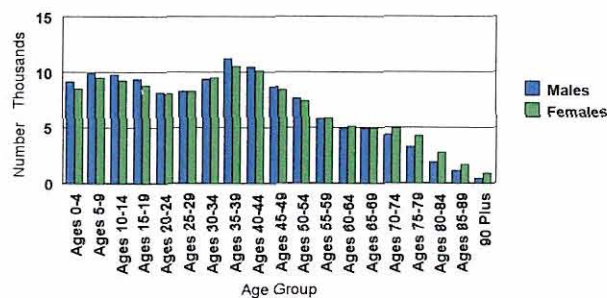




# Fraser Valley Regional District

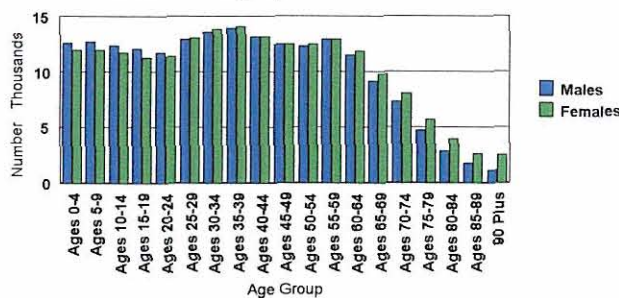
## REGIONAL GROWTH STRATEGY

FVRD Demographics - Year 2000



## Demographic Trends

FVRD Demographics - Year 2020



### This collection includes:

- 1) Urban - Eco Consultants 1998  
*The Future Distribution of People, Homes and Jobs in the FVRD.*
- 2) Urban Futures Institute 1997  
*The Context for Change and Growth in the Fraser Valley Regional District.*

## Phase I Technical Report

**A Technical Report Prepared by Urban – Eco Consultants  
Outlining the Future Distribution of People, Homes and Jobs  
in the Fraser Valley Regional District**

**February 1998**

Extracts of this report for review purposes may be made with due acknowledgment of the source. The information contained in this report has been compiled from sources believed to be reliable, but the accuracy of the information is not guaranteed.

**Urban - Eco Consultants  
303-1932 West 1<sup>st</sup> Avenue, Vancouver, BC. V6J 1G6**

## Preface

### **Regional Growth Strategy of the Fraser Valley Regional District**

This working paper is a product of the technical and analytical work supporting a Regional Growth Strategy for the Fraser Valley Regional District (FVRD). The District comprises the municipalities, villages and electoral areas in the eastern portion of the Lower Mainland of British Columbia.

The purpose of the growth strategy is to guide decisions on growth, change and development within the FVRD to the year 2021 and beyond.

A major objective of the strategy is to improve co-ordination between provincial and local government plans and policies. Its focus is on issues crossing local government boundaries, such as air pollution, water quality, traffic congestion, affordable housing, employment, energy use, and regional growth management. As indicated under the Growth Strategies Act of British Columbia, the strategy is to cover at least the following:

- A comprehensive statement on the future of the Region, including social, economic and environmental objectives of the strategy;
- Population and employment projections; and
- Proposed regional actions in relation to housing, transportation, regional district services, parks and natural areas and economic development.

Topics outside the strategy include municipal development standards and policies and land use zoning.

#### **Related Paper**

A related paper commissioned by the FVRD, entitled "The Context for Change and Growth in the Fraser Valley", prepared by The Urban Futures Institute, was published in January, 1997.

#### **Acknowledgements**

This paper was written by Urban – Eco Consultants. The firm was engaged by the International Centre for Sustainable Cities (ICSC), a non-government organization based in the Lower Mainland. ICSC has a partnership agreement with the FVRD to provide the technical work program for the Regional Growth Strategy.

The authors acknowledge the contributions of David Baxter, Executive Director of the Urban Futures Institute. Before publication, the paper was reviewed by member municipalities of the FVRD.

#### **Additional Copies**

Copies of the paper can be obtained from the Regional District. Please contact:

FVRD Planning Department  
8430 Cessna Drive  
Chilliwack, BC  
V2P 7K4

Telephone: (604) 702-5000  
Fax: (604) 792-9684  
Email: [mfisher@fvr.bc.ca](mailto:mfisher@fvr.bc.ca)

## Table of Contents

<b>Introduction</b>	<b>1</b>
<b>Executive Summary</b>	<b>3</b>
Municipal Capacities	3
Trend Projection	5
Alternative Scenario	6
<b>Section I: Theoretical Municipal Capacities</b>	<b>9</b>
Introduction	9
Organization of Report	9
Theoretical Municipal Capacity Methodology	10
Traffic Zone System	10
Land Uses	15
Residential Land Use	21
Population Calculation	22
Employment Methodology	23
General Findings	23
Municipal Context	24
Constraints to Land Development	30
Appendix	32
<b>Section II: 2021 Trend Projection</b>	<b>33</b>
Introduction	33
2021 Projection Methodology	34
Municipal Context	35
<b>Section III: Alternative Scenario I</b>	<b>42</b>
Methodology	42
General Findings	42
Municipal Context	43

## List of Figures

Figure 1: Projected FVRD Population	2
Figure 2: 1996 and Municipal Capacity Scenarios	3
Figure 3: Theoretical Municipal Capacities	4
Figure 4: 2021 Trend	5
Figure 5: 2021 Alternative I	7
Map 1: Traffic Zone Map of Abbotsford	11
Map 2: Traffic Zone Map of Chilliwack	12
Map 3: Traffic Zone Map of Mission	13
Map 4: Traffic Zone Map of Other Areas	14
Abbotsford Land Uses	17
Chilliwack Land Uses	18
Mission Land Uses	19
Other Area Land Uses	20
Abbotsford Theoretical Municipal Capacity	26
Chilliwack Theoretical Municipal Capacity	27
Mission Theoretical Municipal Capacity	28
Other Areas Theoretical Municipal Capacity	29
Abbotsford 2021 Projections	38
Chilliwack 2021 Projections	39
Mission 2021 Projections	40
Other Areas 2021 Projections	41
Abbotsford 387,000 Scenario	45
Chilliwack 387,000 Scenario	46
Mission 387,000 Scenario	47
Other Areas 387,000 Scenario	48
Table 1: Population, 1951 to 1996	33
Table 2: Average Annual Growth Rates, 1951 to 1996	33
Table 3: 5 and 10 Year Average Annual Growth Rate Projections	34

## Phase I Technical Report

### A Technical Report Outlining the Future Distribution of Population, Homes and Jobs in the Fraser Valley Regional District

#### Introduction

The Fraser Valley Regional District is currently developing a Regional Growth Strategy (RGS) to guide growth and development in the region over the next 25 years. As a part of this process, Urban – Eco Consultants has been contracted to provide a series of growth scenarios outlining future alternative distributions of people, homes and jobs in the region. The scenarios presented here are intended to assist in the development of the Growth Management Strategies for the FVRD that will define the RGS, and to provide a technical base from which other modelling, such as a transportation infrastructure analysis, can begin.

This report outlines the processes used to derive these growth scenarios, and results that were achieved. The three scenarios presented here are: Theoretical Municipal Capacities, 2021 Trends Projection and an Alternative Growth Scenario. The population and dwelling unit totals for each scenario are outlined in the executive summary (Figure 1). Detailed municipal and traffic zone projections follow in the accompanying sections.

Together, the Theoretical Municipal Capacities, Trends and Slower Growth Scenario define patterns to physical land use development within the FVRD according to a variety of socio-economic factors and time horizons.

#### **Theoretical Municipal Capacities**

- The first is a baseline report outlining the theoretical capacities for population, housing and employment in accordance with current municipal objectives and guidelines outlined in municipal Official Community Plans (OCPs). Under this scenario, the FVRD would have a capacity of 682,973 people. As indicated, the numbers in this section represent theoretical maximums for population, dwelling unit and employment capacity for each plan area in the FVRD. Throughout the document this number has been rounded to 683,000 to make reading easier.

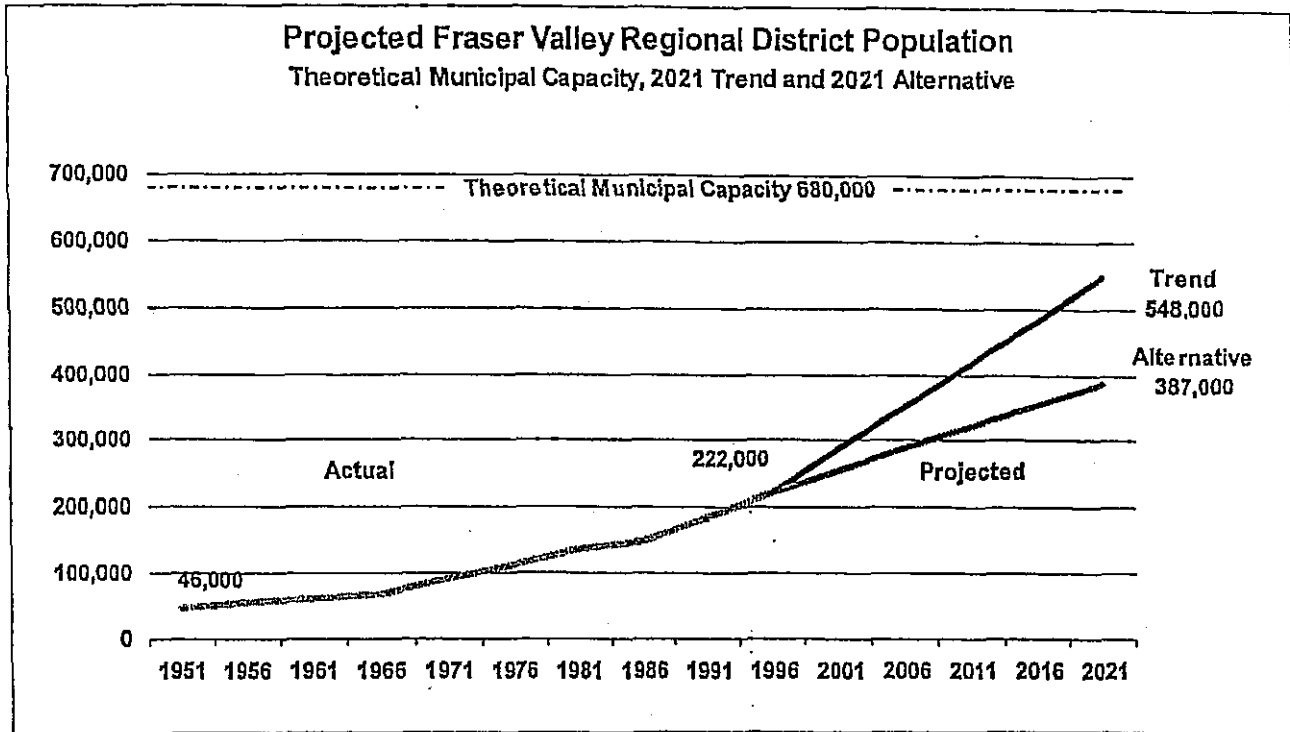
#### **Trends Projection to 2021**

- Under the Trend Projection, 2021 municipal populations were projected by considering historical data and current development policies. First, individual municipal growth rates over the past 5, 10 and 50 years were taken into account. Second, the current capacities for growth and development, as interpreted from Official Community Plans, were considered. The result of the Trend Projection was a 2021 population for the FVRD of 547,755 people. The trend-based scenario provides a reasonable representation of how much growth can be expected in the Valley over the next quarter century assuming current and historical spatial patterns of growth and development that have been seen in the region. Throughout the document this number has been rounded to 548,000 to make reading easier.

### Slower Growth Scenario

- A slower growth pattern was also considered. Under this slower growth scenario, the projected population for the FVRD would be 387,223 people by 2021. This scenario is intended to model potential growth according to a distinct set of socio-economic factors that contrast those underlying the Trend Projection. Throughout the document this number has been rounded to 387,000 to make reading easier.

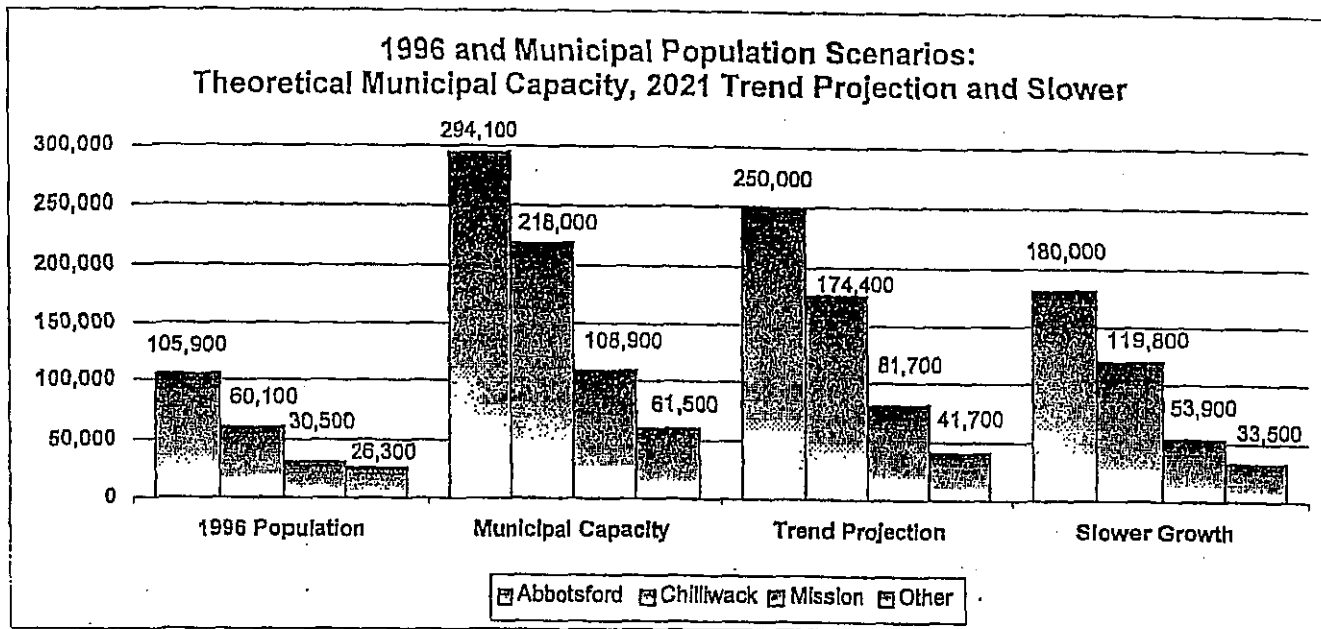
Figure 1



## Executive Summary

Each of the scenarios summarized below are described in further detail in the reports following this summary. Figure 2 presents a comparison of the 1996 census population and municipal totals under each scenario while Figures 3, 4 and 5 present the municipal totals for population, dwelling units and employment projected for each scenario.

