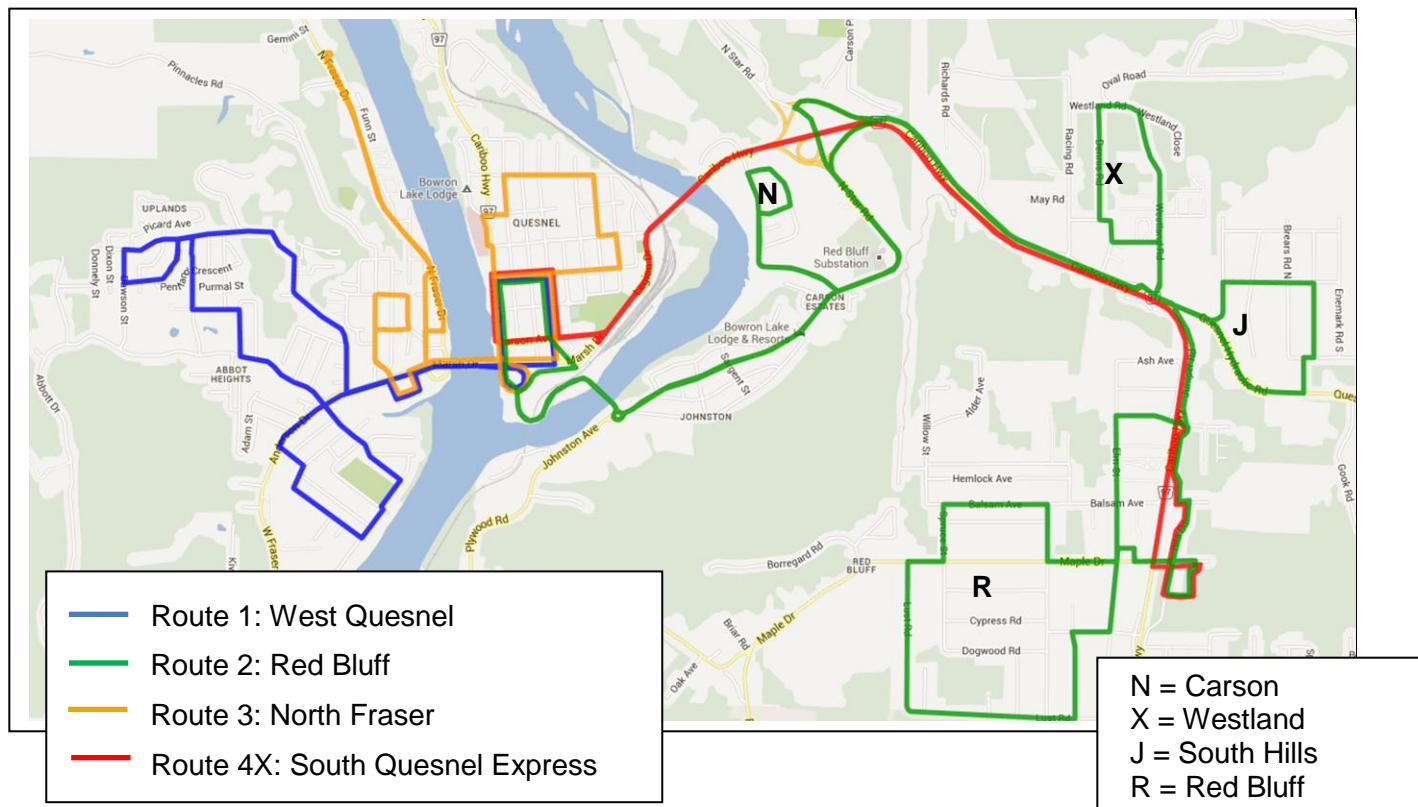
- desire for an express bus service to South Quesnel shopping area;
- options to address the increased handyDART demand and unmet trips;
- desire for increased trips on Route 3 to North Fraser Turnaround; and
- low ridership on Route 2 trips to the Westland neighbourhood.

Three long term options have also been developed to address the feedback related to increased frequency of service, service on Sundays and public holidays and service to new neighbourhoods. All service options address only Routes 1, 2 and 3 and some options address handyDART service.

7.2 Short Term Options

This section details three short-term transit service options to address the service requests and operational considerations outlined in Sections 4, 5 and 6. Costs for options are based on preliminary 2013/14 Annual Operating Agreement budget figures. Actual costs may vary depending on confirmed budget figures and finalization of operating details. Additional costs may be required depending upon the fleet replacement strategy. A table summarizing total hours impact for each option is also presented. Figure 7.1 outlines the proposed re-routing described in each option.

