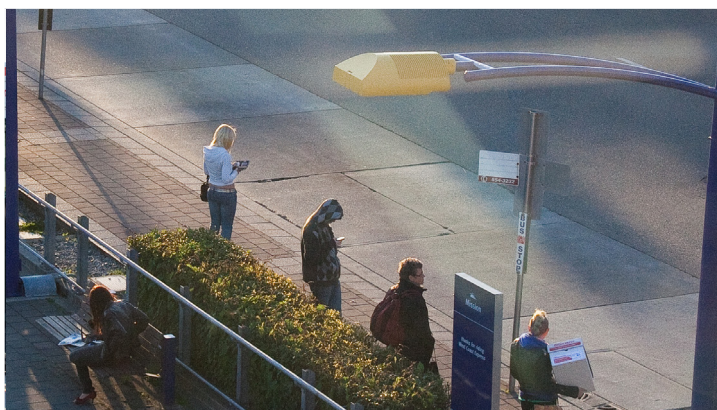


Strategic Review of Transit in the Fraser Valley Foundation Paper #1



Transit Market Analysis

Prepared by:
URBANSYSTEMS.



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SUMMARY

An effective long-term strategy for transit in the Fraser Valley must be targeted toward enhancing the experience for existing customers, be attractive to new transit customers who are currently travelling by automobile and be aligned with long-term travel markets as a result of increased population and employment growth. This first Foundation Paper provides a comprehensive assessment of the local, regional and inter-regional transit markets in the Fraser Valley.

Ultimately, the transit services and strategy for the Fraser Valley must be aligned with those markets that have greatest potential to increase transit ridership thus supporting land use, mobility, accessibility, environmental and financial goals of the Fraser Valley. This Paper provides agency and public stakeholders with a common perspective of the current and potential future transit markets in the Fraser Valley. This information will provide the basis for identifying effective transit services in the Fraser Valley over the medium and long-term.

Throughout this Foundation Paper series, the current and potential transit markets are characterized in three distinct areas to be aligned with a potential range of transit services as follows:

- **Local** – transit services and facilities designed to serve all travel ***within communities*** of the Fraser Valley including Abbotsford, Chilliwack, Mission, Kent/Harrison and potentially Hope as well as the Electoral Areas.
- **Regional** – potential transit services that may be considered to serve all travel ***between communities*** in the Fraser Valley such as trips which begin in Chilliwack and end in Mission.
- **Inter-Regional** – potential service enhancements designed to serve travel generated ***between the Fraser Valley and Metro Vancouver***. For example, inter-regional trips include travel between Mission and the Tri-Cities in the Northeast Sector of Metro Vancouver.

Where possible, the transit market assessments of local, regional and inter-regional travel patterns are specific about travel to activity areas within and between communities today and in the long-term. That way, the expansion of services is aligned with the strongest travel markets, therefore where the potential for increased ridership is greatest. Each of the potential transit markets are examined based on a broad range of background surveys and data collected as part of this study as well as historical information collected and provided by BC Transit, Fraser Valley

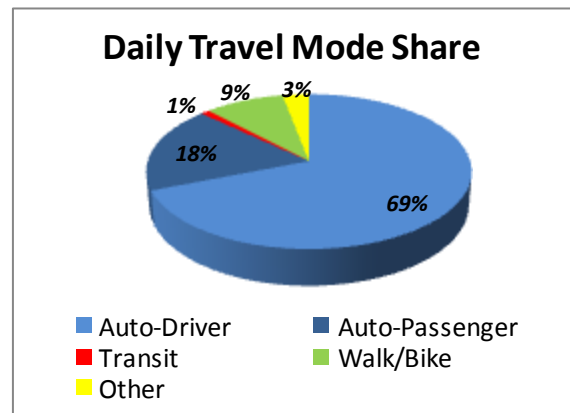


Regional District, TransLink and local municipalities. The primary data sources include, but are not limited to the following information:

- 2004 Fraser Valley Trip Diary survey;
- 2006 Census Journey to Work;
- BC Transit ridership counts;
- BC Transit onboard passenger surveys;
- 2009 Fraser Valley travel market research;
- 2009 West Coast Express Postcard Survey;
- Community Plans and forecast demographics; and
- extensive meetings with staff.

Overall Travel Characteristics

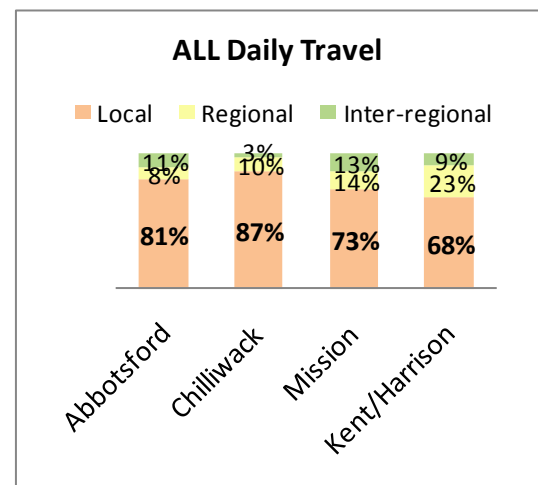
Today, Fraser Valley communities generate over 800,000 trips each weekday. Historical surveys indicate that almost 90% of all daily trips are by car, with less than 1% being made by transit. Because transit primarily serves the 'captive' travel market, auto-ownership of 1.8 cars per household is higher than most established communities of the Lower Mainland (1.4 cars per household).



As is the case with other auto-oriented communities, increasing transit use is not easily achieved. It requires the provision of attractive transit services and facilities. Additionally, increasing transit ridership in the Fraser Valley will rely on sustainable land use patterns, some reduction in auto-ownership, managed investment in roadway capacity as well as the provision of transit supportive infrastructure as discussed in other Foundation Papers.

It must be recognized however, that significant portions of the region and its municipalities are agricultural or rural in nature, making the provision of transit a challenge.

Of those daily trips generated by Fraser Valley





communities today, the majority (82%) of the trips start and end in the same community. In other words, the balance of population, jobs, services and commercial activity allow most Fraser Valley residents to remain within their own community for a significant majority of their travel. For the largest Fraser Valley communities that generate the greatest amount of daily travel, approximately 10% of the travel is regional and 10% is inter-regional.

These patterns underscore not only the sustainability of Fraser Valley communities on several fronts, but the markets where transit has the greatest potential of reducing overall vehicle travel and GHGs.

Existing Travel Pattern Highlights

The use of market analysis tools and discussions with local stakeholders contributed to identifying the unique travel characteristics of each community therefore helping to better understand the most significant trip generators locally, regionally and inter-regionally.

a. Abbotsford

Abbotsford makes up 49% of the daily travel in the Fraser Valley with over 388,000 trips being made each day. As previously noted, approximately 80% of those daily trips start and end in Abbotsford. Approximately 68% of all work-based trips generated by Abbotsford remain within Abbotsford, with approximately 32% destined for Metro Vancouver.

Figure 1 summarizes the areas market research identified as the most commonly travelled by residents of Abbotsford. These patterns highlight the relative attractiveness of local activity nodes within the City, the core areas of Mission and Chilliwack and to a lesser degree Metro Vancouver. Within the City, some of the strongest activity areas for local, regional and inter-regional travel and thus potential markets for transit are also highlighted.

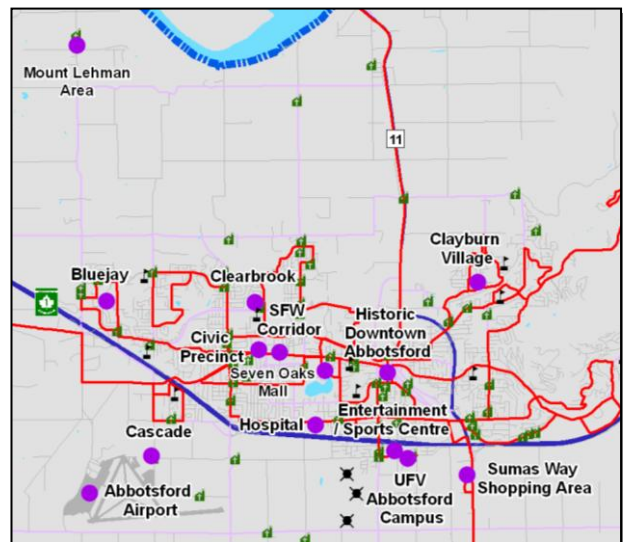
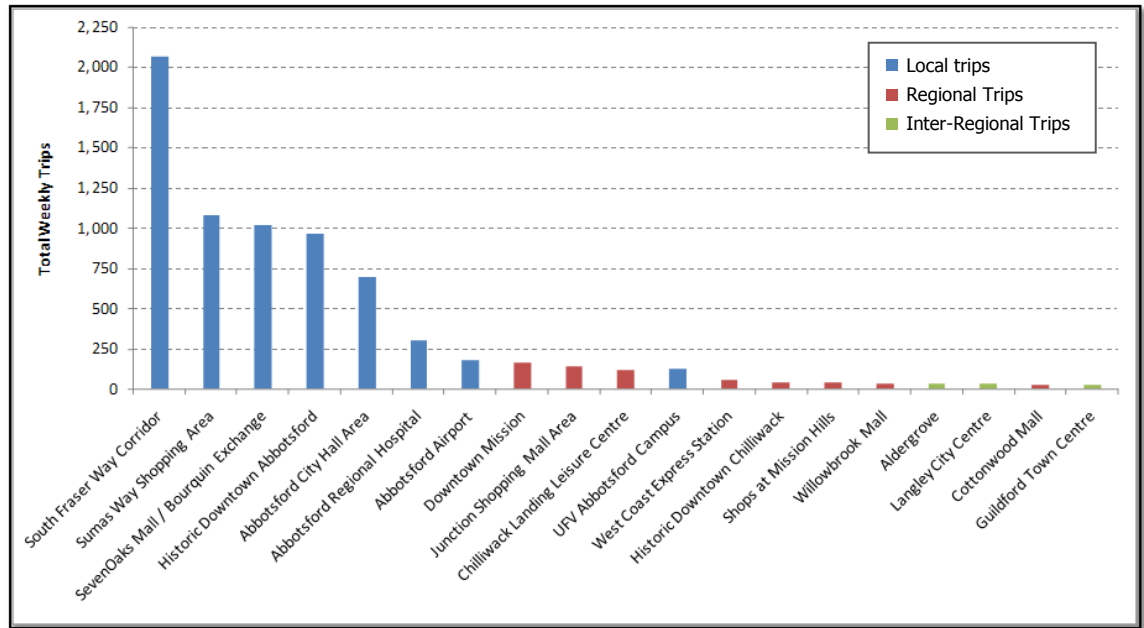




Figure 1 - Primary Trip Generators for Abbotsford



b. Chilliwack

The City of Chilliwack generates approximately 285,000 trips per day and comprises approximately 36% of the total daily travel of Fraser Valley communities. Chilliwack has the most sustainable travel characteristics in the Fraser Valley with approximately 87% of all daily trips generated by Chilliwack remaining within the City. This means the remaining 13% of all other trips generated to and from Chilliwack are either regional or inter-regional. Of the 25,000 work-based trips generated by Chilliwack, over 70% remain within the City. Figure 2 identifies some of the most frequently visited local, regional and inter-regional generators for Chilliwack residents based on market research.

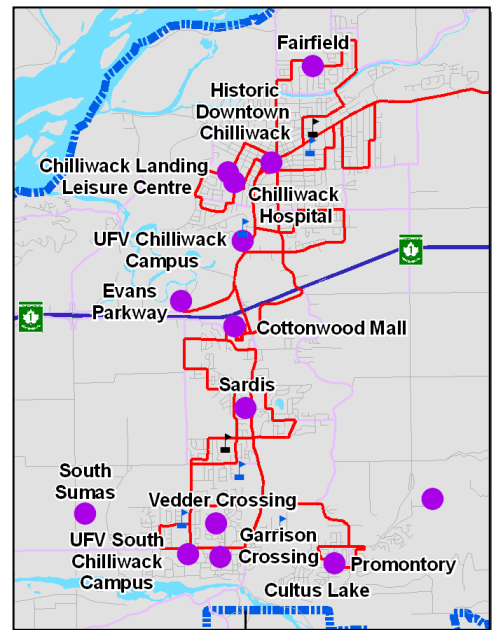
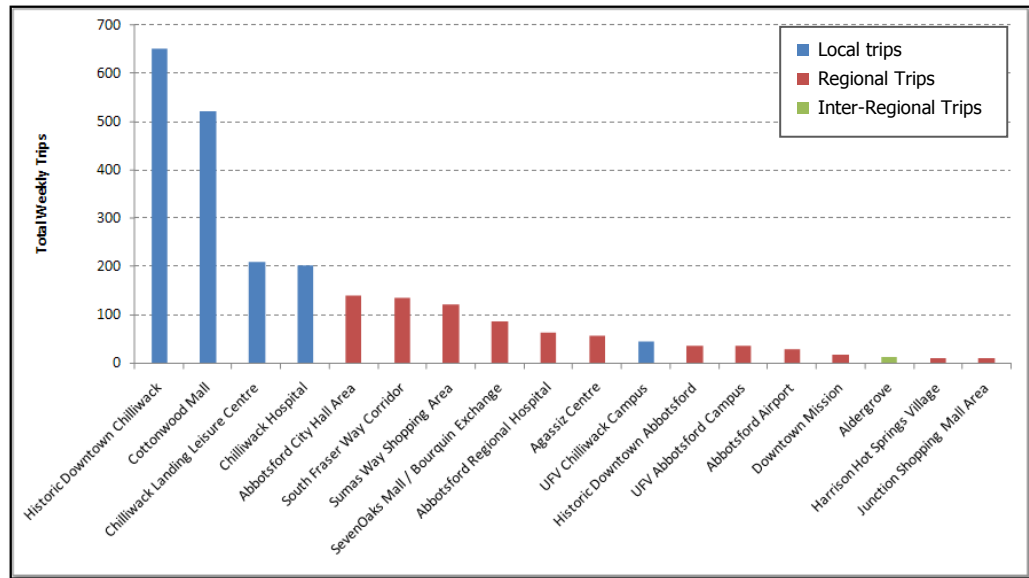




Figure 2 - Primary Trip Generators for Chilliwack



c. Mission

The District of Mission generates almost 120,000 trips each day, approximately 73% of which remain within the community. Interestingly, only 40% of the work trips generated by Mission residents remain within Mission. As illustrated in Figure 3, most daily trips generated by Mission are local, but connections with activity nodes in Abbotsford are significant. The specific location of these and other significant generators within the District of Mission is illustrated in the map to the right.

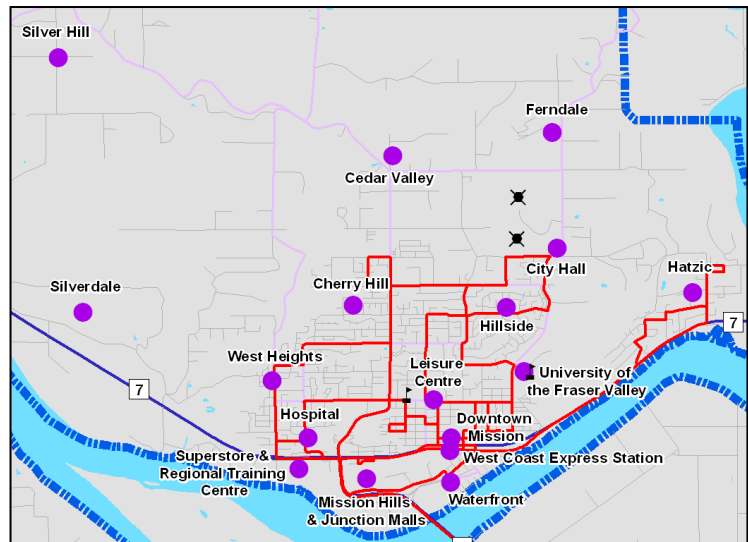
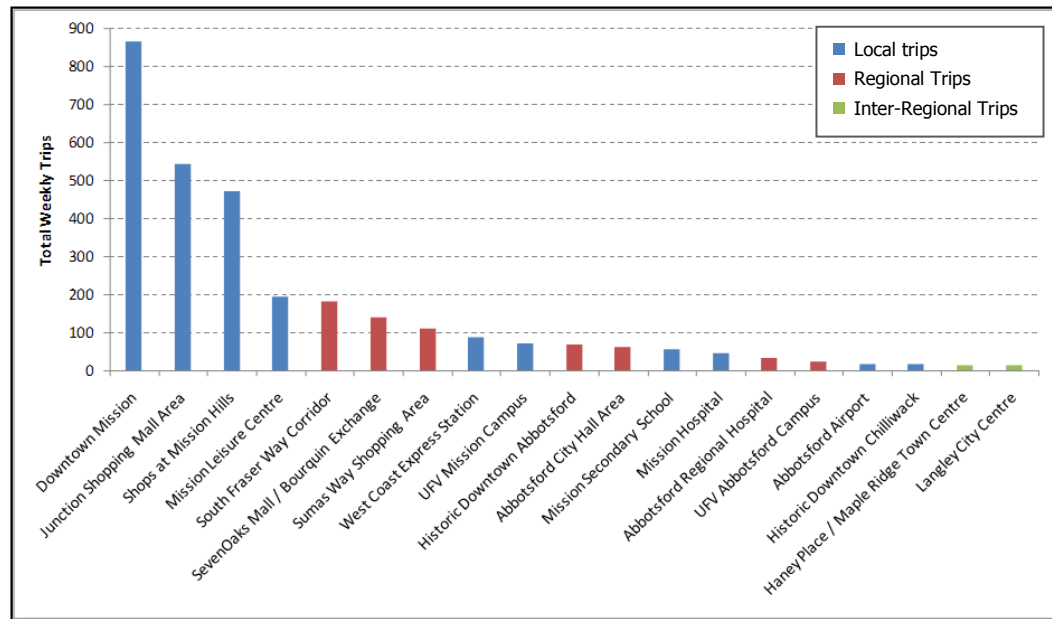




Figure 3 - Primary Trip Generators for Mission



d. Kent/Harrison

The Kent, Agassiz and Harrison areas generate approximately 6,700 trips each day, or 1% of the regional travel. It is estimated that approximately 70% of the daily travel generated by the Kent/Harrison area remains within the community, and 25% is regional. Of the 1,400 or so work-based trips generated by this area, approximately 45% of the residents say they work within the community, with Chilliwack as the next most popular place of work. The key local activity nodes within the Kent/Harrison area are based on discussions with staff and community representatives and are illustrated in Figure 4.



Figure 4 - Primary Trip Generators for Kent/Harrison

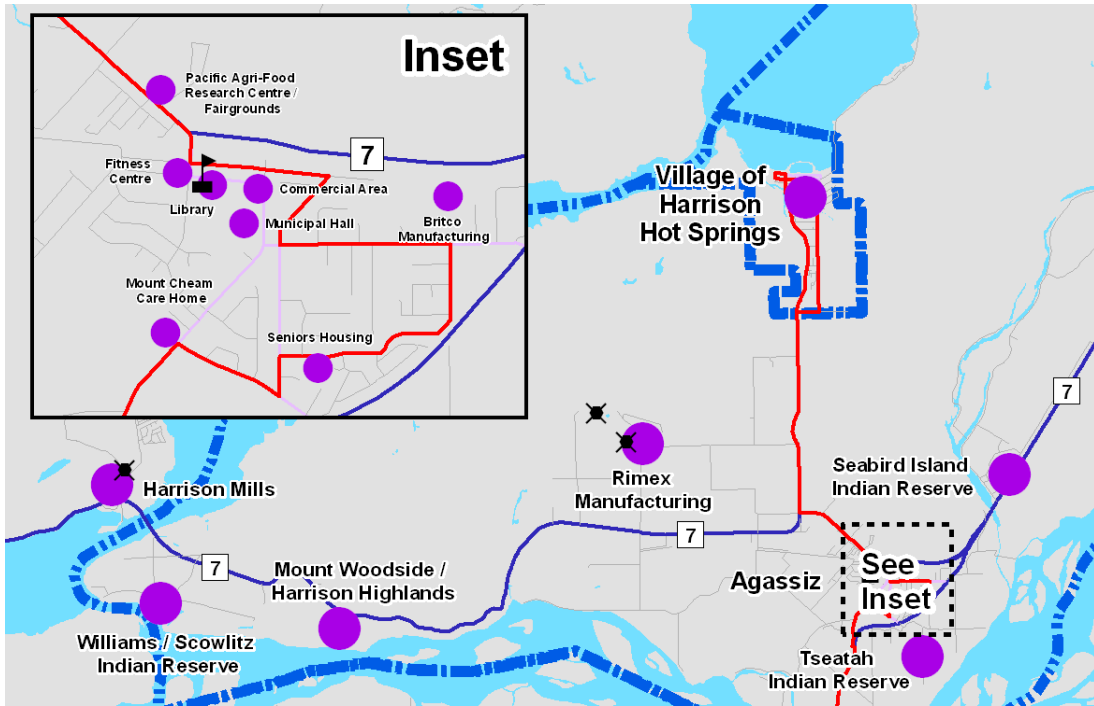
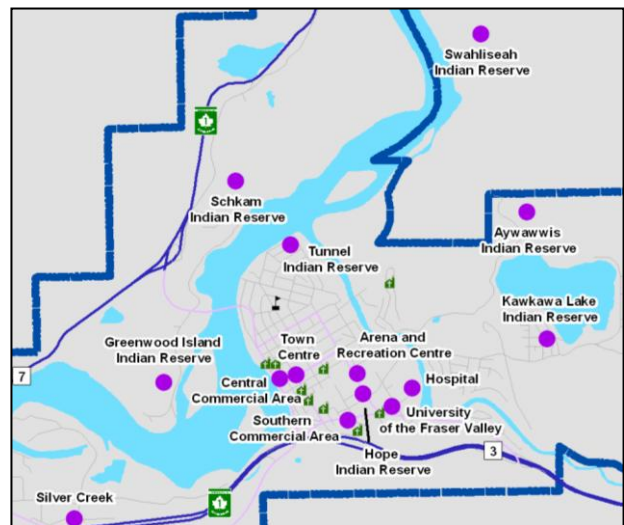


Figure 5 - Primary Trip Generators for Hope

e. Hope and Surrounding Electoral Areas (EA's)

The Hope area is home to approximately 7,500 people. Similar to the Kent/Harrison area, it is anticipated that a majority of the trips generated by Hope and surrounding EAs remain within the community. Figure 5 illustrates the location of most local activity generators within the community.

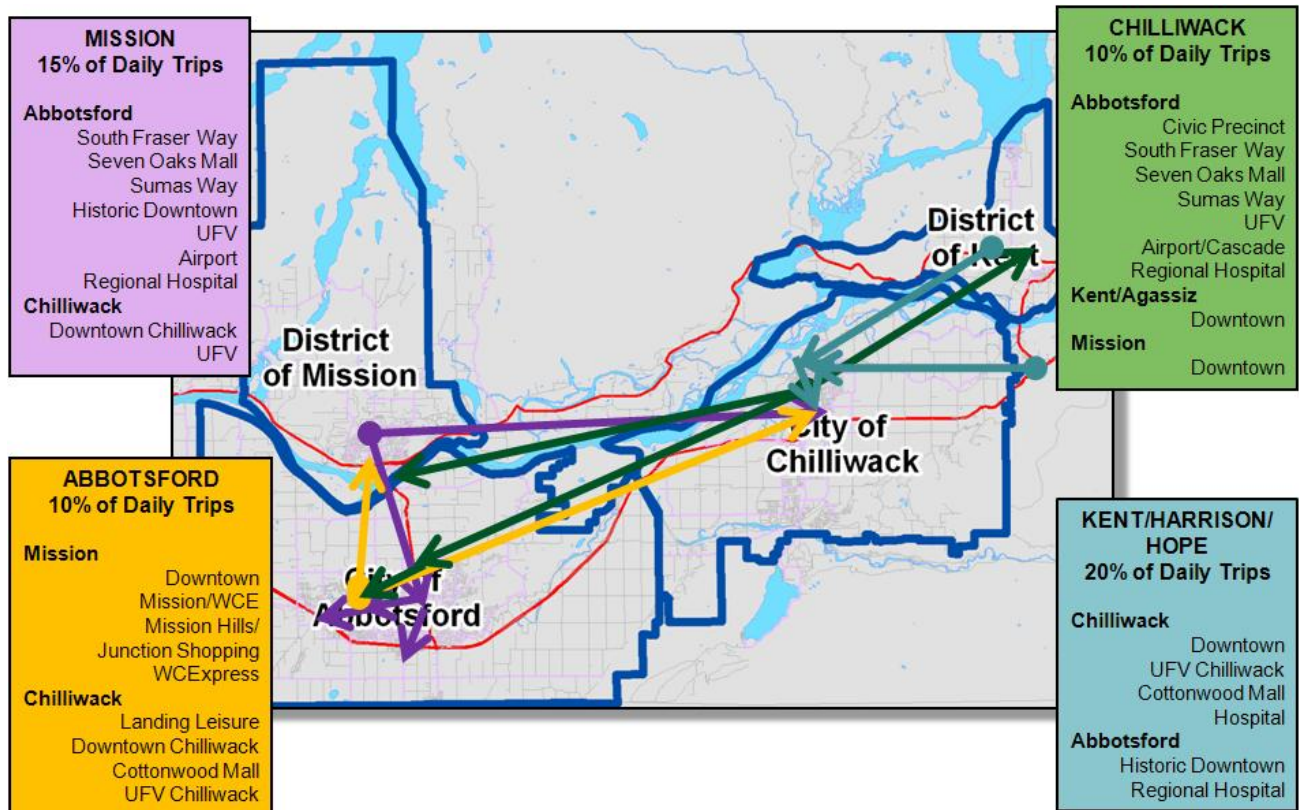




Regional Travel Patterns

Anywhere from 10% to 20% of all daily travel generated by Fraser Valley communities is regional in nature. Market research, census information, travel surveys and other data helped identify the most significant regional connections for each community in the Fraser Valley as summarized in Figure 6. For example, approximately 15% of all daily trips to and from Mission are regional. A majority of Mission's regional travel today is between key nodes in Abbotsford, downtown Chilliwack and University of the Fraser Valley in both Abbotsford and Chilliwack. These connections represent some of the strongest markets for regional transit in the Fraser Valley based on actual travel patterns.

Figure 6 - Key Regional Connections

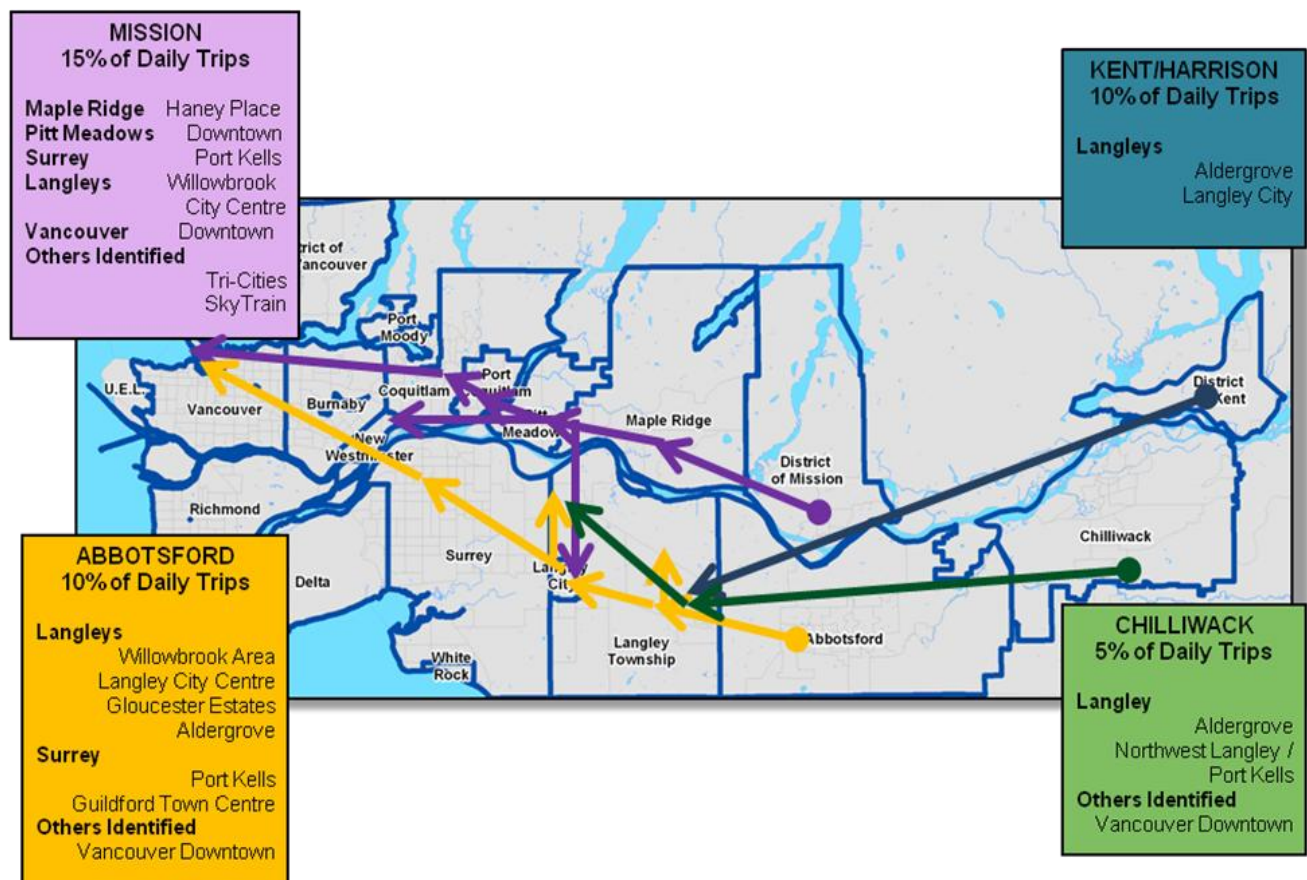




Inter-regional Travel Patterns

Inter-regional travel between the Fraser Valley and Metro Vancouver communities comprises anywhere from 5% to 15% of all daily trips, significantly lower than local travel and slightly lower than regional trip making. Figure 7 highlights inter-regional connections identified through background research and travel surveys. For example, approximately 10% of all daily trips generated by the City of Abbotsford are to and from the Metro Vancouver area. The most significant connections that could possibly benefit from enhanced transit connections are to locations in the Langley City and Langley Township areas. Surrey and other parts of the Lower Mainland have more modest inter-regional trip making opportunities.