**Figure 2**

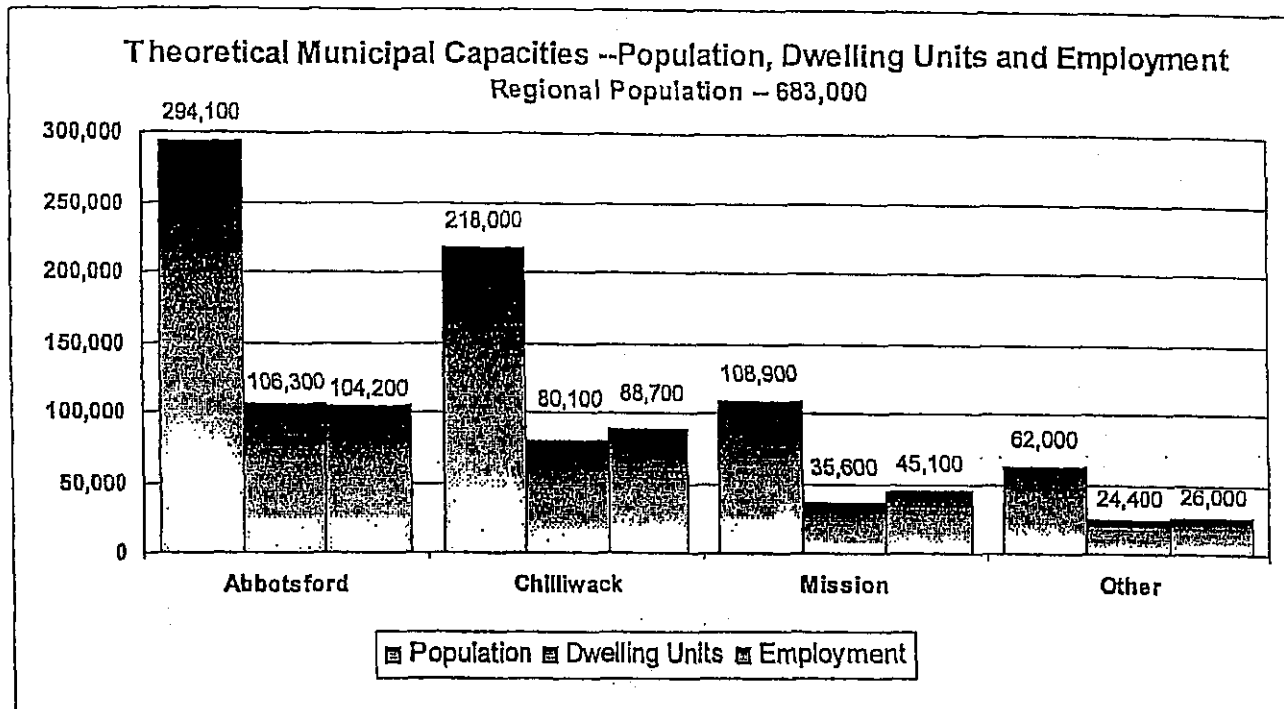


### Theoretical Municipal Capacities -- FVRD Population 683,000

The Theoretical Municipal Capacities report presents the theoretical capacities for each member municipality in the Fraser Valley Regional District. This theoretical capacity illustrates the population, dwelling units and employment each municipality might accommodate given growth objectives outlined in municipal Official Community Plans. Capacities were initially calculated at the traffic zone level and then summed to municipal totals. In turn, municipal totals were summed to derive the regional totals for population, dwelling units and employment. The theoretical capacity of the FVRD was calculated according to the consultant's interpretation of municipalities' land use designations, densities and persons per unit values, when theoretical capacities were not provided by the municipality itself. Due to the nature of the scenario, a time horizon is not associated with this analysis.

The calculated theoretical municipal capacity total for the Fraser Valley Regional District is 683,000 people. This indicates that the FVRD has the potential to increase its population base by 460,600 people (an increase of 207%) from the 1996 Census total of 222,400. The associated overall theoretical dwelling unit capacity of 245,500 would mean that over 166,300 more dwelling units would be added to local municipalities throughout the region over the same period. The total employment under this scenario is 264,000 total jobs region-wide. Employment estimates were calculated for each scenario considering population growth and demand thresholds.

Figure 3



On an individual municipal basis, the City of Abbotsford would remain the largest municipality in the Valley. As Figure 3 indicates, Abbotsford has the potential to increase its population to 294,100 people. Reaching this theoretical capacity implies adding 188,700 people to its 1996 census population of 105,400. The overall dwelling unit capacity, based on an average persons per unit value of 2.89 (1996 Census based), is 106,300 dwelling units. Associated with this growth in municipal population is an increase in the employment base to approximately 104,200 jobs.

Although the City of Abbotsford would remain the largest municipality under the Theoretical Municipal Capacities scenario, the District of Chilliwack shows the greatest potential for growth. Chilliwack would add approximately 157,800 people, out of a total potential capacity of 218,000 people. Reaching this total means the municipality would grow by 262% from its 1996 census population of 60,200. It would also add almost 57,600 dwelling units (based on a 1996 Census ppu figure of 2.67) to reach a total of over 80,100 dwelling units. In the Capacity Scenario Chilliwack's employment would be 88,700 jobs.

The District of Mission could have a population of up to 108,900 people. Based on this theoretical municipal total, Mission would grow by 257%, adding over 78,400 people from its 1996 census population of 30,500. The District of Mission would also add over 25,500 dwelling units (based on a 1996 Census figure of 3.04 persons per unit) to reach a total of 35,600 dwelling units. Employment for Mission is approximately 45,100 jobs under this scenario.

As the major regional centers, Abbotsford, Chilliwack and Mission currently account for a significant percentage of the Fraser Valley's population, homes and employment. They also account for the majority of the region's theoretical capacity. The population, employment and dwelling unit totals for other municipalities in the region (Hope, Harrison Hot Springs, Kent and the electoral areas) have been grouped together with the unorganized areas for the executive

summary in order to facilitate comparison with the three largest municipalities. Under the Theoretical Municipal Capacity scenario, these smaller areas could increase their aggregate population to 62,000 people. Based on this total, they have the potential to increase 126% from their total 1996 population of 26,300 people. With an average persons per unit total of 2.54, their combined dwelling unit capacity is approximately 24,400 units, increasing 149% over the 1996 total of 8,500. For a detailed forecast of these individual areas, please refer to the spreadsheets provided with the accompanying report.

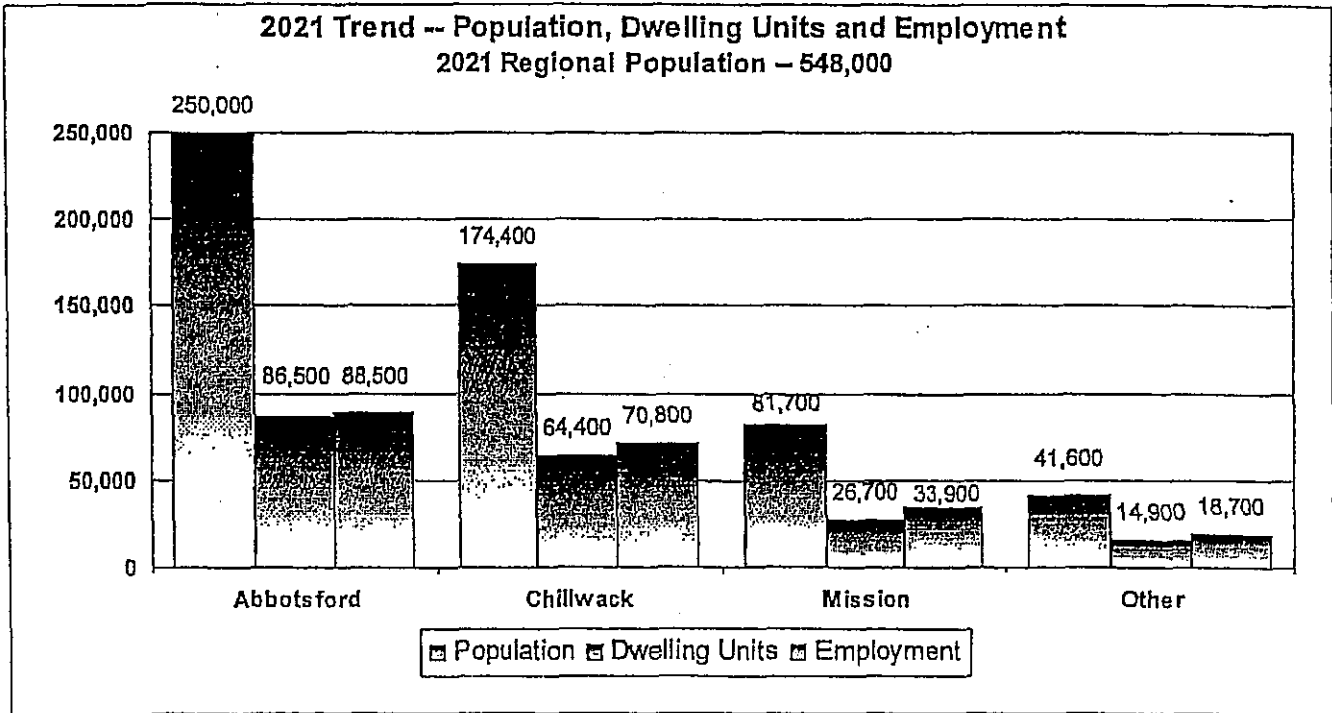
**Trend Projection – 2021 FVRD Population 548,000**

The Trend Projection was developed by analysing the historical growth rates of individual municipalities and the current development potential indicated in each plan area as interpreted from municipal Official Community Plans. The Trend Projection assumes a continuation of the historic spatial patterns of growth and development that have been experienced in the region over the past 50 years, with particular emphasis on the past 5 years.

The Trend Scenario projects growth of population, dwelling units and employment for municipalities in the Fraser Valley. Unlike the Theoretical Municipal Capacities section, the Trend population is tied to the year 2021. The municipal projection numbers were in turn aggregated to give a regional projection and distributed within the traffic zone system.

According to the Trend Scenario, the FVRD will grow to 548, 000 people over this planning horizon. This represents a 146% increase over the 1996 regional total of 222,400 people. The dwelling unit total for the region would increase by 113,200 units to 192,400 -- a 143% increase. Employment would also rise to approximately 211,900 jobs by 2021. This analysis indicates that the region still has the potential to add over 135,000 people and 53,100 dwelling units before it reaches its theoretical capacity of 683,000.

**Figure 4**



Based on the Trend Projection, the City of Abbotsford's 2021 population will experience a 137% increase from its 1996 census population of 105,400 people to 250,000 in 2021 (Figure 4). In order to accommodate this increase in population, the stock of dwelling units in the municipality would grow by 50,000, to reach a total of 86,500 units (based on the 1996 average persons per unit value of 2.89). Following this growth in population, the municipality's total employment would grow to 88,500 jobs.

Although the City of Abbotsford would once again remain the most populous municipality in the FVRD under this scenario, the District of Chilliwack would grow at a slightly faster rate over the 1996 to 2021 period. As Abbotsford approaches its theoretical capacity, constraints on development become more prevalent, resulting in a greater proportion of growth in surrounding municipalities that have remaining capacity.

The Trend scenario projects a 2021 population of 174,400 people for the District of Chilliwack. With a 1996 Census Population of 60,200, the municipality's population would grow by 190%, adding 114,200 new residents. Using the same average number of persons per dwelling unit as there were in 1996, the District of Chilliwack would have a total of 64,400 dwelling units under the Trend Projection. Following this growth in population, the District of Chilliwack would also increase its job base, growing to approximately 70,800 local jobs.

The Trend scenario projects a 2021 population of 81,700 for the District of Mission, representing a 168% increase over its 1996 population of 30,500. Figure 4 shows that the municipality's dwelling unit projection would also grow (167%) from 10,000 in 1996 to 26,700 units over this time horizon. As the District of Mission adds 51,200 residents, it would also generate a total of 33,900 jobs under the Trend Projection.

The other areas within the FVRD, such as Harrison, Hope, Kent and the unorganized areas, have been aggregated on Figure 4 so that their totals may be more easily compared with the larger municipalities. Under the Trend Scenario, these areas' 1996 census population of 26,300 would grow by 58% to 41,600 people. This population total means that the number of dwelling units would increase 48% over this planning horizon to 14,900 units. This area would also account for 18,700 jobs. For a disaggregated forecast of these areas, please refer to the spreadsheets provided with the accompanying report.

#### Slower Growth Scenario – 2021 FVRD Population 387,000

The growth scenario shown here represents a slower growth projection for the municipalities of the Fraser Valley Regional District than would result from either current trends or reaching their theoretical capacities. This scenario outlines the distribution of people, dwelling units and employment in the Fraser Valley Regional District if it grew to a total population of 387,000 people over the next quarter century. There are a wide range of values that could be selected to represent this slower growth scenario: 387,000 was selected as it is BC Statistics current 2021 projection for the Fraser Valley Regional District's 2021 population.