Figure 7.1: Service Review Options Route Map



Option 1: No Cost Conventional Service Hours Re-allocation to Express

Description: Option 1 reduces service to the Westland neighbourhood and makes several changes to existing trip times on a number of routes in order to better match service levels to ridership demand. These minor service reductions are then reallocated to other services to provide more direct and later trips at no additional cost. In particular, this option would:

- Implement three to four new express bus trips between downtown Quesnel and the South Quesnel Shopping area on weekdays and two trips on Saturdays.
- Add an additional late afternoon trip (approximately 6:23 p.m. and 6:44 p.m.) on Route 1: West Quesnel and Route 3: North Fraser to better serve the needs of commuters and shoppers returning from Downtown and the South Quesnel Shopping area.
- Enable Route 3: North Fraser to serve residents living at the North Fraser Turnaround on every trip.
- Make minor changes to system routes and schedules to accomplish all of the above changes within the existing transit budget:

- Service to the Westland area would now be reduced from 21 trips per weekday to 14 trips (and 14 trips to six trips on Saturdays).
- The 1:10 p.m. weekday Route 2: Red Bluff trip would be replaced by an express trip at approximately the same time.
- The 5:10 p.m. weekday Route 2: Red Bluff trip would be replaced by a 5:45 p.m. trip that routed via regular routing outbound to South Hills Shopping area and express routing inbound.
- The 9:40 a.m. Route 1: West Quesnel Saturday trip would be deleted in order to extend service in the late afternoon (at approximately 4:22 p.m.) to serve this area and potentially the North Fraser area as well.
- The return loop to South Quesnel shopping area from Red Bluff is removed.

Key Benefits: This option addresses the key priorities requested by riders and the public at no additional cost. The extension of later service makes the system more useful to commuters and shoppers and changes to Route 3: North Fraser improves the consistency and therefore ease of use of the system.

Disadvantages: This option reduces the total number of trips serving the Westland neighbourhood by approximately 43% and reduces service to the Johnson and South Hills neighbourhood (including the CNC/UNBC campus and recreation centre) by one outbound and two inbound trips per day. However, these reductions are in keeping with current ridership levels in these areas and Westland residents would still retain service on at least every Route 2: Red Bluff trip in one direction or the other, apart from the 11:45 a.m. Saturday trip. It should also be noted that while the reallocation of service from 5:10 p.m. to 5:45 p.m. on the Route 2: Red Bluff trip meets the objective of providing later service within existing budget, existing commuters on the 5:10 p.m. trip may be affected. Similarly, the conversion of the 1:10 p.m. Route 2: Red Bluff trip to express service and reallocation of service on the 9:40 a.m. Saturday Route 1: West Quesnel trip will affect existing users.

Initial High Level Estimate: Additional Annual Impacts			
Option 1: No Cost Conventional Service Hours Re-allocation to Express			
Service Hours:	0	Passenger Revenue*:	\$2,400
Annual Ridership:	1,500	Total Cost:	\$0
Additional km:	0km	Net Local Share of Costs:	-\$2,400
Vehicles Required:	0	Provincial Share of Costs:	\$0

*Based upon an estimated 6 rides per hour

Option 2: Low Cost Conventional Service Hours Re-allocation to Express

Description: Identical to Option 1, this option also provides three to four express trips per weekday (two on Saturday), an additional late afternoon trip on Routes 1 and 3 and more consistent routing on every trip to the North Fraser Turnaround.

However, while Option 1 requires the deletion of several existing weekday trips, this option proposes adding a relatively small number of expansion hours to remove the need to delete these trips. This means that the Route 2: Red Bluff schedule would retain the existing 1:10 p.m. and 5:10 p.m. trips (now at 5:15 p.m.), with the express trips layered on.

Key Benefits: In comparison to Option 1, this option will negatively impact existing users much less since it retains all existing base trips, particularly the number of trips serving Johnston Avenue and North Star Road (including the CNC/UNBC campus and recreation centre).

Disadvantages: As in Option 1, this change would still reduce the number of trips in the Westland area. However, the level of service proposed is more in keeping with current ridership demand and the overall Option impacts far fewer people since it is accomplished through modest expansion rather than deleting service for re-allocation.