Figure 7 - Key Inter-regional Connections

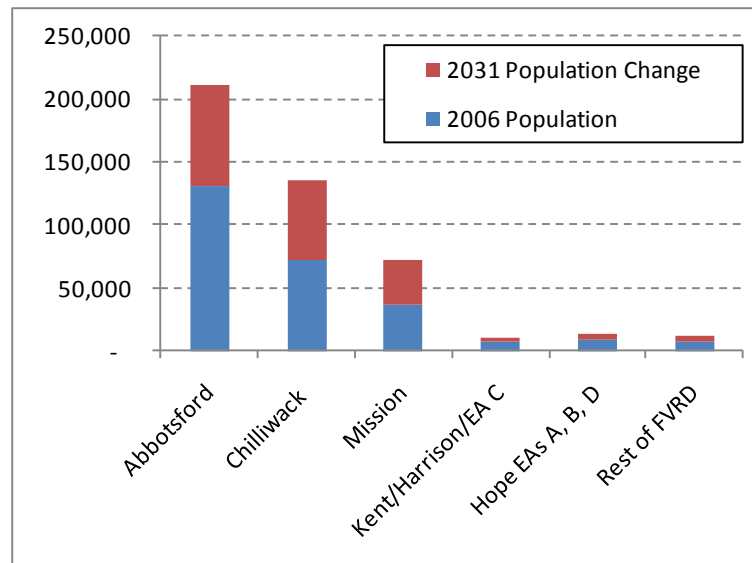




Growth and Travel Forecasts

Figure 8 - Existing and Forecast 2031 Population Growth

The population of the Fraser Valley is projected to grow from 263,000 people today to over 450,000 by 2031, while employment is anticipated to increase by over 100,000 jobs to approximately 215,000 jobs by 2031. Abbotsford accounts for over 40% of the demographic change, while Chilliwack and Mission account for 33% and 19% respectively.



The forecast changes in population and employment growth for Fraser Valley communities are illustrated by traffic zone in Figures 9 and 10 respectively.

It should be recognized that Abbotsford is generally comprised of smaller traffic zones, therefore the changes appear to be less pronounced. It must also be recognized that most traffic zones are quite large and that actual population and job increases may be concentrated in smaller portions of any given traffic zone. Municipal Official Community Plans (OCP's) can provide a better indication of where future population and employment growth areas may be concentrated.



Figure 9 - Anticipated 2031 Population Growth

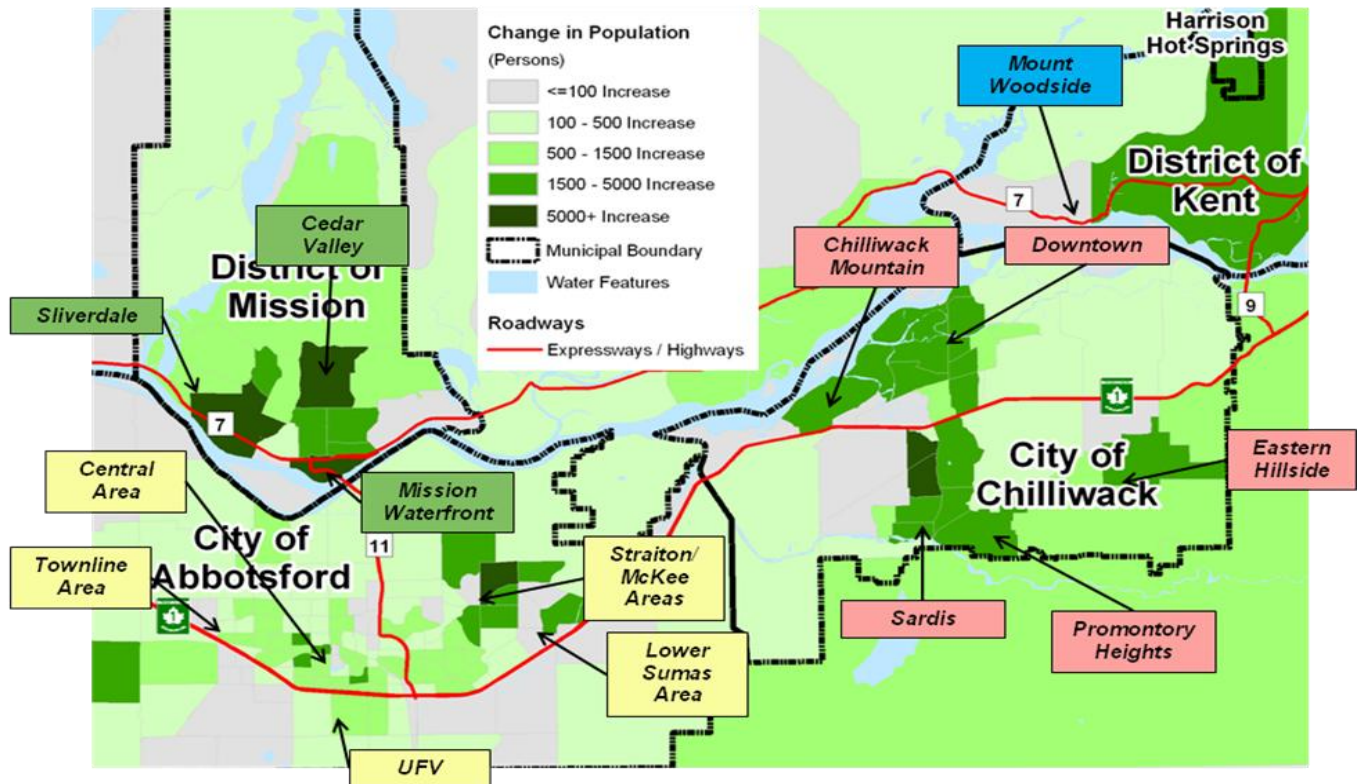
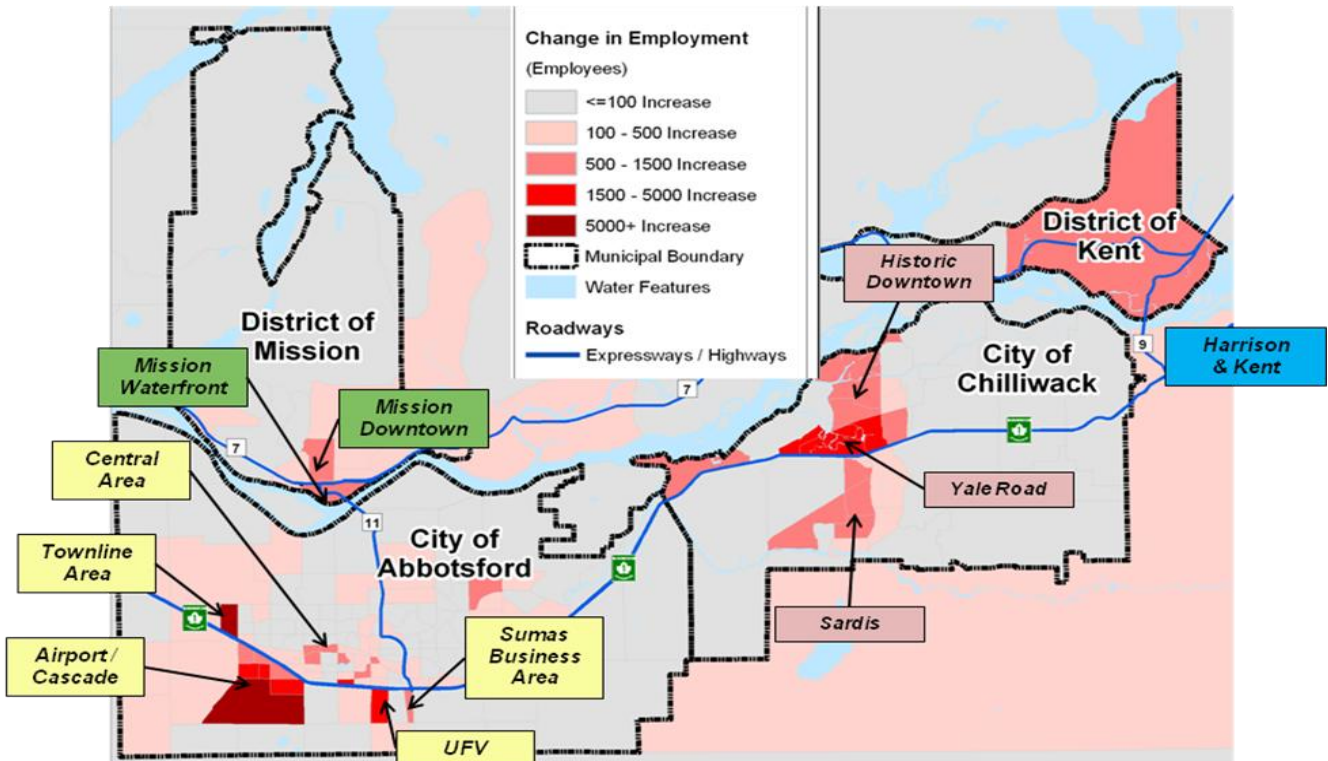




Figure 10 - Planned 2031 Employment Growth



With the projected growth of 72% and 97% in population and employment respectively, it is anticipated that daily travel generated by Fraser Valley will increase by a similar rate. Because planned growth within each community includes changes to population, employment and other community services, the proportion of local, regional and inter-regional travel is not projected to change significantly from those patterns previously described.

Transit Market Potential

Achieving local, regional and provincial goals relies on the provision of attractive and cost effective services directly aligned with existing and future transit markets. The sustainable nature of Fraser Valley communities strongly suggests that local travel will continue to make up the largest proportion of trips. Local travel is where transit must succeed if it is to significantly increase ridership, reduce single occupancy vehicle (SOV) travel, minimize increases in greenhouse gas emissions and support the development of sustainable communities. Next, regional and inter-regional markets are well defined with the primary travel connections to the central areas of Abbotsford, Chilliwack and Mission in addition to the neighbouring municipalities of Langley City and Township as well as Surrey, Maple Ridge and Pitt Meadows.



1.0 INTRODUCTION

The Fraser Valley Regional District (FVRD) offers residents, workers and visitors a high quality of life, with a mixture of urban, suburban, rural, and natural environment experiences. The region is home to approximately 263,000 residents living within its six municipalities and seven Electoral Areas. Residents in the region benefit from growing employment opportunities closer to home and affordable housing prices relative to other parts of the Lower Mainland. Over the next 25 years or so, the region's population is expected to increase by approximately 70%, or an additional 189,000 people. Much of this growth is anticipated to occur within the region's urban growth boundary. As such, managing this growth and fostering the sustainability of these communities is essential particularly in the area of reducing automobile dependence and increasing travel options.

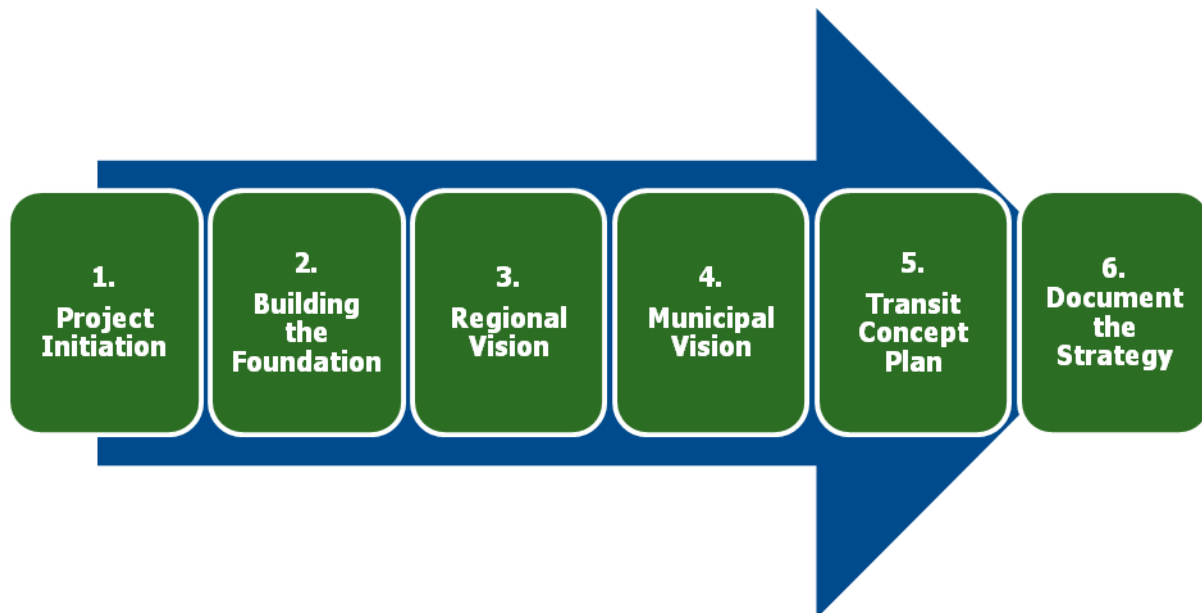
One of the key growth management goals identified in the FVRD's Regional Growth Strategy (RGS) is to 'Increase Transportation Choice and Efficiency', which includes reducing dependency on single-occupant vehicle travel and enhancing commitments toward the provision of attractive bicycle and pedestrian facilities, as well as a broader range of transit services. This includes not only the provision of additional conventional transit within and between communities, passenger facilities, but also the potential use of community shuttles using both fixed and demand-responsive services for local travel within Fraser Valley communities. A broader range of local and regional transit services supported by supportive policies and measures – such as increased mixture of uses and density, attractive and accessible pedestrian facilities, improved trip planning and passenger information, park-and-ride facilities, transit exchanges, etc. – will complement the RGS goal for a 'network of sustainable communities.'

Significant strides have already been made toward enhancing transit services in the Fraser Valley in recent years. BC Transit, in connection with local municipalities, has undertaken comprehensive assessments of transit markets and the performance of transit services for the Fraser Valley, and has identified needs for improvement through their 5 year planning processes. Although the Provincial Transit Plan does not specifically identify transit strategies for the Fraser Valley, the foundation goals for reduced greenhouse gases, increased transit mode share and complete communities are used to guide the development of a long-range transit strategy for the Fraser Valley.



1.1 The Strategy Process

The ***Strategic Review of Transit for the Fraser Valley*** represents an opportunity to address historical issues and challenges of making transit attractive for the Valley. It will include the development of a long-term strategy for local, regional and inter-regional transit services, facilities and supportive infrastructure over the next 20 years. The Strategic Review will also identify implementation priorities for the next 5 and 10 years as well as the responsibilities for advancing the shorter-term initiatives. The process for developing the Strategy is separated into six phases, with the development of three integrated Foundation Papers being developed as part of this second study phase.



The Foundation Papers are intended as 'think pieces' to build on historical work and to shape and assist in the development of Municipal and Regional Visions for transit in the Fraser Valley.

- ***Foundation Paper #1 – Transit Market Analysis.*** To develop an effective long-term strategy for transit in the Fraser Valley, it is important to identify transit services and facilities that are targeted toward enhancing the experience for existing customers, may attract new transit customers and will be aligned with long-term travel markets. This Foundation Paper provides a comprehensive assessment of the local, regional and inter-regional transit markets in the Fraser Valley. Ultimately, the transit services and strategy for the Fraser Valley will be aligned with those markets where there is the greatest potential to increase transit ridership.



- **Foundation Paper #2 – Summary of Relevant Practices.** The success of transit in the Fraser Valley requires a unique combination of transit services and facilities (that are best suited to the transit markets being served), transit friendly land use patterns and the provision of transit supportive facilities and infrastructure. This Foundation Paper examines a number of practices and arrangements that are used in other communities that may be considered in developing a long-range strategy for the Fraser Valley.
- **Foundation Paper #3 – Managing and Financing Transit in the Fraser Valley.** The historical means of governing and funding transit is an ongoing challenge as communities in the Fraser Valley have grown significantly over the last 10 or so years. Although the Strategic Review of Transit in the Fraser Valley will NOT be identifying and evaluating alternative forms of governance and financing transit, this Foundation Paper provides an overview of the current models for governing transit in British Columbia, and highlights some of the historical facts about funding transit in the Fraser Valley in comparison to other communities in Canada.

1.2 Key Features of This Foundation Paper

The purpose of this Foundation Paper is to provide an overview of relevant experiences that make transit successful in other communities and may be important to consider in developing the long-range strategy for the Fraser Valley. Specifically, the Foundation Paper provides all agency and public stakeholders with a common perspective of the current and future potential transit markets in the Fraser Valley. The next phase of the study will examine the specific patterns and nodes with respect to defining future opportunities for enhanced services. These markets are broken down into three types:

- **Local** – all travel within the established communities of the Fraser Valley including Abbotsford, Chilliwack, Mission and Kent/Harrison. For example, trips which begin and end within Abbotsford.
- **Regional** – all travel between communities in the Fraser Valley. For example, trips which begin in Abbotsford and end in Mission.
- **Inter-Regional** – all travel between the Fraser Valley and Metro Vancouver. For example, trips between Abbotsford and Langley or trips between Mission and downtown Vancouver.



Understanding these markets will provide guidance in terms of where the most effective allocation of resources might attract the most ridership to the system. As such, the objectives of this foundation paper are to:

- Summarize travel patterns in the Fraser Valley through a variety of information sources such as travel surveys, transit counts, census journey to work, regional EMME demand forecasting model and others including, but not limited to, conducting market research;
- Assess the overall travel markets in the FVRD based on available information;
- Provide an overview of current transit markets including the performance of existing services and key activity nodes; and
- Provide an assessment of future potential transit markets based on current travel patterns as well as long terms changes expected over the next 25 years including population and employment growth, demographic trends and other factors that affect travel patterns.

This transit market analysis report is presented in four sections:

- **Section 2** – highlights the transit markets broken down by the three types that exist today. A summary of travel patterns in terms of available transit services, ridership patterns, customer profile and others is provided to assess current conditions.
- **Section 3** – discusses possibilities for attracting existing travel markets. Highlights of existing travel patterns are provided looking at daily travel patterns, major activity nodes and where people live and work. A summary of market research that was conducted is also provided that discusses the nodes and the trip purposes and mode choices to those nodes. Data from travel surveys, census journey to work, transit counts and the regional EMME model is also used to support findings on travel patterns.
- **Section 4** – provides a summary of future travel markets and how those might be served with transit. A review of planned growth over the next 25 years is provided that looks at where population and employment growth will occur within the Fraser Valley.



1.3 Factors Affecting the Travel Market

Several factors will have an impact on how people travel today and over the next 25 years as follows:

- **Land Use** – The most significant factor in how people travel is the proximity of where people live and where they need to go for work, shop, school, recreate among other reasons. Population and employment densities and the mix of land uses in the Fraser Valley will largely determine how far, and consequently what mode of travel, people will use to get to places of work, recreation, entertainment and socializing. The closer people are to where they want to go, the more opportunities there are for them to use sustainable modes of transport such as walking, cycling or taking transit. The region's Official Community Plans recognize this linkage between increased densities and mixed uses and have developed policies that support such forms of development. Increasingly, multi-family and mixed-use developments are making up a larger percentage of building activity in the larger communities.

Unlike other, more built-out municipalities in the Lower Mainland, the distribution of land use within the FVRD reflects the influence of the Agricultural Land Reserve and the critical importance of agriculture to the region and the province. The Fraser Valley Regional District (FVRD) is characterized by the increasingly dense urban nodes of Abbotsford, Chilliwack and Mission, surrounded by agricultural and rural lands. A significant component of the FVRD Regional Growth Strategy's vision is one of "a network of vibrant, distinct and sustainable communities...". The same distinctiveness and physical separation of communities that helps to foster the creation of complete communities, where people can live, work and play close to home, also provide challenges from a transit provision perspective because of the low-density, non-urban landscapes separating the urban centres.

- **Demographics** – The average age of residents in the Fraser Valley will continue to increase as the "Baby Boom" generation enters retirement. Population in the FVRD is forecast to grow by over 80% with growth in the 65+ age group to be approximately 130%¹. Seniors tend to travel more during the midday and are also more reliant on transit services as compared to people in the labour force who travel more during peak times for commuting to

¹ Source: *The Fraser Valley Regional District: Population Growth and the Context for Managing Change, Urban Futures, January 2005.*



work. Seniors and other individuals who experience mobility challenges also pose a challenge for conventional transit and will need to be addressed.

While the FVRD will face the challenges of the aging baby boom, the region is still, on average, younger than many other parts of the lower mainland. Although an aging population will provide long-term challenges, services that cater to the younger segment of the market will have to evolve to better meet their needs as well.

These and other demographic changes will have a significant impact on how people travel throughout the Fraser Valley in the future.

- **Cost of Travel** – there are several components that make up the overall cost of travel. For auto travel, the key components of cost include fuel, operating cost per kilometer including fuel, insurance and maintenance, parking charges and other out-of-pocket costs and finally travel time. For travel by transit, the key components of cost include fare and overall travel time from origin to destination including time to walk to a bus stop, wait for a bus, boarding time and in-vehicle time as well as walk time to the ultimate destination. All of these cost components, including their relative weighting, will impact an individual's decision to drive, take transit, walk or ride a bicycle. Providing more transit services and facilities will make taking transit more cost competitive with taking a car especially if transit travel times are close to auto travel times.
- **Economics** – Economic changes, including employment type and average incomes will influence people's travel patterns. Although difficult to predict, changes in economic activity will have an impact on the amount and type of travel that occurs in the Fraser Valley. Economics will also influence the development of more transit-friendly built-form. With the economic reality of sharply higher land-costs, more affordable forms of housing, such as apartments, townhouses and secondary suites will become even more popular.

Fraser Valley communities are not bedroom communities of Metro Vancouver and are some of the most economically diverse in the province. While agriculture and the agriculture support sector is a critical economic driver, the region also boasts a wide range of non-agricultural economic activity related to manufacturing, government services, healthcare, education, transportation and warehousing, tourism, forestry and activities related to Abbotsford International airport. This economic diversity and high levels of activity are the primary reasons behind the region maintaining its status of being surprisingly independent from the Metro Vancouver region to its immediate west. Indeed, the region will likely see



increased commutes into the region as planned employment nodes are developed in FVRD communities.

- **Auto Ownership** – The number of vehicles in the Fraser Valley has increased faster than population growth resulting in higher auto ownership rates. Between 1994 and 2004, the number of registered vehicles increased by 27% while the population grew by 21%. The fact that vehicles are more readily available has a significant impact on people's decisions to travel by car or by transit. On the other hand, this growth in motor vehicles may also be a market response to transit services not meeting demand. Assessing the captive and choice transit markets will provide an indication of the level of potential demand for transit use.
- **Transportation Infrastructure** – The network of roadways, including provincial highway infrastructure that connects communities, provides key links for people to travel throughout the Fraser Valley. The main urbanized areas of Abbotsford, Chilliwack and Mission are connected by the Trans Canada Highway (#1), Abbotsford-Mission Highway (#11) and Lougheed Highway (#7). The amount of road space and congestion levels influence people's travel choices in the Fraser Valley.
- **Transit Services** – The Fraser Valley is currently served by BC Transit with conventional bus services in Abbotsford, Mission, Chilliwack and Kent. TransLink provides West Coast Express service from Mission to downtown Vancouver and Greyhound provides highway coach service between Vancouver, Abbotsford, Chilliwack, the Fraser Canyon and beyond. It should be noted that Greyhound has expressed a desire to reduce services to some of the smaller communities, an issue of significant concern to the Regional District.

The amount of service hours provided to Fraser Valley residents is relatively low compared to other areas in the Lower Mainland. Currently, the Fraser Valley receives less than 0.5 annual service hours per capita compared to over two annual service hours per capita in more established communities in Metro Vancouver. The types and frequency of transit services available to residents influences the amount of transit travel between key origins and destinations.

- **Transit Facilities** – Support for local and regional transit services is provided through transit exchanges, park and ride facilities throughout the Fraser Valley and a West Coast Express station in Mission. These facilities, along with shelters, benches and other pedestrian facilities such as crosswalks and sidewalks, provide access to transit services. Passengers



need a good network of support facilities in order to get to transit exchanges and bus stops and to board transit services.

These and other factors that affect travel in the Fraser Valley will be discussed in more detail throughout the remainder of this report.



2.0 TODAY'S TRANSIT MARKETS

Developing a transit strategy for the Fraser Valley requires a deeper understanding of the current transit market. The amount of transit trips made today need to be quantified and questions relating to why people are using transit, who is using transit and where the trips are being made, need to be answered.

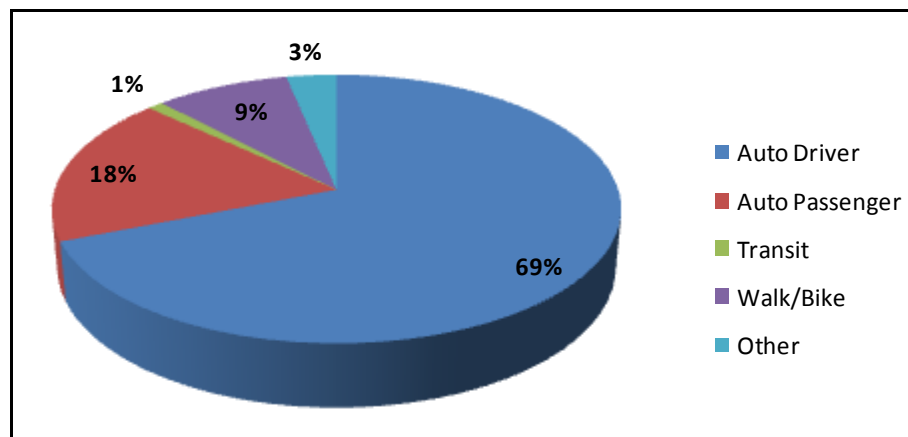
The current transit market in the Fraser Valley in terms of local, regional and inter-regional trip making are based on a variety of data sources including:

- 2004 Fraser Valley Trip Diary survey
- 2006 Census Journey to Work
- BC Transit ridership counts
- BC Transit onboard passenger surveys
- 2009 Fraser Valley travel market research

The following describes some of the key characteristics of the transit market in the Fraser Valley:

- ***Transit mode share has remained unchanged at 1% between 1994 and 2004.*** The transit market today represents all of the trips taken by bus or commuter rail in the Fraser Valley. This market, known as the transit "mode share", has remained at approximately 1% of all trips over the ten year period from 1994 to 2004. Exhibit 1 below illustrates the share of daily trips by the various modes of travel in each of the Fraser Valley's transit markets.

Exhibit 1 – Mode Share of Daily Travel in the Fraser Valley



Source: 2004 Fraser Valley Trip Diary Survey



- **Abbotsford represents the greatest share of existing transit customers at 64% of all transit trips in the Fraser Valley.** Given that there are approximately 800,000 daily trips made in the Fraser Valley today, almost 9,000 are made by transit. Table 1 provides a breakdown of where in the Fraser Valley these transit trips are made.

Table 1 – Breakdown of Daily Transit Trips in the Fraser Valley

Community	Transit Trips	Percent
Abbotsford	5,750	64%
Chilliwack	1,250	14%
Mission	1,900	21%
Kent/Harrison	80	1%
Total	8,980	100%

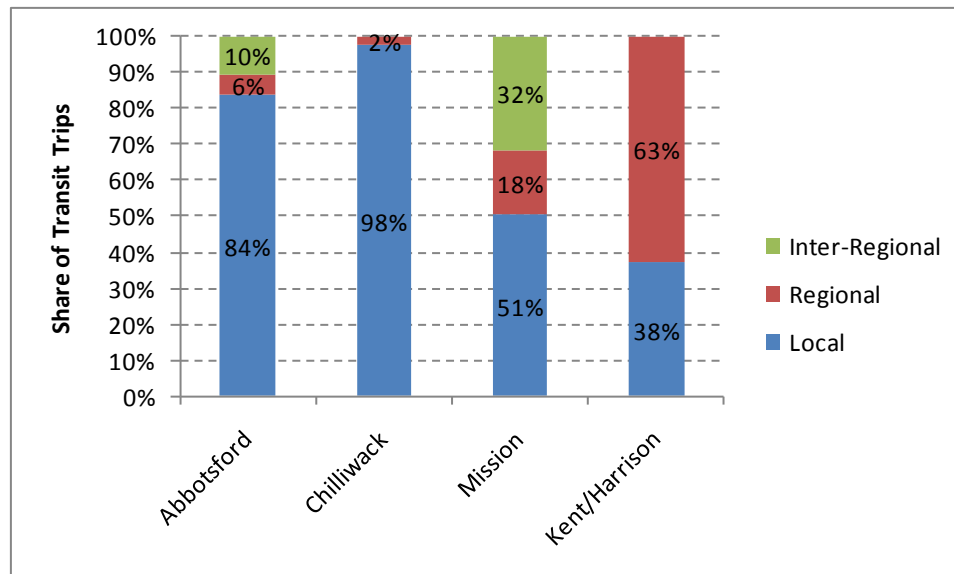
*Source: BC Transit, Ridership and Performance Summaries, Oct/Nov 2008
West Coast Express Postcard Survey, Mar 2009*

Abbotsford and Mission make up 85% of all transit activity in the Fraser Valley today.

- **Most transit trips begin and end in the same municipality.** Of the total daily transit trips made in the Fraser Valley, 78% are local, 8% are regional and 13% are inter-regional. The following table provides a breakdown of the transit market and the various trip types by community.