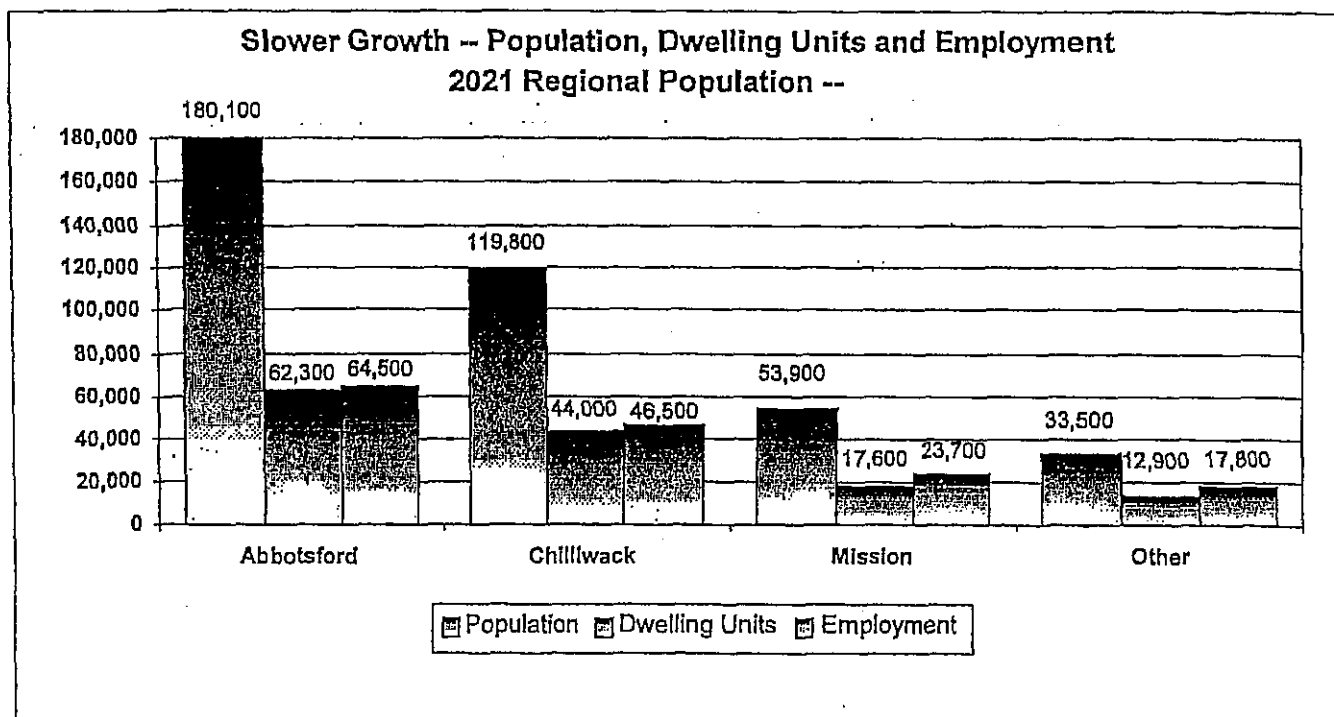
The 387,000 regional total was distributed to the municipalities on the basis of their current share of population, the pattern of change in these areas over the recent past, and the theoretical maximum capacity exhibited by each municipality. Municipal totals were then distributed to the traffic zones on the basis of residential land uses, as defined through the Official Community Plans.

The slower growth scenario anticipates that the population of the FVRD will grow by 74%, from 222,400 to 387,000 people, adding 164,600 more people to the Regional District over the next 25 years. Achieving this capacity would also imply adding almost 57,500 additional dwelling units to reach 136,700 units. These totals represent over 161,000 fewer people than the Trend Projection and over 296,000 less than the Capacities analysis. Consequently, under this scenario, each municipality would have a considerable amount of land suitable for future development.

The Alternate Scenario projects that the City of Abbotsford will grow to approximately 180,100 people over the next 25 years (an increase of 71%, from its 1996 census population of 105,400 people). Using the average number of persons per unit in 1996 implies that 25,800 homes would be added to the housing stock of the municipality. Consequently, Abbotsford's 2021 total number of dwelling units would rise to 62,300 under this scenario. In turn, the municipal employment would rise to approximately 64,500 jobs. These totals are illustrated in Figure 5.

Following the same slower growth assumptions, the District of Chilliwack will grow to 119,800 people under this scenario. This represents a 99% increase, adding 59,600 people, over the 1996 Census population of 60,200 people. It would also add 21,500 dwelling units (based on a 1996 Census figure of 2.67 persons per unit) to reach a total of 44,000 dwelling units. Its job base would increase as well, accounting for 46,500 of the region's jobs.

**Figure 5**



According to the slower growth scenario, the District of Mission would grow to 53,900 people and 17,600 dwelling units. This indicates that over the planning horizon of the Regional Growth Strategy, the population of Mission would grow by 77%, from its 1996 census population of 30,500 people. The additional number of dwelling units needed to accommodate this growth would be 7,500, while the total employment associated with this 2021 population is 23,700 jobs.

As in the Theoretical Municipal Capacities and the Trend Scenario, the smaller areas within the FVRD have been combined to facilitate comparison with the larger municipalities. Figure 5 shows that under the Slower Growth Scenario, their combined population would grow to 33,500, representing a 27% increase over the 1996 Census total of 26,300 people. Accompanied by this population growth, the total number of dwelling units required for these areas is 12,900 units by 2021, with an employment base of 17,800.

## Section I: Theoretical Municipal Capacities

### Introduction

This section presents the summary of research and projections of the future population and housing stock in the Fraser Valley Regional District and its member municipalities. The growth scenario outlined in this section reflects considerable work between the municipal planning departments and Urban-Eco Consultants. This theoretical capacity illustrates the amount of population, dwelling units and employment each municipality can accommodate given present growth objectives outlined in municipal Official Community Plans. Municipal totals represent a theoretical capacity for each district, and account for both new municipal development as well as redevelopment within existing municipal boundaries.

### Organization of Section

Throughout this section, information is displayed on three scales: regional, municipal and individual traffic zones. A great deal of information is produced at all three levels, such as total area, land use designations, projected dwelling unit forecasts, population totals and employment forecasts. The traffic zone level is included in order to provide input into other working papers that would deal with local issues such as traffic patterns along major arteries and other infrastructure planning throughout each municipality.

Abbotsford and Chilliwack have designated a sizable amount of land for residential development. Based on the OCP land areas and densities, these municipalities have considerable growth potential. Due to their size relative to other Fraser Valley municipalities, they are likely to continue to remain the primary centres for population, housing and employment growth in the Fraser Valley in the future.

Defining the Theoretical Municipal Capacities serves two important purposes: First, they are necessary to review the future limits to growth within each municipality as, regardless of any trend in development, growth can only continue to the extent that is defined by current Official Community Plans. Second, for many of the municipalities, these traffic zone totals act as a baseline for calculations in other sections and other scenarios.

As indicated above, the data in this section is derived from information contained in the municipal OCPs in consultation with municipal planning departments. Consequently, the estimates and scenario values produced here are dependent upon both the specification and the interpretation of OCP documents. Changes in interpretation and specification, as well as refinement in the delineation of land areas within zones would result in changes in the estimates produced by these scenarios. These changes, while perhaps significant on a small area basis, are not likely to result in changes in the orders of magnitude of the capacity estimates produced by the scenarios, nor in the relative capacity of municipalities in the region.

### Theoretical Municipal Capacity Methodology

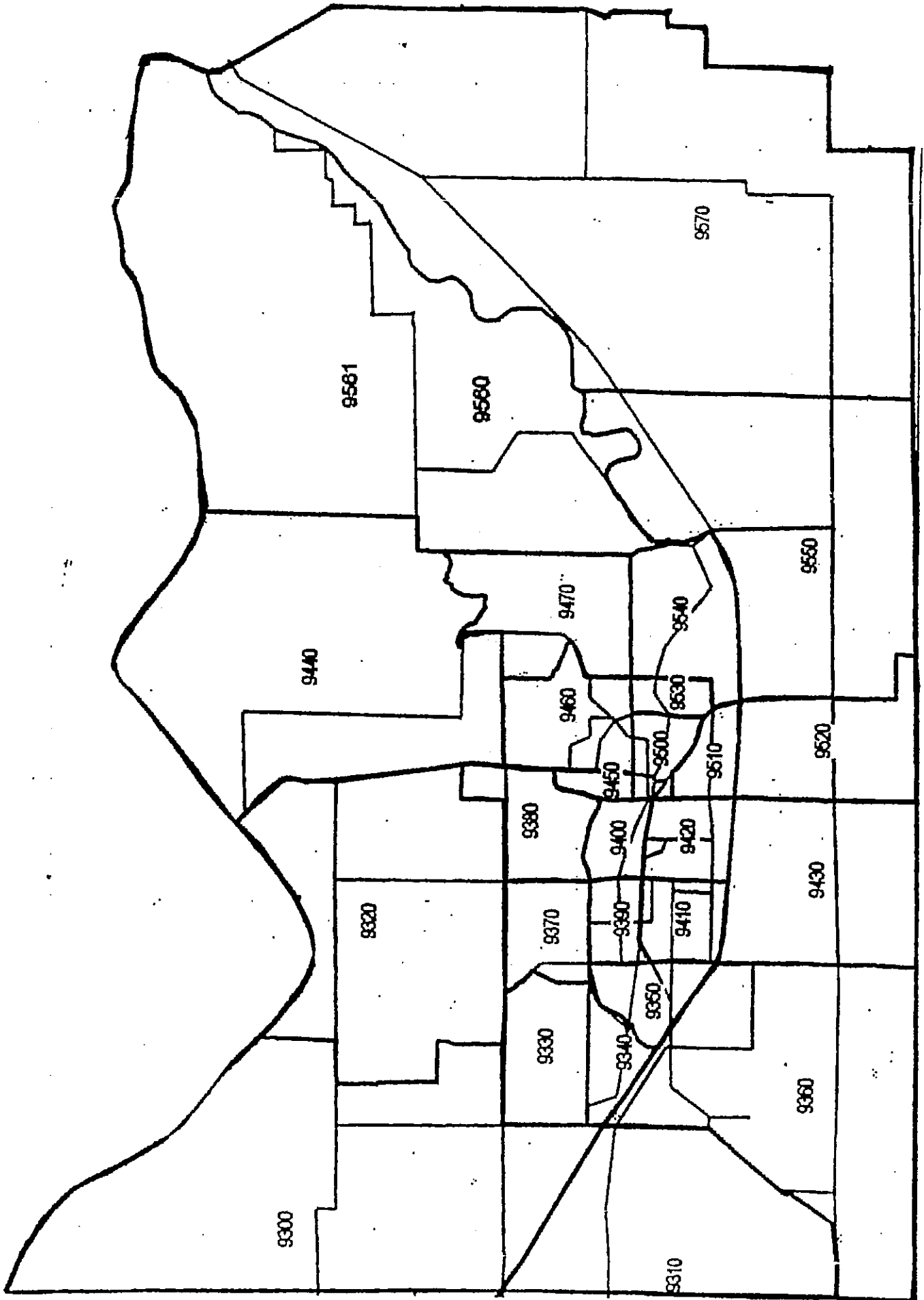
As a result of the variety in quantitative and spatial data coverage for each individual municipality, two distinct methodological approaches were employed for the calculation of municipal population. In the case of the larger municipalities (Abbotsford, Chilliwack and Mission), the municipal planning departments assisted the consultants in deriving the population totals for the model. Consequently, modifications to the location, amount and density of residential land were made. For a more detailed description of the population calculation for these municipalities, please refer to Appendix I. In cases where land area, residential densities or persons per unit values were not available from municipal OCPs, values were used that were consistent with local character. Assumptions about these and other factors that comprise the population calculations for these municipalities will be outlined later in this report.

### Traffic Zone System

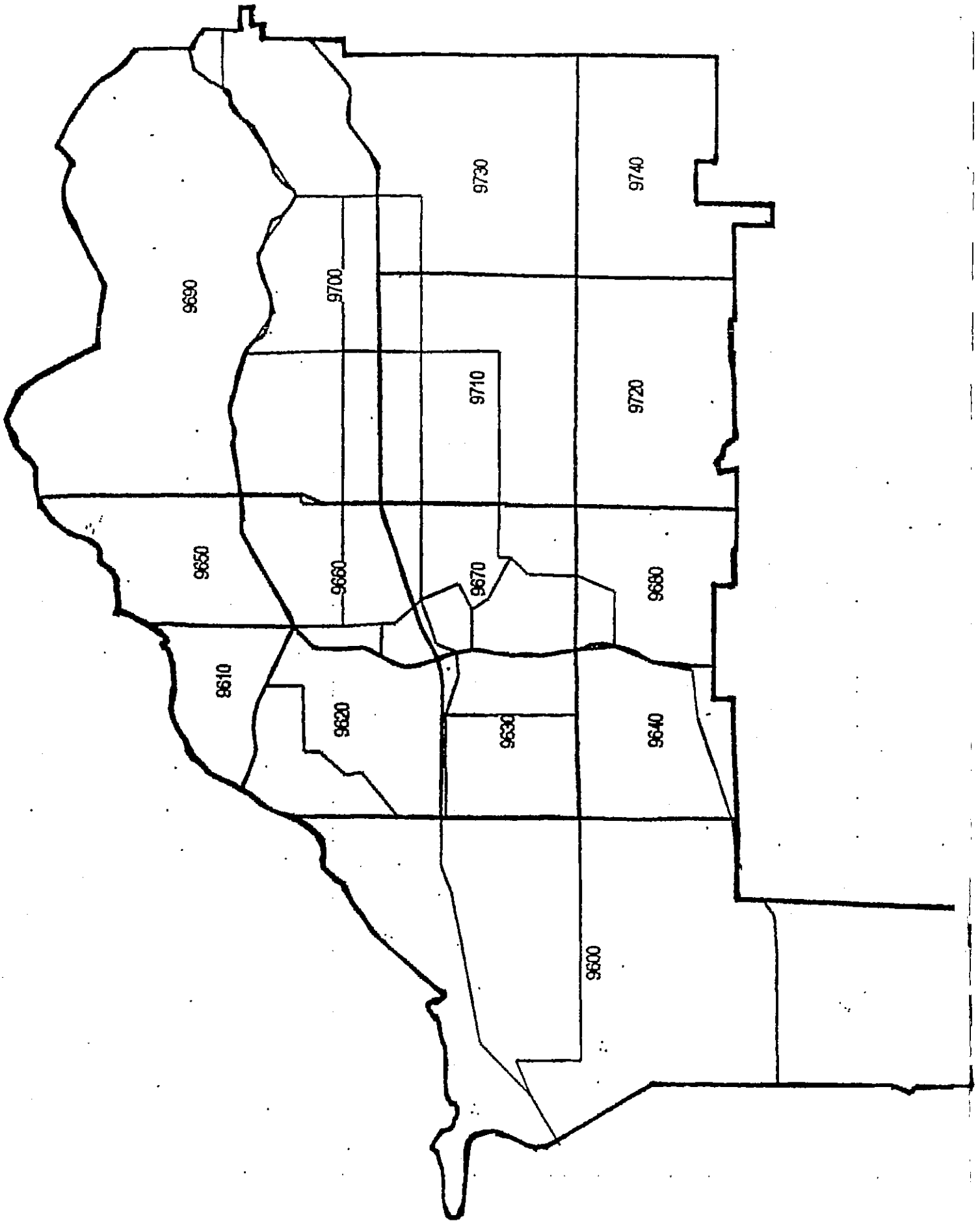
#### Traffic Zones:

- The Traffic Zone system that was used for modelling was adapted from the Greater Vancouver Regional District's (GVRD) traffic zoning system. For the purposes of the model, the Traffic Zone system was only modified where zones were too expansive or exhibited inadequate information for the model to be representative. Changes to the zone system were conducted by Reid Crowther Consulting Engineers to facilitate traffic modelling in later sections of the technical report.
- The areas for individual traffic zones were provided by the GVRD. Where traffic zones were modified by the transportation consultant, the land uses calculated within that zone were summed to provide an overall area for the zone.
- The Fraser Valley was consequently divided into approximately 70 zones
- A detailed map outlining the boundaries of the traffic zones follows this section of the report.