Initial High Level Estimate: Additional Annual Impacts			
Option 2: Low Cost Conventional Service Hours Re-allocation to Express			
Service Hours:	400	Passenger Revenue*:	\$3,900
Annual Ridership:	2,400	Total Cost:	\$24,000
Additional km:	10,100	Net Local Share of Costs:	\$7,700
Vehicles Required:	0	Provincial Share of Costs:	\$12,400
*Based upon an estimated 6 rides per hour			

Option 3: Additional HandyDART Service

Options 1 and 2 do not address the increasing demand on handyDART. Therefore, options to address the specific custom needs and constraints that could be added to either Options 1 or Option 2 were explored and outlined below. Of the options explored, the only viable approach that addresses the existing custom service constraints is the addition of a third vehicle for handyDART service at specific times of day.

Increase Taxi Supplement – this option would have included an increase to Taxi Supplement to provide service to the third geographical area of Quesnel and region currently difficult to serve to meet programme at specific times of day with only two handyDART vehicles. This would have cost approximately \$400 weekly for an additional eight trips assuming \$50 per trip. However, this option is no longer viable given the recent closure of the company that provided taxi supplement service. In addition, the remaining taxi service in Quesnel is not wheelchair accessible, limiting the type of passengers that may be transported to supplement handyDART service and the company cannot guarantee bookings for handyDART customers, effectively reducing reliability and effectiveness.

Extending Existing Bus Hours – this option would include an additional 30minutes added at the beginning and end of service on both handyDART buses. This would require an additional 450 revenue hours annually. However, with only two service vehicles, this option would not address the current handyDART constraints related to geographical area and distance.

Option 3: Additional HandyDART Bus – this option would use the existing fleet vehicle allocated to Route 30: Wells and Route 31: Nazko for handyDART service when it is not in use for conventional service to these areas. Therefore, this option would help to address the increase in demand for custom service and be compatible with the specific handyDART constraints relating to disparate locations and large service area, whilst utilising an existing vehicle in order to reduce costs. It would require an additional 4hours daily, which equates to 1,000 revenue hours annually. It is recommended that the additional hours be allocated as flexible hours so that they may be used as and when required for handyDART trips.

Initial High Level Estimate: Additional Annual Impacts			
Option 3: Custom Service Additional HandyDART Bus			
Service Hours:	1,000	Passenger Revenue*:	\$15,800
Annual Ridership:	4,500	Total Cost:	\$57,300
Additional km:	18,600	Net Local Share of Costs:	\$11,900
Vehicles Required:	0	Provincial Share of Costs:	\$29,600
*Based upon an estimated 4.5 rides per hour			

7.3 Longer Term Options

Four longer term options have been proposed to address additional feedback from public engagement including conventional service on Sundays and holidays, handyDART service on Saturdays, conventional service to new neighbourhoods and increased frequency on the existing. Dependent upon the short term service changes and resulting system performance and local budget, these options may be deemed suitable for additional service in the next three to five years. It should be noted that these options do not address the priority service requirements addressed in the short term Options 1 to 3. As such, these options would be supplementary expansions to be considered as longer term additions to the shorter term options outlined in Section 7.2.

Option 4: Expansion – Sunday and Holiday Service

Description: Option 4 includes an expansion of service hours in order to provide limited service on Sundays and holidays for Routes 1, 2 and 3. In particular, this option would:

- Provide four trips on Route 1 from 10:00 a.m. and finishing at approximately 4:00 p.m.
- Provide three trips on Route 2 from 10:45 a.m. and finishing at 3:45 p.m.
- Provide four trips on Route 3 from approximately 10:30 a.m. and finishing at approximately 4:00 p.m.
- Enable Route 3: North Fraser to serve residents living at the North Fraser Turnaround on every trip.

It should be noted that this service would not require an additional fleet vehicle when implemented either with or without the adoption of any of the short term options.

Key Benefits: This option addresses the feedback from public engagement regarding service on Sundays and holidays without the need for an additional fleet vehicle and at minimal cost.

Disadvantages: This option does not address the immediate needs and current service issues, which are addressed in the short term options outlined above.

Initial High Level Estimate: Additional Annual Impacts			
Option 4: Expansion – Sunday and Holiday Service			
Service Hours:	350	Passenger Revenue*:	\$2,300
Annual Ridership:	1,400	Total Cost:	\$21,000
Additional km:	6,500	Net Local Share of Costs:	\$7,800
Vehicles Required:	0	Provincial Share of Costs:	\$10,900
* Based upon an estimated 4 rides per hour			

Option 5: Expansion – handyDART Saturday Service

Description: Option 5 includes an expansion of service hours in order to provide handyDART service on Saturdays from one bus between the hours of 8:00 a.m. and 4:00 p.m.