Exhibit 2 – Breakdown of Daily Transit Market by Trip Type



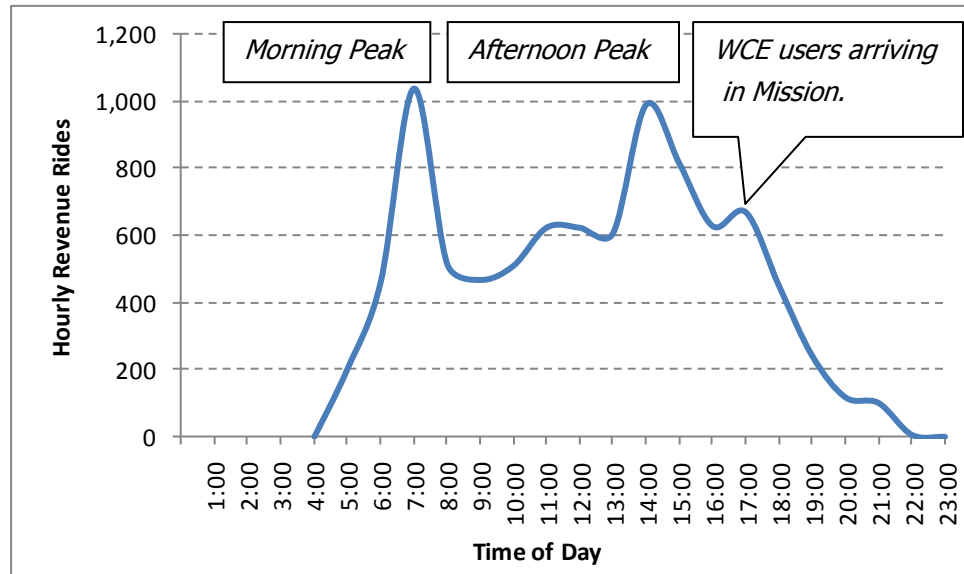
*Sources: Central Fraser Valley Two Week Count,
BC Transit, Nov 2008, Chilliwack Two Week Count, BC Transit, Oct 2007,
West Coast Express Postcard Survey, Mar 2009*

The amount of local, regional and inter-regional transit trips varies significantly amongst the Fraser Valley communities. Chilliwack contains the highest share of local transit trips with a very small portion of regional travel and no inter-regional travel. This reflects a lack of inter-regional services and only one low -frequency bus route servicing a regional connection to Kent/Harrison. Kent/Harrison contains the least amount of local travel with most of its transit trips going to Chilliwack. Mission contains the highest proportion of regional and inter-regional travel due to its proximity to Abbotsford and easy access to Metro Vancouver via the West Coast Express commuter rail service.

- **Most transit trips are made during the morning and afternoon peak commuting hours.** The amount of trips made on the Fraser Valley transit system follows a typical commuting profile with morning and afternoon peaks. The following chart shows the hourly profile of revenue rides on the transit system in the Fraser Valley.



Exhibit 3 – Hourly Profile of Weekday Revenue Rides in the Fraser Valley



Source: Central Fraser Valley Two Week Count, BC Transit, Nov 2008
Chilliwack Two Week Count, BC Transit, Oct 2007
West Coast Express Postcard Survey, Mar 2009

Most hourly transit trips are made around 7:00am during the morning commute to work and school and then around 3:00pm for the afternoon peak as people return home. Midday volumes are approximately 60% of the peak volumes showing that the midday period is quite active in terms of transit trips. There is a small sub-peak after the main afternoon peak that includes West Coast Express users arriving in Mission between 5:00 and 7:00pm.

- **Most transit trips are for work and school purposes.** According to an on-board survey of ValleyMAX transit users, most people use transit in the Fraser Valley to get to work or to post secondary institutions. Other significant trip purposes include shopping, high school and personal errands. Almost half of Fraser Valley transit users are working age adults followed by a significant amount of students. The remaining transit users include seniors and BC Pass holders available to seniors and people with disabilities on a restricted income. More detailed profiles of trip purposes and users of the transit system for FVRD communities are provided in Section 2.1.



- **Approximately 90% of transit customers do not have a vehicle to use for their trip.** The onboard survey of ValleyMAX users revealed that only 10% have their own automobile to use as an alternative. In other words, 90% of the transit users are captive with only 10% using transit by choice.

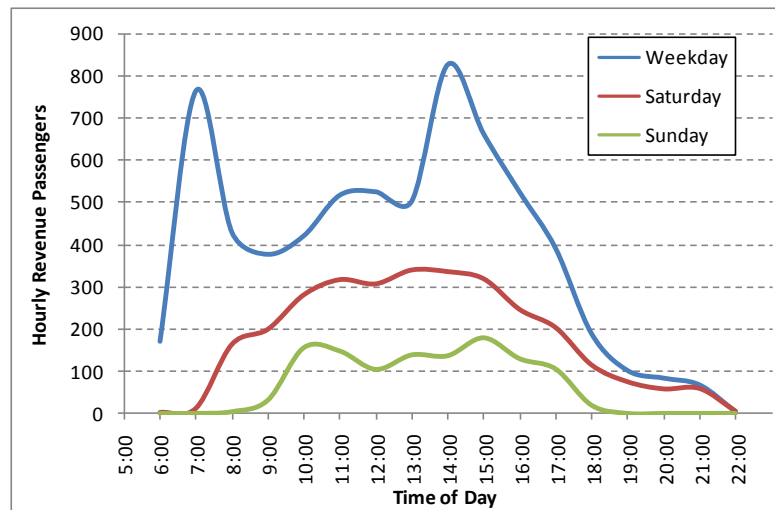
2.1 Local Transit Markets

The local transit market includes those trips that are made entirely within a community. This section describes the key features of existing transit trips made locally within Abbotsford, Chilliwack, Mission and Kent/Harrison.

2.1.1 Profile of ValleyMAX Users

- **Abbotsford and Mission account for over 80% of the weekday market for local transit trips in the Fraser Valley.** Over 6,500 passengers use the ValleyMAX transit system on a typical weekday. Saturday and Sunday boardings are about 46% and 17% of the weekday total as shown in Exhibit 4 below. Weekday passenger activity on bus services in the ValleyMAX system exhibits typical peaking patterns related to commuter travel, showing a sharp spike in demand around 7:00am with another large, but longer peak in the afternoon between 2:00 and 4:00pm. Midday travel is significant at approximately 60% of the peak hourly boardings.

Exhibit 4 - Hourly Profile of ValleyMAX Transit Passengers

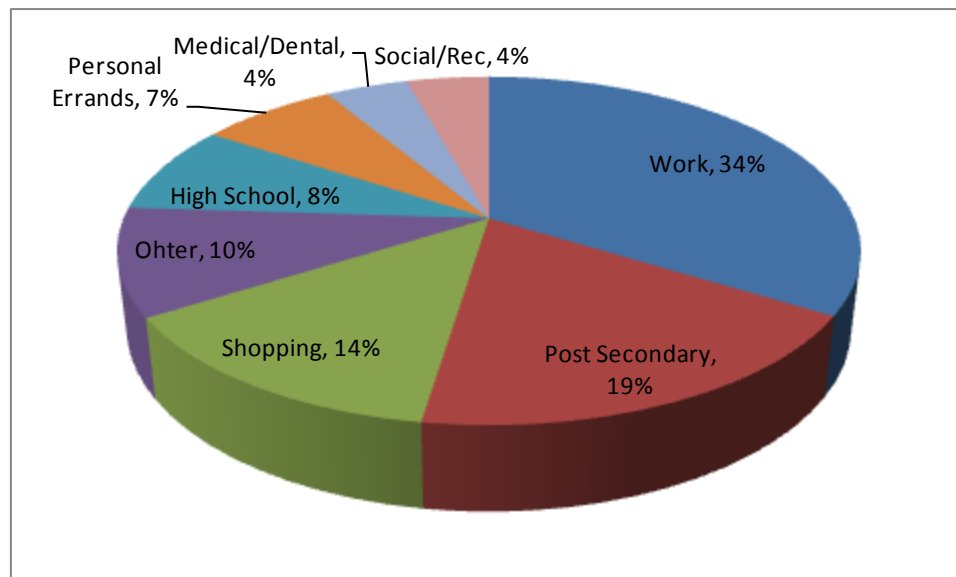


Central Fraser Valley Two Week Count, BC Transit, Nov 2008



- **Work Trips account for the largest proportion (34%) of all weekday transit customers in Mission and Abbotsford.** Work and school trips to universities and colleges make up over half of trips on ValleyMAX transit services. Shopping, other and high school trips make up over 30% of trips with personal errands, medical/dental and social/recreational making up the remainder. The following chart shows the breakdown of trip types on transit services in Abbotsford and Mission.

Exhibit 5 – Breakdown of Trip Purposes in Abbotsford/Mission



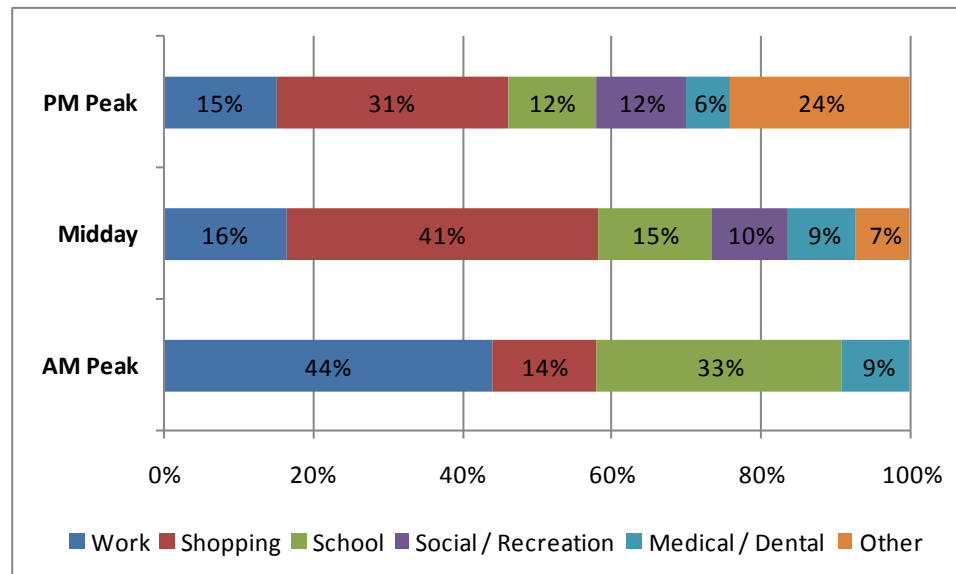
Source: Central Fraser Valley Transit System On-Board Passenger Survey, Nov 2003.

- **Trip purposes by transit riders vary greatly by time of day.** Work and school trips are most predominant during the morning peak period as shown in Exhibit 6. Shopping trips comprise the biggest segment of transit riders during the midday and pm peak, but are only 14% of all am peak trips. School trips follow a similar pattern as work trips throughout the day, although they comprise a smaller share of trips. Social and recreational trip purposes do not show any activity in the am peak, but remain around 10% of all trips during the midday and pm peak periods. Overall, the midday and afternoon peak period display a greater variety of trip types as no social/recreational or other trips are made during the morning peak.

The lower percentage of work trips in the afternoon period does not mean there are fewer work trips returning. The afternoon peak is a busier time period with more trips overall.



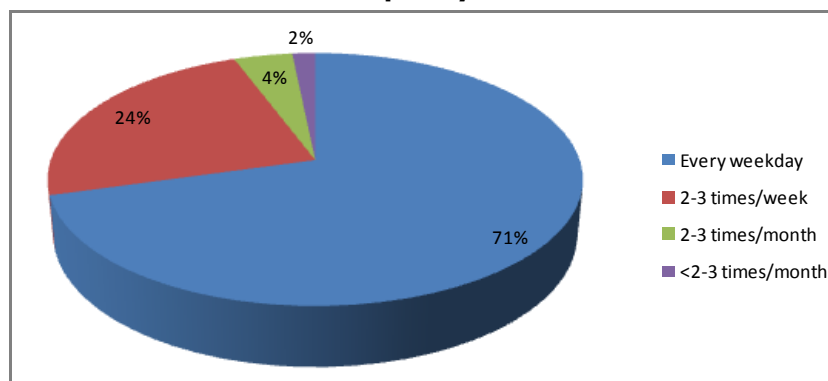
Exhibit 6 - Transit Trip Purpose by Time of Day



Source: Central Fraser Valley Transit System On-Board Passenger Survey, Nov 2003.

- **Most transit users in Abbotsford and Mission are "regular" customers.** Over 90 percent of all transit riders can be classified as "regular" customers as they use transit more than 2-3 times per week as shown in Exhibit 7 below. These users are likely familiar with the routes, schedules and fares given their frequency of use and probably take transit for fixed travel between home and work or school.

Exhibit 7 - Frequency of Transit Use



Source: Central Fraser Valley Transit System On-Board Passenger Survey, Nov 2003.

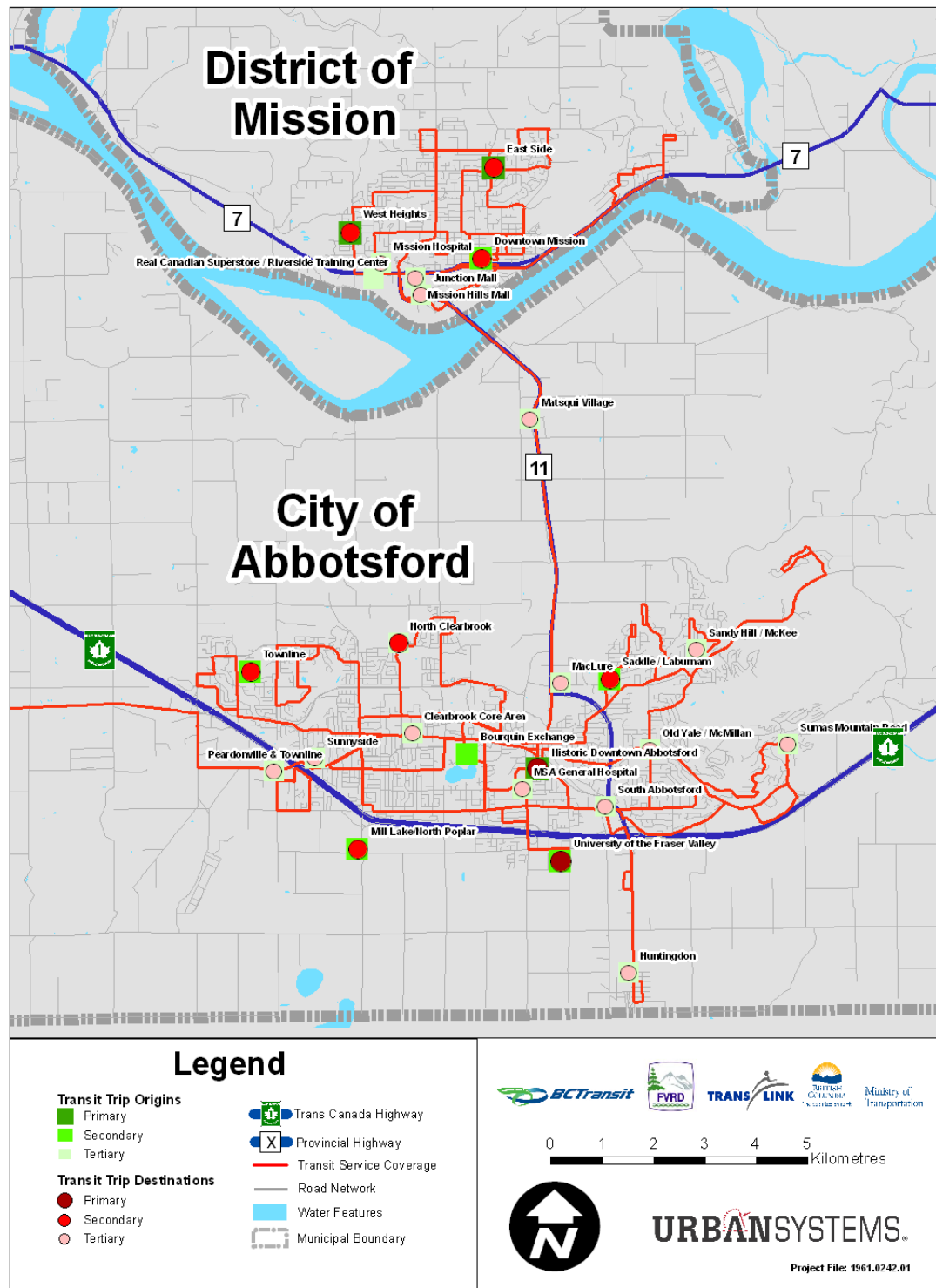


Conversely, very few riders (around 6%) are casual riders. It is possible that more people in the Fraser Valley would be willing to use transit if they were more familiar with the available routes and knew where to purchase fares and get schedule information.

- ***Most popular origins include West Heights and East Side in Mission.*** Out of all transit trips using ValleyMAX services in Abbotsford and Mission, the most popular places of origin are West Heights (14%) and East Side (11%) both in Mission. Other significant areas where trips originate include Downtown Mission (8%), Saddle/Laburnum (9%), Townline (7%), Mill Lake/North Poplar (9%) and North Clearbrook (7%) as shown in the map on Exhibit 8.
- ***Most popular destinations include downtown Abbotsford and UFV.*** Of all transit trips originating in Abbotsford and Mission, 17% travel to downtown Abbotsford and 15% to the University of the Fraser Valley. Other significant destinations include North Clearbrook (8%), Mill Lake/North Poplar (6%), Townline (8%), Saddle/Laburnum (7%), Downtown Mission (7%) and West Heights (7%) as shown in Exhibit 8 (source: Central Fraser Valley Transit System On-Board Passenger Survey, Nov 2003).



Exhibit 8 – Key Origins and Destinations of Transit Trips in Abbotsford and Mission



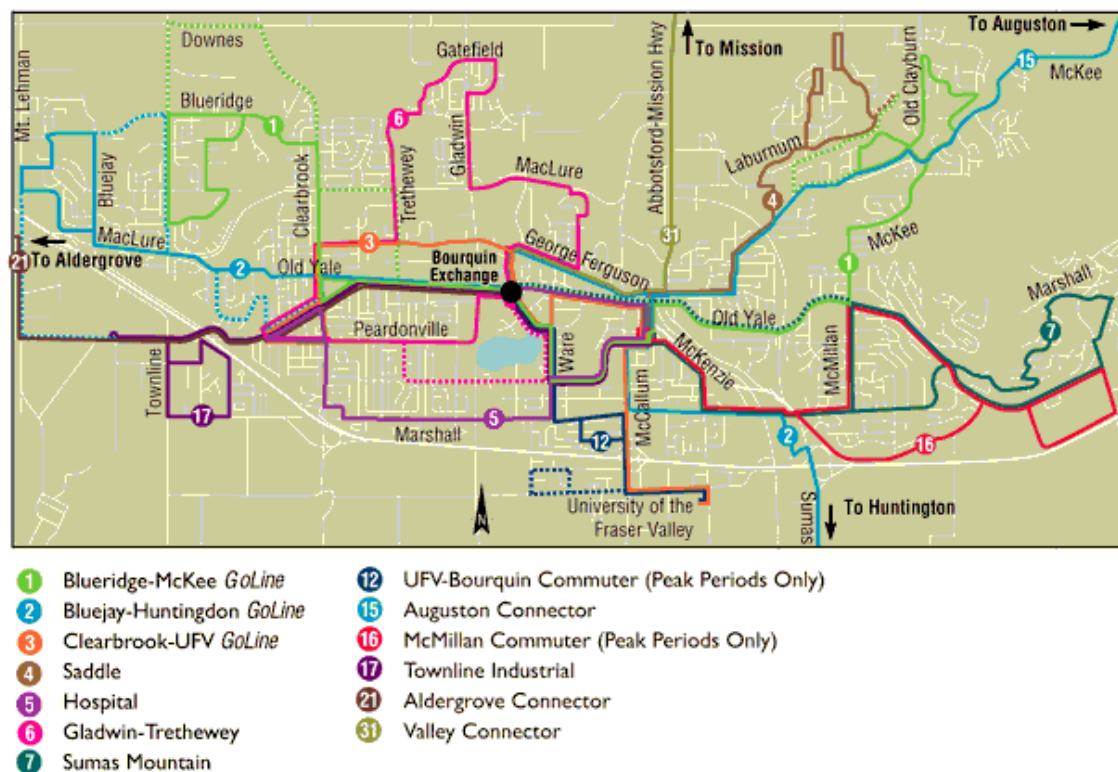


- **Most common response to making ValleyMAX better is more frequent service.** An onboard survey of ValleyMAX users showed that the most popular responses to making the Central Fraser Valley transit system better is more frequent service (21%), run buses on time/better transfer connections (15%) and more late service (14%).

2.1.2 Abbotsford Local Transit

This section examines patterns that are unique to ValleyMAX which operates 12 local transit services within the City of Abbotsford and the downtown area. These services cover mainly the downtown core area with circulator routes and the outlying neighbourhoods with connecting branch routes to the downtown area. Most of the routes are anchored to the downtown area with the Bourquin Exchange as shown in Exhibit 9.

Exhibit 9 – Local Bus Routes in Abbotsford

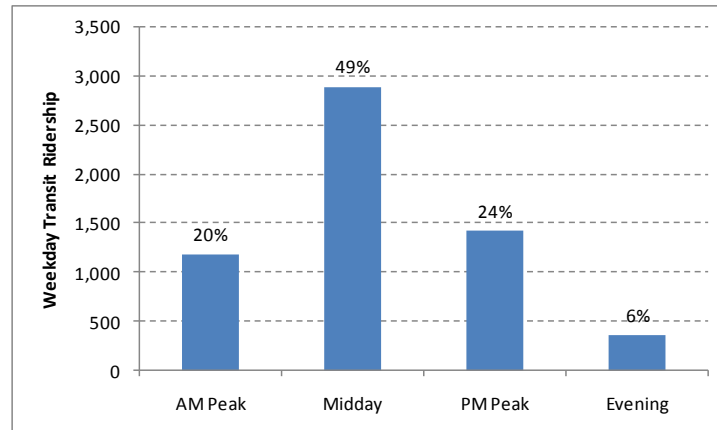


- **Majority of Abbotsford local transit trips made during the midday period.** Approximately 44% of weekday ridership occurs during the morning and afternoon peak



periods (6-9 am and 3-6 pm), with 49% during the midday (9 am–3 pm) and 6% during the evening (after 6 pm).

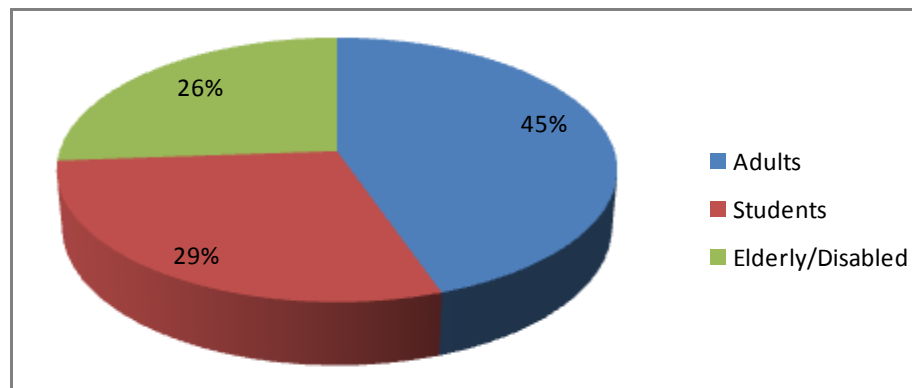
Exhibit 10 – Abbotsford Local Ridership by Time Period



Central Fraser Valley Two Week Count, BC Transit, Nov 2008

- **Adults make up the majority of local transit users in Abbotsford.** Approximately 45% of all ridership on local routes in Abbotsford are adults with 29% being students. Roughly 26% of ridership is seniors and people with disabilities on restricted incomes.

Exhibit 11 – User Profile of Abbotsford Local Services

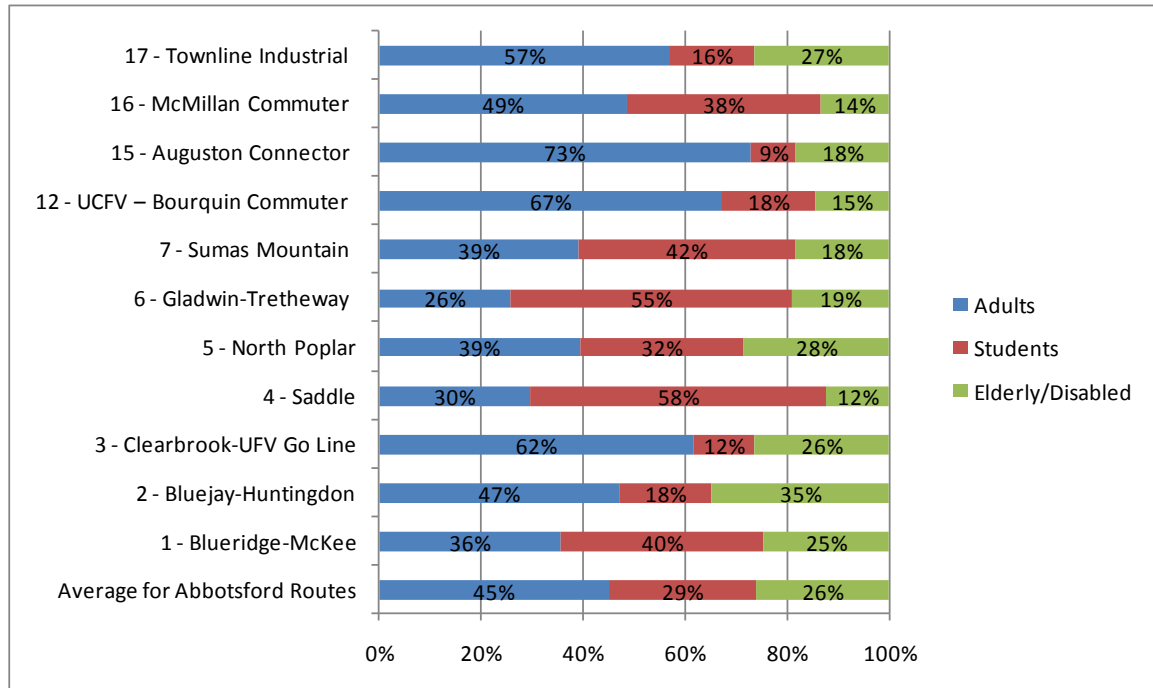


Central Fraser Valley Two Week Count, BC Transit, Nov 2008



- **Adult transit passengers account for above average activity on key routes.** Several routes in Abbotsford show above average proportions of adult passengers likely due to the types of land uses being served, such as employment nodes. The following chart shows the user profiles for local routes within Abbotsford.

Exhibit 12 – Customer Profile of Local Abbotsford Bus Routes



Source: Central Fraser Valley Two Week Count, BC Transit, Nov 2008

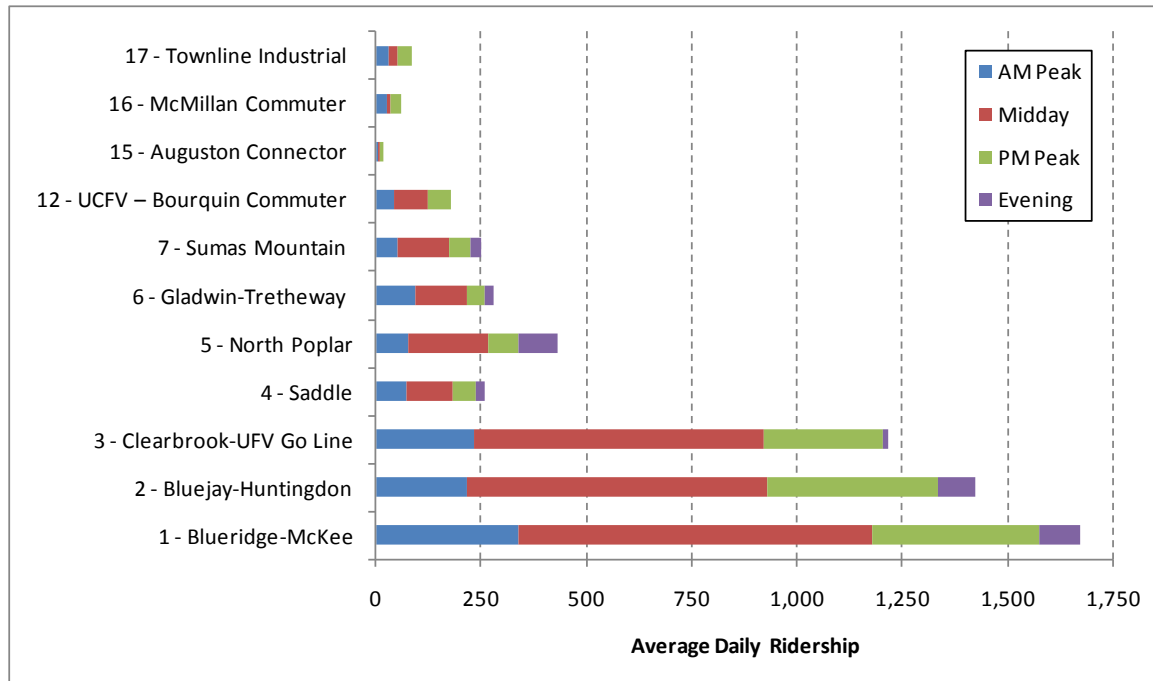
The #3 Clearbrook-UFV, #12 UFV-Bourquin Commuter and the #17 Townline Industrial all exhibit above average adult ridership. These routes generally provide service to areas of employment including industrial parks and the downtown core.

- **Several routes account for higher than average student ridership.** Exhibit 12 above shows several routes serving largely a student population. The #1 Blueridge-McKee, #4 Saddle, #6 Gladwin-Tretheway, #7 Sumas Mountain and #16 McMillan Commuter all exhibit above average student ridership. These routes generally provide service to outlying urban areas such as Townline Hill, Sandy Hill, Sumas Mountain and McMillan.
- **Three "GoLine" routes in Abbotsford account for 73% of total ridership in the community.** The most active routes for ValleyMAX services in Abbotsford are the three GoLine routes #1 Blueridge – McKee GoLine, #2 Bluejay-Huntingdon GoLine, and #3



Clearbrook-UFV GoLine. The figure on the following page shows the average daily ridership for each of the local bus routes in Abbotsford by time period.