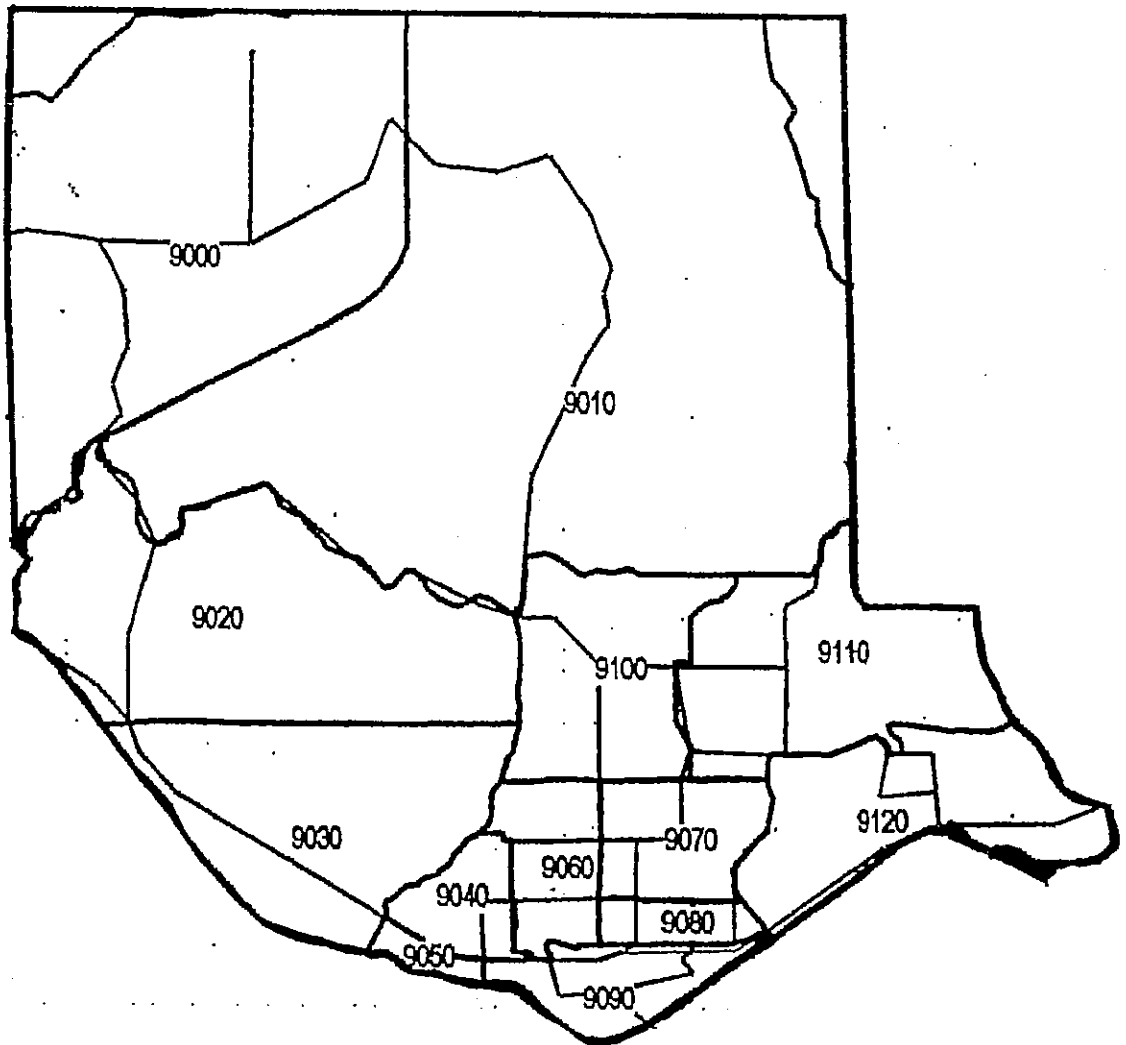
Abbotsford Traffic Zones



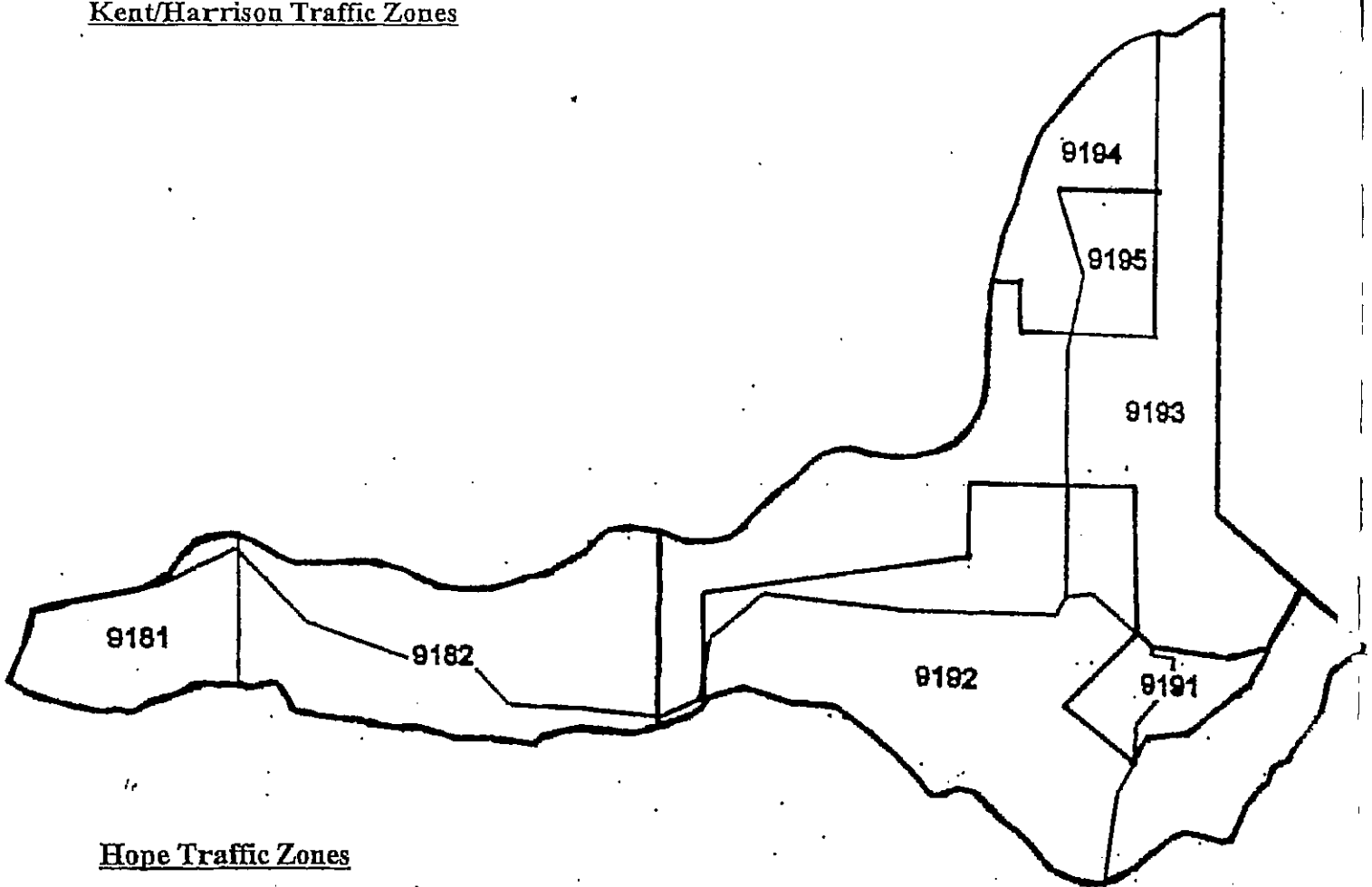
Chilliwack Traffic Zones



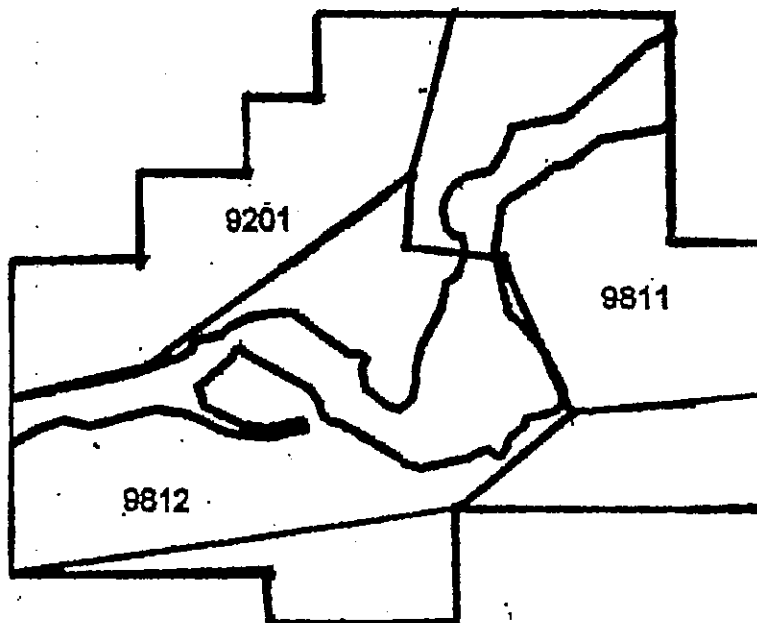
Mission Traffic Zones



Kent/Harrison Traffic Zones



Hope Traffic Zones



## Land uses

Where necessary, large land areas were calculated using a planimeter. Due to the finer level of detail required in calculating smaller areas, the planimeter could not be used. These areas were calculated using a grid system that was superimposed over each land use. Area calculations were made for all land uses designated by the Official Community Plans within a particular district. The portion of the model defining the calculated municipal land uses follows this section of the document.

### Agricultural:

- Agricultural land is defined as those areas where the principal use is designated as agriculture and/or agriculture-related industries. However, it may also include other uses where approved under the Agricultural Land Commission Act.

### Forest:

- Forest land is designated primarily as a tree farm license that is held within the District of Mission. The municipality manages this land as a part of a larger arrangement with the provincial government and will remain predominantly as forest land. This is the only municipality within the FVRD with a forest land use designation.

### Resource:

- This land use is defined in the District Municipality of Harrison Hot Springs with the intention of maintaining the land in a substantially natural state by limiting permitted uses to private and public recreation, public use and agriculture.

### Resort:

- The resort designation within the Valley is to delineate areas where private or public land can be developed for tourism or recreational purposes. Generally, these developments will be commercial operations serving a seasonal or recreational market.

### Park:

- Park land includes municipal parks that suit the recreational needs of the local communities. These include areas designated as public beaches or water parks, such as those that exist in and around Harrison Hot Springs and the District of Kent.

### Institutional:

- Institutional areas are designated to provide service to local residents. Examples of these kinds of land use are schools, hospitals, civic buildings and public works yards. Due to their municipality-serving functions, institutional lands are generally located within close proximity to relatively urbanised areas.

### Industrial:

- Industrial land uses may range from light warehousing operations to the assembly and processing of goods and resources or for transportation uses. Some municipalities (primarily Abbotsford) have land designated as industrial reserve.