It should be noted that this service would not require an additional fleet vehicle above the existing service when implemented with or after a short term options.

Key Benefits: GR Baker Hospital has recently begun to provide Saturday medical appointments. Albeit demand for handyDART service on Saturdays is currently limited, with the general change over time to the provision of services, such as banking and medical appointments on weekends, there may be value in a future Saturday handyDART service. This option

would address this future handyDART demand without the need for an additional fleet vehicle.

Disadvantages: This option does not address the immediate ridership needs and current service issues, which are addressed directly in the short term options outlined above.

Initial High Level Estimate: Additional Annual Impacts			
Option 5: Expansion – handyDART Saturday Service			
Service Hours:	400	Passenger Revenue*:	\$5,600
Annual Ridership:	1,600	Total Cost:	\$22,900
Additional km:	10,100	Net Local Share of Costs:	\$5,500
Vehicles Required:	0	Provincial Share of Costs:	\$11,800
* Based upon an estimated 4 rides per hour			

Option 6: Expansion – New Service Areas

Description: Option 6 includes an expansion of service hours in order to provide service to additional areas highlighted in the engagement feedback. In particular, this option would provide approximately six trips per weekday and four trips on Saturdays to:

- Maple Drive extension of Red Bluff – approximately 2.2km additional loop; and
- Gook Road – approximately 3.9km additional loop.

It has been assumed for the purposes of costing and estimating additional hours and kilometres that this service would be provided as an extension to Route 2.

It should be noted that this service expansion would require an additional fleet vehicle above the existing service when implemented with or subsequent to implementing a short term option.

Key Benefits: This option addresses the feedback from public engagement regarding service to new service areas.

Disadvantages: This option does not address the immediate needs and current service issues, which are addressed in the short term options outlined above. This option would require an additional fleet vehicle in order to provide the service. It is assumed that this service would be provided as an extension to Route 2. However, this would result in an increased route length and schedule complexity, which may make Route 2 less direct and convenient for users. As such, if expansion to include additional areas is implemented, it is recommended that alternative routing options, which split the existing Route 2 into two or more routes be explored. Option 7 does not address some additional areas highlighted for new service in the public engagement due to the expected low ridership, extensive distances and associated costs:

- Cariboo Pulp and Paper north on North Star Road – approximately 3.2km additional loop;
- West Fraser Road – approximately 8.3km additional loop; and
- Two Mile Flat, Three Mile Flat, and Quesnel-Hixon Road to serve mills – approximately 12km additional loop or 17km including the Airport .

Initial High Level Estimate: Additional Annual Impacts			
Option 6: Expansion – New Service Areas			
Service Hours:	330	Passenger Revenue*:	\$3,300
Annual Ridership:	2,000	Total Cost:	\$80,700
Additional km:	8,400	Net Local Share of Costs:	\$35,600
Vehicles Required:	1	Provincial Share of Costs:	\$41,800
* Based upon an estimated 6 rides per hour			

Option 7: Expansion – Increased Frequency

Description: Option 7 includes an expansion of service hours in order to provide increased frequency on Route 1 and Route 2 to approximately half hourly service throughout the day. In particular, this option would:

- Provide an additional seven trips on Route 1
- Provide an additional seven trips on Route 2

It should be noted that this service expansion would require an additional fleet vehicle above the existing service. Costs could be reduced if frequency was increased at only certain times of day.

Key Benefits: This option addresses the feedback from public engagement regarding increased frequency.

Disadvantages: This option does not address the immediate needs and current service issues, which are addressed in the short term options outlined above. This option would require an additional fleet vehicle in order to provide the service.

Should Option 6 and Option 7 both be implemented, it is likely that only one additional fleet vehicle would be required for both options, dependent upon the level of frequency and new service areas chosen. More detailed options could be presented with associated costs and vehicle requirements prior to any implementation.

Initial High Level Estimate: Additional Annual Impacts			
Option 7: Expansion – Increased Frequency			
Service Hours:	2,430	Passenger Revenue*:	\$23,800
Annual Ridership:	14,600	Total Cost:	\$207,900
Additional km:	61,500	Net Local Share of Costs:	\$76,600
Vehicles Required:	1	Provincial Share of Costs:	\$107,500
*Based upon an estimated 6 rides per hour			

7.4 Service Change Option Conclusions

Table 7.1 summarises the financial implications of each service proposal option and Table 7.2 provides a summary of the key benefits and disadvantages of each.