Exhibit 13 – Ridership on Abbotsford Local Bus Routes by Time Period



Source: Central Fraser Valley Two Week Count, BC Transit, Nov 2008

Each of these top three routes provide services to the central core area of Abbotsford including South Fraser Way, UFV, Civic Precinct, Bourquin Exchange and key neighbourhoods including Clearbrook, Sandy Hill, Blueridge and McKee. The success of the GoLines and the design of these routes with no transfers between major destinations shows that the market is responsive to these types of services with direct routing. The remaining eight routes carry only 27% of total ridership on Abbotsford's local routes.

2.1.3 Mission Local Transit

ValleyMAX operates six local transit services within the District of Mission and the downtown area. These services cover mainly the downtown core area to the south with neighbourhood connections to the north. One route provides a connection to the outlying area of Hatzic. Most of the routes are anchored to the downtown area including the West Coast Express station as shown in the following map.



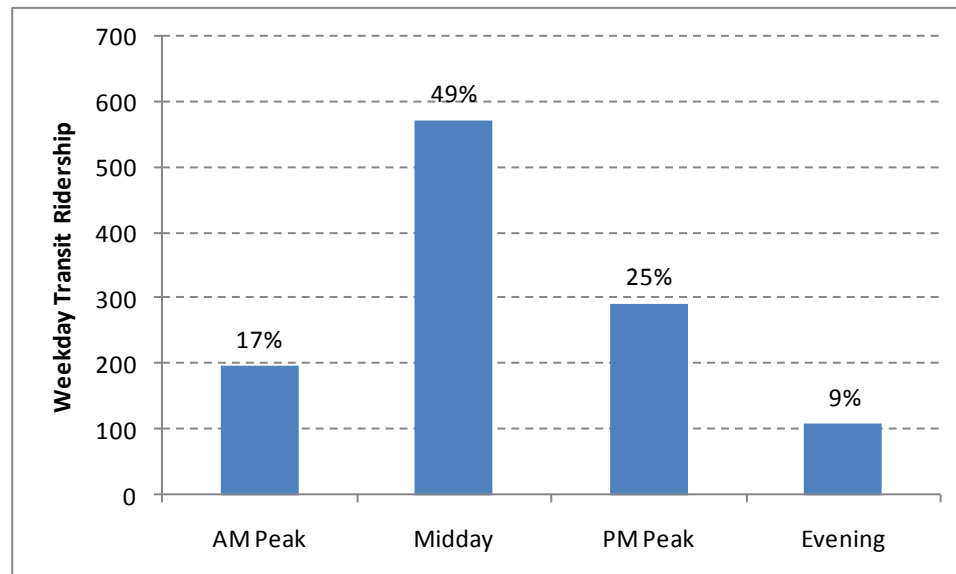
Exhibit 14 – Local Bus Routes in Mission



- Majority of Mission local transit trips are made during the midday period.** Similar to the local Abbotsford services, 49% of daily ridership is made during the midday while 42% is made during the morning and afternoon peak periods and 9% is made in the evening. The following graph shows the distribution of local trips in Mission for the various time periods.



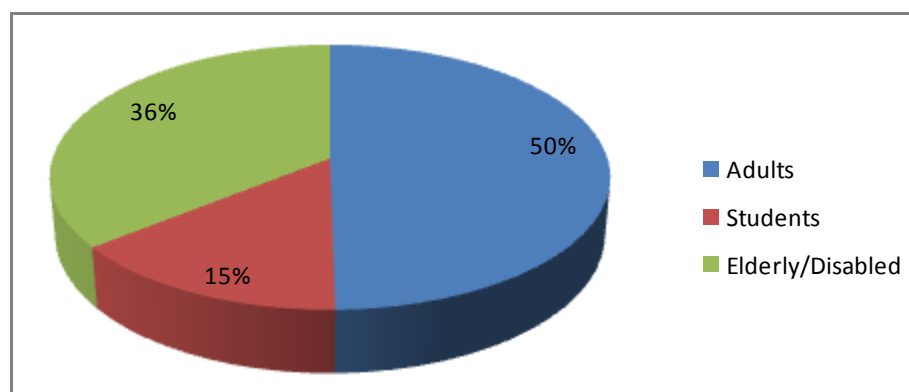
Exhibit 15 – Mission Local Ridership by Time Period



Source: Central Fraser Valley Two Week Count, BC Transit, Nov 2008

- **Adults make up the majority of local transit customers in Mission.** Approximately 50% of all ridership on local routes in Mission are adults with only 15% being students. Significantly more elders and disabled people on restricted incomes (36%) use local transit service in Mission as compared to Abbotsford. Exhibit 16 provides the user profile for passengers using local services in Mission.

Exhibit 16 – User Profile of Mission Local Services

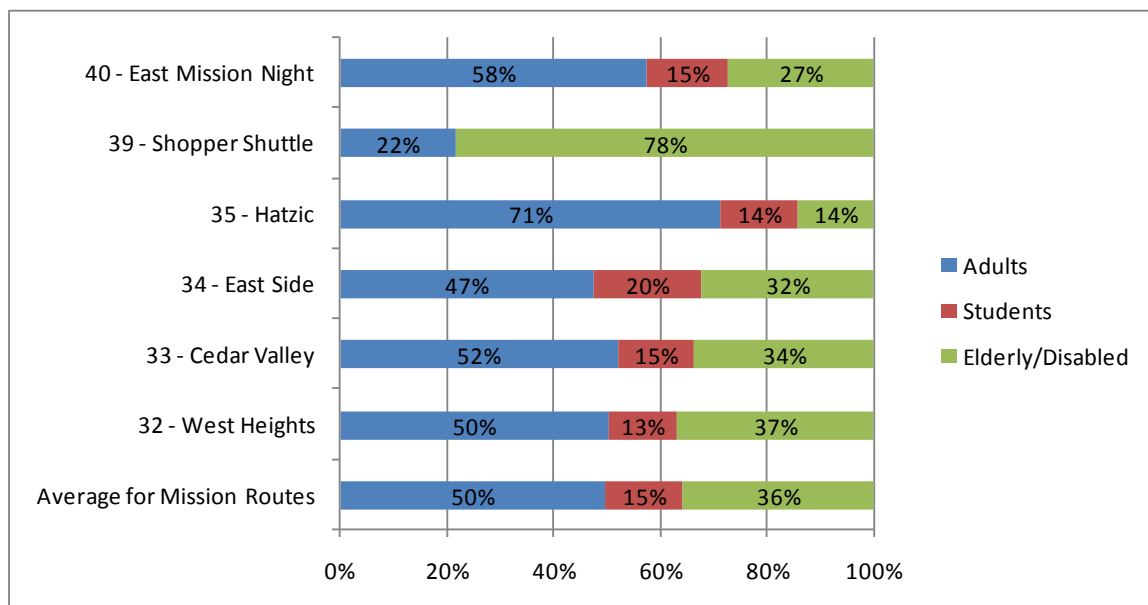


Source: Central Fraser Valley Two Week Count, BC Transit, Nov 2008



- **Unique characteristics of customers on key routes in Mission.** A number of key routes in Mission display unique user profiles. The following chart shows the proportion of adults, students and elderly/disabled users on all local bus routes in Mission.

Exhibit 17 – User Profile of Local Mission Bus Routes



Source: Central Fraser Valley Two Week Count, BC Transit, Nov 2008

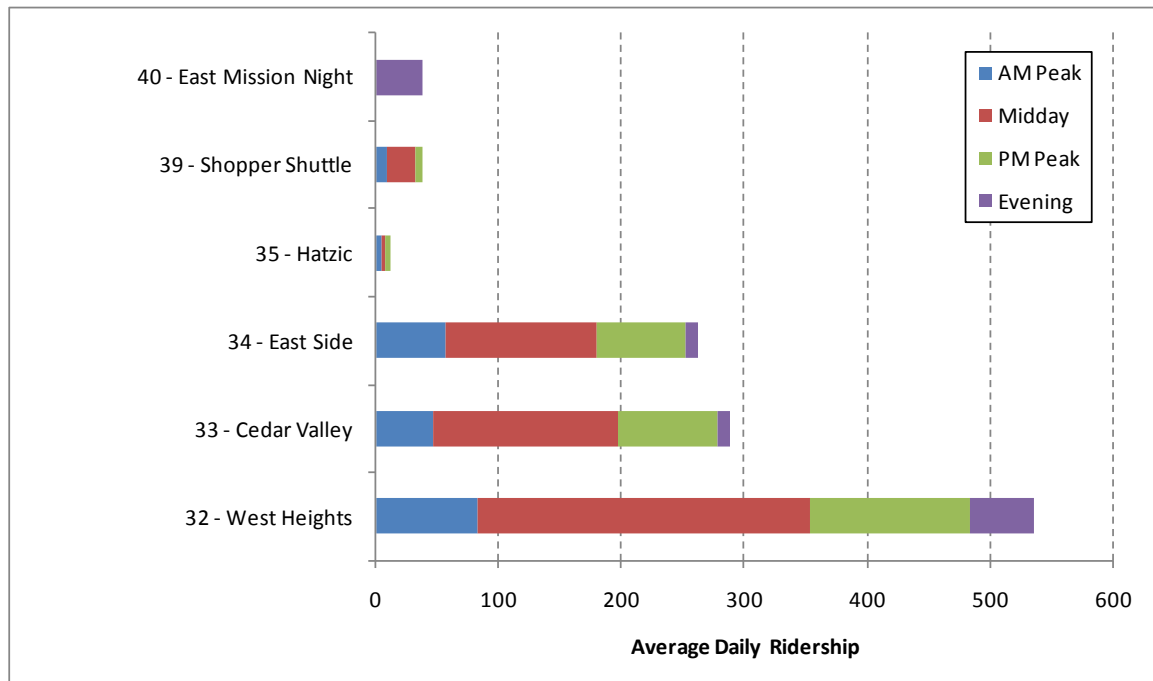
Route #39 Shopper Shuttle shows a particularly high proportion of elderly and disabled users with peak demand during the midday. The #35 Hatzic shows a high proportion of adult users with the #34 East Side, #33 Cedar Valley and #32 West Heights all showing a high proportion of elderly and disabled users.

- **Three local routes in Mission account for 93% of total ridership in the community.** The most active routes for ValleyMAX services in Mission include #32 West Heights, #33 Cedar Valley and #34 East Side. The graph on the following page shows the average daily ridership for each of the local bus routes in Mission.

These three routes cover the majority of the urbanized areas within the District of Mission. Consequently, the majority of boardings occur on these routes. Note that adult and elderly or disabled riders constitute the majority of ridership on these routes, although many of these routes are specifically targeted to access local schools. It is important to note that two of the three least used routes only have limited service.



Exhibit 18 – Ridership on Mission Local Bus Routes by Time Period



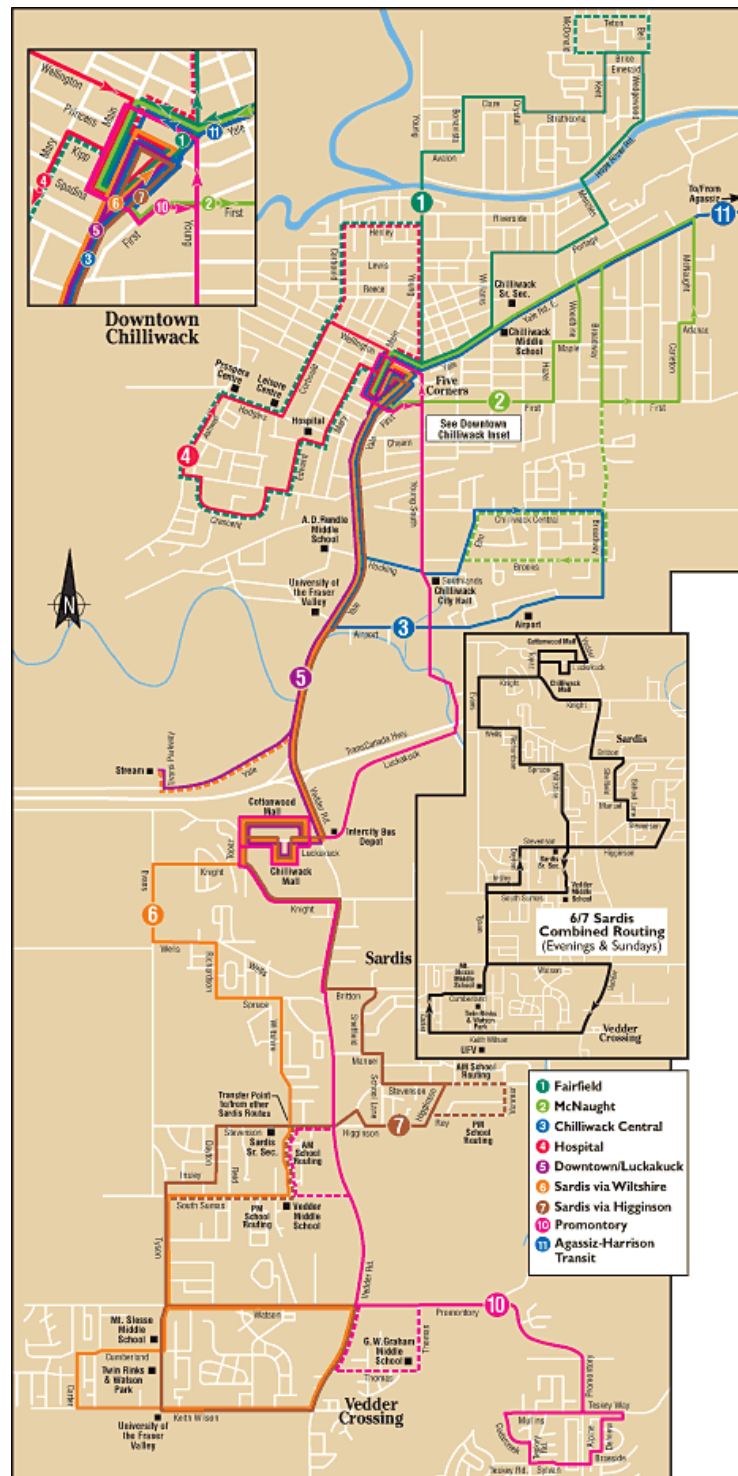
Source: Central Fraser Valley Two Week Count, BC Transit, Nov 2008

2.1.4 Chilliwack Local Transit

The Chilliwack/Agassiz-Harrison Transit System operates nine conventional bus services locally in Chilliwack. These services cover mainly the downtown core area, the Cottonwood Mall and neighbourhood connections throughout. These routes largely provide north/south services across the TransCanada Highway following the general layout of the urbanized area of Chilliwack. The following map provides the extent of service coverage for local routes in Chilliwack.



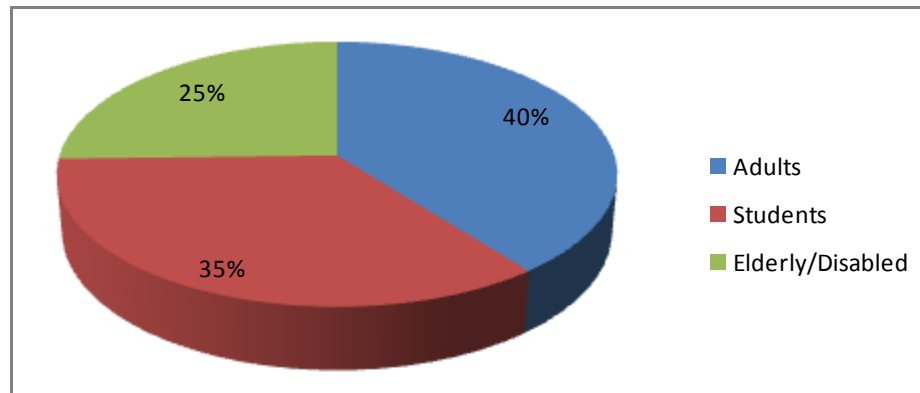
Exhibit 19 – Local Bus Routes in Chilliwack





- **Adults and students make up the majority of local transit users in Chilliwack.** Approximately 40% of all ridership on local routes in Chilliwack are adults with 35% consisting of students. The proportion of student travel is significantly higher than in Abbotsford and Mission local services. Elders and disabled people on restricted incomes make up 25% of the ridership. The following chart illustrates the user profile for passengers using local services in Chilliwack.

Exhibit 20 – User Profile of Chilliwack Local Services

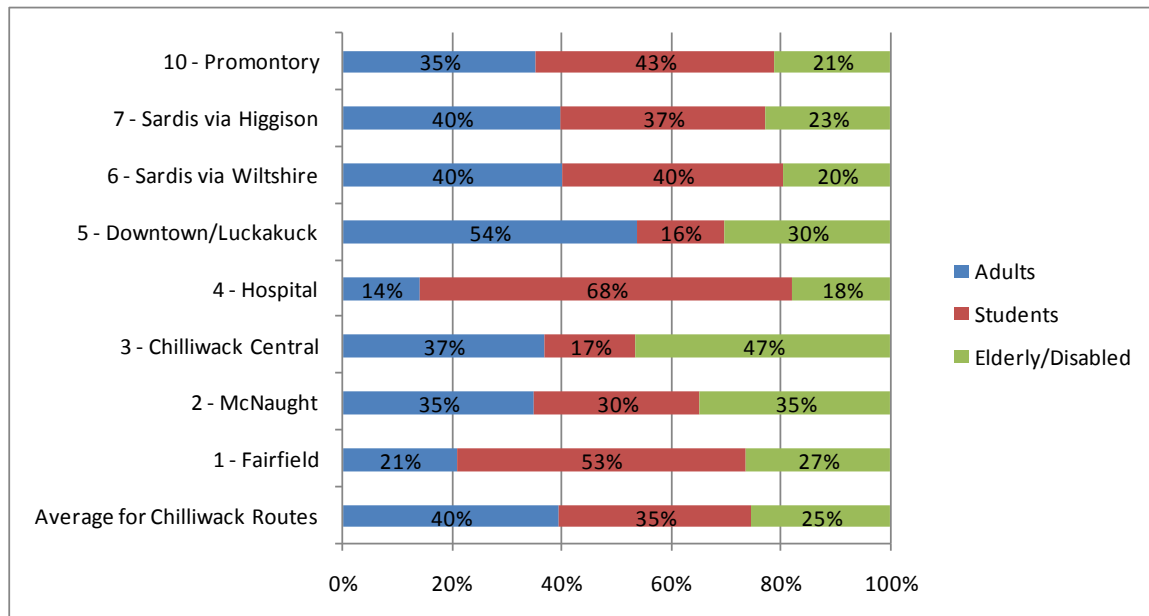


Source: Chilliwack Two Week Count, BC Transit, Oct 2007.

- **Unique user characteristics on key routes in Chilliwack.** A number of key routes in Chilliwack display unique user profiles. Route #1 Fairfield and #4 Hospital both contain a higher than average proportion of student ridership. This likely reflects the fact that both routes provide special school routings to capture the student market at specific times of day. Route #2 McNaught and #3 Chilliwack Central both show high proportions of seniors and disabled passengers. Ridership on both of these routes is particularly high during the midday suggesting that seniors use these routes for shopping and social/recreational purposes. The following chart illustrates the proportion of adults, students and elderly/disabled users on all local bus routes in Chilliwack.



Exhibit 21 – User Profile of Local Chilliwack Bus Routes

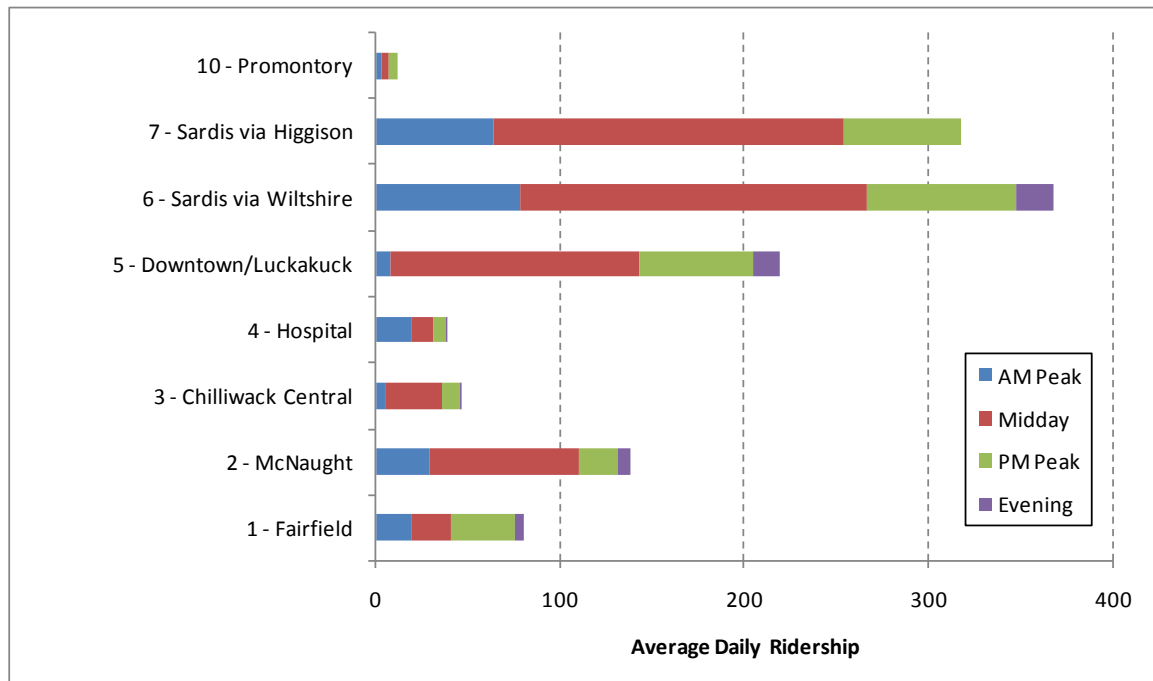


Source: Chilliwack Two Week Count, BC Transit, Oct 2007.

- **Three local routes in Chilliwack account for 73% of total ridership in the community.** The most productive routes for local transit services in Chilliwack include route #5 Downtown/Luckakuck, #6 Sardis via Wiltshire and #7 Sardis via Higgison. All three of these routes share a common section of roadway along Yale Rd connection the downtown with Chilliwack Mall and the University of the Fraser Valley. Yale Rd is the main north/south corridor through Chilliwack that connects key destinations. The following chart shows the average daily ridership for each of the local bus routes in Chilliwack.



Exhibit 22 – Ridership on Chilliwack Local Bus Routes



Source: Chilliwack Two Week Count, BC Transit, Oct 2007.

2.2 Regional Transit

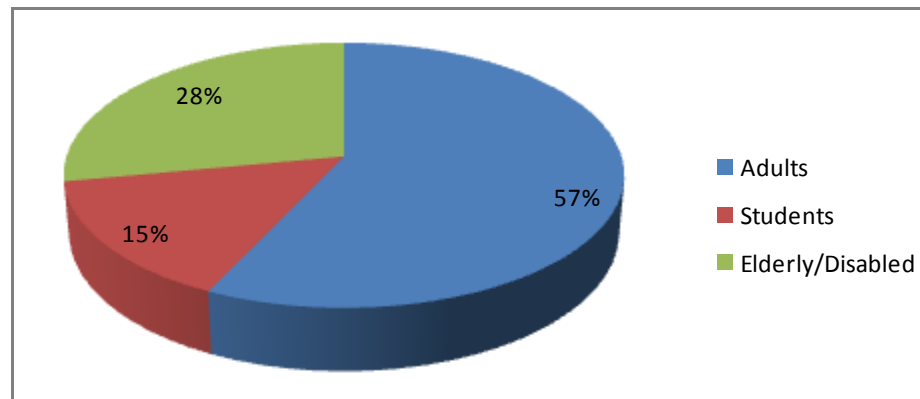
Regional transit services provide connections between the communities of the Fraser Valley. The following sub-sections describe the services that provide regional connections.

2.2.1 ValleyMAX

Regional ValleyMAX service consists of one route, the #31 – Valley Connector, running between downtown Mission to downtown Abbotsford along Highway 11. This route boasts the fourth highest daily ridership of all ValleyMAX and Chilliwack/Agassiz-Harrison bus routes with over 800 trips. This route operates 15-minute peak service with approximately 40 trips per day. The majority of riders on this route are adults likely using it as a commuter route for work trips. The following chart provides the breakdown of customer groups currently using the Valley Connector.



Exhibit 23 – User Profile of Valley Connector Users



Source: Central Fraser Valley Two Week Count, BC Transit, Nov 2008.

2.2.2 Chilliwack/Agassiz-Harrison Transit

Regional Chilliwack/Agassiz-Harrison Transit service consists of one route, the #11 – Agassiz-Harrison Transit, which provides regional service between Harrison Hot Springs, Agassiz, Popkum, Bridal Falls, Rosedale, and downtown Chilliwack with five two-way trips per day. Average daily ridership on this route is over 100 passengers with riders travelling for school (37%) and work (22%) purposes.

The primary destination for 56% of all riders is Chilliwack according to an onboard survey. At least one-third of all riders are regular weekday riders, with over 90 percent of all riders using the service 2-3 days a week.

2.3 Inter-regional Transit

Several inter-regional transit services connect the Fraser Valley with Metro Vancouver and beyond. The following sections describe the various inter-regional services provided to Fraser Valley residents.

2.3.1 West Coast Express and TrainBus

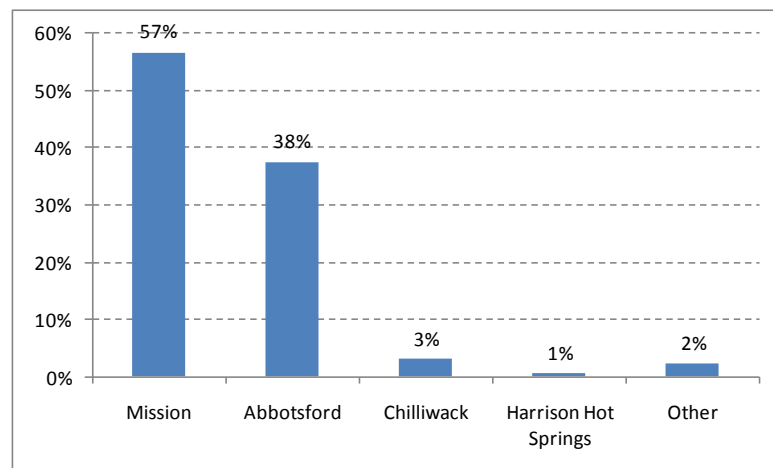
TransLink operates the West Coast Express (WCE) commuter rail service during peak periods between Mission and downtown Vancouver. This is mainly a commuter service for people working full time in downtown Vancouver. The West Coast Express has five departures from Mission from 5:27am to 7:27am and five arrivals from Vancouver between 3:50pm and 6:20pm. A recent survey conducted at the Mission West Coast Express Station as part of this study



identified many of the characteristics of passengers boarding at this location. The following discussion highlights those patterns.

- **West Coast Express serves residents mainly from Mission and Abbotsford.** Most WCE riders travel from either Mission or Abbotsford to take the train as shown in the following chart. Approximately 600 passengers board West Coast Express at the Mission Station out of a total of approximately 5,500 boardings along the entire line.

Exhibit 24 – Home Municipality of WCE Users Boarding at Mission Station

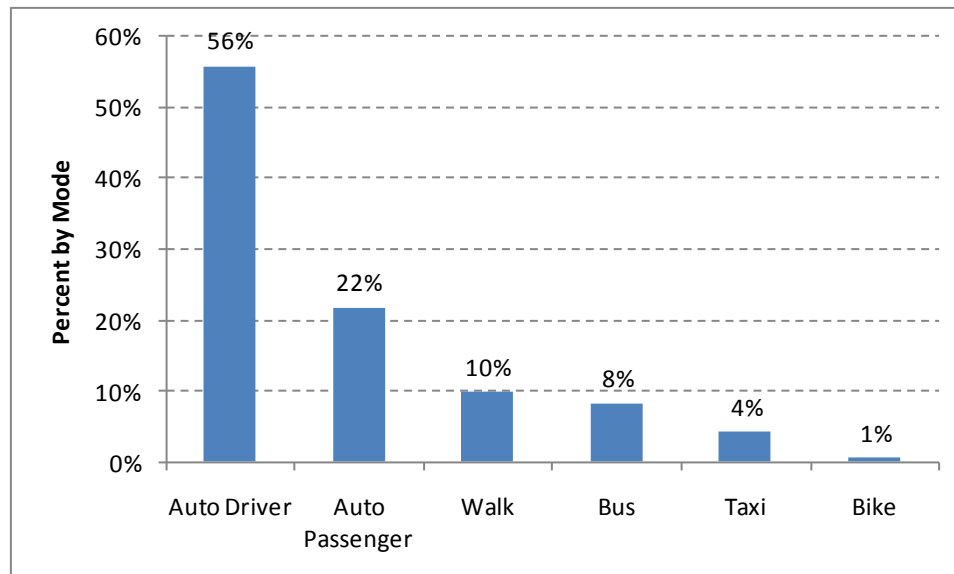


Source: 2009 West Coast Express Postcard Survey

- **Most West Coast Express customers travelling for work to downtown Vancouver.** The 2009 WCE Postcard Survey revealed that almost 90 percent of all riders boarding at the Mission Station used the service for work trips. The number one destination for over 80% of all WCE riders boarding at Mission is downtown Vancouver.
- **Most people boarding WCE at Mission Station are driving.** Most WCE riders use a vehicle (either as a passenger or driver) to access the WCE station in Mission. Only 8% of riders use transit to access the station as shown in the following chart.