### Commercial:

- Commercial land is characterised by a variety of uses ranging from retailing and personal services to office functions. Within many municipalities there are a variety of commercial uses defined. These include community commercial, residential commercial, highway

Tzone	Area (ha)	Agricultural (ha)	Forest (ha)	Resource (ha)	Resort (ha)	Park (ha)	Institutional (ha)	Industrial (ha)	Commercial (ha)	Indian Res. (ha)	Rural (ha)	Limited Use (ha)	Other (ha)
Abbotsford	60												
9300	60.00												
9310	3857	3731.59					6.25		12.50				
9320	373	175.00								159.38		37.50	
9330	447	150.00											
9340	190								37.50				
9350	255								16.88				
9360	2388	1569.48					321.88		456.25				
9370	316	26.88										50.00	
9380	378	142.75					48.13			8.75			
9390	167						9.38		43.75				
9400	173							9.38	41.83				
9410	265								75.00				
9420	275						10.63		12.50				
9430	1187	940.10					156.25		4.25				
9440	3314	1857.64								18.75	1437.50		
9450	71								12.50				
9460	481	289.90					18.75		8.75				
9470	694								31.25				
9500	181						62.50		25.00	6.25			
9510	183						18.75		7.50				
9520	730	450.00					26.25	190.63	25.00				
9530	121								12.50				
9540	600	50.00					2.50	10.63	26.00				
9550	2742	2742.00											
9560*	5632	831.25						68.75					4228.69
EAHH(9561)													
9570	7131	7130.00							1.00				
Totals	32,213	20,147							850	193	1,525		4,229

Land areas may not sum to total lines due to exemption of residential and other land uses to modification of Traffic zones, some TZ areas were not available

Tzone	Area (ha)	Agricultural (ha)	Forest (ha)	Resource (ha)	Resort (ha)	Park (ha)	Institutional (ha)	Industrial (ha)	Commercial (ha)	Indian Res. (ha)	Rural (ha)	Limited Use (ha)	Other (ha)
Chilliwack													
9600	6,142.39	3,109.00		903.13		1,067.50	1.35	157.50	20.25				
9610	589.37	54.00		202.30		72.25			25.00	144.50			
9620	1,286.15	552.00				21.88	23.13	50.29	28.13	469.63			
9630	970.91						74.31	35.10	59.37				
9640	1,047.48	575.00					169.90	36.13	6.25		60.50		
9650	911.22					27.34		91.12					
9660	903.03	339.00					81.25	37.50	252.00				
9670	1,107.41	875.00				39.37	21.88	87.50					
9680	938.70	321.00					18.06	212.50	18.75				
9690	3,394.56	2,876.00		320.00		31.25	25.00			86.70			
9700	2,434.82	2,358.00					4.80	2.17	24.00				
9710	1,971.16									72.20	1,083.75		
9720	1,542.54	257.00		144.50		274.50					595.87		
9730	2,041.90			484.75		182.00					794.75		
9740	1,369.04			934.25							433.50		
Totals	26,651	11,316		2,989		1,716	420	710	434	773	2,968		

Land areas may not sum to total lines due to exemption of residential and other land uses  
 Due to modification of Traffic zones, some TZ areas were not available

Tzone	Area (ha)	Agricultural (ha)	Forest (ha)	Resource (ha)	Resort (ha)	Park (ha)	Institutional (ha)	Industrial (ha)	Commercial (ha)	Indian Res. (ha)	Rural (ha)	Limited Use (ha)	Other (ha)
<b>Mission</b>													
9000	2,731	100.50				540.87	8.00	56.00			1,012.83		
9010	6,115	32.00	4,240.00			144.00		104.00	8.00		1,328.00		
9020	1,626	96.00	128.00			48.00	48.00	80.00	8.00		856.00		
9030	1,078	192.00									612.00		
9040	195					25.00	5.00		10.00		48.00		
9050	58					24.00	28.00	53.25					
9060	282					10.00	21.50		5.00				
9070	321					7.50	15.00		1.88				
9080	120					5.50	10.00	2.40	25.00				
9090	287					85.00	2.00	92.25	42.50				
9100	648					20.00	8.00				280.00		
9110	889	176.00				128.00	42.00				516.80		
9120	749	224.00				69.50	74.88	16.00	3.00		152.00		
9130	9,315					7,000.00							2,315.00
<b>Totals</b>	<b>24,416</b>	<b>820.50</b>	<b>4,368.00</b>			<b>8,107.37</b>	<b>262.38</b>	<b>403.90</b>	<b>103.38</b>		<b>4,805.63</b>		<b>2,315.00</b>

Land areas may not sum to total lines due to exemption of residential and other land uses  
 Due to modification of Traffic Zones, some TZ areas were not available

Tzone	Area (ha)	Agricultural (ha)	Forest (ha)	Resource (ha)	Resort (ha)	Park (ha)	Institutional (ha)	Industrial (ha)	Commercial (ha)	Indian (ha)	Rural (ha)	Limited Use (ha)	Other (ha)
<b>Kent</b>													
9181		65.50		446.50		285.80				327.40		214.30	
9182		418.60		1,067.50		640.50				62.80	83.70		
9191						16.70		15.30	6.80				
9192		1,767.80				544.20				83.70		179.00	
9193		399.10		2,658.20		711.70				1,151.20		1,004.70	
<b>Totals</b>		<b>2,651</b>		<b>4,172</b>		<b>2,199</b>		<b>15</b>	<b>7</b>	<b>1,625</b>	<b>84</b>	<b>1,398</b>	

<b>Harrison</b>													
9194	182.94			138.10		14.30			30.54				
9195	121.80			98.00		13.40			10.40				
<b>Totals</b>	<b>305</b>			<b>236</b>		<b>28</b>			<b>41</b>				

<b>Hope</b>													
9201						2.97			2.97			345.30	
9811		49.10				97.90	8.40	32.00	33.30	8.40		878.20	
9812		169.70				46.10	6.00	62.50	13.40	4.50		452.50	
<b>Totals</b>		<b>219</b>				<b>147</b>	<b>14</b>	<b>95</b>	<b>50</b>	<b>13</b>		<b>1,676</b>	

<b>Unorg</b>													
9140	26,093.00			12,600.00		250.00					80.00		11,600.00
9150	6,915.69	4,125.80			11.30		51.20			14.70	1,488.20		41.20
9160	9,679.26	3,100.00					8.00		8.00	62.10	1,149.00		4,469.00
<b>Totals</b>		<b>7,226</b>		<b>12,600</b>	<b>11</b>	<b>250</b>	<b>59</b>		<b>8</b>	<b>77</b>	<b>2,717</b>		<b>16,110</b>

Land areas may not sum to total lines due to exemption of residential and other land uses  
 Due to modification of Traffic zones, some TZ areas were not available

## Residential Land Use

Residential land uses are categorised as high, medium and low density. These are relative classifications that imply various densities in different plan areas.

### High Density Residential (HDR ha):

- High density residential (HDR) is typical of apartment or non-ground oriented dwellings that are usually found in relatively dense urban areas. The high density residential land use is also specified as "multi-family residential" in some OCPs.
- Larger municipalities have incorporated a high density designation in their OCPs.
- For municipalities where densities were not provided, alternatives that were representative of the character of the municipality were used.
- All information was compiled in units per hectare (UPH) to facilitate further calculations.

### Medium Density Residential (MDR ha):

- Medium density residential (MDR) is defined by small residential lots and clustered development. MDR is usually characterized by ground oriented units, as opposed to the HDR apartment uses. Other designations, such as "Urban Residential", were also used for medium density developments in some municipalities.
- Medium density units per hectare were provided through the municipal OCPs in some instances.
- For municipalities where densities were not provided, alternatives that were representative of the character of the municipality were used.

### Low Density Residential (LDR ha):

- Low density residential (LDR) is represented by traditional low density suburban development.
- Densities for LDR were once again taken from municipal OCPs. This land use is also referred to as "Suburban Residential" in some Plans.
- For municipalities where densities were not provided, alternatives that were representative of the character of the municipality were used.

## Total Dwelling Units

When not provided by the municipality, the total number of dwelling units was calculated using the areas outlined by municipal land use maps and the maximum number of dwelling units per hectare defined for each specific residential land use.

### High Density Dwelling Units (DU):

- HDR units were calculated by applying the density for a particular area (defined as UPH) to the total area that is dedicated to that use by each OCP. This was conducted for each zone where high density residential uses are designated. The end product of this calculation is the total high density residential capacity for each traffic zone and, in turn, for each municipality.
- For the purpose of generating this maximum capacity, it is assumed that all development occurs at maximum allowable densities, and that full redevelopment at the maximum density takes place.

### Medium Density Dwelling Units (DU):

- The number of medium density dwelling units was calculated in the same manner as the high density dwelling units. The area (in hectares) designated in each zone for medium density

development was multiplied by the maximum allowable medium density units per hectare.

- It is assumed that all development occurs at maximum permitted densities and that full redevelopment takes place.

#### Low Density Dwelling Units (DU):

- The same process for the calculation of the high and medium density residential land uses was also used for the low density areas.
- Once again, it was assumed that all development would occur at maximum permitted densities and that redevelopment would occur.

#### Theoretical Municipal Capacity Dwelling Units:

- This is achieved by summing the total number of dwelling units for each of the three residential land uses permitted in a municipality.
- The theoretical capacity of each municipality was calculated for review purposes and will be used as the basis for further calculations.

#### Population Calculation

The municipal calculation for population was based on the total number of dwelling units that was established in the Total Dwelling Unit section and a residential persons per unit (ppu) factor. As the number of persons residing in a dwelling varies dramatically with different structure types, the calculation is formulated to allow for differences between the high, medium and low residential densities that were outlined earlier.

#### Persons Per Unit:

- Residential persons per unit numbers were taken from OCPs throughout the valley. When not available, an average PPU number that was representative of the municipality was used.
- As this number represents broad societal factors, it was assumed that the numbers would remain relatively constant over the small geographic area represented by the model. It is also assumed that these numbers will not change significantly over time.

#### Total Projected Municipal Population:

- Total Municipal Population is the sum of the populations for each zone within a plan area.
- The population calculation was established for review purposes and is not meant to represent current trends in growth and development.
- Due to the lack of quantitative and spatial data available for many of the small municipalities in the District, it was necessary to find a reasonable alternative to the Municipal Population calculation. When sufficient land use maps were not provided, it was assumed that the population for these areas would remain relatively constant over the planning horizon of this report. Consequently, the 1996 population values for these municipalities were used for the model.
- While population for these areas was held constant until 2021, the order of magnitude of these areas is small enough not to significantly influence the calculations described in this report. The lack of planning information on these areas is attributable to their small size and slow rate of future population growth (or decline). Most are in unorganized areas devoted to resource extraction or agriculture.
- The projected population for Harrison is based on the same calculation as other municipalities. However, due to the resort nature of this area, and its seasonal population fluctuations, the theoretical capacity population would reflect a potential seasonal maximum.

## Employment Methodology

As employment is population-related, it can be generated according to a ratio between population and employment. This means that as population changes (as it does for each of the Scenarios), employment changes as well. Changing the ratio of population to employment is another way to change total employment for a geographical area. The components used in the calculation of employment for each of the scenarios presented here are as follows: the GVRD 1994 Employment Survey retail/non-retail job ratios for the Fraser Valley municipalities; the land uses in municipal OCPs that supported employment and 1991 Census data. Employment estimates were calculated for each scenario considering population growth and demand thresholds.

### Total Present Employment

- Employment data was amalgamated to represent the sector distributions found in the OCPs: Retail and Non-Retail activities represent the first breakdown, with non-retail activities being further subdivided for calculation purposes only.
- There were slight differences in the way distributions were calculated for certain sectors:
  - As retail employment is essentially population serving it tends to rise and fall with population. Therefore, densely populated areas will contain a large amount of retail employment. For this reason, future retail employment was distributed based on existing retail employment and the projected geographic distribution of people within each municipality.
  - Construction is also population serving and is calculated on the distribution of population.
- Once the distribution of employment for all sectors was determined, the 1994 percent distribution for each sector and traffic zone was calculated.
- Before these municipal distributions could be used to forecast 2021 employment, it was necessary to consider change in employment structure over time. This was done in order to account for any change in the percentage distributions for each employment sector.
- Multiplying the percentage distributions by the 2021 employment control totals yielded total employment by municipality for 2021 by employment sector.
- These numbers were then distributed according to the traffic zone system. The percentage distribution for each employment sector was multiplied by the total 2021 population to allot each zone a total for each sector of employment.

### General Findings

The municipalities of the Fraser Valley Regional District have the capacity to accommodate a considerable amount of growth. On the basis of our interpretation of the municipal Official Community Plans, the FVRD has the potential to accommodate approximately 683,000 people.

The region's total population would increase by 460,600 people from its 1996 census total of 222,400. This figure represents a 207% increase in the region's population. Approximately 245,500 dwelling units would be necessary to accommodate this theoretical capacity -- an increase of 166,300 new homes. This scenario suggests that the Fraser Valley would also have approximately 264,000 total jobs in this time frame.

### Municipal Context

Theoretical municipal capacities for the individual municipalities were derived from the most current Official Community Plans as well as the consultant's interpretation of the municipal areas, densities and persons per unit values within them.

### **Abbotsford**

The theoretical capacity of the City of Abbotsford is 294,100 people. This indicates that the municipality would grow by 179%, from its 1996 census population of 105,400 to 294,100 people. It would also add over 69,800 homes (based on a 1996 Census figure of 2.89 persons per unit) to reach a total of over 106,300 dwelling units and 104,200 jobs. Achieving this theoretical capacity would imply adding over 188,700 people to Abbotsford over this planning horizon, with the municipality accounting for over 43% of the regional population. The City of Abbotsford currently holds 47% of the Regional District's population.

This population total includes residential development that is anticipated to occur within Electoral Area "H" over the planning horizon of this scenario. The population that is anticipated within this area is approximately 33,000 people and 11,000 dwelling units. These totals have been included in the above statistics.

### **Chilliwack**

The District of Chilliwack has a theoretical capacity of 218,000 people. This indicates that the population of Chilliwack would grow by 262%. This represents an increase over its 1996 census population of 60,200 by 157,800 people to reach its ultimate capacity. It would also add 57,600 dwelling units (based on a 1996 Census figure of 2.67 persons per unit) to reach a total of 80,100 dwelling units and 88,700 jobs. Achieving this capacity would imply adding almost 158,000 people to Chilliwack over this planning horizon, with the municipality accounting for over 32% of the regional population. The District of Chilliwack holds 27% of the Regional District's population, according to 1996 census data.

### **Mission**

The theoretical capacity of Mission is 108,900 people. This indicates that the population of Mission would grow by 257%, from its 1996 census population of 30,500 people to reach its theoretical capacity. It would also add over 25,500 dwelling units to reach a total of 35,600 dwelling units and 45,100 jobs. Achieving this capacity would imply adding over 78,000 people to Mission over this planning horizon, with the municipality accounting for over 16% of the regional population. The District of Mission holds 14% of the Regional District's population, according to 1996 census data.

### **Hope**

The District of Hope has the theoretical capacity for 22,800 residents. This indicates that the population of Hope would grow by 268%, from its 1996 census population of 6,200 people. It also has the capacity to add over 6,500 homes to reach a total of 9,000 dwelling units and almost 9,700 jobs. Achieving this capacity would imply adding over 16,600 people to Hope over this planning horizon.