The short term options are outlined for immediate consideration and, if combined, address the main issues and priorities identified in analysis and public engagement. Options 1 and 2

implemented in isolation address the desire for an express service to South Quesnel but do not address the immediate handyDART needs. Therefore, should Option 1 or 2 be considered for implementation, it is recommended that they be combined with Option 3: handyDART. This option includes additional flexible revenue hours for handyDART and would use the existing vehicle serving Route 30: Wells and Route 31: Nazko when it is not in service to these areas in order to deliver the supplementary handyDART hours without the need for an additional bus.

Given this, in addition to the key benefits and disadvantages outlined in Table 7.2 and the approximate costs in Table 7.1, Option 2 and Option 3 together present the preferred service changes needed to address the immediate issues and priorities identified for improvements to the Quesnel custom and conventional transit system. This option combination presents the greatest wins and long term gains for ridership through the provision of express service to South Quesnel shopping area and later service on Route 1 and Route 2. However, should there be resource limitations, Option 1 and Option 3 together would achieve similar benefits to Option 2 and Option 3, albeit with a reduced number of total trips on Route 2.

The long term options are proposed to address additional feedback that, dependent upon the short term service changes and resulting system performance and local budget, may be deemed suitable for future consideration for additional service. It should be noted that Option 6: New Service Areas and Option 7: Increased Frequency will require an additional fleet vehicle to be implemented and the approximate order time for vehicles is currently between 12 to 18 months.

Table 7.1: Estimated Additional Annual Impacts for each Service Change Option

Service Proposal	Buses	Service Hours**	Rides	Total Revenue	Total Costs	Net Local Share of Costs	BC Transit Share of Costs
Proposals for Immediate Consideration							
1 No Cost Conventional Service Hours Re-allocation (with cut trips)	0*	0	1,500	\$2,400	\$0	-\$2,400 (due to revenue)	\$0
2 Low Cost Conventional Service Hours Re-allocation	0*	400	2,400	\$3,900	\$24,000	\$7,700	\$12,400
3 handyDART Option to supplement Option 1 and 2.	0*	1,000	4,500	\$15,800	\$57,300	\$11,900	\$29,600
Proposals for Longer Term Consideration							
4 Expansion – Sunday & Holiday Service	0*	350	1,400	\$2,300	\$21,000	\$7,800	\$10,900
5 Expansion – handyDART Saturday Service	0*	400	1,600	\$5,600	\$22,900	\$5,500	\$11,800
6 Expansion – New Service Areas	1*	330	2,000	\$3,300	\$80,700	\$35,600	\$41,800
7 Expansion –Increased Frequency	1*	2,430	14,600	\$23,800	\$207,900	\$76,600	\$107,500

* Vehicle requirements to be confirmed by BC Transit's Fleet Standards department closer to implementation date.

