



BACKGROUND

THIS BACKGROUND IS INTENDED TO PROVIDE KEY INFORMATION, STATISTICS AND FORECASTS RELATED TO TRANSLINK'S 30-YEAR STRATEGY.

SOCIAL

POPULATION PROJECTIONS

- All parts of Metro Vancouver saw population growth between 2001 and 2006 but it was fastest in Downtown Vancouver and the eastern and southern parts of the region.
- The combined population of the three regional districts in 2006 was 2.5 million, which is projected to increase to 3.8 million by 2040. The Squamish-Lillooet Regional District and the Fraser Valley Regional District are projected to be the two fastest growing regional districts in B.C. during this period.

AGING POPULATION

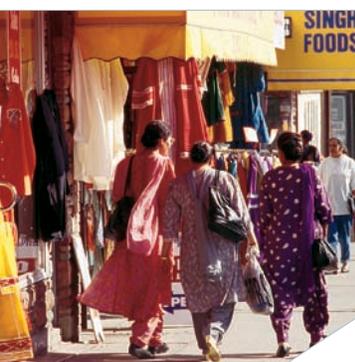
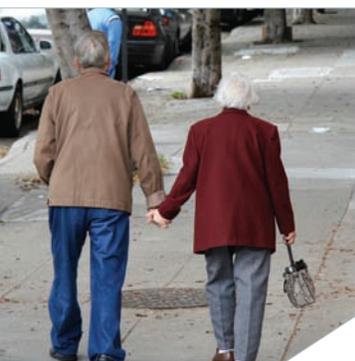
- By 2040, one-quarter of the population will be over 65 years old.
- Between 2001 and 2031, the median age in British Columbia will have increased from 37.9 to 46.2 years.
- Seniors will live in auto-dependent communities where there is limited accessibility for those who are unable to drive. The need for local, mid-day travel and for accessible transit services will increase.

POVERTY AND AFFORDABILITY

- In 2001, an estimated 400,000 people in Metro Vancouver were living in or near poverty.
- For an estimated one-third of Metro Vancouver's households, finding housing that is affordable to rent or own is a problem.
- In 2005, over 2,000 people were found living on the streets or staying in emergency shelters across Metro Vancouver.
- Low-income groups have fewer transportation choices.
- Many other residents of the region, while not low-income, struggle with the high cost of housing and car ownership.

INCREASINGLY DIVERSE POPULATION

- Metro Vancouver is recognized as a multicultural urban centre, ranking third among worldwide international metropolitan areas having significant proportions of foreign-born residents, ahead of such notables as Sydney, Los Angeles and New York City.
- Between 1996 and 2001, 170,000 new immigrant residents moved to the region, raising the total immigrant population to 739,000, or 37 per cent of the population.
- In 2001, almost 40 per cent of the population of Metro Vancouver had a mother tongue other than English.
- Persons having a mother tongue other than English can have challenges navigating the transportation system.



POPULATION PROJECTIONS OVER THE NEXT 30 YEARS

REGIONAL DISTRICT	2006 POPULATION (MILLIONS)	2031 POPULATION (MILLIONS)	2040 POPULATION (MILLIONS)
Fraser Valley	0.3	0.4	0.5
Metro Vancouver	2.2	3.1	3.2
Squamish-Lillooet	0.04	0.07	0.09
Total	2.5	3.6	3.8

Notes: (1) FVRD and SLRD projections were derived from B.C. Stats for 2031; 2040 projections are unofficial and are based on 2006-2031 growth rate. (2) Metro Vancouver projections do not represent official Metro Vancouver policy and are presented for information only.