### **Kent**

The District Municipality of Kent can, in theory, accommodate up to 16,800 people. Under this scenario, Kent would grow by 250%, from its 1996 census population of 4,800 to reach its theoretical capacity. It would also add over 4,000 homes (based on a 1996 Census figure of 2.92 persons per unit) to reach a total of over 5,700 dwelling units and 7,300 jobs. Achieving this theoretical capacity would imply adding 12,000 people to Kent over this planning horizon.

### **Harrison**

Harrison Hot Springs can, theoretically, accommodate up to 7,500 people. This indicates that the population of Harrison would grow by 733%, from its 1996 census population of 900 people to reach its theoretical capacity. It would also add over 2,300 homes to reach a total of 2,800 dwelling units and 3,200 jobs. Achieving this theoretical capacity implies adding 6,600 people to Harrison over this planning horizon.

### **Unorganized Areas**

Many of the outlying areas in the Fraser Valley have small populations and, as a result, show great percentage changes in population from one census period to another. Also, the OCPs for these areas are often out-dated, or have little information regarding future projections. Forecasting using these percent changes can be misleading. Historical trends show a great deal of fluctuation in growth rates and overall population, making accurate projections difficult. Due to the relative size of these areas, changes in population will not significantly influence the regional population. Given all of these factors, population for these areas has been increased only marginally over the 1996 Census.

Tzone	Area (ha)
Abbotsford	6099
9300	60
9310	3,857
9320	373
9330	447
9340	190
9350	255
9360	2,388
9370	316
9380	378
9390	167
9400	173
9410	265
9420	275
9430	1,187
9440	3,314
9450	71
9460	481
9470	694
9500	181
9510	183
9520	730
9530	121
9540	600
9550	2,742
9560*	5,632
EA"H"9561	
9570	7,131
Totals	32,213

Municipal Capacities	
Population	Dwellings
4,500	1,557
6,399	2,214
4,000	1,384
9,300	3,218
8,000	2,768
20,800	7,197
2,800	969
8,000	2,768
5,333	1,845
22,000	7,612
10,523	3,641
22,528	7,795
16,903	5,849
4,980	1,723
7,573	2,620
55	19
11,000	3,806
12,300	4,256
8,500	2,941
8,000	2,768
2,500	865
5,000	1,730
9,500	3,287
2,500	865
46,000	15,917
33,000	15,917
2,133	738
294,127	106,272

Age Structure						
0..4	5..12	13..17	18..24	25..44	45..64	65+
304	661	374	420	1,386	1,020	335
432	940	532	598	1,971	1,450	477
401	653	341	404	1,242	721	238
1,169	1,419	649	796	3,468	1,314	486
1,006	1,220	558	685	2,983	1,130	418
1,966	2,488	1,441	2,300	6,486	3,638	2,481
261	339	161	232	888	606	313
681	1,202	649	680	2,522	1,507	758
454	801	433	453	1,682	1,005	505
1,289	1,305	870	1,886	4,932	4,062	7,656
896	1,581	854	895	3,318	1,983	997
2,038	2,843	1,785	2,313	6,484	4,147	2,917
1,198	1,655	978	1,647	4,629	2,821	3,975
561	667	392	634	1,466	866	394
760	1,236	645	766	2,351	1,365	450
	8	3	8	10	16	10
1,020	1,724	837	871	4,017	1,690	840
1,278	2,182	1,017	906	4,744	1,662	511
474	393	284	1,118	2,912	1,761	1,558
624	681	441	912	2,761	1,352	1,229
170	198	95	161	534	682	659
369	742	475	473	1,613	939	389
683	1,524	832	826	2,949	2,002	683
274	441	184	231	837	413	120
3,307	7,381	4,029	3,999	14,281	9,696	3,307
2,373	5,295	2,890	2,869	10,245	6,956	2,373
234	376	157	197	714	353	102
24,224	39,955	21,907	27,278	91,425	55,157	34,180
						294,127

Employment		
Retail	Non-Retail	Total
258	1,028	1,286
386	1,841	2,227
125	733	857
280	674	954
246	1,652	1,898
1,344	4,247	5,591
772	18,106	18,878
249	773	1,022
230	1,500	1,730
1,277	6,082	7,359
781	3,412	4,193
1,628	5,325	6,953
1,786	5,741	7,527
150	6,765	6,915
270	756	1,026
71	1,266	1,337
429	1,717	2,146
407	1,664	2,071
951	5,664	6,615
546	3,098	3,644
517	6,649	7,166
180	973	1,152
368	2,186	2,555
85	476	561
1,223	3,691	4,914
880	1,979	2,859
85	635	720
15,525	88,632	104,157

Tzone	Area (ha)
Chilliwack	100,571
9600	6,142
9610	589
9620	1,286
9630	971
9640	1,047
9650	911
9660	903
9670	1,107
9680	939
9690	3,395
9700	2,435
9710	1,971
9720	1,543
9730	2,042
9740	1,369
Totals	26,651

Municipal Capacities	
Population	Dwellings
26,678	9,803
12,891	4,737
21,461	7,886
16,718	6,143
13,887	5,103
26,746	9,828
38,729	14,231
9,068	3,332
22,577	8,296
6,523	2,397
3,522	1,294
1,998	734
8,888	3,266
7,272	2,672
1,042	383
218,000	80,105

Age Structure						
0..4	5..12	13..17	18..24	25..44	45..64	65+
2096	3316	1795	2297	8102	5143	3930
1013	1602	867	1110	3915	2485	1899
1686	2668	1444	1848	6517	4137	3161
1313	2078	1125	1440	5077	3223	2463
1091	1726	935	1196	4217	2677	2046
2101	3324	1800	2303	8122	5156	3940
3042	4814	2606	3335	11761	7465	5705
712	1127	610	781	2754	1748	1336
1773	2806	1519	1944	6856	4352	3326
512	811	439	562	1981	1257	961
277	438	237	303	1069	679	519
157	248	134	172	607	385	294
698	1105	598	765	2699	1713	1309
571	904	489	626	2208	1402	1071
82	130	70	90	317	201	154
17,124	27,097	14,670	18,773	66,202	42,023	32,112
218,000						

Employment		
Retail	Non-Retail	Total
1,246	6,632	7,878
731	2,914	3,645
2,048	10,571	12,619
918	7,150	8,068
676	5,805	6,481
1,430	5,076	6,505
3,626	20,492	24,118
2,046	4,030	6,077
931	5,498	6,429
271	1,807	2,077
303	1,845	2,147
92	283	375
316	853	1,169
249	700	949
36	109	145
14,918	73,765	88,683

Tzone	Area (ha)
Mission	
9000	2,731
9010	6,115
9020	1,626
9030	1,078
9040	195
9050	58
9060	282
9070	321
9080	120
9090	287
9100	648
9110	889
9120	749
9130	9,315
<b>Totals</b>	<b>24,416</b>

Municipal Capacities	
Population	Dwellings
1,696	530
3,616	1,130
21,559	6,903
21,559	6,903
4,458	1,410
15,126	4,980
15,684	5,070
6,518	2,370
3,044	1,200
11,352	3,723
640	200
3,642	1,200
<b>108,894</b>	<b>35,618</b>

Age Structure						
0..4	5..12	13..17	18..24	25..44	45..64	65+
148	210	100	106	589	281	88
316	447	214	226	1,256	600	188
1,450	3,108	1,699	1,478	8,012	4,075	1,658
1,450	3,108	1,699	1,478	8,012	4,075	1,658
453	646	326	430	1,507	743	490
1,620	2,412	1,159	1,103	5,453	2,041	1,620
1,397	2,583	1,362	1,324	5,558	2,795	1,285
475	604	317	486	1,788	1,001	1,013
189	214	122	230	752	465	525
934	1,995	1,177	894	4,268	2,096	883
50	107	63	48	229	113	47
290	555	330	301	1,195	756	351
<b>8,773</b>	<b>15,988</b>	<b>8,567</b>	<b>8,102</b>	<b>38,619</b>	<b>19,039</b>	<b>9,806</b>
						<b>108,894</b>

Employment		
Retail	Non-Retail	Total
100	974	1,074
266	2,388	2,654
794	3,542	4,336
873	1,596	2,468
238	1,625	1,863
78	1,517	1,594
622	3,021	3,643
607	2,378	2,986
781	5,206	5,987
2,654	10,069	12,723
564	1,163	1,727
23	1,016	1,039
229	2,810	3,039
<b>7,829</b>	<b>37,304</b>	<b>45,133</b>

Tzone	Area (ha)
<b>Kent</b>	
9181	1,340
9182	2,273
9191	39
9192	2,575
9193	5,925
<b>Totals</b>	<b>10,812</b>

<b>Harrison</b>	
9194	183
9195	122
<b>Totals</b>	<b>305</b>

<b>Hope</b>	
9201	9,201
9811	1,107
9812	755
<b>Totals</b>	<b>11,063</b>

<b>Unorg</b>	
9140	26,093
9150	6,916
9160	9,679
<b>Totals</b>	<b>42,688</b>

Municipal Capacities	
Population	Dwellings
5,817	1,992
2,059	705
8,896	3,046
<b>16,772</b>	<b>5,744</b>

4,366	1,726
3,183	1,111
<b>7,549</b>	<b>2,837</b>

64	24
16,466	6,553
6,301	2,450
<b>22,831</b>	<b>9,027</b>

42	15
10,674	4,248
4,084	1,588
<b>14,800</b>	<b>5,851</b>

Age Structure						
0..4	5..12	13..17	18..24	25..44	45..64	65+
430	760	397	481	1,721	1,257	771
152	269	140	170	609	445	273
658	1,162	607	735	2,632	1,923	1,179
<b>1,241</b>	<b>2,191</b>	<b>1,144</b>	<b>1,386</b>	<b>4,962</b>	<b>3,625</b>	<b>2,223</b>
						<b>16,772</b>

323	570	298	361	1292	944	579
235	416	217	263	942	688	422
<b>558</b>	<b>986</b>	<b>515</b>	<b>624</b>	<b>2,234</b>	<b>1,632</b>	<b>1,001</b>
						<b>7,549</b>

4	7	4	4	20	16	10
1,036	1,890	951	985	5,031	4,037	2,536
396	723	364	377	1,925	1,545	971
<b>1,436</b>	<b>2,620</b>	<b>1,319</b>	<b>1,366</b>	<b>6,975</b>	<b>5,598</b>	<b>3,517</b>
						<b>22,831</b>

3	5	2	2	13	10	6
671	1,225	617	639	3,261	2,617	1,644
257	469	236	244	1,248	1,001	629
<b>931</b>	<b>1,698</b>	<b>855</b>	<b>885</b>	<b>4,522</b>	<b>3,629</b>	<b>2,280</b>
						<b>14,800</b>

Employment		
Retail	Non-Retail	Total
	5	5
37	115	151
682	4,619	5,301
135	544	678
388	734	1,122
<b>1,241</b>	<b>6,017</b>	<b>7,258</b>

405	1,846	2,251
267	724	991
<b>672</b>	<b>2,570</b>	<b>3,242</b>

3	341	344
830	4,727	5,557
318	3,455	3,772
<b>1,151</b>	<b>8,522</b>	<b>9,673</b>

1	286	287
381	3,124	3,506
155	1,901	2,055
<b>537</b>	<b>5,311</b>	<b>5,848</b>

### Constraints to Land Development

The Fraser Valley is often thought of as an expansive area with an almost inexhaustible amount of land. The reality is that while some municipalities in the Fraser Valley do have a great deal of open area, there are numerous constraints that effectively remove large portions of land from the potential development stock. Some areas have physical properties that prevent the use of land for safety reasons, such as physical characteristics which could create a dangerous environment for urban development. Some of the physical constraints that have been outlined in FVRD OCPs are:

- Flood risk
- Steep terrain
- Geotechnical hazards

In other cases legal, political, economic, and social forces can also limit the amount of land that is used for development in the Fraser Valley. Many of these constraints are duly reflected in the municipal Official Community Plans.

Legal constraints form the most significant elimination of land from the stock of developable land. These are areas that have been designated by municipal, provincial, or other levels of government as undevelopable. British Columbia has taken steps to protect certain types of land for uses that might be lost to development if they were not protected. Some land is considered undevelopable because it is not under the jurisdiction of local or provincial government bodies. The following lands are not currently permitted for development:

- Agricultural Land Reserve
- Forest Land Reserve
- Indian Reserves
- Federal Lands

Care has been taken to consider the specific development constraints mentioned in each OCP. Dwelling unit (and population) calculations were made based only on developable land.

### Possible Modifications

The model has been designed to allow a great deal of changes to be made within the municipal categories. With specific variables, each zone can be adjusted to reflect different situations. Each individual zone has its own set of variables that in some cases are linked to the municipality as a whole, and in some cases act independently. The flexibility of the model facilitates the input of new data.

Every cell in every field of the model can be changed. Although some data is derived from primary sources, such as the area calculations, even these can be changed to reflect more accurate information, or future changes.

### Dwelling Unit Density

The model facilitates changes in the number of units per hectare of a particular dwelling type and allows for zone by zone changes of the total number of dwelling units of each structure type. For example, a particular zone in a municipality may specify that the high, medium and low densities are 100, 40 and 20 units per hectare, respectively. If the municipality believes that these densities

are too high, that particular zone can be changed to 80, 30 and 15 units per hectare. It is also possible to modify only one particular density within a zone. Each zone and each density is calculated independently, so changes within one zone can be made without impacting the other zones.

### **Persons Per Unit**

The average number of people living in a home can change significantly from one dwelling type to another within a single municipality. This scenario used persons per unit values (ppu) taken from municipal OCPs, where available. In cases where these values were not provided, sample neighbourhoods were used for their average ppu values by structure type. The model allows the ppu value to be changed and in turn affect all of the dwelling units of a particular density within that zone.