Exhibit 25 – Mode of Travel Used to Access Mission WCE Station



Source: 2009 West Coast Express Postcard Survey

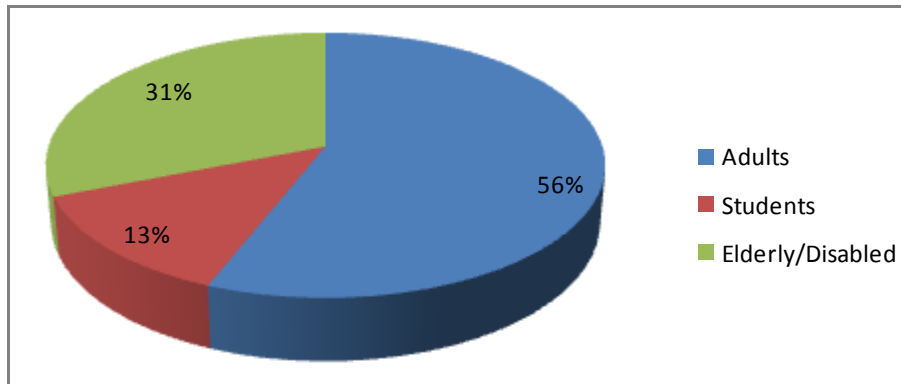
2.3.2 ValleyMAX

ValleyMAX transit offers a relatively new inter-regional service on one route, the #21 - Aldergrove Connector, which runs from downtown Abbotsford to Aldergrove along the Fraser Highway. This service connects with TransLink bus route #502 – Langley Centre/Aldergrove which provides service between Aldergrove and Langley Centre and Surrey Centre via the Fraser Highway as well.

Average daily ridership on this route is around 140 passengers with seven two-way trips per day. Most passengers on this route are adults (56%) likely using the route for commuting purposes. A significant proportion of elderly and disabled passengers (31%) also use this route as shown in the following chart.



Exhibit 26 – Profile of Aldergrove Connector Users



Source: Central Fraser Valley Two Week Count, BC Transit, Nov 2008.



3.0 WHAT'S POSSIBLE...ATTRACTING EXISTING TRAVEL MARKETS

Given the amount of travel and the opportunities that exist in the Fraser Valley, there is potential to attract more people to use transit services today. This section explores the entire travel market (all modes) in the Fraser Valley and the potential to attract new customers to the transit system if services and facilities were enhanced.

- ***Current transit service levels in the Fraser Valley are low compared to the more urbanized areas of Metro Vancouver when measured on a per capita basis.*** Overall, communities in the Fraser Valley receive under 0.5 annual service hours per capita while it is over two annual service hours per capita in the urban core of Metro Vancouver. Historically, the Fraser Valley has been playing catch up with population and employment growth with the provision of service hours. To meet the goal of increasing transportation choices and attracting more people to use transit, the provision of services should be accelerated relative to population growth.
- ***Nearly half of all trips in the Fraser Valley are made from Abbotsford.*** According to the 2004 Trip Diary survey, residents in the Fraser Valley made approximately 715,800 trips per day. Abbotsford accounted for almost half of the daily trips as shown in Table 2 below. As mentioned before, only 1% of total trips are made by transit with opportunity to grow. Transit cannot compete with auto for all trips, but it can compete for select trips. Furthermore, transit trips should, wherever possible, compete with auto driver trips as walking, cycling and carpooling all support the goals and objectives of the Fraser Valley and the communities within.

Table 2 – Daily Trips by Fraser Valley Communities

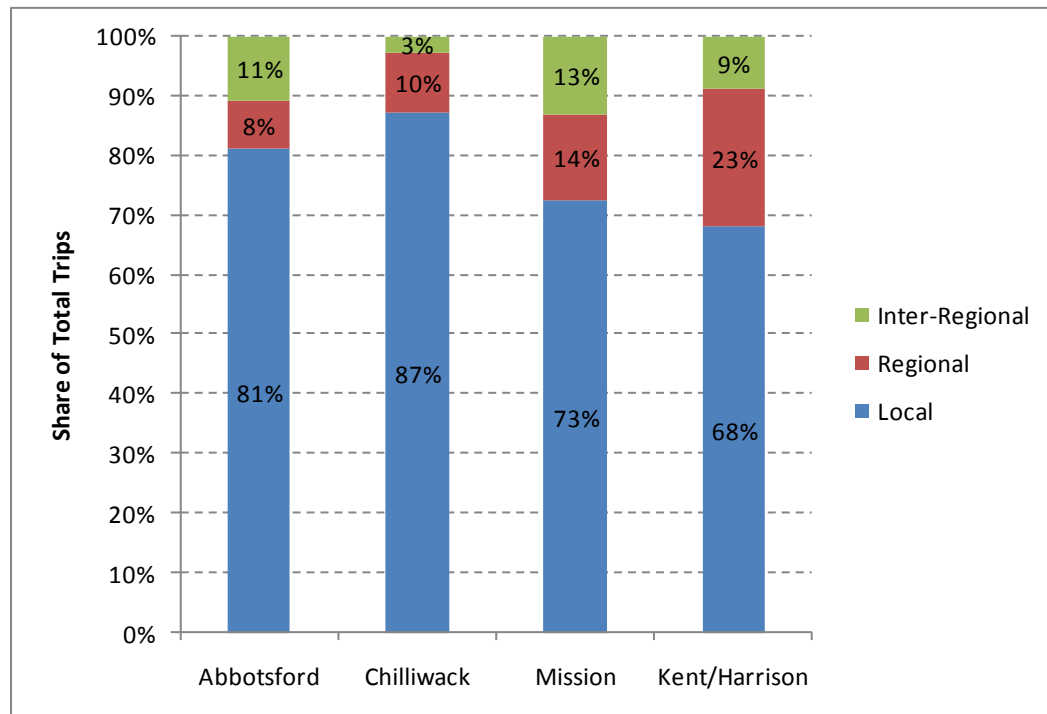
Community	Trips	Percent
Abbotsford	347,200	49%
Chilliwack	255,300	36%
Mission	107,300	15%
Kent/Harrison	6,000	1%
Total	715,800	100%

Source: 2004 Fraser Valley Trip Diary Survey

- ***Local trips make up the majority of daily travel in the Fraser Valley.*** The following chart illustrates the percentage of local, regional and inter-regional travel for trips from Abbotsford, Chilliwack, Mission and Kent.



Exhibit 27 – Share of All Daily Trip Types for Communities in the Fraser Valley



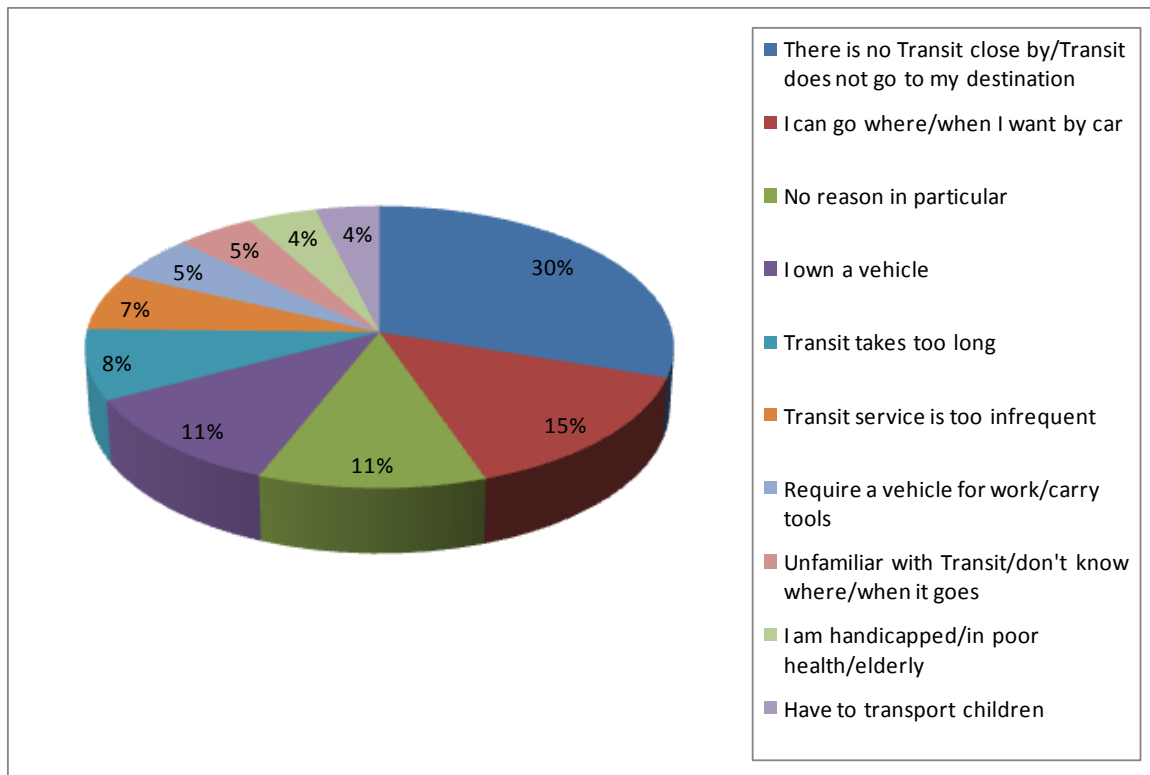
Source: 2004 Fraser Valley Trip Diary Survey

Overall, approximately 82% of all trips in the Fraser Valley begin and end in the same municipality suggesting that trip lengths are relatively short. The dominance of local travel shows that these communities are not “bedroom” communities as anecdotal evidence might suggest. Instead, the data shows that there are plenty of opportunities for residents of Fraser Valley communities to work, shop and play within their own complete communities.

- ***“Not enough transit service” is number one reason why people do not use transit today.*** It is useful to assess reasons why people do not use transit services today based on market research. The following chart provides factors for why Fraser Valley residents do not use transit services today.



Exhibit 28 – Top Ten Reasons Why Fraser Valley Residents Do Not Use Transit Today



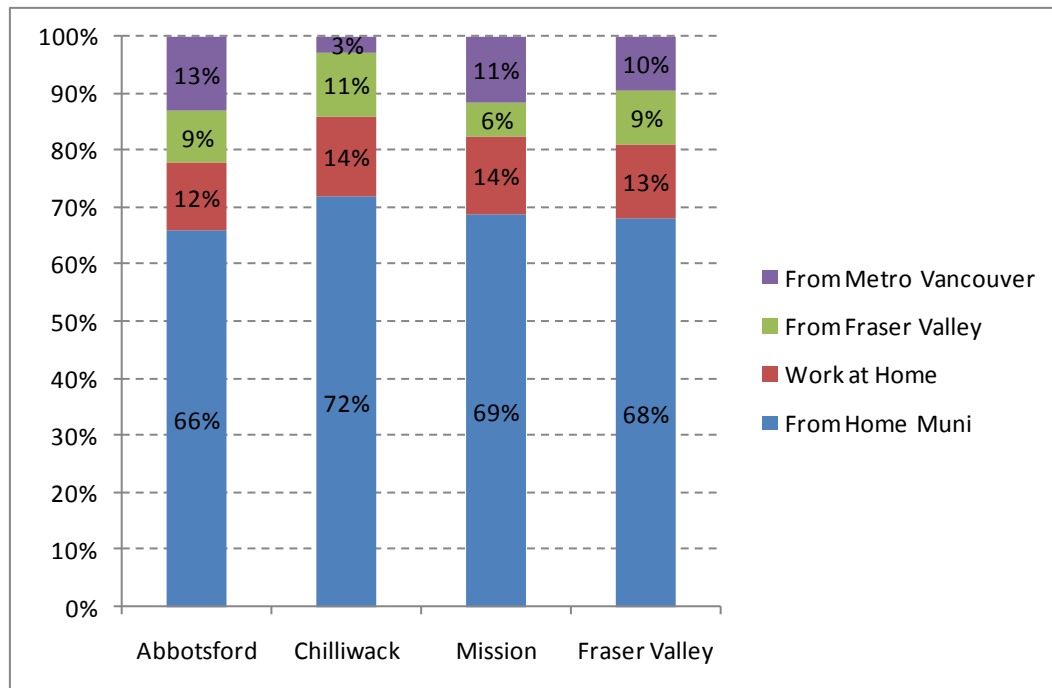
Source: 2009 Fraser Valley Market Research

Many of these factors speak to the challenges of providing competitive transit services in the Fraser Valley. Factors such as high auto ownership, long trip distances, low density and low service levels need to be considered in order to provide effective transit services and attract new customers. The top two reasons come down to no transit services and the convenience of using the private automobile.

- Many people travel to the Fraser Valley from Metro Vancouver for work purposes.**
 So far, much of the discussion has focused on travel from the Fraser Valley to other parts of the region and Metro Vancouver. Although many perceive the Fraser Valley as a “bedroom” community where people leave for work and other purposes, Abbotsford, Chilliwack and Mission are among the most complete in the Lower Mainland with the majority of work trips staying within their community. In fact, there are a number of trips from Metro Vancouver that travel to the Fraser Valley for work purposes. The following exhibit provides a summary of work trips travelling to jobs in the Fraser Valley communities.



Exhibit 29 – Percent of Commuting Patterns for Jobs in the Fraser Valley



Source: 2006 Census Journey to Work, Place of Residence/Place of Work.

There are many employment opportunities within the Fraser Valley that people from Metro Vancouver exploit. Although not large relative to the amount of local commuting for jobs, the amount of reverse commuting from Metro Vancouver is not an insignificant travel market for employment opportunities in Abbotsford and Mission. Of the work based trips generated by Fraser Valley communities 1.6% are on transit.

These and other local, regional and inter-regional travel characteristics are explored further within this section of the Paper.

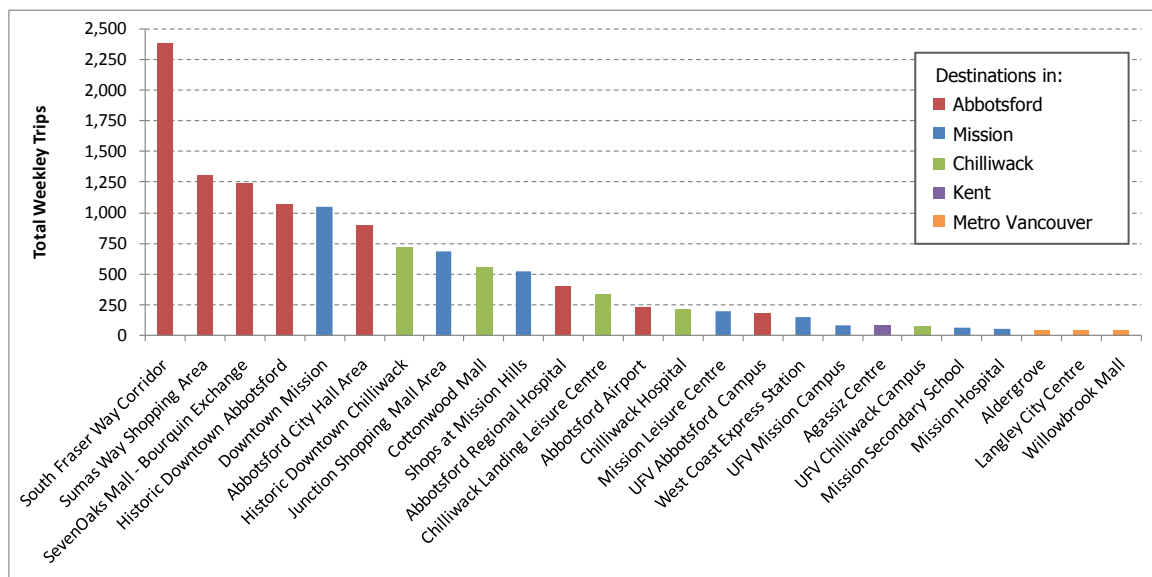
3.1 Local Travel

- **Key destinations of all trip making are concentrated in the town centre areas of each community.** Local market research was conducted to better understand the key destinations of Fraser Valley residents travelling throughout the region. Based on destinations listed in the 2009 Fraser Valley Market Research, respondents revealed a preference for destinations in central Abbotsford as shown in the following chart. Central areas of Mission had the second highest number of destinations and Chilliwack had the third highest.



As shown below, a large proportion of trips are to the South Fraser Way corridor in central Abbotsford. In fact, the top four destinations are all within the central Abbotsford area with its mix of working and shopping opportunities. In terms of capturing more transit travel, the top destinations in the Fraser Valley show the highest opportunity given the large number of trips and central locations.

Exhibit 30 – Top Weekly Destinations for Fraser Valley Residents



Source: 2009 Fraser Valley Market Research

The following two maps illustrate the key activity nodes in Abbotsford, Mission and Chilliwack as well as transit service coverage.



Exhibit 31 – Key Activity Nodes in Abbotsford and Mission

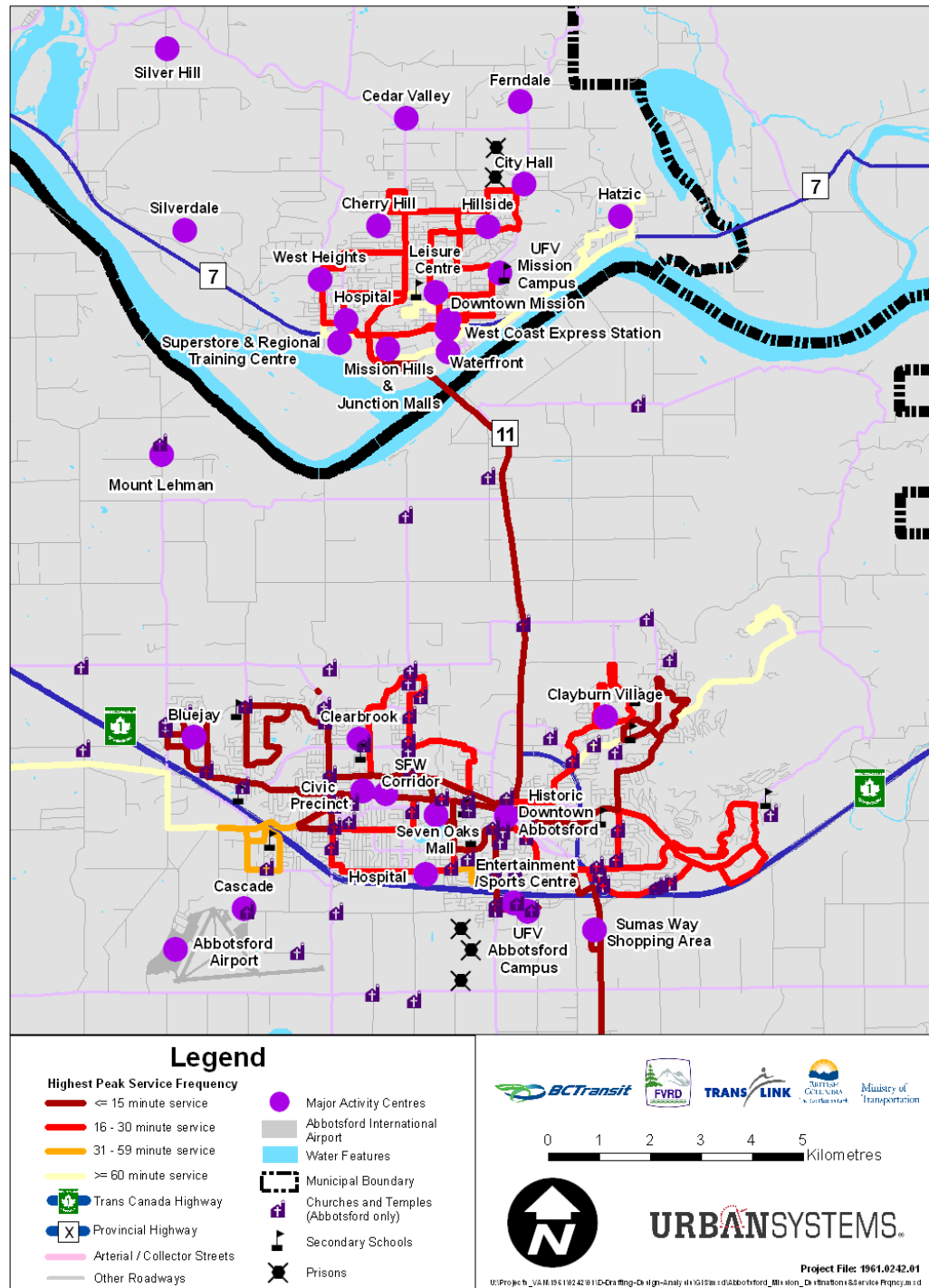
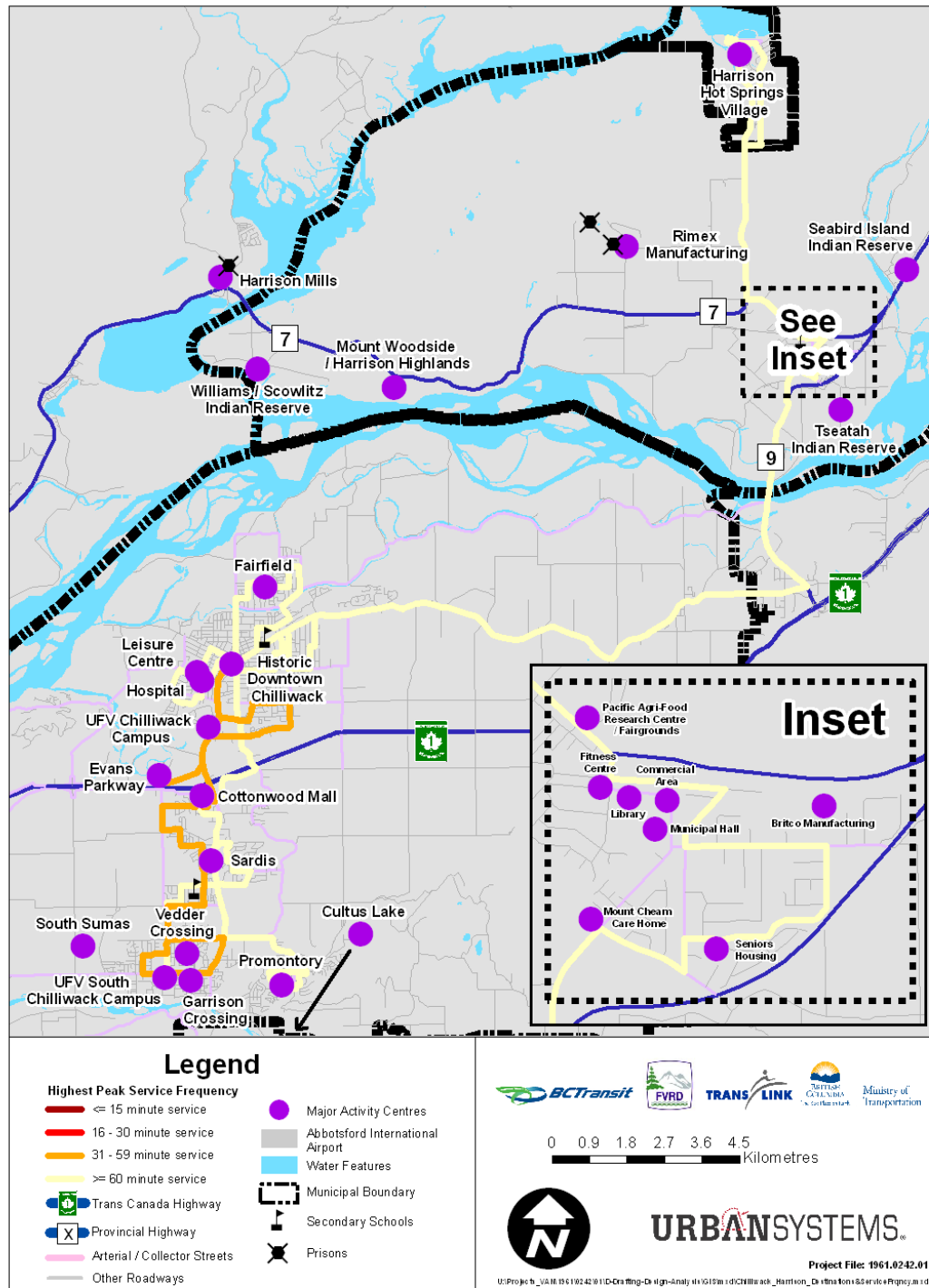




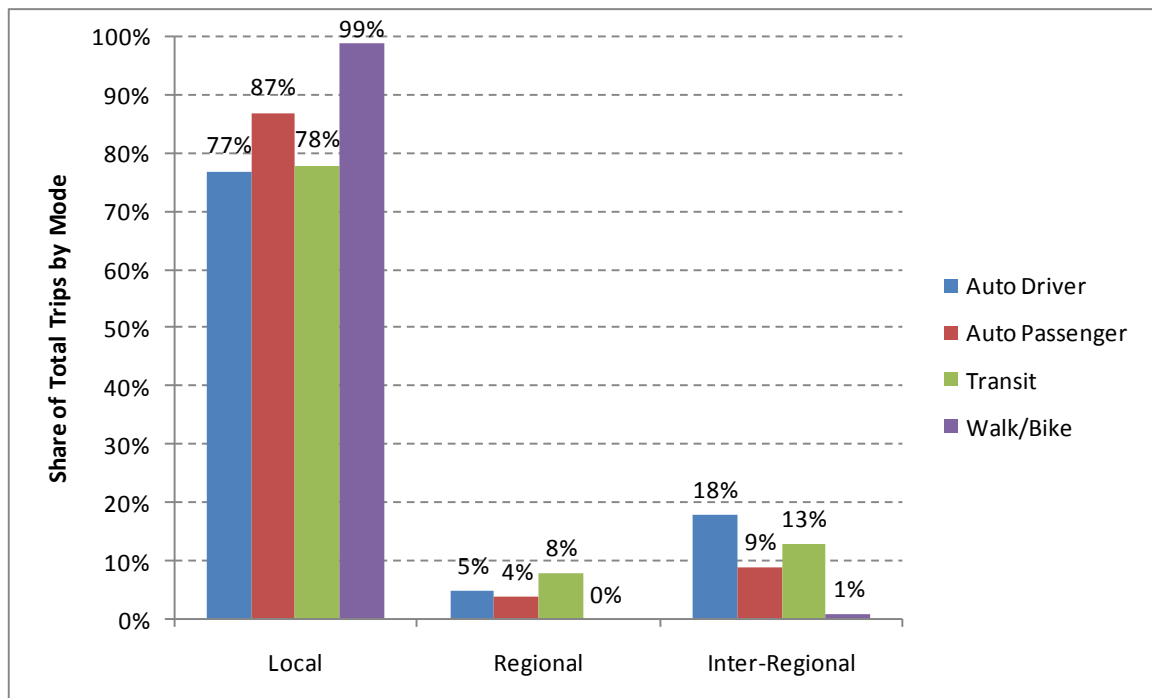
Exhibit 32 – Key Activity Nodes in Chilliwack and Kent/Harrison





- **Most inter-regional long-distance trips are made by auto.** The following chart shows the breakdown of trips by mode as well as the proportion of local, regional and inter-regional travel. As mentioned previously, most travel by residents of the Fraser Valley is local with a small proportion of regional and inter-regional travel. The only significant long-distance inter-regional travel is currently made by auto. The small amount of inter-regional travel by transit is most likely users of the West Coast Express commuter rail service.

Exhibit 33 – Current Fraser Valley Trip Types by Mode of Travel



Source: 2004 Fraser Valley Trip Diary Survey and BC Transit Two Week Counts

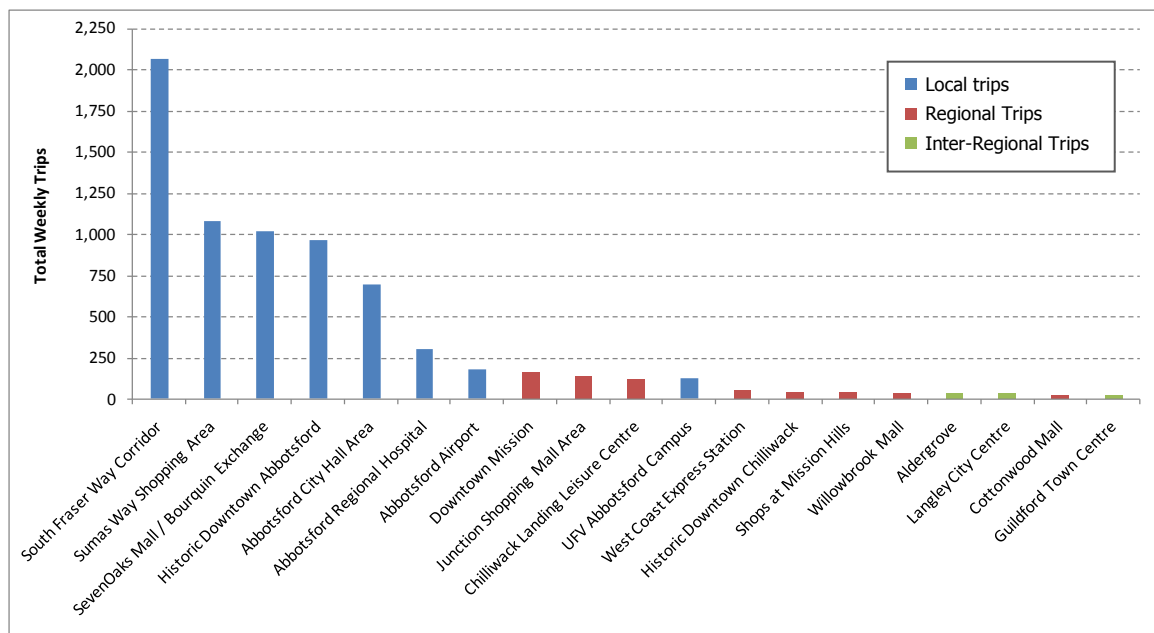
The following sub-sections describe the local travel and destinations within the communities of the Fraser Valley along with a description of key activity nodes within each community.



3.1.1 Abbotsford

- **The majority of trips beginning in Abbotsford stay in Abbotsford.** For Abbotsford residents, their major destination is the South Fraser Way Corridor as shown in the chart below along with other major destinations coloured according to local, regional and inter-regional trips.