ECONOMIC

TRENDS AND CONDITIONS

- Employment is projected to increase in Metro Vancouver from 1.1 million in 2006 to between 1.6 and 1.7 million in 2040.
- In the FVRD, employment is projected to increase from its 1996 level of 84,000 to between 163,000 and 188,000 in 2021.
- Employment projections are currently unavailable for the SLRD.
- Over the past three decades, the economy of Metro Vancouver has become larger and has undergone a pronounced shift towards service sector industries which now account for 83 per cent of all employment in the region (up from 67 per cent in 1971). Employment in goods-producing industries (e.g. manufacturing, construction, forestry) has declined from 26 per cent to 16 per cent.
- Employment has grown fastest in the eastern and southern parts of the region, which had an estimated 32 per cent of regional jobs in 2006 compared to 21 per cent in 1981.
- Metro Vancouver has emerged as a major gateway for freight and passenger movement. Key gateway facilities include Vancouver Port, Vancouver International Airport and the four US-Canada border crossings in the vicinity of the region, collectively known as the Cascade Gateway.
- Vancouver area ports and terminal operators, along with the B.C. Government, have plans underway to triple container traffic throughput by 2020.
- Vancouver International Airport Authority projects that air cargo could nearly double from its current level of 220,000 tonnes annually to 420,000 tonnes by 2027 (base forecast).
- The border crossings serving the Lower Mainland include the third busiest passenger vehicle crossing along the U.S. – Canada border and the fourth busiest commercial crossing. Forecasts predict a 75 per cent increase in commercial vehicle crossings at the Pacific Highway crossing by 2013.
- In 2005, nearly \$13 billion in freight crossed the Cascade Gateway border crossings by truck and an additional \$3 billion of trade crossed the Cascade Gateway by rail.
- Over the past fifty years, the economy of the FVRD has shifted from being resource-based (mainly agriculture) to one that is highly diversified. Key economic sectors include the sales and services industries (30 per cent of employment), trade, transport and equipment industries (19 per cent of employment), and business, finance and administration (17 per cent of employment).
- In 2001, Abbotsford, Mission and Chilliwack accounted for 89 per cent of employment in the FVRD. Abbotsford is the dominant centre, with approximately half of all FVRD jobs in 2001.
- Tourism is the single largest employment sector in Pemberton, Whistler and Squamish. This trend is expected to continue over the next 20 years.



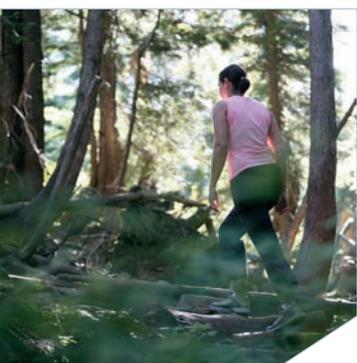
ENVIRONMENT

REGIONAL GROWTH STRATEGIES

- Regional growth strategies are general guides for how regions will grow, change and develop over a 20-year period, developed under provincial legislation. They include land use and transportation policies.
- Regional growth strategies have been developed and approved for Metro Vancouver and the Fraser Valley Regional District. The Squamish-Lillooet Regional District is currently in the process of developing a regional growth strategy.
- Metro Vancouver’s Livable Region Strategic Plan (LRSP) was approved in 1996 and has been moderately successful in shaping transportation and land use in the region. An updated Regional Growth Strategy is currently being prepared.
- The combined geographic area of the three regional districts is 32,593 square kilometres, which includes large tracts of uninhabited, mountainous terrain.

Key strategic policies for each of the regional growth strategies are summarized in the table below.