**The actual service hours required would be confirmed through detailed scheduling.

Table 7.2: Service Proposal Summary

Service Proposal	Description	Key Benefits	Disadvantages
Proposals for Immediate Consideration			
1 No Cost Conventional Service Hours Re-allocation (with cut trips)	Express bus to South Quesnel with an additional late trip on Route 1 and 3 and every trip on Route 3 going to North Fraser Turnaround on weekdays and Saturdays. Reduced service on Route 2 and to Westland.	<ol style="list-style-type: none"> 1. No cost 2. Approx. 3-4 express trips on weekdays. 3. Approx. 2 return express bus trips on Saturdays. 4. Service to North Fraser Turnaround on every trip. 5. Additional late trip on Route 1 and 3 on weekdays. 	<ol style="list-style-type: none"> 1. handyDART issues and demand not addressed 2. Service to Westland is reduced from 21 trips to 14 trips daily. 3. One full Route 2 trip removed on weekdays, reducing service to associated areas including Red Bluff, South Hills, CNC/UNBC, Recreation Centre and Johnston.
2 Low Cost Conventional Service Hours Re-allocation	Express bus to South Quesnel with an additional late trip on Route 1 and 3 and every trip on Route 3 going to North Fraser Turnaround on weekdays and Saturdays. Reduced service to Westland.	<ol style="list-style-type: none"> 1. No reduced whole trips on Route 2 – negatively impacts existing users much less than option 1 particularly # trips to Johnston Av. and North Star Rd. (including CNC/UNBC campus and Rec centre). 2. Approx. 3-4 express trips on weekdays. 3. Approx. 2 return express trips on Saturdays. 4. Service to North Fraser Turnaround on every trip. 5. Additional late trip on Route 1 and 3 on weekdays. 	<ol style="list-style-type: none"> 1. handyDART issues and demand not addressed 2. Service to Westland is reduced from 21 trips to 15 trips daily.
3 handyDART to supplement Option 1 & 2	Additional revenue hours for handyDART to utilize the existing fleet vehicle currently serving Route 30: Wells and Route 31: when not in service to these areas.	<ol style="list-style-type: none"> 1. handyDART service increase at peak times to address demand and custom service constraints without the need for an additional vehicle. 	<ol style="list-style-type: none"> 1. Would require a vehicle to transfer from conventional service (Wells and Nazko) to handyDART and vice versa on Wednesdays and Thursdays. 2. handyDART service will not be able to be provided until after 10:00 a.m. on Wednesdays and 9:30 a.m. on Thursdays.
Proposals for Longer Term Consideration			
4 Expansion – Sunday & Holiday Service	Expansion of service hours in order to provide limited service on Sundays and holidays for Routes 1, 2 and 3.	<ol style="list-style-type: none"> 1. Addresses the feedback from public engagement regarding Sunday and holiday service. 2. Provision of between three and four trips per day from approximately 10:00 a.m. to 4:00 p.m. on Routes 1, 2 and 3. 	<ol style="list-style-type: none"> 1. Does not address the short term requirements outlined in the proposals for immediate consideration. 2. Additional revenue hours and associated costs.
5 Expansion – handyDART Saturday Service	Expansion of service hours in order to provide handyDART service on Saturdays from one bus between the hours of 8:00 a.m. and 4:00 p.m.	<ol style="list-style-type: none"> 1. Addresses the potential future demand for handyDART on Saturdays given the increased services now being provided at weekends (e.g. medical appointments). 	<ol style="list-style-type: none"> 1. Does not address the short term requirements outlined in the proposals for immediate consideration. 2. Additional revenue hours and associated costs. 3. There is currently insufficient demand to provide handyDART service on Saturdays.

Service Proposal	Description	Key Benefits	Disadvantages
6 Expansion – New Service Areas	Expansion of revenue hours in order to provide service to Maple Drive and Gook Road.	<ol style="list-style-type: none"> 1. Addresses the feedback from public engagement regarding expansion to new service areas. 2. Approximately six trips per weekday and four trips on Saturdays to serve Maple Drive and Gook Road. 3. Potential increase to ridership due to increased coverage. 	<ol style="list-style-type: none"> 1. Does not address the short term requirements outlined in the proposals for immediate consideration. 2. Would make Route 2 less direct and less convenient for users. 3. Would require an additional vehicle and associated costs. 4. Additional revenue hours and associated costs.
7 Expansion – Increased Frequency	Expansion of service hours in order to provide increased frequency on Route 1 to half hourly service between 9:15 a.m. and 3:15 p.m. on weekdays.	<ol style="list-style-type: none"> 1. Addresses the feedback from public engagement regarding increased frequency. 	<ol style="list-style-type: none"> 1. Does not address the short term requirements outlined in the proposals for immediate consideration. 2. Would require an additional vehicle and associated costs. 3. Significant additional revenue hours and associated costs.

8 Additional Considerations

In addition to the proposed service change options outlined in Section 7, potential supporting measures or supplementary future actions to improve transit service in Quesnel are outlined below.

8.1 Monitoring Implementation

Any service change option chosen for implementation will include public engagement and marketing. However, new service changes will require some time for user re-adjustment and for ridership to build. Therefore, it is recommended that the outcome of any service changes implemented be monitored approximately six months to one year after implementation to determine if ridership has been as expected and to receive public feedback on the changes.

8.2 Riders Guide Simplification

Feedback from engagement indicated a desire to simplify the riders guide, particularly for Route 2. Several amendments to the riders guide are proposed for clarification and increased accuracy. Should a service change option be chosen for implementation, it is recommended that the amendments outlined below be made when the riders guide is updated to reflect service changes:

- Re-order the riders guide so that all of Route 2 is viewed horizontally across the page in order to make it easier to follow the Route 2 schedule.
- Remove 'via South Hills' on the Route 2 title in the riders guide and replace this with 'from downtown to South Quesnel' and 'from South Quesnel to downtown'.
- Remove timing point B: Kinchant & Barlow on all routes – Kinchant and Barlow is no longer needed as a timing point and fewer timing points will reduce complexity and make the riders guide easier to read.
- Create one timing point for Westland located at Westland & Dennis – this removes the need for two versions of timing point X in the current riders guide and is more useful for future scheduling of service.
- Amend the wording Hydrolic to read Hydraulic.
- Remove timing point Q: Elliot at North Fraser if service changes include all service going to T: North Fraser Drive Turnaround - fewer timing points will reduce complexity and make the riders guide easier to read.
- Label Route 30: Wells and Route 31: Nazko with their route number.
- Change times for Route 30: Wells to reflect the current schedule.
- Provide regional insert maps for Route 30: Wells and Route 31: Nazko.