Exhibit 34 – Daily Local Travel to Major Destinations by Abbotsford Residents



Source: 2009 Fraser Valley Market Research

Not surprisingly, the majority of travel is to the central core with its mix of shopping and employment opportunities. Transit travel to these destinations averages 2.5% out of total trips with opportunity for growth. The South Fraser Way Corridor, being the largest destination, has the highest opportunity for capturing the transit market and could see transit mode shares of 5-10% in the future. These opportunities exist also for the top five destinations in Abbotsford with significant potential transit travel by Abbotsford residents. The chart above also shows a small portion of travel activity to Mission and Chilliwack but fairly low in terms of regional travel and potential transit use.

The following sub-sections describe these and other key nodes in Abbotsford and some of the characteristics of travel to these nodes.



The City of Abbotsford – General

The City of Abbotsford has three main areas that generate a significant number of trips within the community. The first area to be noted is the South Fraser Way / Downtown Corridor. This stretch of road accommodates venues such as the Courthouse, City Hall, Westoaks Mall, Sevenoaks Shopping Centre, and several large grocery stores. This area is serviced by transit routes #1, #2, #17 and #21 and incorporates the Clearbrook transit Exchange. The second area of note is the Sumas Way corridor. This area supports several large retailers and grocery stores, and is serviced by the #2 transit route. The third area is the McCallum Road corridor; this is a highly trafficked street surrounded by high density residential, commercial and employment areas. It also serves as a main route to the University of the Fraser Valley (UFV) campus and Entertainment and Sports Centre. It is serviced in parts by transit routes #2, #3, #12 and incorporates the Downtown Transit Exchange (accessed by almost all Abbotsford transit routes). Other key locations that generate a sizable amount of trips within the City of Abbotsford are discussed in further detail below.

Abbotsford Airport – YXX

The Abbotsford Airport is located in the south west corner of Abbotsford's urban area accessible via the Trans Canada Highway and Fraser Highway. The services on the grounds employ roughly 1,500 people, and facilitate an average of 2,200 passengers and greeters each day. A total of 14 commercial West Jet flights (seven in and seven out) fly through the terminal each day, spaced at two hour intervals beginning at approximately 6:30am. The bulk of commuter and public traffic occurs in the morning peak period; the majority drive rather than utilizing public transit. Current transit to the airport is not well developed and is comprised of a single airport shuttle that provides service in a 60 km radius. The shuttle has been in operation for under a year, but attracts a minimum of 15 users a day. Most employees commute from the Abbotsford area and a smaller, but notable, amount from the City of Chilliwack.

University of the Fraser Valley – Abbotsford Campus

The UFV Abbotsford campus is located in the central south area of the City of Abbotsford, south of the Trans Canada Highway and west of Highway 11. It provides educational resources and courses to many residents in the surrounding area. During the fall term, roughly 4,650 students attend the school (approximately 2,350 from Abbotsford & Clearbrook, 200 from Aldergrove, 930 from Chilliwack/Sardis/Yarrow/Vedder Crossing/etc., 570 from Mission & Matsqui and 60 from District of Kent & surrounding area). Summer terms generate roughly a quarter of the number of students, and fall terms about 7/8^{ths}. The Abbotsford campus employs around 950 staff, of which 135 commute from Chilliwack – the rest are mostly local. Common start times for classes occur every 90 minutes beginning at 8:30am and running until 10:00pm (last class block ends).



The current public transit routes that provide access to the campus are the #3, #5 (evenings only) and #12. A survey conducted amongst UFV students revealed the following relevant stats: over 70% of students arrive at school by vehicle, less than 20% arrive at school by public transit, however over 50% of the students identified transit as a viable mode of transportation from their origins. Currently over 50% have never used transit. The UFV will have a U-Pass program in the fall that was approved through a student referendum recently.

Abbotsford Regional Hospital and Cancer Centre

The ARHCC is a new (opened August 2008) hospital and medical centre that provides a variety of health care services to patients from all over the Fraser Valley region and beyond. This facility is located somewhat centrally in Abbotsford, on Marshall Road west of MacCallum Road just north of Highway 1. The Cancer Centre, specifically, receives patients from as far as Langley and Hope, and treats roughly 60,000 patients a year. The hospital is open 24 hours and accommodates around 1,500 staff during the day time and 1,000 staff during the evenings. The hospital also houses 300 admitted patients – all beds are occupied. The clinic hours are 7:00am to 4:00pm, and it receives the majority of its traffic during the weekdays. Roughly 400-500 outpatients and 300 visitors are drawn to the hospital daily. No restricted visiting hours are in place. Current transit service consists of the #5 route that stops outside the hospital with a 30 minute frequency. The available staff and public parking is known to be consistently full and parking space has been expressed as in issue.

Abbotsford Entertainment and Sports Centre

The Abbotsford Entertainment and Sports Centre is a new (opened 2009) facility that serves as a sports arena and events venue. It is located in the south of Abbotsford adjacent to the UFV campus. It has a seating capacity of 7,000 people, and holds a variety of events throughout the year such as hockey and basketball games, concerts, rodeos, motor sport events, etc (over 100 events to be held in the first year). These events will occur predominantly in the evenings with some weekend matinees. Event participants vary, but will range anywhere from 3,000 to 7,000 people. In addition, a hockey tenant will regularly use the rink for practices and home games. There are roughly 25 full time employees at the centre, but the number of staff can inflate to 250 during large events. Parking and transit are somewhat restricted; lots have been designated for use during events, and the #3, #5 and #12 bus routes have stops in close proximity.

Abbotsford Recreation Centre (ARC)

The ARC provides services and equipment to the surrounding community such as aquatic facilities, ice rink, track, fitness and gym facilities, preschool, youth, adult and senior programs,



space rentals and a venue to host special events; capacity is approximately 1,500 people. It is located in the eastern part of Abbotsford on Old Yale Road near McMillan Road, just east of Sumas Way. Around 100 employees commute to the centre daily, mostly from local areas within a 5-15 km radius. The centre is open from 5:30am to midnight, but the majority of employees arrive and leave during typical am, midday and pm times. The recreation centre attracts roughly 820 patrons on a daily basis, with peak numbers of customers occurring between 9am-12pm and 5pm-9pm. A café in the centre also generates traffic and is open from 9am-9pm. A number of special events occur annually, creating an influx of 50-500 people each time. Current parking facilities are sufficient and the #1 and #7 (pm only) routes provide transit access to the centre.

Matsqui Recreation Centre (MRC)

The MRC provides services and equipment to the surrounding community such as aquatic facilities, ice rink, fitness and gym facilities, preschool, youth, adult and senior programs, space rentals and a venue to host special events (capacity is approximately 2,300). MRC is located on in central Abbotsford on Clearbrook Road near Maclure Road with approximately 100 employees commuting to the centre daily, mostly from local areas within a 5-15 km radius. The centre is open from 5:30am to midnight, with the majority of employees arriving and leaving during typical am, midday and pm times. The recreation centre attracts between 200-400 patrons on a daily basis, with peak numbers of customers occurring between 9am-12pm and 5pm-9pm. A café in the centre also generates traffic and is open from 9am-9pm. Special events occur throughout the year, creating an influx of around 500 people each time. Current parking facilities are good and only the #1 route provides transit access to the centre.

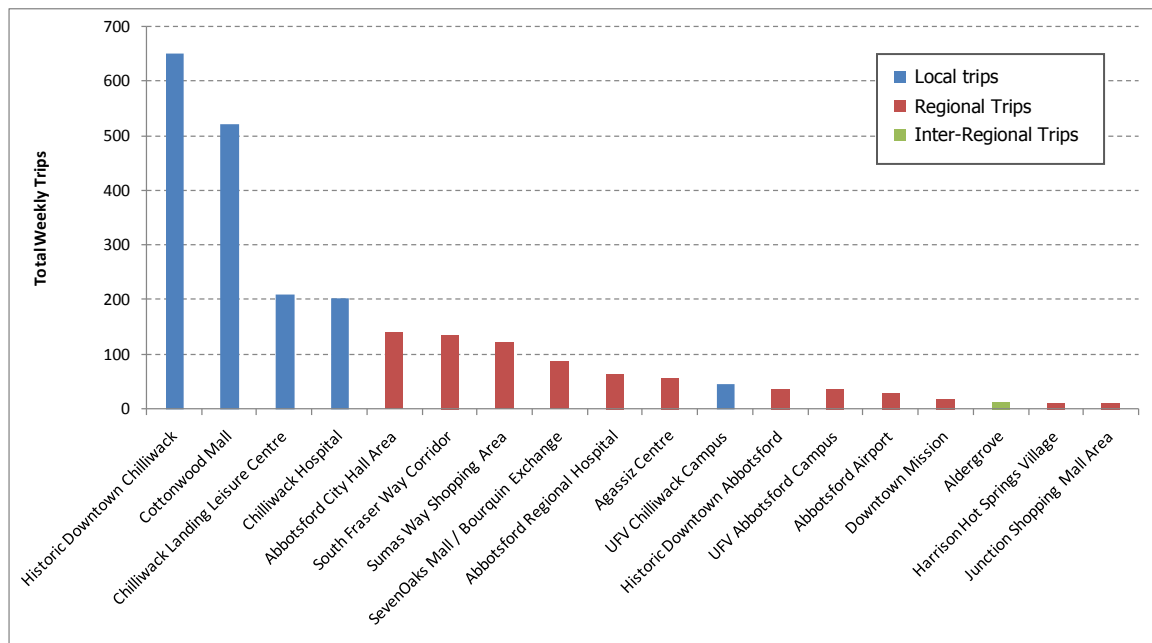
3.1.2 Chilliwack

Major destinations for Chilliwack residents includes the Historic downtown as well as the Cottonwood Mall. The chart below shows the total weekly trips made by Chilliwack residents with colours based on local, regional and inter-regional trips.

Similar to the other areas of the Fraser Valley, most trips by residents are destined to the central core of their home municipality. Average transit mode share to these destinations is 1.5% with opportunity to grow. Chilliwack appears to have a fairly strong regional connection to Abbotsford, especially the central core area. In terms of potential transit demand however, the local trips appear to provide the best opportunity.



Exhibit 35 – Daily Travel to Major Destinations by Chilliwack Residents



Source: 2009 Fraser Valley Market Research

The following sub-sections describe the characteristics of the key activity nodes in the Chilliwack area.

The City of Chilliwack – General

The City of Chilliwack has two main transit hubs that generate a significant number of trips within the community. The first area of note is the Downtown Transit Hub, located at Kipp Ave and Main Street. This exchange and surrounding streets accommodates locations such as City Hall, Save on Foods and historic downtown stores. The downtown exchange loop is serviced by transit routes #1, #2, #3, #4, #5, #6, #7 and #10. The second area to be recognized as a major trip generating area is the Mall Transit Hub, just southwest of Vedder Road and the Trans Canada Highway. This area accommodates Cottonwood Mall, Chilliwack Mall and The Real Canadian Superstore and is serviced by the #5, #6, #7, #8 and #10 transit routes. Other key locations that generate a sizable amount of trips within the City of Chilliwack are discussed in further detail below.

University of the Fraser Valley – Chilliwack Campus

The UFV Chilliwack campus is located in central Chilliwack, north of the Trans Canada Highway, on Yale Road near Airport Road. It provides educational resources and courses to many residents in the surrounding area. During the fall term, roughly 1,500 students attend the school



(approximately 350 from Abbotsford & Clearbrook, 40 from Aldergrove, 880 from Chilliwack/Sardis/Yarrow/Vedder Crossing/etc., 100 from Mission & Matsqui and 60 from District of Kent & surrounding area). Summer terms generate roughly a quarter of the number of students, and fall terms about 7/8^{ths}. The Chilliwack campus employs around 180 staff, of which most live locally. Common start times for classes occur every 90 minutes beginning at 8:30am and running until 10:00pm (last class block ends). The current public transit routes that provide access to the campus are the #3, #5, #6 and #7. In a survey conducted amongst UFV students, the following relevant suggestions were selected to be of high priority: improved Abbotsford/Chilliwack connections and increased early morning and nighttime services to and from UFV. As with all of its other campuses, the UFV currently has a U-Pass program in place.

University of the Fraser Valley – Trades & Technology Centre at the Canada Education Park (TTC at CEP)

The UFV TTC campus is located in southern Chilliwack in Canada Education Park, on Tyson Road near Keith Wilson Road. It provides educational resources and hands-on trades courses to many residents in the surrounding area. During the fall term, roughly 300 students attend the school (approximately 100 from Abbotsford & Clearbrook, 30 from Aldergrove, 120 from Chilliwack/Sardis/Yarrow/Vedder Crossing/etc., 40 from Mission & Matsqui and 10 from District of Kent & surrounding area). Summer terms generate roughly a quarter of the number of students, and fall terms about 7/8^{ths}. The TTC campus employs around 30 staff, of which most live locally. Students and staff are on campus every weekday from 8am-2pm. The current public transit routes that provide access to the campus are the #6 and #7.

Chilliwack Leisure Landing Centre

The Chilliwack Leisure Landing Centre is a recreational facility that provides services and equipment to the surrounding community such as an aquatic centre, aerobics studio, fitness centre, wellness centre, indoor and outdoor sports courts, and an outdoor water park. It is located in the northwestern part of Chilliwack on Corbould Street near Hodgins Ave. Around 25 employees commute to the centre daily, almost all from local areas within a 5-10 km radius.

The centre is open from 6am-10pm on weekdays and 7:30am-9:30pm on weekends and attracts between 400-500 patrons on a daily basis, with peak numbers of customers occurring between 6am-9am, 12pm-1pm and 3-6pm. Monday is the busiest day of each week, and several classes and events held in the evenings; notable busy times are 6:30pm-8:30pm Tuesday, Wednesday, Thursday, 5:30pm-9:30pm Friday nights and 6:30pm-9:30pm Sunday evenings. A café in the centre also generates traffic and is open from 9am-9pm. In addition, swim meets are hosted every 1 to 2 months, and generate an influx of 1,000 people, minimum. Most citizens utilizing



the centre drive or carpool. Current parking facilities satisfy the demand with the exception of swim meets (parking overflows to the hockey arena next door). The #4 and #1 (pm school routing only) routes provide transit access to the centre.

Chilliwack General Hospital

The Chilliwack General Hospital provides a variety of health care services to patients from all over the community. This facility is located in the northwestern part of Chilliwack on Menholm Road near Hodgins Ave. The hospital is open 24 hours and accommodates around 1,400 staff. The hospital also houses 104 admitted patients – all beds are occupied. The majority of hospital traffic is received during the weekdays. Approximately 200 outpatients and 50 visitors are drawn to the hospital daily. General visiting hours are from 8am-8pm. The current transit consists of the #4 and #1 (pm school routing only). The #4 route stops outside the hospital with a 60 minute frequency.

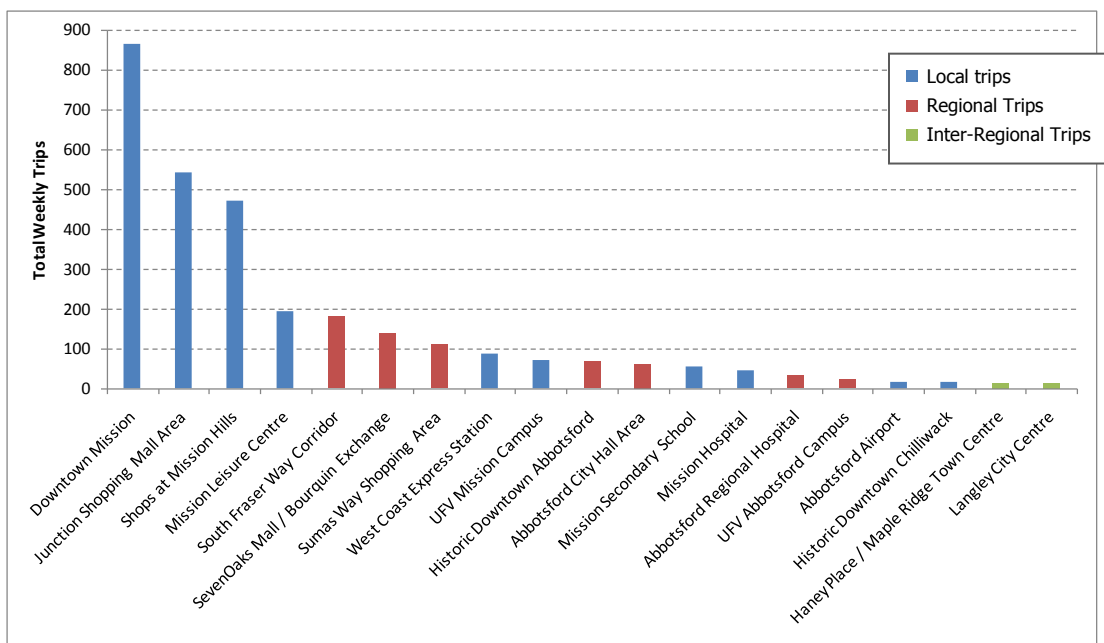
3.1.3 Mission

Most popular destination for Mission residents is downtown Mission as well as the Junction and Mission Hills shopping malls. The chart below summarizes trips to key destinations in Mission with colours based on local, regional and inter-regional trips.

The top three destinations by Mission residents also appear to have the highest potential in terms of potential transit demand given their central location and level of travel activity. The average mode share of 3.8% to key destinations in Mission is higher than both Abbotsford and Chilliwack.



Exhibit 36 – Daily Travel to Major Destinations by Mission Residents



Source: 2009 Fraser Valley Market Research

The District of Mission – General

The City of Mission has two main transit hubs that generate a significant number of trips within the community. The first area to be noted is Downtown Mission, located in the southeastern section of town, just north of the Fraser River. This exchange and surrounding streets accommodates several stores and services and provides a park and ride and transit transfer point for the West Coast Express Station. The downtown exchange loop is serviced by all Mission transit routes (#31, #32, #33, #34, #35, #39 and #40). The second area to be recognized as a major trip generating area is just south of the Lougheed Highway and Abbotsford-Mission Highway (11) intersection. This area accommodates Mission Hills Mall, Junction Mall, The Real Canadian Superstore, Safeway and Save on Foods. It is serviced by the #31, #32 (only Mission Hills Mall), #33 and #39 transit routes. Other key locations that generate a sizable amount of trips within the District of Mission are discussed in further detail below.

Mission Leisure Centre

The Mission Leisure Centre is a recreational centre that provides services and equipment to the surrounding community such as aquatic facilities, ice rink, curling rink, fitness and gym facilities, preschool, youth, adult and senior programs, sport courts, space rentals and a venue to host special events. It is located relatively centrally in Mission, on Seventh Ave. near Grand Street. Around 20 employees commute to the centre daily, mostly from local areas within a 5-10km



radius. The centre is open from 5:30am-10pm, but the majority of employees arrives and leaves during typical am, midday and pm times. The recreation centre attracts roughly 1000 patrons on a daily basis, with peak numbers of customers occurring in the late afternoons and evenings. Swim lessons every half hour between 3pm and 6pm, public skating every Tuesday and Thursday from 6:30pm-8pm and loonie swim every Sunday morning at 10am frequently generate more client traffic. In addition, hockey games are hosted every Sunday around 3pm, and generate an influx of an additional 400 people, maximum. A café in the centre also draws public and is open from 11am-8pm Current parking facilities are good and the #33, #34, #39 and #40 (night) routes provide transit access to the centre.

Mission Memorial Hospital

The Mission Memorial Hospital provides a variety of health care services to patients from all over the community. This facility is located in the southwestern part of Mission on Hurrd Road near Scott Ave. The hospital is open 24 hours and accommodates around 300 staff with approximately 60% working during the day time and 40% during the evenings. The hospital also houses 20 admitted patients – all beds are occupied. The majority of hospital traffic is received during the weekdays. General visiting hours are from 12pm-8pm. The current transit consists of the #32 and #39, both routes stop outside the hospital with a 60 minute frequency, and the #32 stops every 25 minutes during am and pm peak times. The available staff and public parking is free and provides adequate space for the demand.

University of the Fraser Valley – Heritage Park / Mission Campus

The UCFV Mission campus is located in the eastern section of Mission in Heritage Park, just north of Highway 7 near Stave Lake Street. It provides educational resources and courses to many residents in the surrounding area. During the fall term, roughly 720 students attend the school (approximately 240 from Abbotsford & Clearbrook, 50 from Aldergrove, 60 from Chilliwack/Sardis/Yarrow/Vedder Crossing/etc., 360 from Mission & Matsqui and 5 from District of Kent & surrounding area). Summer terms generate roughly ¼ of the number of students, and fall terms about 7/8ths. The Mission campus employs around 15 staff, of which most live locally. Common start times for classes occur every 90 minutes beginning at 8:30am and running until 10:00pm (last class block ends). The only current public transit route that provides access to the campus is the #34. The UCFV currently has a U-Pass program in place.



3.1.4 Kent

The key destination in Kent is Agassiz based on discussions with municipal staff and representatives from each activity node. Although not surveyed, this destination provides jobs and amenities to local residents as well as outside visitors.

The following sub-sections describe the characteristics of the key activity nodes in the Kent area.

The District of Kent– General

The district of Kent presents several key areas of notable trip generation. All are outlined and discussed in further detail below. It should be taken into consideration that the most common need expressed by the population has been getting to and from Chilliwack. This emanates from the entire demographic of approximately 6,000 local residents – students wanting to further studies, commuters, families for recreational and leisure purposes, etc.

Downtown Agassiz

Downtown Agassiz, just north of the Fraser River, contains several amenities and provides services for the surrounding community. The major locations include a few grade schools (at least 400 students), senior care homes and housing (68 units, to potentially double), municipal hall (33 chamber members), institutions (200-300 staff), library, Agri Hall and Fairgrounds with fitness activity centre (around 50 staff), restaurants and shops (majority along Pioneer Ave) and a few larger manufacturers (e.g. Britco housing). Most downtown commuters and employees live in and around the Agassiz area. The only transit available is the #11 route that runs at a frequency of 5 times per day. A desire for additional stops entering and leaving the community has been expressed.

Mount Woodside

Mount Woodside is a residential community with a population of approximately 2,000. Rapidly developing, and with the potential of a school, there is a high demand for public transit to enable the families to connect with Agassiz and Chilliwack areas.

Western Kent

Western Kent contains two prisons and the Rimex company building; these locations employ a significant number of citizens from the surrounding community. No public transit route provides access to this location.



3.1.5 Village of Harrison Hot Springs

The Village of Harrison Hot Springs, approximately 5km north of downtown Agassiz, accounts for roughly 25% of the population in the Kent/Harrison area. The village of almost 1,600 persons sits on Harrison Lake and contains one school and hot springs which serves as a tourist attraction. The hot springs and sandy lake-front beaches attract large numbers of visitors over the summer months. Amenities such as hotels, restaurants and high density development line the waterfront and draw non-local visitors thus increasing the Village's population, and the number of potential transit customers, significantly during the high season. The only transit available is the #11 route that runs 5 times per day. The majority of trips to Harrison route through Agassiz; accounting for a large degree of connectivity between these two communities.

3.1.6 District of Hope

The district of Hope is located at the confluence of the Trans Canada (#1), Lougheed (#7), Crow's Nest (#3) and Coquihalla (#5) highways. Hope is home to over 6,000 people and offers its residents and visitors a variety of outdoor and cultural opportunities. Although no public transit services are available, Hope is connected to the rest of the Lower Mainland and beyond with Greyhound inter-city bus services. Given its location approximately 85km east of Abbotsford (one hour drive) and over 50km east of Chilliwack (35 min drive), Hope is largely self-contained in terms of employment opportunities.

Key activity nodes in Hope consist of the Town Centre area, Recreation Complex, University of the Fraser Valley, Fraser Canyon Hospital as well as the schools and a host of recreational destinations.

3.1.7 Electoral Areas

The Fraser Valley is home to seven electoral areas that are vast areas of land with unique communities throughout. These areas, for the most part, are sparsely populated with small areas of development. There are no public transit services within these areas given the long travel distances and low population numbers.

3.2 Regional Travel

The regional travel market in the Fraser Valley consists of trips that connect between Abbotsford, Chilliwack, Mission and Kent/Harrison. A review of Trip Diary and Census Journey to Work data

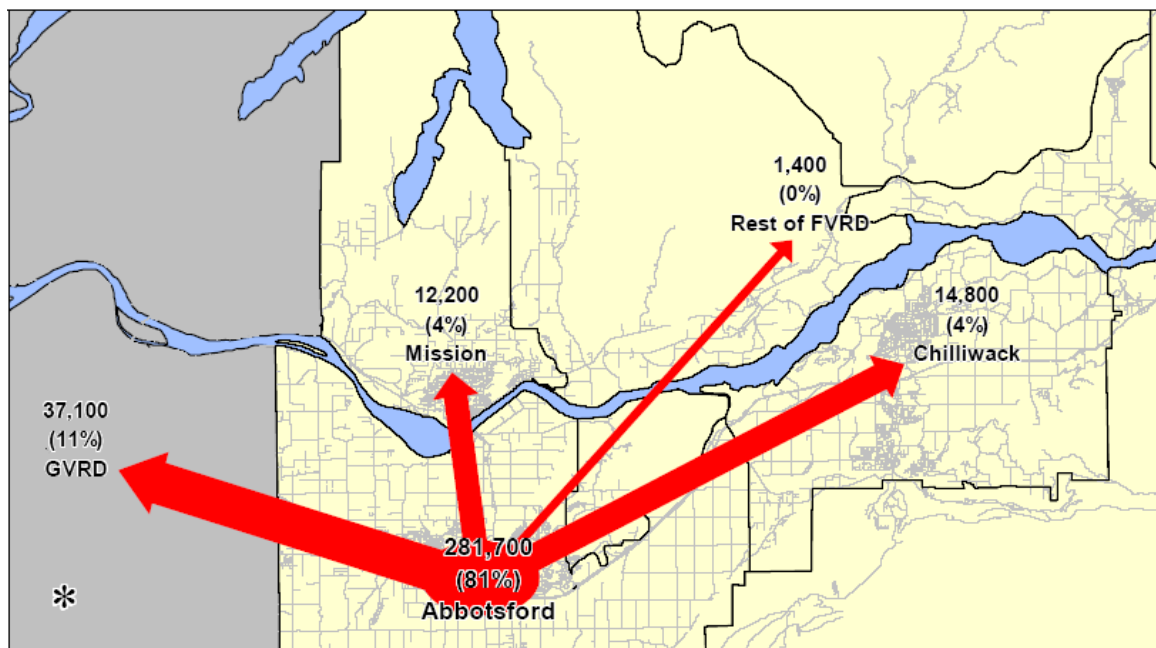


supports the notion that most travel by FVRD residents is within their own municipalities (with the exception of the District of Kent). From a regional perspective, approximately 10% of total daily travel from the Fraser Valley is destined to other parts of the FVRD. The following sub-sections provide a summary of regional commuting trips from each of the communities in the Fraser Valley.

Trips from Abbotsford

Regional travel from Abbotsford makes up approximately 8% of total daily travel activity. Although it has the lowest proportion of regional travel, the absolute number of regional trips is still the highest given the scale of travel activity from Abbotsford. Of the total regional travel from Abbotsford, 43% is destined to Mission, 52% to Chilliwack and the remaining 5% to the rest of the FVRD. The following map illustrates the distribution of regional travel from Abbotsford.

Exhibit 37 – Daily Travel Patterns for Trips Originating in Abbotsford



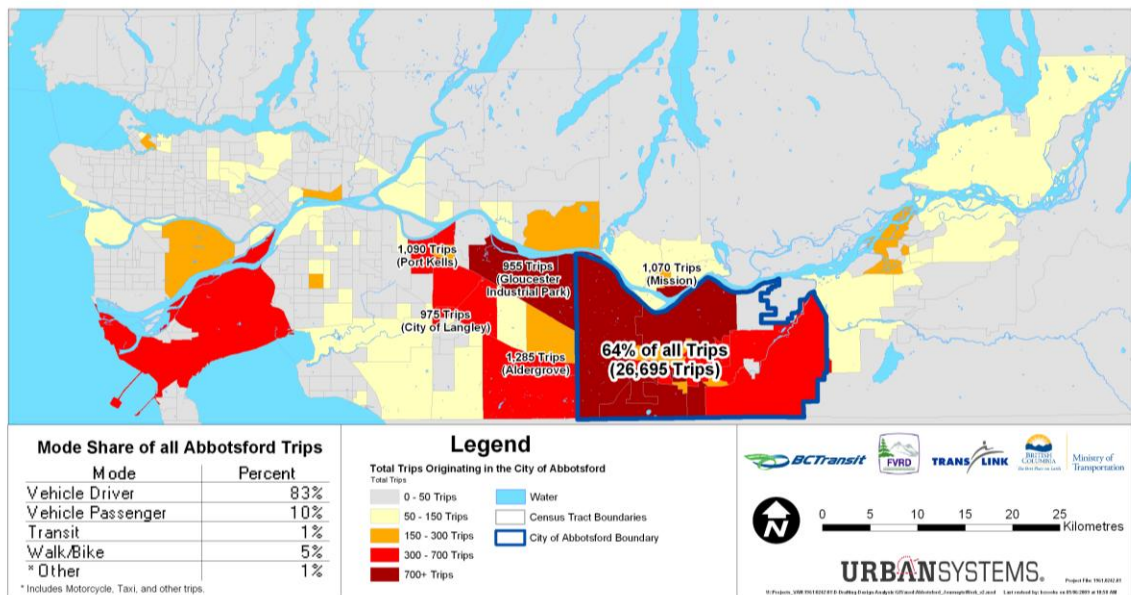
Source: 2004 Fraser Valley Trip Diary Survey Report

The strongest regional connections to Abbotsford include Mission and Chilliwack given their close proximity and employment and other opportunities. The Census Journey to Work data provides more detail in terms of regional commuting patterns. As shown below, most destinations by Abbotsford residents are located within the downtown area of Abbotsford. Other destinations



include Langley City, Mission, downtown Vancouver, and Chilliwack. Note that trips to downtown Vancouver are most likely completed using the West Coast Express commuter rail service.