### **Area Modifications**

The final method to modify the model would entail a change of land use within a municipality. If a municipality were to change the amount of land that was allocated to a particular land use (essentially modifying the Official Community Plans), it would be possible to change this primary data and model the new distribution of dwelling units and population. This may be useful around urban cores where additional land may be designated for higher density uses in order to relieve pressure from surrounding agricultural or recreational land.

## Appendix

The information used in the establishment of the Municipal Projections was generally obtained from municipal Official Community Plans. In certain cases, the OCPs lacked the information necessary for the projection, or the information that was available did not translate into accurate reflections of potential zone maximum populations. In the case of the three largest FVRD municipalities, Abbotsford, Chilliwack and Mission, the numbers required for the model were generated with the co-operation of their respective planning departments.

Whether the dwelling units or populations were generated with the help of the planning departments, the other value was calculated using persons per unit variables that are distinct for each municipality.

### **Abbotsford**

Dwelling Units were calculated by dividing the ppu by the total population. The ppu used for Abbotsford is 2.89 and was obtained from the 1996 Census.

### **Chilliwack**

Populations were calculated using an average ppu obtained from the OCP. The OCP lists three ppu's, each of which apply to different dwelling types. For this report, the ppu's from the OCP were averaged to give 2.71 persons per unit.

### **Mission**

Mission's Planning Department agreed to the following ppu's: 3.2 for low density, 2.84 for medium density, and 2.32 for high density dwellings. The population was calculated by multiplying the number of dwelling units of each type in each zone by the respective ppu.

### **Other Assumptions:**

- The OCP capacity population for Harrison Hot Springs is based on the same calculation as other municipalities. However, due to the resort nature for of this area, and its seasonal population fluctuations, the population estimate would reflect a potential seasonal maximum. The calculation that was used (deriving population from dwelling units) assumes occupation of all dwelling units.
- Electoral Area "H", located to the north-east of the City of Abbotsford, is often considered in Abbotsford's local planning discussions. Although not under the City's planning jurisdiction, for the purposes of this report, Electoral Area "H" is included in Abbotsford calculations, but is recognized as a separate jurisdiction. A comprehensive development scenario on Electoral Area "H" could mean as many as 33,000 people living in the area.
- The Municipal Projections in Mission assume development of the Cedar Valley Comprehensive Development Plan area, which is adjacent to Mission's downtown (in Traffic Zone 9100). This plan has recently been granted a third reading by Mission's City Council. The CVCDP could account for up to 3,700 dwellings when it is completed.

## Section II: 2021 Trend Projection

This section presents the summary of research and projections of the future population and housing stock in the Fraser Valley Regional District and its member municipalities. The growth scenario presented here reflects the consultant's interpretation of a 2021 projection for the municipalities of the Fraser Valley Regional District. Totals for each municipality account for both new development and redevelopment within existing municipal boundaries. The time horizon for this scenario is approximately 25 years, following the 2021 planning horizon of the Regional Growth Strategy.

### Introduction

The trend analysis was developed by looking at the growth rates of individual municipalities and objectives to growth and development as interpreted from Official Community Plans. The trend analysis indicates that there would be 548,000 people in the Fraser Valley by 2021. The dwelling stock needed to house this population would be 192,400. There would also be 211,900 jobs.

Taking into consideration growth rates at the regional level, if the Fraser Valley Regional District as a whole was to grow over the next quarter century at the average annual growth rate that has been exhibited over the past 5 years, the regional population would grow to 547,000 people. However, if the FVRD were to grow at the annual growth rate for the past 10 years, a considerably higher regional population of 598,000 would be reached. These growth rates are outlined in Tables 1, 2 and 3.

**Table 1**

	Population 1951 to 1996									
	1951	1956	1961	1966	1971	1976	1981	1986	1991	1996
Abbotsford	15,108	16,856	20,326	22,398	31,033	40,685	54,736	65,945	86,928	105,403
Chilliwack	19,340	23,647	26,555	28,751	32,874	37,055	40,609	41,337	49,531	60,186
Mission	7,135	7,721	8,575	8,763	10,220	14,997	20,056	21,985	26,202	30,519
FVRD	45,629	53,538	60,856	65,558	90,292	110,678	135,598	149,744	186,251	222,397

**Table 2**

	Average Annual Growth Rates per 5 Year Period for 1951 to 1996									
	1951..1956	1956..1961	1961..1966	1966..1971	1971..1976	1976..1981	1981..1986	1986..1991	1991..1996	
Abbotsford	2.21%	3.81%	1.96%	6.74%	5.57%	6.11%	3.80%	5.68%	3.93%	
Chilliwack	4.10%	2.35%	1.60%	2.72%	2.42%	1.85%	0.36%	3.68%	3.97%	
Mission	1.59%	2.12%	0.43%	3.12%	7.97%	5.99%	1.85%	3.57%	3.10%	
FVRD	3.25%	2.60%	1.50%	6.61%	4.16%	4.14%	2.00%	4.46%	3.61%	
45 Year Average (1951-1996)										3.7%

This growth rate analysis becomes more interesting as the scale is moved from the regional level to that of the individual municipalities. Using the same time periods, if each municipality grew for the next 5 years at the average growth rate it did between 1991 and 1996, the regional sum municipal population would be 564,900. If the average growth rate for each municipality over the past 10 years is used to forecast the 2021 populations, the regional sum then grows to 634,700 people. Using the 50 year rate, the projected 2021 population is 556,700 people.

Table 3

	5, 10 and 45 Year Growth Rate Projections			
	1996 Census Population	5 Year Rate, 2021 Population	10 Year Rate, 2021 Population	50 Year Rate, 2021 Population
Abbotsford	105,400	276,300	340,700	311,000
Chilliwack	60,200	159,400	154,000	113,300
Mission	30,500	65,400	69,300	68,800
Other	26,300	63,800	70,700	63,600
FVRD	222,400	564,900	634,700	556,700

Consequently, the projection presented for this scenario of 548,000 people for the Valley by 2021 is indicative of a "current trends in growth and development" analysis for the Fraser Valley and its member municipalities.

This trend would be characterized by:

- A declining rate of growth for the entire Lower Mainland and a constant rate for the Fraser Valley over the next 25 years
- Long-term sustained migration to BC from other provinces, focusing on the Metropolitan Region
- Long-term sustained immigration to the province with a focus on the Metropolitan Region
- Relative attractiveness of FVRD as a place to live and work remains strong due to factors such as accessibility, housing prices, local amenities and lifestyle

This scenario would also assume to some extent that all of the GVRD's growth management strategies would not necessarily be achieved over this period.

### Methodology

In order to generate a trend-based projection of population and dwelling units for each of the municipalities in the Fraser Valley, 2021 projected populations were first compiled for each jurisdiction. Then, the population was distributed through the area's zones based on each zone's calculated theoretical capacity.

### **2021 Trend Population**

The Trend Projection was developed by analyzing the historical growth rates of individual municipalities and the current development potential indicated in each plan area as interpreted from municipal Official Community Plans. The Trend Projection assumes a continuation of the historic spatial patterns of growth and development that have been experienced in the region over the past fifty years, with particular emphasis on the period between 1991 and 1996. This data also takes into account contextual information relative to each individual municipality. The current extent of municipal development, the quantity of undeveloped land suitable for growth remaining in each municipality and large-scale future developments are all examples of contextual considerations that have shaped the projections.

Consideration was given to the relative shares of population between municipalities in the region. The goal was to create a scenario that realistically anticipated the changes that could occur within and between municipalities. For the most part, the shares of population in the region are expected to remain similar to what is observed today. For example, Abbotsford currently accounts for over 47% of the Fraser Valley population. This is expected to change very little over the next 25 years. By 2021, the city could still have 46% of the Fraser Valley Regional District's population.

## Population Distribution

Within each municipality, the distribution of homes and people is determined by the Official Community Plan. Where development will occur and what kinds of building will be allowed is defined by each community through its OCP.

Based on the expected population capacities for each zone (Theoretical Municipal Capacities section), the 2021 populations were allotted to the zones. While this method has limitations in short term analyses, by 2021, provided the basic constraints and guidelines from the current OCPs remain intact, this method will more accurately reflect the distribution of population. For example, if the Agricultural Land Reserve within a municipality was drastically altered from what is currently outlined in its OCP, then development would be distributed differently in the future than could be anticipated today. If such constraints remain the same as today, development can be anticipated with relative accuracy.

## Municipal Context

### The Fraser Valley

The total population of the Trend Projection, which is the sum of the projected populations for each of the Fraser Valley Regional District's communities in 2021, is 548,000. The 1996 census population for the entire Fraser Valley was 222,400. The consultant's projected 2021 population represents an increase of 146% over the 1996 population. For the FVRD to reach 548,000 people by 2021, the population increase would average 3.67% per year -- virtually the same growth rate the Fraser Valley experienced between 1991 and 1996. Under this scenario the region will require 113,200 more homes (a 143% increase) to accommodate this population growth.

Between 1991 and 1996 the highest growth rate in the Valley was in the resort town of Harrison Hot Springs (37.1%). Considering only the largest municipalities, Chilliwack experienced the highest rate of growth at 21.5% between 1991 and 1996 (Abbotsford's growth rate over the same period was 21.3%). In the same way that Surrey and Langley experienced rapid population growth in the 1980s, the attraction of low property prices and a more rural lifestyle brings people to the Fraser Valley. Chilliwack and Abbotsford have each grown by over 20% over the last census period. If this trend continues eastward, it will bring higher growth rates to communities further out, while the western portion of the Valley will likely experience constant growth rates in the future.

### Abbotsford

Between 1991 and 1996, Abbotsford's population grew by 21.3% from 86,900 to 105,400. Its annual growth rate throughout this period was 3.93%, representing one of the highest growth rates of a major municipality in all of Canada. While the city is expected to continue to add significantly to its population until 2021, it is not expected to maintain this high rate of growth. Abbotsford's share of the FVRD's population is expected to decrease slightly from the current 47%, but it would remain above 45% through 2021.

This scenario projects a 137% increase of Abbotsford's 1996 population to 250,000 people by 2021. It also forecasts 86,500 dwelling units. This projection includes development in Electoral Area "H". This represents an average growth rate from 1996 to 2021 of approximately 3.52%.

This scenario calls for 51,000 more homes to accommodate 144,600 additional people. Based on current development policies, Abbotsford has a theoretical population capacity of 294,000 (Theoretical Municipal Capacities section). Consequently, growing to 250,000 people would represent 85% of Abbotsford's theoretical capacity.

### Chilliwack

Chilliwack's population grew from 49,500 in 1991 to 60,200 in 1996 (an increase of 21.5%), for an average annual growth rate of 3.97%. As development and growth in the Lower Mainland continues to move eastward, Chilliwack is expected to experience significant growth over the next 25 years. With the current supply of developable land, Chilliwack will likely see its share of the FVRD's population rise from 27%. According to the 2021 Trend projected population in this report, Chilliwack's share would increase to 32% of the Fraser Valley population by 2021.

The projected population for the District of Chilliwack is 174,400 people by 2021. This projection assumes an average annual growth rate of 4.35% per annum, up from its annual growth rate of 3.97% from 1991 to 1996. This 2021 population would occupy 64,400 dwelling units. Based on current development policies, Chilliwack has a theoretical population capacity of 218,000 (Theoretical Municipal Capacities section). A population of 174,400 would represent 80% of the city's capacity.

### Mission

The District of Mission, while increasing 16.5% between 1991 and 1996 (average of 3.10% pa), grew at a slower rate than the average for the Fraser Valley over the same period (19.5%). Due to its large urban reserve, Mission could substantially increase its proportion of the FVRD population from its 1996 level of 14%. Under this scenario, Mission is expected to grow at a faster rate in the future and would raise its regional share to 15% by 2021 under the Trend projection.

According to this scenario, the 2021 projected population for Mission is 81,700. In order to achieve this population by 2021, Mission would experience an average growth rate of approximately 4.02% per year. Associated with the projected 2021 population would be an increase in the housing stock to 26,700 dwelling units.

### Hope

The trend-based growth scenario projects Hope's population at 11,400 by 2021. Based on a persons per unit average of 2.81, its projected population would require 4,100 dwelling units in Hope. With a 1996 population of 6,200, Hope will need an average annual growth rate of approximately 2.47% to reach 11,400 by 2021. Between 1991 and 1996, Hope's average annual growth rate was 1.75%. Under this scenario, Hope's employment total would be 4,900 jobs.

### Kent

This scenario projects a population of 10,900 people and 3,900 dwelling units for the District of Kent by 2021. It implies an annual growth rate in Kent of 3.33% until 2021. Between 1991 and 1996, Kent experienced an average annual growth rate of 2.3%. Its share of the regional total under this projection will remain close to 2%. Its total employment under the 548,000 scenario would be 4,800.

## Harrison

Harrison Hot Springs recorded a growth rate of 37.1% between 1991 and 1996 - an average annual rate of 6.65%. This is nearly twice the rate of the rest of the Fraser Valley. The resort nature of Harrison means that it does not grow for the same reasons, or in the same ways as other areas do. The growth rate in Harrison is not necessarily tied to the economic climate of Harrison. Many people who own property in Harrison are not interested in finding a job in the area, rather they use it as a vacation home. This brings up another difference between Harrison and the other municipal areas in the Fraser Valley: many of its dwelling units are seasonally occupied.

Unlike the rest of the Valley, proximity to Greater Vancouver is less of a factor in its high growth rate. Harrison's many natural amenities and international reputation as a resort destination are the principal reasons for this growth. As a result, the typical relationship between dwelling unit and population size is not as strong. For this reason, a degree of interpretation is required to effectively assess them.

For this scenario, the projected 2021 population for the Village of Harrison Hot Springs is 4,500 people and 1,600 dwelling units. In order to achieve these totals, Harrison would increase its total population by 400% and its dwelling unit total by 277%.

## Unorganized Areas

Many of the outlying areas in the Fraser Valley have small populations and, as a result, show great percentage changes in population from one census period to another. Also, the OCPs for these areas are often out-dated, or have little information regarding future projections. Forecasting using these percent changes can be misleading. Historical trends show a great deal of fluctuation in growth rates and overall population, making accurate projections difficult. Due to the relative size of these areas, changes in population will not significantly influence the regional population. Given all of these factors, population for these areas has been increased only marginally over the 1996 Census.