8.3 handyDART Regional Service Ongoing Review

The constraints on handyDART service (Section 4.7) were reviewed in collaboration with the Cariboo Regional District (CRD) and the City of Quesnel in May 2013. This provided an understanding of the existing handyDART demand and service hours and included a discussion of the costs of providing handyDART service outside the City of Quesnel boundary. The CRD is aware of the funding shortfalls and is reviewing ways to provide more funding, whilst working with The City of Quesnel and BC Transit to address the handyDART issues and constraints. Future demand is expected to grow given the aging population, making it increasingly difficult for the service demand to be met within the current service hours. Several

options for addressing constraints were discussed, including the addition of handyDART service hours and a review of the handyDART service area boundary (currently up to 20km outside the City of Quesnel boundary). An ongoing review of the handyDART demand as it relates to the custom service area boundary will be valuable to inform future service changes. It is recommended that discussions continue between BC Transit, the City of Quesnel and the CRD to address the increasing custom demand and constraints, particularly if additional funding is limited.

8.4 Marketing, Publicity and Sponsorship

The following outlines potential marketing, publicity and sponsorship opportunities that may be explored to support the transit system in Quesnel:

- With introduction of new fleet vehicles (Vicinity vehicles) in August 2013, it is recommended that orientation times are organized with local community groups and centres to introduce the accessibility benefits of the new vehicles and provide an overview to taking transit and understanding the schedule and riders guide.
- It is recommended that the rider's guide and website include a box highlighting the summer service to Cottonwood House Historic Site and Barkerville Historic Town to better publicize this service.
- Explore the potential costs required for increased frequency of the Route 4X: Express service during the Christmas period in collaboration with local commercial business willing to fund this seasonal service expansion.
- Explore the costs and income associated with advertising on buses and shelters.
- Increase the number of vendors selling transit tickets.
- City of Quesnel to explore support mechanisms or incentives to encourage a taxi company with accessible vehicles and willing and able to provide taxi supplement service for handyDART to establish in Quesnel.

8.5 Future Infrastructure Requirements

With the introduction of the new fleet vehicles (Vicinity vehicles) it is anticipated that an extension to the bus stop area at St. Laurent & Reid will be required to accommodate two Vicinity transit vehicles at one time. This will need to be addressed in the immediate future.

Recommendations for future infrastructure requirements that may be explored to support the transit system in Quesnel include:

- Improved bus stop amenities (e.g. an inbound shelter on North Star Road to serve the CNC/UNBC and recreation centre), signage, safety features and the inclusion of new timetable information at stops.
- Improvements to the road surface on Dennis Road to improve comfort of travel for transit passengers and mitigate potential maintenance requirements to transit fleet vehicles.

9 Recommendation

This report has outlined three short term and four longer term options for potential improvements to the Quesnel transit system in response to data collection, analysis and engagement feedback. The short term options are outlined for immediate consideration and, if combined in the right manner, address the main issues and priorities identified in analysis and public engagement.

Option 2 and Option 3 together present the preferred service changes needed to address the immediate issues and priorities identified for improvements to the Quesnel custom and conventional transit system. This option combination presents the greatest wins and long term gains for ridership through the provision of express service to South Quesnel shopping area and later service on Route 1 and Route 2. Option 3 would provide the necessary service hours required to address the existing custom service demand and constraints. However, should there be resource limitations, Option 1 and Option 3 together would achieve similar benefits to Option 2 and Option 3, albeit with a reduced number of total trips on Route 2. It is recommended that a high proportion of the 253 unallocated annual revenue hours within the Annual Operating Agreement (currently available as flexible hours) are allocated to support the service proposal option implemented.

The long term service change options are proposed to address additional engagement feedback that, dependent upon the short term service changes and resulting system performance and local budget, may be deemed suitable for future consideration for additional service.