REGIONAL GROWTH STRATEGIES: PEMBERTON TO HOPE AREA



REGIONAL DISTRICT / NAME OF RGS / STATUS	KEY STRATEGIC POLICIES
Metro Vancouver / Livable Region Strategic Plan (LRSP) / Adopted in 1996	Based on four fundamental strategies: <ul style="list-style-type: none"> • Protect the Green Zone; • Build Complete Communities; • Achieve a Compact Metropolitan Region; • Increase Transportation Choice.
Fraser Valley Regional District / Choices for Our Future / Approved in 2004	Growth management goals: <ul style="list-style-type: none"> • Increase Transportation Choice and Efficiency; • Support and Enhance the Agricultural Sector; • Manage Urban Land Responsibly; • Develop a Network of Sustainable Communities; • Protect the Natural Environment and Promote Environmental Stewardship; • Protect and Manage Rural and Recreational Lands; • Achieve Sustainable Economic Growth; • Manage Water, Energy Resources and Waste Responsibly.
Squamish-Lillooet Regional District / Draft Regional Growth Strategy / RGS currently being developed.	Vision: A region comprised of diverse, distinct and livable communities that share a commitment to: <ul style="list-style-type: none"> • Practice economic, social and environmental sustainability; • Protect the region’s natural beauty; • Enhance the region’s world-class outdoor recreation; • Foster balanced and equitable economic growth; • Make decisions that engage local, provincial, federal and First Nation governments, and reflect the values of communities.



GREENHOUSE GAS (GHG) EMISSIONS

- In February 2007, the International Panel on Climate Change (IPCC), a Nobel Prize-winning body comprising 2,500 climate experts convened by the United Nations, reported that certain human activities are altering the climate and warns severe effects are inevitable, unless greenhouse gas emissions are curbed. The evidence for climate change caused by fossil fuel is described as “unequivocal”.
- Transportation accounts for 40 per cent of greenhouse gas emissions produced in Metro Vancouver, mostly from motor vehicles. On average, a passenger vehicle produces about four tonnes of carbon dioxide a year. The 1.3 million vehicles in the region produce more than five million tonnes of carbon dioxide a year – enough to fill B.C. Place Stadium three to four times every day.
- If current trends continue, by 2020 there will likely be around 6.5 million tonnes of carbon dioxide produced by the region’s vehicles each year. By 2040, we can expect there to be around eight million tonnes of carbon dioxide produced if we continue the same rate of emissions.
- The provincial government has set a target to reduce greenhouse gas emissions by 33 per cent from 2007 levels by 2020. The total amount of carbon dioxide produced from vehicles would likely have to drop to 3.6 million tonnes a year. This reduction will be required even as the number of people and vehicles in the region continues to rise.

ENERGY CONSIDERATIONS

- Historically, fossil fuels have been the main energy source for transportation. In 2000, transportation consumed 80 per cent of all petroleum products used in B.C.
- The primary source of greenhouse gas emissions is the burning of fossil fuels.
- If oil prices continue to rise, it will impact the choice of transportation modes and technologies used by people and goods.
- There are new and emerging technologies that could supplement and possibly replace fossil fuels. These include electrically powered vehicles and gas-electric hybrids.
- The impacts and potential of alternate technologies need to be carefully considered. For example, a 2007 OECD study stated that the potential of ethanol and biodiesel to deliver a major contribution to the energy demands of transportation, without compromising food prices and the environment, is very limited.
- Energy conservation is required, as is improved coordination between transportation and land use planning.
- Planning that supports transportation types that have low energy demands, such as walking, cycling and transit, also results in a more energy efficient urban environment. High density mixed use developments have been shown to be much more energy efficient than low density developments.
- The B.C. Government’s Energy Plan has an overall goal of making B.C. energy self-sufficient by 2016.
- The Energy Plan incorporates transportation issues into the provincial energy policy and includes policies to promote renewable fuels, hydrogen and other alternative propulsion types.