Exhibit 38 – Distribution of Journey to Work Trip Destinations from Abbotsford



Source: 2006 Census Journey to Work

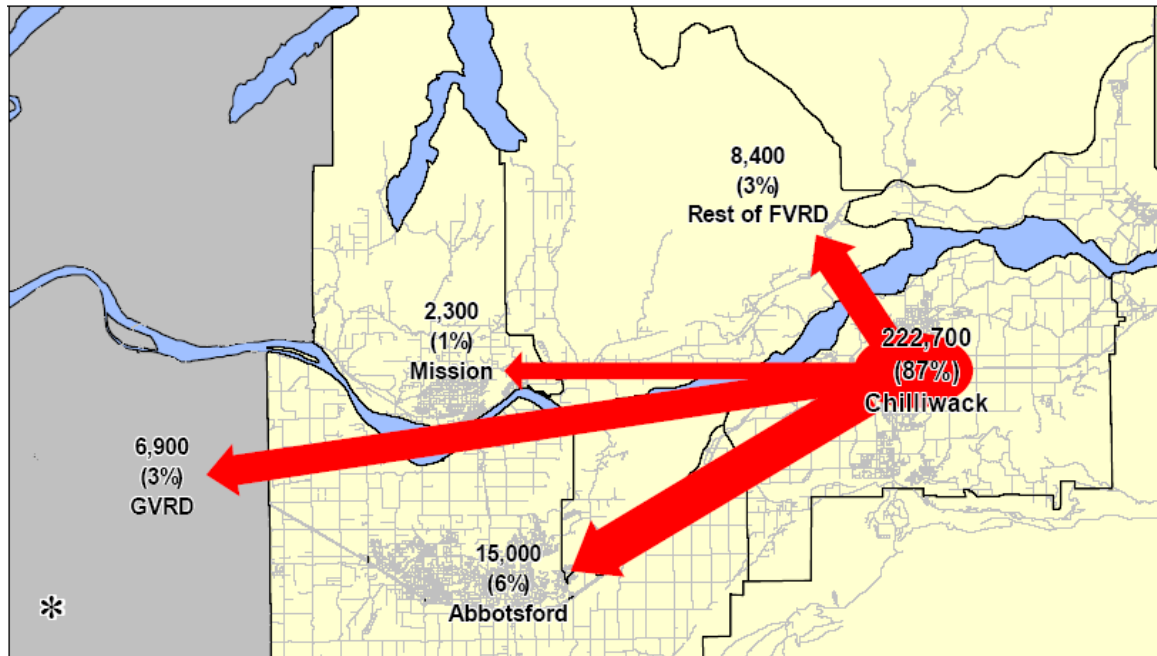
This data shows daily trips for the commute to work and supports earlier claims of high auto use and low transit use. However, it must be recognized that these commutes include people commuting to and from agricultural areas, a key employment sector, that do not support or have transit service. The Journey to Work data mentioned earlier also supports the contention that there are a relatively low number of regional trips. As for potential transit market share, the regional travel market appears to be quite limited in terms of attracting new ridership beyond specific identified nodes, such as between UFV campuses. However this could shift should fuel prices significantly increase or if major employment generators are developed in different parts of the region.

Trips from Chilliwack

Regional travel from Chilliwack consists of approximately 10% of total daily travel activity. Of the total regional travel from Chilliwack, 58% is destined to Abbotsford, 9% to Mission and the remaining 33% to the rest of the FVRD. The following map illustrates the distribution of regional travel from Chilliwack.



Exhibit 39 – Daily Travel Patterns for Trips Originating in Chilliwack

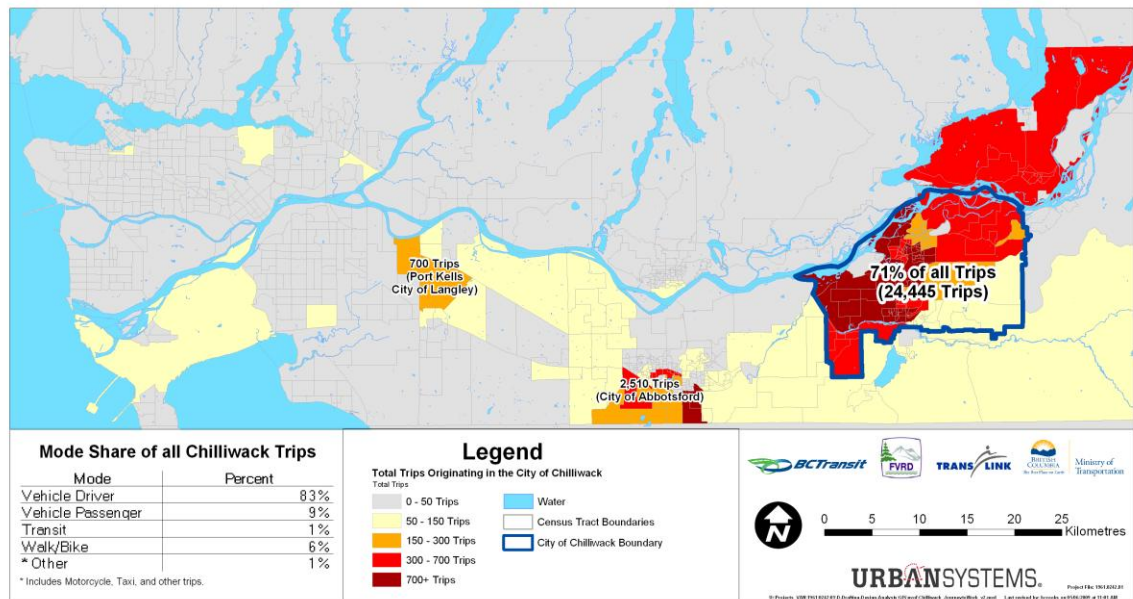


Source: 2004 Fraser Valley Trip Diary Survey Report

A review of Census Journey to Work data for destinations of Chilliwack residents shows a similar pattern. The majority of trips are concentrated within central Chilliwack, with a smaller concentration of trips located within central Abbotsford.



Exhibit 40 – Distribution of Journey to Work Trip Destinations from Chilliwack



Source: 2006 Census Journey to Work

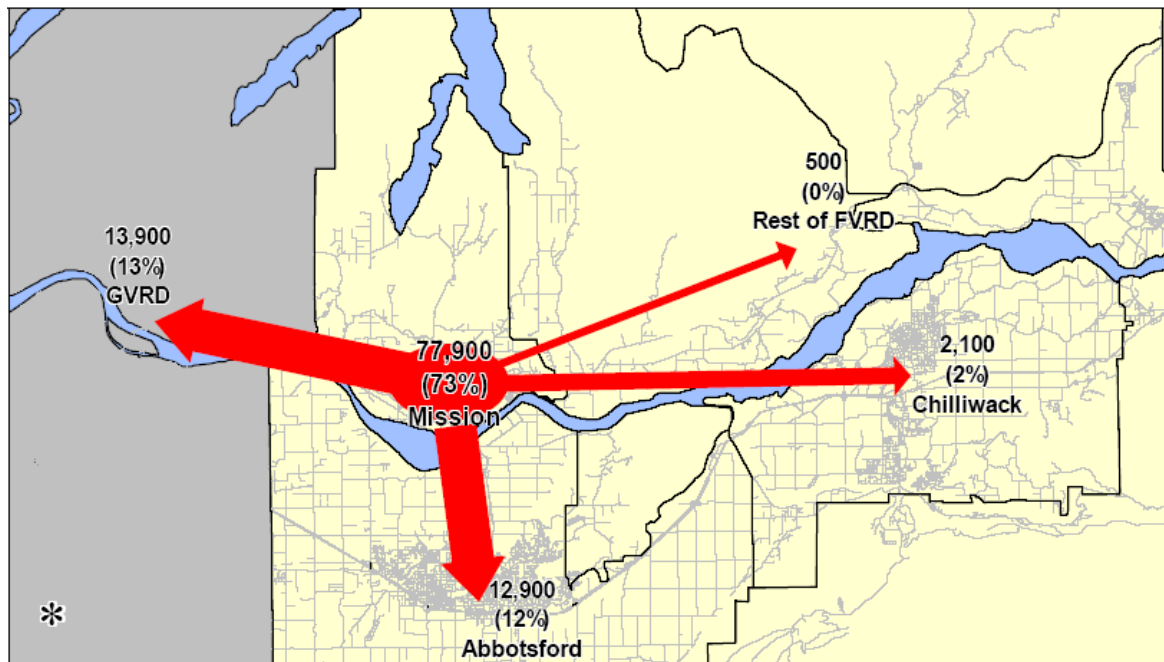
As shown in the above map, the only significant regional connection from Chilliwack is to Abbotsford. As with trips from Abbotsford, the potential regional transit market from Chilliwack appears to be very limited in terms of the status quo, but increasing fuel prices and other factors could create more interest in using transit for regional trips.

Trips from Mission

Regional travel from Mission consists of approximately 14% of total daily travel activity. Of the three main urbanized areas in the Fraser Valley, Mission has the highest proportion of regional travel. Of the total regional travel from Mission, 83% is destined to Abbotsford, 14% to Chilliwack and the remaining 3% to the rest of the FVRD. The following map illustrates the distribution of regional travel from Chilliwack and its strong connection to Abbotsford.



Exhibit 41 – Daily Travel Patterns for Trips Originating in Chilliwack

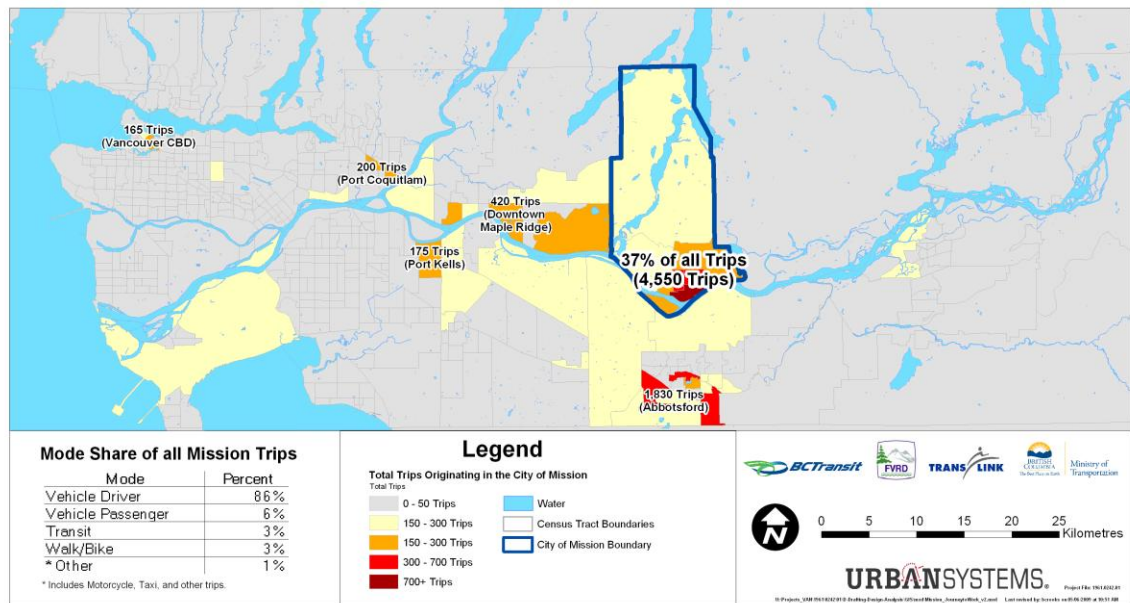


Source: 2004 Fraser Valley Trip Diary Survey Report

Residents within the City of Mission tend to concentrate their trips within their own downtown, however a large percentage of Mission residents also travel to central Abbotsford. Note that trips to downtown Vancouver by Mission residents are most likely completed using the West Coast Express commuter rail service.



Exhibit 42 – Distribution of Journey to Work Trip Destinations from Mission



Source: 2006 Census Journey to Work

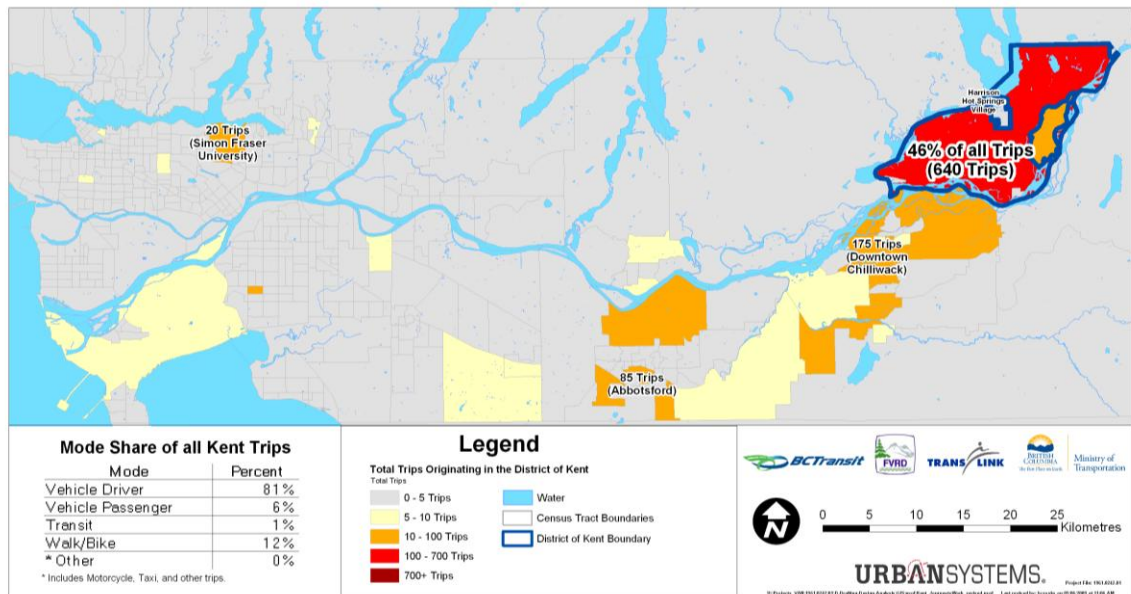
Trips from Kent/Harrison

Residents from Kent/Harrison are different than other municipalities in that they travel largely outside their own municipality to destinations in the FVRD and beyond.

Major destinations of Kent/Harrison residents include Chilliwack, and to a lesser extent, Abbotsford as supported by the Census Journey to work information in the map below. These travel patterns reflect the need for residents to seek employment opportunities outside of their local communities.



Exhibit 43 – Distribution of Journey to Work Trip Destinations from Kent/Harrison



Source: 2006 Census Journey to Work

Even though Kent shows strong regional connections to other areas within the Fraser Valley, the absolute number of trips is relatively low. In this regard, given the low number of trips and the long commuting distances and dispersed travel patterns, the potential regional transit market appears to be very low unless one considers the seasonal tourism market as having some potential.

3.3 Inter-Regional Travel

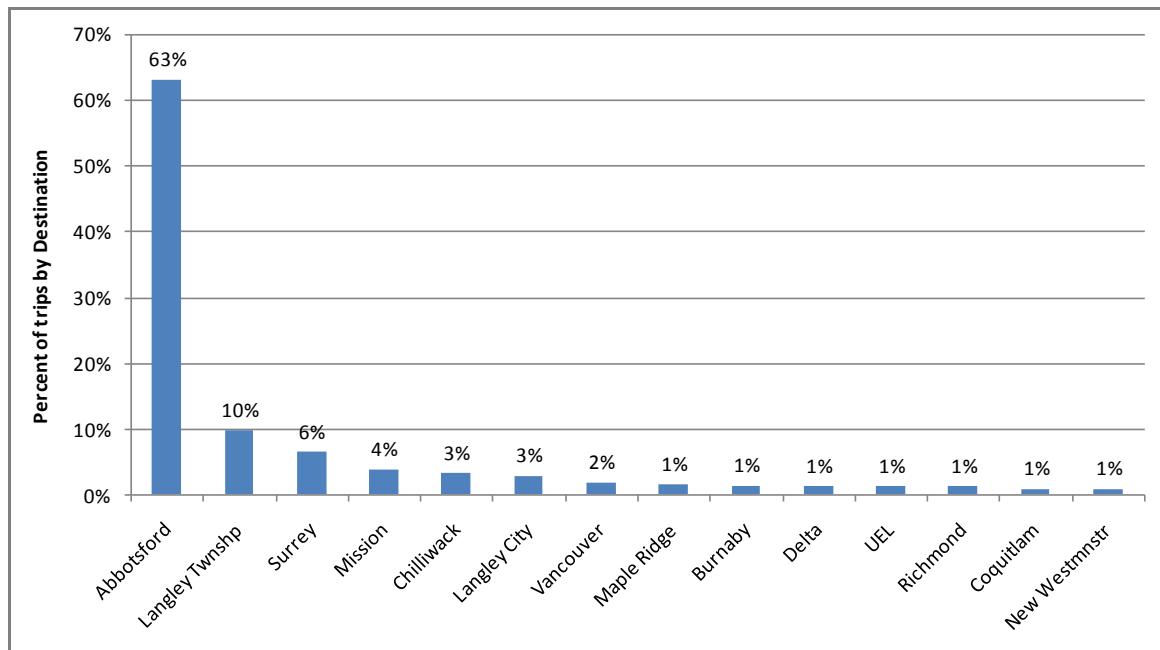
Inter-regional travel includes those trips between the Fraser Valley and Metro Vancouver and beyond. The inter-regional travel market represents 8% of all daily travel activity. The following sub-sections describe the inter-regional travel patterns to and from the communities in the Fraser Valley.

Abbotsford Inter-Regional Travel

Inter-regional trips from Abbotsford accounts for approximately 11% of total daily trips according to the 2004 Fraser Valley Trip Diary Survey. Inter-regional trips from Abbotsford account for approximately 30% of commuter travel according to the 2006 Census Journey to Work. Given their close proximity, the strongest connections from Abbotsford are to Langley Township and Surrey as shown in the following chart.



Exhibit 44 – Distribution of Work Trips Originating in Abbotsford



Source: 2006 Census Journey to Work

Key inter-regional destination nodes include Aldergrove and Walnut Grove in Langley Township, Surrey and Langley city centres and downtown Vancouver.

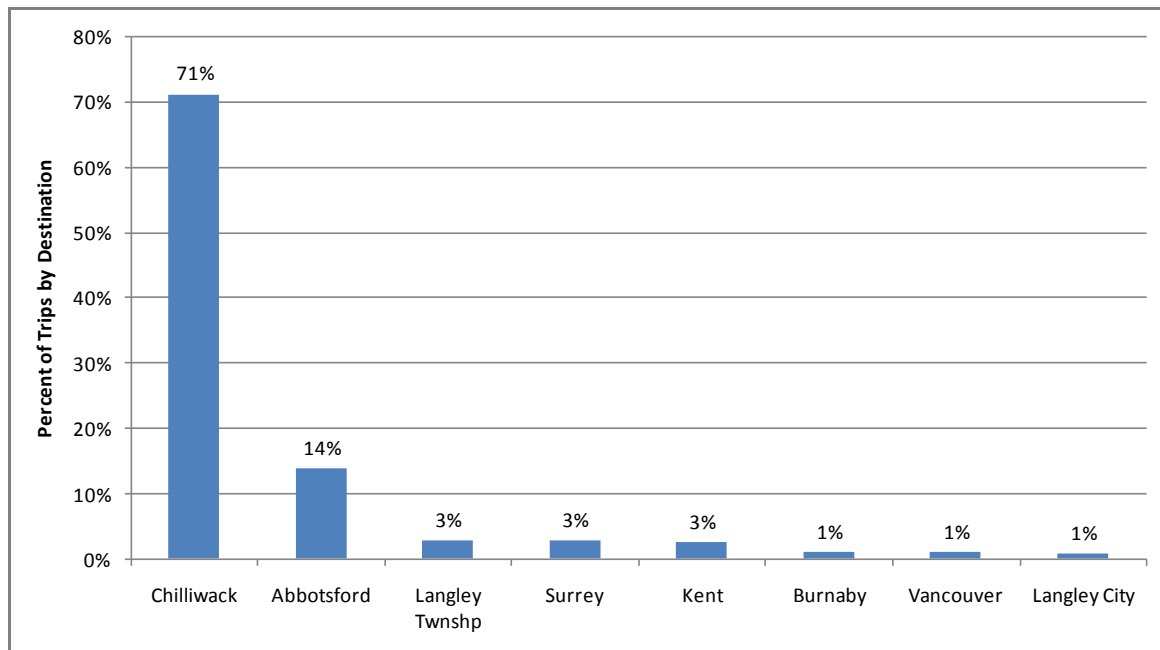
The remainder of inter-regional connections are low in numbers and dispersed throughout the Metro Vancouver region. In terms of potential transit market demand, there is some potential to connect with the central areas of Langley and Surrey possibly along the Fraser Highway. This inter-regional market would also connect with the proposed Highway #1 and 200th St bus rapid transit (BRT) corridors.

Chilliwack Inter-Regional Travel

Inter-regional trips from Chilliwack accounts for approximately 3% of total daily trips according to the 2004 Fraser Valley Trip Diary Survey. Of the three main urbanized areas in the Fraser Valley, the proportion of inter-regional travel from Chilliwack is the lowest. Chilliwack's closest inter-regional connection is that with Langley Township and Surrey albeit fairly low. Aside from a moderate regional connection to Abbotsford, Chilliwack is largely self-contained in terms of its travel outside the Fraser Valley as shown in the following chart.



Exhibit 45 – Distribution of Work Trips Originating in Chilliwack



Source: 2006 Census Journey to Work

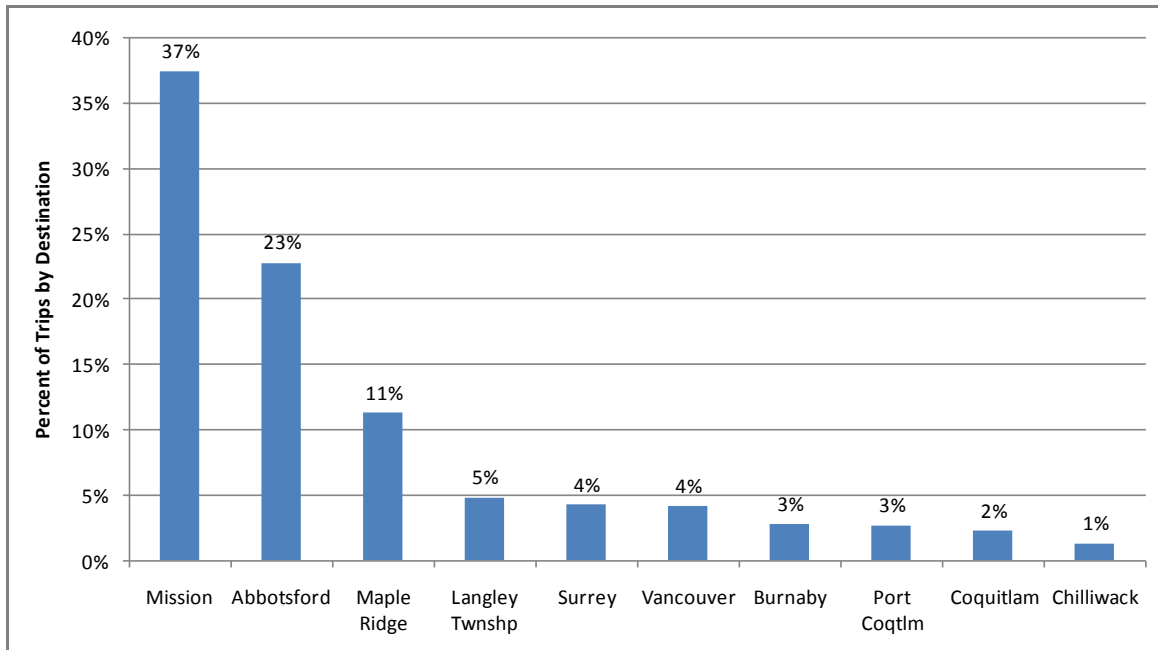
There appear to be no concentrations of inter-regional travel activity from Chilliwack based on the Trip Diary and Journey to Work information. As shown above, the potential inter-regional transit market from Chilliwack appears to be quite limited given the long distances and low number of trips.

Mission Inter-Regional Travel

Inter-regional trips from Mission accounts for approximately 13% of total daily trips according to the 2004 Fraser Valley Trip Diary Survey. Inter-regional travel from Mission is fairly strongly connected to Maple Ridge, Langley Township, Surrey and Vancouver. Given the availability of the West Coast Express commuter rail service, many residents of Mission take advantage of employment opportunities in other parts of Metro Vancouver as shown in the chart below.



Exhibit 46 – Distribution of Work Trips Originating in Mission



Source: 2006 Census Journey to Work

As far as overall trip patterns, Mission residents proportionately travel outside the Fraser Valley more than Abbotsford and Chilliwack. Key inter-regional destinations include Haney in Maple Ridge, Coquitlam City Centre and downtown Vancouver.

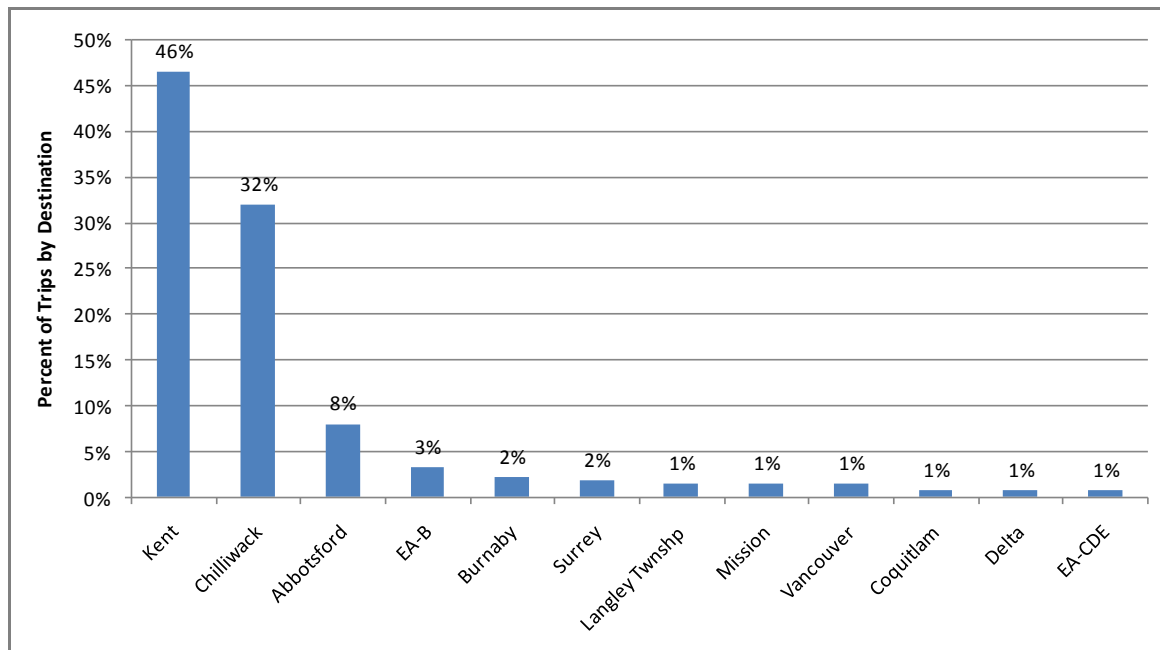
Only 37% of Mission residents with a “usual place of work” work in their home municipality according to the Census Journey to Work. Given that much of Mission’s residents already travel to inter-regional destinations and the long commute times, in the short term, the potential inter-regional market is probably close to saturated. However, employment generation in the Pitt Meadows-Maple Ridge area due to growth spurred by the Golden Ears Bridge, may increase the inter-regional market in the longer term. There may also be in-flow opportunities should Mission increase its supply of employment oriented development.

Kent/Harrison Inter-Regional Travel

Most work trips leave Kent according to the 2006 Census Journey to Work. Beyond Chilliwack and Abbotsford, there are very few trips outside of the Fraser Valley. As shown in the chart below, Burnaby, Surrey and Langley Township appear to have the closest inter-regional connection to Kent/Harrison.



Exhibit 47 – Distribution of Work Trips Originating in Kent/Harrison



Source: 2006 Census Journey to Work

Given the low numbers and the long commute times, the inter-regional transit market appears to be very low from Kent/Harrison.



4.0 SERVING FUTURE TRAVEL MARKETS

The previous section provided an assessment of the current travel market and potential transit trips that could be attracted. This section provides an assessment of future travel markets and opportunities to attract new transit trips based on forecast growth patterns for the Fraser Valley.

4.1 Anticipated Growth

The Fraser Valley is forecast to grow significantly over the next 25-year period as more people and jobs locate and new developments occur in the region. The following sub-sections describe the population and employment growth as well as some of the demographic changes that will have an impact on the travel markets of the future.

Population Growth

Significant population growth forecast to occur over the next 25 years. The Fraser Valley Regional District (FVRD), comprised of Abbotsford, Chilliwack, Mission and surrounding communities, is home to an estimated 276,800 people according to the 2006 census. The three main urbanized areas make up the majority of population within the Fraser Valley as shown in Table 1 below.