In addition to the proposed service change options, potential supporting measures or supplementary future actions have been identified to improve transit service in Quesnel. Those related to monitoring implementation and riders guide simplification would be implemented by BC Transit when the agreed short term service change option is implemented. Other measures could be pursued by The City of Quesnel with support from BC Transit as required.

It is recommended that a combined package of Option 2: Low Cost Conventional Service Hours Re-allocation and Option 3: handyDART is implemented in the short term and that the identified supplementary future actions be pursued. A marketing and public awareness exercise should be conducted on the approved options prior to implementation.

Appendix A: Key Stakeholder Group

The following table provides a list of stakeholders who have been contacted to be engaged as part of the Targeted Transit Service Review process.

Governing Bodies	
City of Quesnel Staff (Transportation, Planning & Sustainability Task Force)	The District of Wells
City of Quesnel Council	Nazko First Nation
Cariboo Regional District	Red Bluff Indian Band
Community Associations	
Johnston Neighbourhood Association	South Hills Neighbourhood Association
North Quesnel Neighbourhood Association	West Quesnel Neighbourhood Association
Community Groups	
A Voice for North Cariboo Seniors	Prima Enterprises Ltd. (Quesnel Day Program)
Gold Rush Cycling	Quesnel Community Living Association
Measuring Up Quesnel (previously Quesnel Accessibility Committee)	Quesnel & District Arts & Recreation Centre
North Cariboo Aboriginal Family Program	Quesnel & District Seniors Society
North Cariboo Metis Association	Work BC Employment
Northern Health Authority	
Business	
Five Five Transport	West Park Mall
Quesnel Chamber of Commerce	Walmart
Quesnel Community & Economic Development Corporation	Canadian Tire
Quesnel Downtown Association	West Fraser Timber Co. Ltd. (including Canadian Pulp & Paper and Quesnel River Pulp)
West Quesnel Business Association	Canadian Forest Products (Canfor)
South Quesnel Business Association	Tolko Forest Products
School & Education	
School District No. 28	University of Northern British Columbia (South Central Campus)
College of New Caledonia	Helen Dixon Youth Centre

Appendix B: Detailed Description of Service Changes

The following tables provide a detailed description of service changes proposed to Option 1:

Table 1: Option 1 proposed changes to weekday service

Route	Changes
Route 1: West Quesnel	<ul style="list-style-type: none"> Additional late trip added to follow the last return trip to South Quesnel.
Route 2: Red Bluff	<ul style="list-style-type: none"> One whole trip removed daily (1:10pm – Carson is now served at 12:19pm not 1:19pm) to become a Route 4X Express The 5:10pm is changed to 5:45pm An inbound trip (the new 5:45pm) becomes an express option. The above results in a reduction in service on Johnston Avenue and North Star Road (including the CNC/UNBC and Recreation Centre) of one outbound trip and two inbound trips daily. South Hills (Loop J) - is reduced by one inbound trip daily as a result of removing the 1:10pm Westland (Loop X) - is reduced from 21 trips daily (twice every trip) to 14 trips daily. These will be approximately split between outbound trips to South Quesnel and inbound trips to downtown Quesnel. Trips with times close to the existing 8:02 a.m. and 10:10 a.m. will aim to be retained (higher ridership relative to other times on this loop). The return loop to South Quesnel Shopping Area from Red Bluff will be removed.
Route 3: North Fraser	<ul style="list-style-type: none"> Every trip serves North Fraser Turnaround Additional late trip added direct to north Fraser Turnaround to follow the last return trip to South Quesnel.
Route 4X: South Quesnel Express	<ul style="list-style-type: none"> This is a direct route between downtown Quesnel and South Quesnel Shopping area (approximately 11-12 min each way) There will be approximately 3-4 outbound and inbound express trips daily (depending upon scheduling)

Table 2: Option 1 proposed changes to Saturday service

Route	Changes
Route 1: West Quesnel	<ul style="list-style-type: none"> The first trip (9:40am) would be removed and replaced with a late trip.
Route 2: Red Bluff	<ul style="list-style-type: none"> Westland (Loop X) – would be reduced from 14 trips (twice every trip) to approximately 6 trips (three outbound and three inbound). The return loop to South Quesnel Shopping Area from Red Bluff will be removed.
Route 3: North Fraser	<ul style="list-style-type: none"> Every trip serves North Fraser Turnaround There is the potential for an additional late trip to north Fraser Turnaround.
Route 4X: South Quesnel Express	<ul style="list-style-type: none"> There will be 2 return express trips daily between downtown Quesnel and South Quesnel Shopping area (approximately 11-12 min each way).