TRANSPORTATION



TRENDS AND CONDITIONS

- Vancouver residents made an average of 6.4 million trips per day in 2004, or 3.2 daily trips per person; travel grew by 16.5 per cent between 1999 and 2004.
- Out of all regional trips in 2004, 11 per cent were by transit, 11 per cent were by walking and two per cent was by cycling; the remaining 77 per cent of trips were by auto (either driving or as a passenger).
- Transit mode share varies significantly by sub-area of the region: The transit mode share was 20 per cent in the Vancouver / UEL, 10 per cent in the mature suburban areas and four per cent in the newer eastern and southern parts of the region.
- In 2006, TransLink provided 5.1 million hours and 116.2 million vehicle kilometres of transit service. Public transit ridership has increased significantly over the past five years, from 129 million revenue passengers in 2001 to 165 million revenue passengers in 2006, an increase of 23 per cent.
- The inflation-adjusted cost of monthly fare cards declined between 2001 and 2006, and the federal tax credit resulted in further savings for riders.
- Retail gasoline prices in Metro Vancouver increased by 36 per cent between 2001 and 2006, while gasoline sales only increased by 4.4 per cent and declined by 0.7 per cent on a per capita basis.
- In recent years, the number of cars in Metro Vancouver has been increasing at a faster rate than the population. Car ownership increased by 40 per cent between 1991 and 2006 compared with population, which increased by 32 per cent during the same period.
- The average commuting time has been decreasing in Metro Vancouver. In 1992, the average round trip travel time was 70 minutes, which decreased to 68 minutes in 1998 and 67 minutes in 2005. In other large metropolitan areas in Canada, the average round trip travel time has been increasing over the same period.
- In 2001, in the Fraser Valley Regional District, 84 per cent of employed residents used their car to get to work; eight per cent carpooled; four per cent walked; one per cent took transit and less than one per cent cycled. Average commuting distance in the FVRD was estimated at 12.6 kilometres.
- In 2001, 43 per cent of FVRD residents worked in their own communities, 11 per cent worked at home and 13 per cent had no fixed workplace.
- Public transit services are operated in Abbotsford, Mission and Chilliwack / Agassiz-Harrison, and are cost-shared by the municipal governments and BC Transit.
- In 2001, in the Squamish-Lillooet Regional District, 70 per cent of employed residents drove to work, 10 per cent carpooled, 6 per cent took public transit, and 11.2 per cent either walked or cycled. The transit mode share varied from 14 per cent in Whistler to two per cent in Squamish.
- In 2001, 55 per cent of employed SLRD residents worked in their own communities, 14 per cent worked in other SLRD communities, eight per cent worked from home and five per cent worked in Metro Vancouver.
- Public transit services are operated in Squamish and Whistler, and are cost-shared by the municipal governments and BC Transit.



SELECTED MAJOR TRANSPORTATION INFRASTRUCTURE: AGE BY 2040

MAJOR TRANSPORTATION INFRASTRUCTURE	CURRENT AGE (2007)	AGE BY 2040
New Westminster Rail Bridge	103 years	136 years
Pattullo Bridge	70 years	103 years
Massey Tunnel	48 years	81 years
Ironworkers Memorial Bridge	47 years	80 years
Knight Street Bridge	33 years	66 years
SkyTrain Expo Line	22 years	55 years
SkyBridge	18 years	51 years

AGING INFRASTRUCTURE

By 2040, many of the region’s water crossings and road and rail infrastructure will have surpassed their design life expectancy and will need to be replaced or undergo significant maintenance or rehabilitation. Examples of the cost of replacing transportation infrastructure owned and operated by TransLink are as follows (2007 dollar amounts):

Knight Street Bridge replacement
\$1.5 billion

Pattullo Bridge replacement
\$1.25 billion

Westham Island Bridge replacement
\$50 million

LAND USE

TRENDS AND CONDITIONS

- Overall, population density in Metro Vancouver is 28 persons per hectare but can vary. Density in Vancouver and the University Endowment Lands (UEL) is 57 persons per hectare. Density at the eastern edge of the region is about 20 persons per hectare.
- Transit ridership is higher where density is higher.
- Residential densities are increasing: single detached dwellings were 32 per cent of regional housing starts in 2001 but only 26 per cent by 2005.
- Regional Town Centres, such as Metrotown, have attracted high-density housing and commercial developments, but have not been as successful in attracting office development. Between 1990 and 2000 most new office space was built in Vancouver's downtown, the Broadway corridor or in suburban office parks.