Table 3 – Population Growth in the Fraser Valley

Community	Population		Change	
	2006	2031	Absolute	Percent
Abbotsford	130,200	210,500	80,300	62%
Chilliwack	72,700	134,700	62,000	85%
Mission	36,300	71,600	35,300	97%
Kent/Harrison/EA C	7,600	10,700	3,100	41%
Hope (and EAs A,B & D)	9,200	13,700	4,500	49%
Rest of FVRD	7,100	11,300	4,200	59%
Total	263,100	452,500	189,400	72%

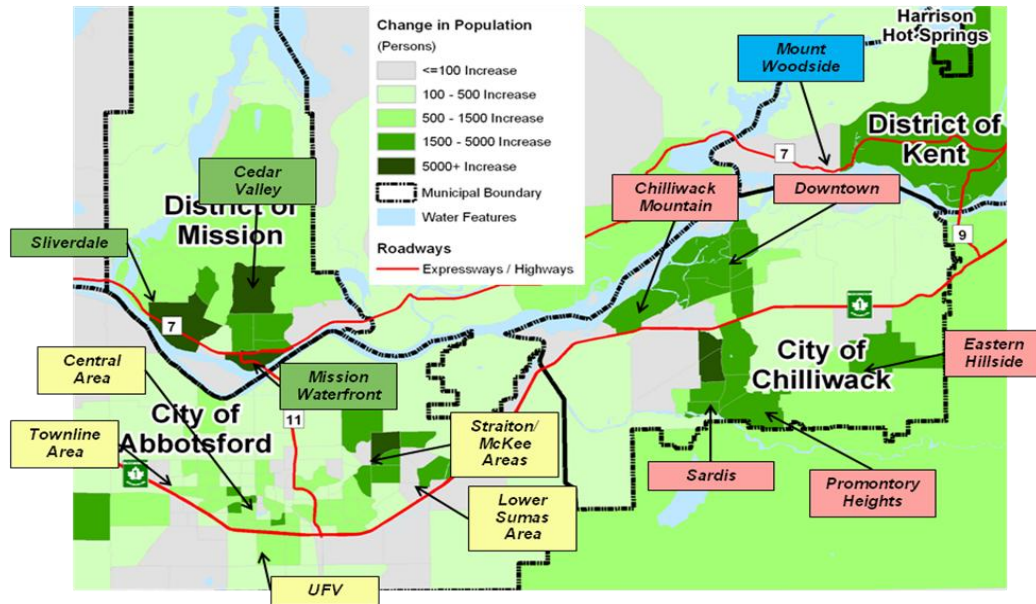
Source: Fraser Valley Regional District, Population Forecasts

Population in the Fraser Valley is forecast to grow by 72% from 2006 to 2031 according to the population projections from the Fraser Valley Regional District. This growth represents a 2.2% average annual growth rate over the next 25-year period. Where and how this growth plays out will have a significant impact on how land use in the Fraser Valley can be more transit



supportive. The following map illustrates the areas in the Fraser Valley that are forecast to grow significantly.

Exhibit 48 – Highlights of Population Growth in the Fraser Valley



According to FVRD forecasts, population growth is expected to increase by almost 190,000 people between 2006 and 2031. Over 80,000 new residents are expected within the City of Abbotsford. This growth is expected to be located mostly within central Abbotsford, with significant growth northeast of the downtown adjacent to the Trans Canada Highway. The City of Chilliwack is expecting over 60,000 new residents most of which will occur in the central area. The District of Mission is forecast to grow by over 35,000 new residents. Population growth in this area is focused in the city centre area as well as the Silverdale areas west of the downtown area adjacent to the Lougheed Highway. The Kent/Harrison area is forecast to have over 4,000 new residents spread throughout its central area.

The majority of new population growth will occur in the already established urbanized areas in the Fraser Valley. Much of the new development will be constrained by the municipal Urban Growth Boundaries, the Agricultural Land Reserve (ALR), mountainous terrain, water features and environmentally sensitive areas. As such, the Fraser Valley has a limited land base in which to grow, which presents opportunities for infill development and densification both of which are supportive of enhanced transit services. As part of the Fraser Valley Regional Growth Strategy, urban growth boundaries have been established to recognize the constraints on future land development.



Employment Growth

Employment forecast to grow faster than population in the Fraser Valley. Employment is forecast to grow by almost 60% throughout the Fraser Valley as more industrial lands are developed and the communities continue to grow. The following table highlights the growth in the number of jobs in communities in the Fraser Valley. Most jobs in the Fraser Valley are correlated to population growth with population serving jobs such as construction, retail and service industries.

Table 4 – Employment Growth in the Fraser Valley

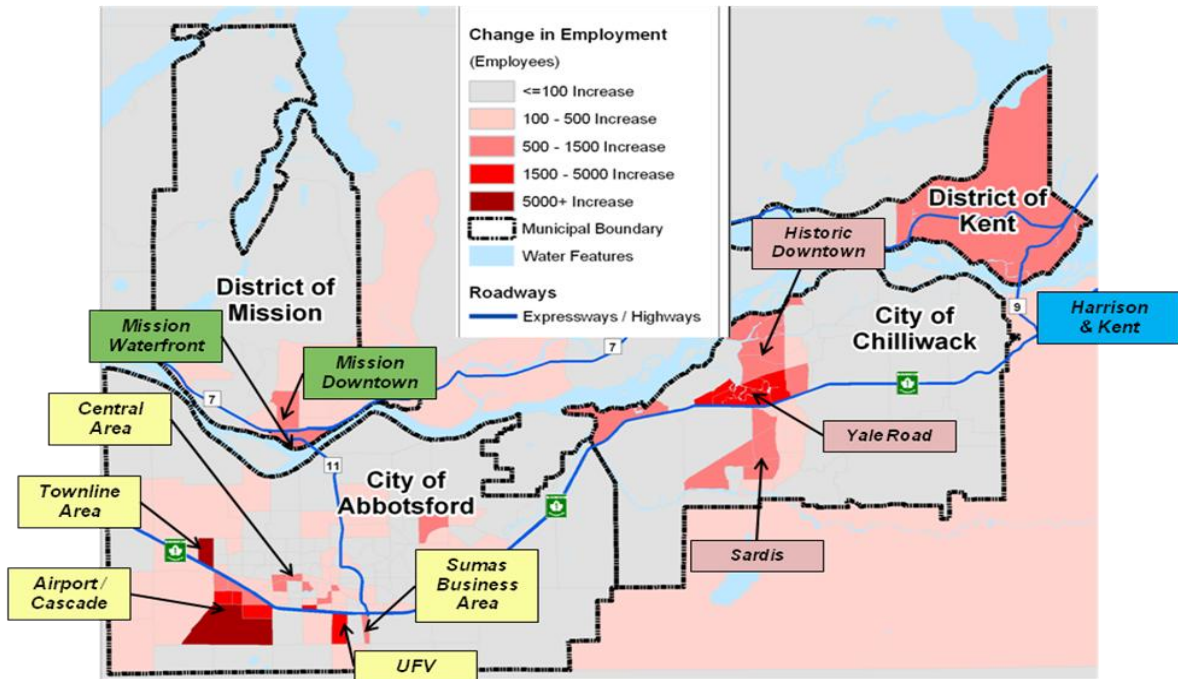
Community	Employment		Change	
	2006	2031	Absolute	Percent
Abbotsford	57,100	101,700	44,600	78%
Chilliwack	25,000	62,000	37,000	148%
Mission	16,400	32,800	16,400	100%
Kent/Harrison/EA C	3,800	6,900	3,100	82%
Hope (and EAs A,B & D)	3,400	5,500	2,100	62%
Rest of FVRD	3,100	5,000	1,800	58%
Total	108,800	213,900	105,000	97%

Source: Fraser Valley Regional District, Employment Forecasts

Employment is forecast to grow at an average annual rate of 2.7% over the next 25-year period according to the Fraser Valley Regional District. As more jobs locate within the Fraser Valley, the more opportunities for residents to live closer to their places of employment. A greater balance in jobs to labour force helps to create a more complete community as jobs and other activities such as recreation, socializing and shopping are closer to residents in the Fraser Valley. The following map shows areas in the Fraser Valley that are forecast to grow in terms of employment.



Exhibit 49 – Highlights of Employment Growth in the Fraser Valley



Employment growth is expected to add over 100,000 new jobs within the FVRD. Of these new jobs, almost 45,000 are expected within the City of Abbotsford. This growth is expected to be located mostly within southern, central, and northeastern areas of Abbotsford. The City of Chilliwack is expecting 37,000 new jobs most of which will occur within the central area of Chilliwack. The District of Mission forecasts an over 16,000 new jobs, with growth focused in the centre city area. The District of Kent is forecast to have over 3,000 new jobs within its central area.

Similar to population, growth in employment is geographically constrained by the same factors such as the urban growth boundary.

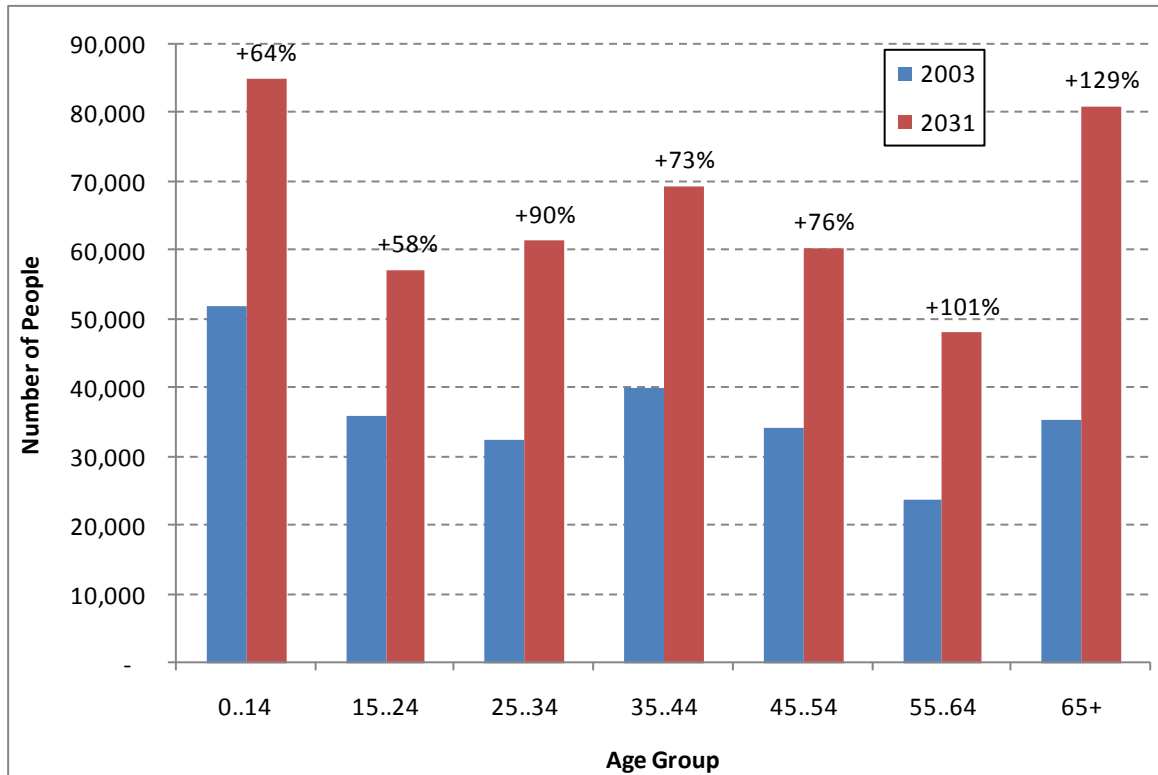
Demographic Changes

Significant demographic shifts will occur in the Fraser Valley over the next 25 years.

Population in the Fraser Valley will continue to grow over the next 25 years but it will also change significantly. Many “baby boomers” who are in the work force today will be senior citizens by 2031. The following chart shows the growth in each of the age cohorts in the Fraser Valley between 2003 and 2031.



Exhibit 50 – Growth in Population by Age Group in the Fraser Valley



Source: The FVRD: Population Growth and the Context for Managing Change, Urban Futures, Jan 2005.

In terms of absolute and percent change, the greatest increase is in the 65+ age cohort which will see over 45,000 more people over the next 25 years. This will have significant implications for travel for social and medical support services as well as other transportation needs. Significant growth will also occur in the 0 to 14 age cohort who are also largely dependent on transit services and have unique transportation needs. These two age cohorts represent the majority of captive transit users as most of them do not have access to their own vehicle or have a license to drive.

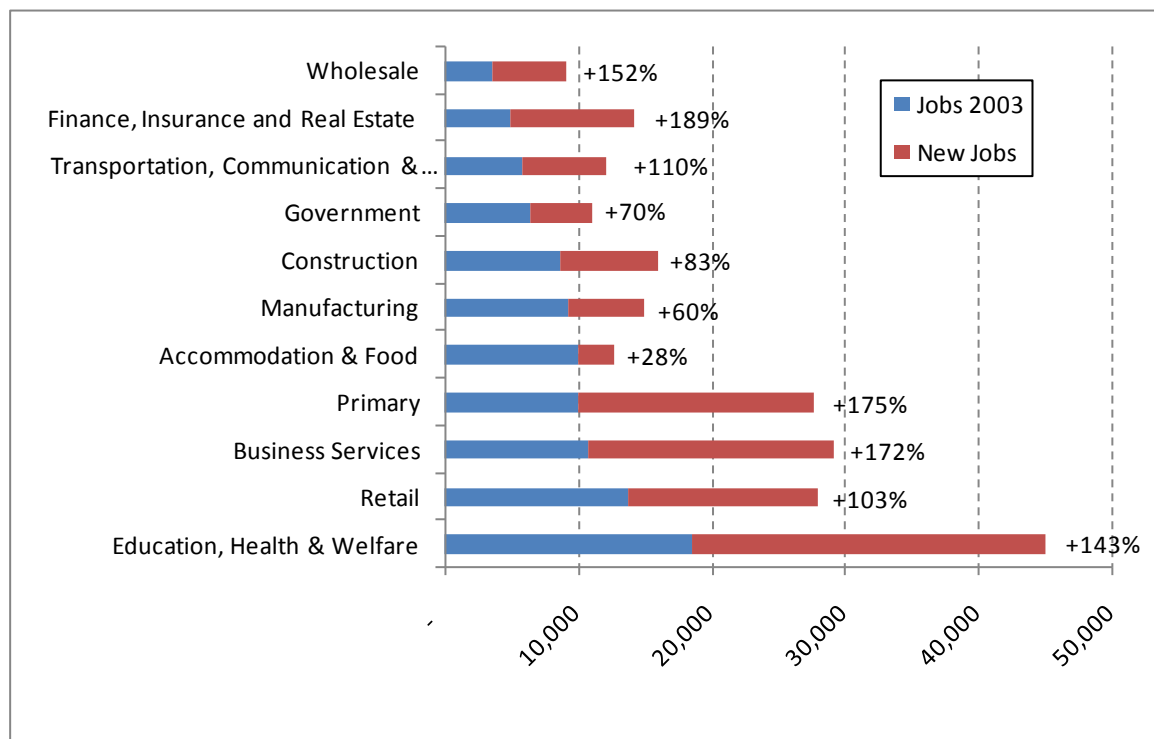
Significant growth will also occur in the working age cohorts who will require transit services to their places of employment. Where the labour force will choose to live and where they work will largely decide what mode of travel they will use for the journey to work. The working age adults will be choice riders as most of them will have access to their own vehicle and will be a more difficult transit market to capture given their higher value of time and transportation needs.



Employment Characteristics

Majority of employment growth to occur in fixed work place categories such as education, health and welfare, retail and business services. Current employment in the Fraser Valley has diversified over the past several decades with less reliance on the resource sector. Furthermore, the majority of jobs in the Fraser Valley are fixed workplace meaning that employees always travel to the same location for work. The following chart shows the distribution of job growth by industry sector.

Exhibit 51 – Growth in Jobs by Sector from 2003 to 2031



Source: The FVRD: Population Growth and the Context for Managing Change, Urban Future, Jan 2005.

The key highlight of the current and future mix of employment in the Fraser Valley is that jobs are mostly fixed work place which tend to be easier to serve by transit than non-fixed work place. Construction jobs are largely non-fixed work place and only make up approximately 7% of total employment in the Fraser Valley. It must be recognized however that, given the importance of agriculture to the region's economy, employment growth will also occur in the primary industry and agricultural employment areas (175%), which generally are not easily served by transit.



4.2 Travel Pattern Changes

With significant population and employment growth throughout the region and the changing demographics, there will be significant changes in the amount and characteristics of travel in the future. The EMME Regional Transportation Demand Forecasting Model has been used to develop the following forecasts.

Amount of Travel

The amount of travel in the Fraser Valley is forecast to grow by over 40% in the morning peak hour. The following table summarizes the increase in the number of morning peak hour (7:30-8:30 am) trips from 2006 to 2031 originating in the Fraser Valley communities.

Table 5 – Increase in AM Peak Hour Trips (2006-2031)

Community	2006 AM	2031 AM	Growth in Trips	
			Absolute	Percent
Abbotsford	35,300	51,200	15,900	45%
Chilliwack	20,800	29,300	8,500	41%
Mission	9,600	13,400	3,800	40%
Kent	2,300	3,100	800	35%

Source: EMME Regional Transportation Demand Forecasting Model

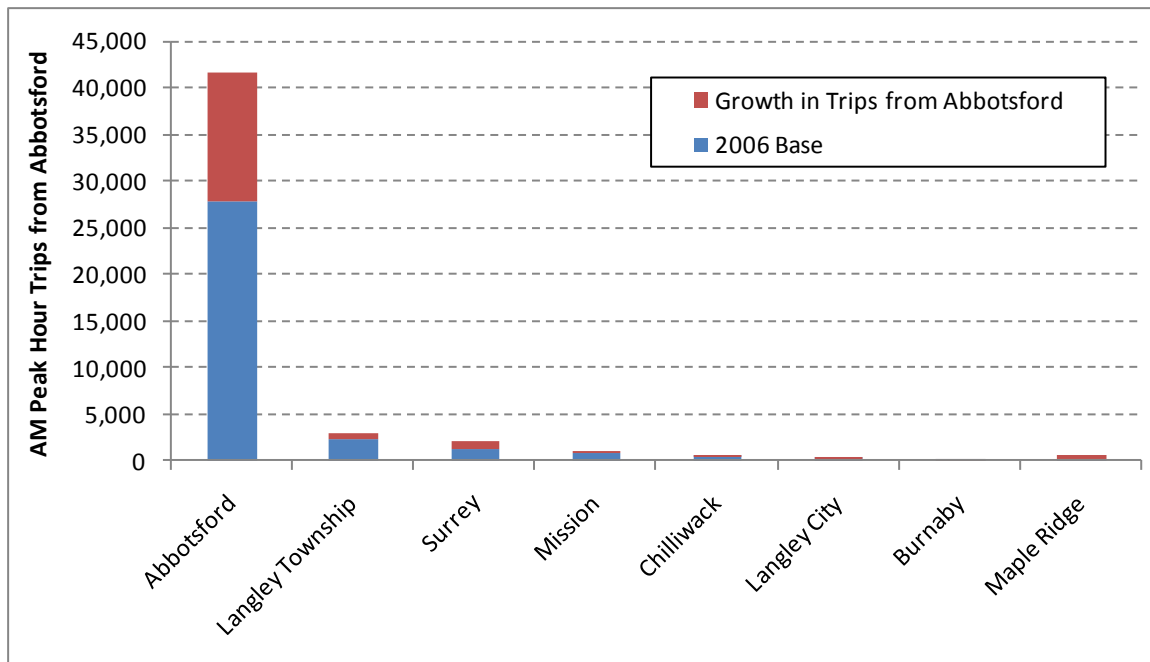
Overall, the amount of trips in the Fraser Valley grows by over 40% from 2006 to 2031. Not surprisingly, the most significant increase in travel activity is in Abbotsford which accounts for over 50% of the growth in travel activity.

Distribution of travel

Majority of growth will be in local travel. The distribution of the growth in trips (2006 to 2031) will be largely contained within each of the respective communities. This is likely due to the higher growth in employment relative to population growth and increasing industrial employment opportunities. What tends to happen with higher employment growth is that local residents take advantage of the greater opportunity to live and work in their home municipality. Also an aging population makes shorter trips for shopping, medical, social and recreational purposes as most communities have these amenities close at hand. The following chart shows where the new trips from Abbotsford will travel to throughout the Lower Mainland.



Exhibit 52 – Distribution of Growth in AM Peak Hour Trips from Abbotsford



Source: EMME Regional Transportation Demand Forecasting Model

New trips from Abbotsford will tend to stay in Abbotsford as the population grows by 62% and the employment grows by 78%. Since employment is growing faster than the population, more Abbotsford residents in the future will have an opportunity to work locally within their own community. As the jobs-to-labour force ratio balances out over time, fewer people will leave their community for the journey to work. Additional employment opportunities within the City will also attract more in-bound commuters to Abbotsford.

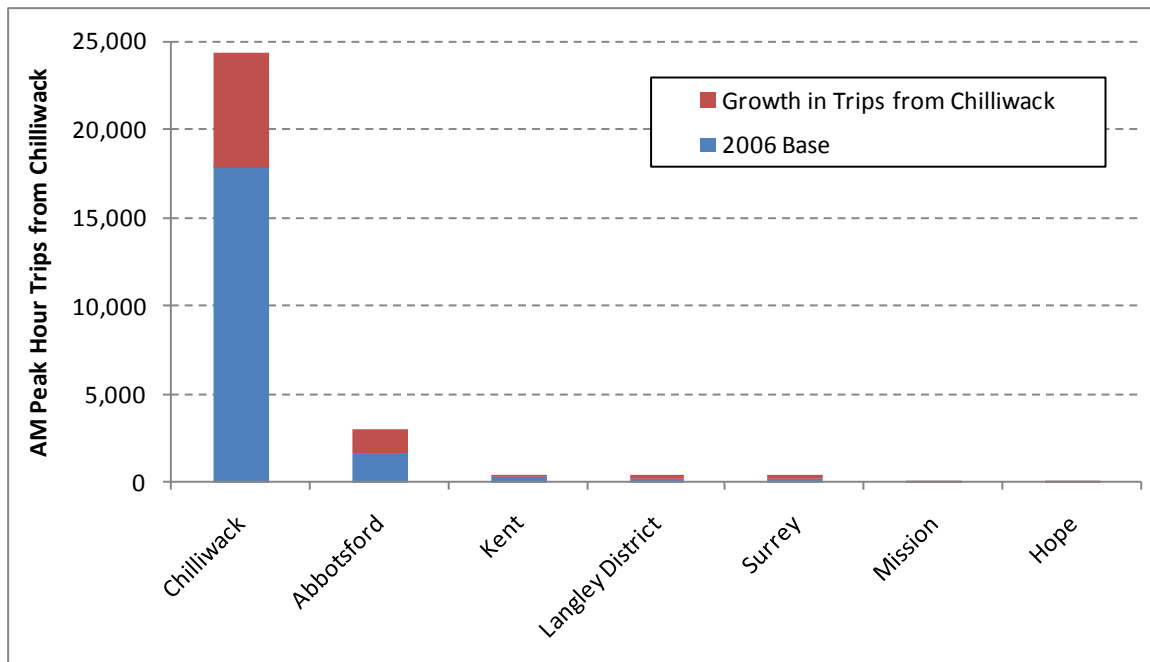
Abbotsford's connection to Surrey and Langley will grow but only marginally when compared to growth in local travel. Growth to other communities throughout the Lower Mainland will likely be minimal.

A similar trend occurs in Chilliwack where more people will travel within Chilliwack as the community grows. Chilliwack will maintain a fairly strong connection to Abbotsford as residents seek out employment, social and recreational opportunities between the two communities. Growth in travel to the rest of the region and Metro Vancouver will likely be minimal.

The following exhibit shows how the growth in trips from Chilliwack is distributed throughout the Lower Mainland.



Exhibit 53 – Distribution of Growth in AM Peak Hour Trips from Chilliwack



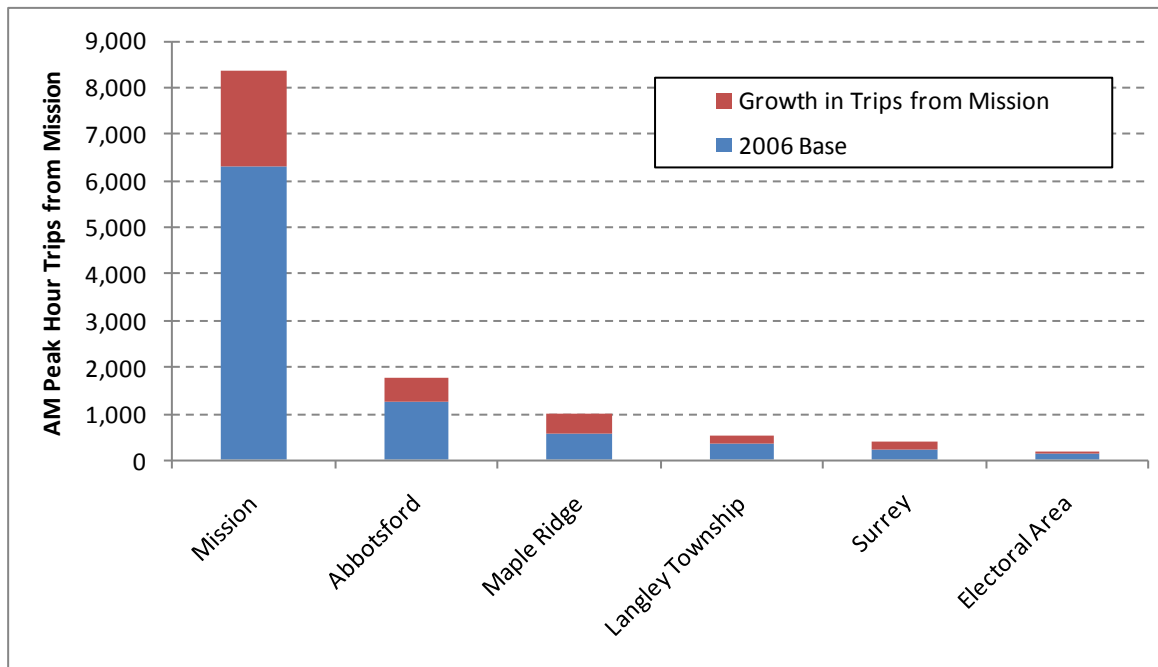
Source: EMME Regional Transportation Demand Forecasting Model

The majority of travel growth will also occur locally within Mission. Compared to Abbotsford and Chilliwack, however, the growth in regional and inter-regional travel from Mission is much higher. Mission will continue its strong regional connection with Abbotsford with 14% more trips and will also maintain its strong inter-regional connections with Maple Ridge, Langley and Surrey with modest growth in travel activity. At this stage it is too early to determine the full impact of the Golden Ears Bridge on commuting patterns north of the Fraser. Trips to other parts of the Lower Mainland are only expected to grow minimally over the next 25 years.

The following chart shows how the growth in trips from Mission is distributed throughout the Lower Mainland.



Exhibit 54 – Distribution of Growth in Trips from Mission



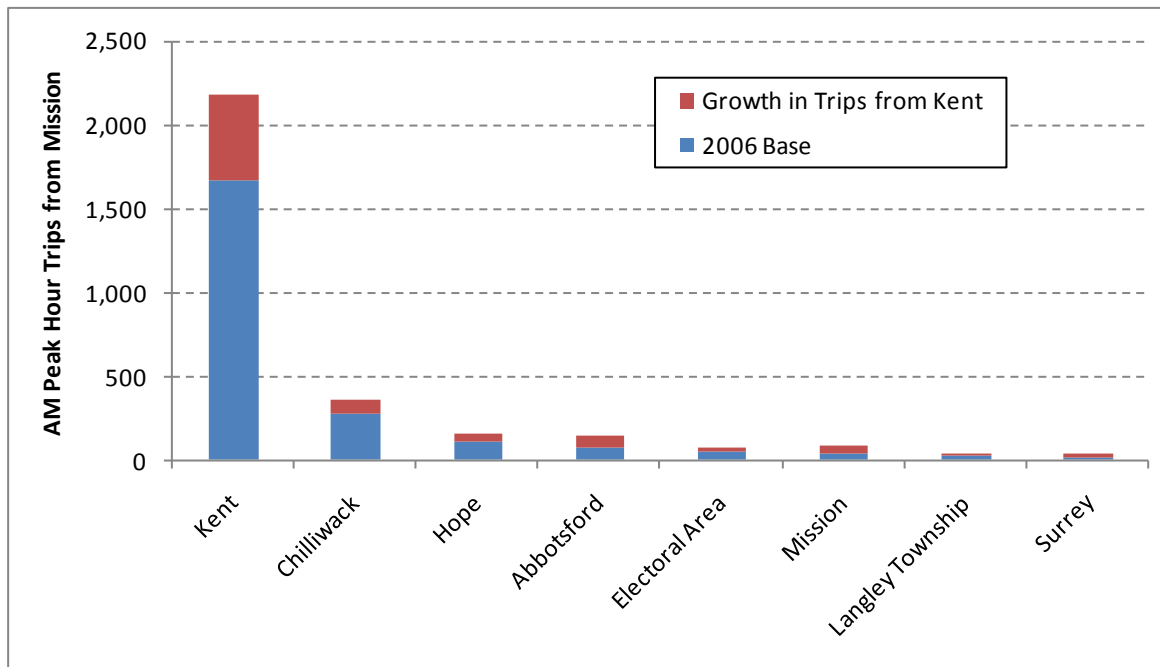
Source: EMME Regional Transportation Demand Forecasting Model

As with the other communities of the Fraser Valley, the majority of growth in the Kent/Harrison area will likely occur locally. Kent/Harrison will also maintain strong regional connections with Chilliwack, Abbotsford and Mission with moderate levels of growth in travel activity. It is anticipated that growth to other parts of the Lower Mainland will be minimal between 2006 and 2031.

The following chart shows how the growth in trips from Kent/Harrison is distributed throughout the Lower Mainland.



Exhibit 55 – Distribution of Growth in AM Peak Hour Trips from Kent/Harrison



Source: EMME Regional Transportation Demand Forecasting Model



5.0 CONCLUSION

The provision of attractive and cost effective services aligned with existing and future transit markets are essential to meet local, regional and provincial goals. The sustainable nature of Fraser Valley communities strongly suggests that local travel will continue to make up the largest proportion of trips. Successful transit services are essential to significantly increasing ridership, reduce SOV travel, minimize increases in greenhouse gas emissions and to support the development of complete and sustainable communities.

Regional and inter-regional markets are well defined with the primary travel connections to the central areas of Abbotsford, Chilliwack and Mission as well as to the neighbouring municipalities of Langley City, Langley Township, Surrey, Maple Ridge and Pitt Meadows.