Tzone	Area (ha)
Abbotsford	
9300	60
9310	3,857
9320	373
9330	447
9340	190
9350	255
9360	2,388
9370	316
9380	378
9390	167
9400	173
9410	265
9420	275
9430	1,187
9440	3,314
9450	71
9460	481
9470	694
9500	181
9510	183
9520	730
9530	121
9540	600
9550	2,742
9560*	5,632
EA"H"9561	
9570	7,131
Totals	32,213

2021 Projection	
Population	Dwellings
4,148	1,435
5,899	2,041
3,687	1,276
8,573	2,966
7,375	2,552
19,175	6,635
2,582	893
7,375	2,552
4,916	1,701
20,281	7,018
9,751	3,374
20,768	7,186
15,582	5,392
4,591	1,589
6,981	2,416
10,140	3,509
11,339	3,924
7,836	2,711
7,375	2,552
2,305	798
4,609	1,595
8,758	3,030
2,305	798
42,406	14,673
9,285	3,213
1,966	680
250,008	86,508

Age Structure						
0..4	5..12	13..17	18..24	25..44	45..64	65+
280	609	345	387	1,278	940	309
399	866	490	551	1,817	1,337	439
370	602	314	373	1,144	665	219
1,078	1,308	598	734	3,197	1,211	448
927	1,125	515	631	2,750	1,042	385
1,812	2,294	1,328	2,121	5,979	3,354	2,287
241	312	148	214	819	559	289
628	1,108	599	627	2,325	1,390	699
418	738	399	418	1,550	926	466
1,189	1,203	802	1,738	4,547	3,744	7,057
830	1,465	791	829	3,075	1,837	924
1,879	2,621	1,646	2,132	5,978	3,823	2,689
1,104	1,526	902	1,518	4,267	2,600	3,665
517	615	361	584	1,352	798	363
701	1,139	594	706	2,167	1,259	415
941	1,589	772	803	3,703	1,558	774
1,178	2,011	937	835	4,373	1,532	471
437	362	262	1,030	2,685	1,623	1,436
575	628	406	840	2,546	1,247	1,133
157	182	88	149	492	629	608
340	684	438	436	1,487	866	358
630	1,405	767	761	2,719	1,846	630
253	407	170	213	771	381	110
3,049	6,804	3,714	3,686	13,165	8,939	3,049
668	1,490	813	807	2,883	1,957	668
215	347	145	182	658	325	94
20,816	33,442	18,345	23,307	77,726	46,387	29,986
						250,008

Employment		
Retail	Non-Retail	Total
228	893	1,121
340	1,591	1,932
113	639	753
256	612	867
224	1,438	1,662
1,182	3,696	4,878
661	15,401	16,062
227	690	917
206	1,297	1,503
1,127	5,261	6,389
685	2,947	3,632
1,426	4,620	6,047
1,550	4,950	6,501
137	5,771	5,908
244	674	918
60	1,073	1,133
385	1,505	1,891
369	1,466	1,835
824	4,850	5,674
479	2,666	3,146
444	5,662	6,106
162	848	1,010
331	1,898	2,229
77	415	492
1,127	3,329	4,456
253	591	844
76	549	625
13,196	75,334	88,530

Tzone	Area (ha)
<b>Chilliwack</b>	
9600	6,142
9610	589
9620	1,286
9630	971
9640	1,047
9650	911
9660	903
9670	1,107
9680	939
9690	3,395
9700	2,435
9710	1,971
9720	1,543
9730	2,042
9740	1,369
<b>Totals</b>	<b>26,651</b>

<b>2021 Projection</b>	
Population	Dwellings
21,342	7,875
10,313	3,805
17,169	6,336
13,375	4,935
11,111	4,100
21,396	7,895
30,983	11,433
7,255	2,677
18,061	6,665
5,218	1,926
2,817	1,039
1,598	590
7,109	2,623
5,818	2,147
834	308
<b>174,400</b>	<b>64,354</b>

<b>Age Structure</b>						
0..4	5..12	13..17	18..24	25..44	45..64	65+
1,676	2,653	1,436	1,838	6,481	4,114	3,144
810	1,282	694	888	3,132	1,988	1,519
1,349	2,134	1,155	1,479	5,214	3,310	2,529
1,051	1,662	900	1,152	4,062	2,578	1,970
873	1,381	748	957	3,374	2,142	1,637
1,681	2,659	1,440	1,843	6,498	4,124	3,152
2,434	3,851	2,085	2,668	9,409	5,972	4,564
570	902	488	625	2,203	1,399	1,069
1,419	2,245	1,215	1,555	5,485	3,481	2,660
410	649	351	449	1,585	1,006	769
221	350	190	243	855	543	415
126	199	108	138	485	308	235
558	884	478	612	2,159	1,370	1,047
457	723	391	501	1,767	1,121	857
65	104	56	72	253	161	123
<b>13,699</b>	<b>21,677</b>	<b>11,736</b>	<b>15,018</b>	<b>52,962</b>	<b>33,618</b>	<b>25,690</b>
						<b>174,400</b>

<b>Employment</b>		
Retail	Non-Retail	Total
994	5,294	6,288
583	2,326	2,909
1,635	8,437	10,072
733	5,707	6,440
540	4,633	5,173
1,141	4,051	5,192
2,895	16,356	19,250
1,633	3,217	4,850
743	4,389	5,132
216	1,442	1,658
242	1,472	1,714
73	226	299
252	681	933
199	559	758
28	87	115
<b>11,907</b>	<b>58,876</b>	<b>70,783</b>

Tzone	Area (ha)
Mission	
9000	2,731
9010	6,115
9020	1,626
9030	1,078
9040	195
9050	58
9060	282
9070	321
9080	120
9090	287
9100	648
9110	889
9120	749
9130	9,315
<b>Totals</b>	<b>24,416</b>

2021 Projection	
Population	Dwellings
1,272	398
2,712	848
16,169	5,177
16,169	5,177
3,344	1,058
11,345	3,735
11,763	3,803
4,889	1,778
2,283	900
8,514	2,792
480	150
2,732	900
<b>81,671</b>	<b>26,714</b>

Age Structure						
0..4	5..12	13..17	18..24	25..44	45..64	65+
111	157	75	79	442	211	66
237	336	160	169	942	450	141
1,088	2,331	1,274	1,108	6,009	3,056	1,243
1,088	2,331	1,274	1,108	6,009	3,056	1,243
340	484	245	323	1,130	557	367
1,215	1,809	869	827	4,090	1,531	1,215
1,048	1,937	1,021	993	4,168	2,096	963
356	453	237	365	1,341	751	760
142	160	91	173	564	349	394
701	1,496	882	670	3,201	1,572	663
38	80	47	36	172	84	36
217	417	248	225	896	567	264
<b>6,580</b>	<b>11,991</b>	<b>6,425</b>	<b>6,076</b>	<b>28,965</b>	<b>14,280</b>	<b>7,355</b>
						<b>81,671</b>

Employment		
Retail	Non-Retail	Total
75	731	806
200	1,791	1,991
596	2,656	3,252
654	1,197	1,851
179	1,219	1,397
58	1,137	1,196
466	2,266	2,732
456	1,784	2,239
586	3,904	4,490
1,991	7,552	9,542
423	872	1,295
17	762	779
171	2,108	2,279
<b>5,872</b>	<b>27,978</b>	<b>33,850</b>

Tzone	Area (ha)
<b>Kent</b>	
9181	1,340
9182	2,273
9191	39
9192	2,575
9193	5,925
<b>Totals</b>	<b>10,812</b>

2021 Projection	
Population	Dwellings
4,714	1,678
1,277	455
4,911	1,748
<b>10,902</b>	<b>3,880</b>

Age Structure						
0..4	5..12	13..17	18..24	25..44	45..64	65+
349	616	322	389	1,395	1,019	625
94	167	87	106	378	276	169
363	642	335	406	1,453	1,061	651
<b>806</b>	<b>1,424</b>	<b>744</b>	<b>901</b>	<b>3,226</b>	<b>2,356</b>	<b>1,445</b>
<b>10,902</b>						

Employment		
Retail	Non-Retail	Total
		3
24	75	99
482	3,070	3,552
86	354	440
222	444	665
<b>814</b>	<b>3,946</b>	<b>4,760</b>

<b>Harrison</b>	
9194	183
9195	122
<b>Totals</b>	<b>305</b>

2,619	932
1,910	680
<b>4,529</b>	<b>1,612</b>

194	342	179	216	775	566	347
141	249	130	158	565	413	253
<b>335</b>	<b>592</b>	<b>309</b>	<b>374</b>	<b>1,340</b>	<b>979</b>	<b>600</b>
<b>4,529</b>						

405	1,846	2,251
267	724	991
<b>672</b>	<b>2,570</b>	<b>3,242</b>

<b>Hope</b>	
9201	351
9811	1,107
9812	755
<b>Totals</b>	<b>2,213</b>

32	11
8,233	2,930
3,151	1,121
<b>11,416</b>	<b>4,063</b>

2	4	2	2	10	8	5
518	945	476	493	2,515	2,019	1,268
198	362	182	188	963	772	485
<b>718</b>	<b>1,310</b>	<b>659</b>	<b>683</b>	<b>3,488</b>	<b>2,799</b>	<b>1,759</b>
<b>11,416</b>						

2	172	173
418	2,381	2,799
160	1,740	1,900
<b>580</b>	<b>4,292</b>	<b>4,872</b>

<b>Unorg</b>	
9140	26,093
9150	6,916
9160	9,679
<b>Totals</b>	<b>42,688</b>

5,267	1,874
9,562	3,403
<b>14,829</b>	<b>5,277</b>

331	604	304	315	1,609	1,291	811
601	1,097	552	572	2,921	2,344	1,473
<b>933</b>	<b>1,702</b>	<b>857</b>	<b>887</b>	<b>4,531</b>	<b>3,636</b>	<b>2,284</b>
<b>14,829</b>						

	282	282
283	2,615	2,898
254	2,414	2,667
<b>537</b>	<b>5,310</b>	<b>5,847</b>

### Section III: Slower Growth Scenario, 387,000 2021 FVRD Population

#### Introduction

The growth scenario presented here represents a slower growth projection for the municipalities of the Fraser Valley Regional District than the two presented in previous sections. This scenario outlines the distribution of people and dwelling units in the Fraser Valley Regional District if it grew to a total population of 387,000 by 2021. This projection is currently what BC Statistics has projected for the Fraser Valley over the next 25 years.

This scenario outlines a population total for the region that assumes a slower pattern of population growth and development than the region has seen over the past 25 years. The 387,000 Scenario is based upon a total population of 3.2 million people for the Metropolitan Region. It has been designed to show the effects on individual municipalities in the FVRD, should the Greater Vancouver Regional District take a large proportion of the Lower Mainland's growth (mostly through metropolitan-wide policies of densification and infill). This in turn creates lower municipal and regional population and dwelling unit totals for the FVRD. The 387,000 Scenario implies that the FVRD would grow by 74% by 2021 and account for 12% of the Metropolitan Region's total.

#### Methodology

The 387,000 population control total was distributed between the municipalities by looking at historical growth rates of individual municipalities and objectives to growth and development as interpreted from Official Community Plans. These totals were then distributed throughout the municipalities based on the residential land use designations found in the OCPs.

For the 387,000 scenario it was assumed that the legal constraints to land development, such as the Agricultural and Forest Land Reserves, would remain intact over the next quarter century. This assumption follows the municipal objectives that were established in the Municipal Projections report. Therefore, the population in areas designated as agricultural or forest reserve were increased only marginally over the 1996 census count. However, with further direction from the municipalities and the Regional District, it would be possible to model alternate scenarios that strategically increase population on the fringe of these reserves, or in certain pockets within these areas. Given the slower growth of the 387,000 projection it is unlikely that growth in these areas would be necessary.

It is not the intention of the consultants to present this scenario as a forecast of what population should be expected in the Fraser Valley in twenty-five years. This scenario has been modelled to illustrate the implications of a slower growth scenario (i.e. a population of 387,000 people in the FVRD) by 2021.

#### General Findings

The communities of the Fraser Valley have experienced significant population increases over the past 10 years. The population of the region grew by 19.5% between 1991 and 1996. Whether or not this rate of growth will continue into the future is not the topic of this report. In conjunction with the other sections in this report, the goal is to produce scenarios that model how people and homes could be distributed based on different criteria. This section presents the third, and final, scenario for the distribution of population by the year 2021. This slower growth scenario uses BC Statistics most recent 2021 population forecast of 387,000 people for the Fraser Valley

## Regional District.

In accordance with this projection, the population of the FVRD will grow by over 74%, from its 1996 population of 222,400 to 387,000 people by 2021. It would also add 58,000 dwelling units to reach 136,700. Achieving this capacity would imply adding 155,000 people and expanding the total employment base to 152,600 jobs by 2021.

## Municipal Context

### Abbotsford

As in the other sections, Electoral Area "H" is included as a part of the City of Abbotsford due to its proximity to the municipality. If it were built to its maximum capacity, as it was in the first report, the Electoral Area "H" area would have a considerable influence on infrastructure planning within Abbotsford over the next 25 years. However, because a slower growth scenario implies less demand for land, it is less likely that new developments in predominantly rural areas such as Electoral Area "H", would experience as much growth as established neighbourhoods surrounding the urban core.

This scenario shows Abbotsford growing 71% by 2021 to reach a population of 180,100 people and 62,300 dwelling units (assuming the 1996 persons per unit ratio of 2.89). The municipality would have an employment base of 64,500 jobs.

Under this slower growth scenario, Abbotsford would add 74,700 people by 2021, to account for almost 47% of the Valley's total population. This scenario suggests that Abbotsford would grow at a slower rate over the next 25 years than it has over the past 25. Between 1971 and 1996 the municipality grew by 238% (5.01% pa growth), adding 74,000 people, compared to a 68% increase and 74,700 additional people from 1996 to 2021 that is outlined in this scenario. The average annual growth rate needed to reach 180,100 by 2021 would be 2.17%.

### Chilliwack

The theoretical municipal capacity for Chilliwack, established in the first section, is 218,000 people. If the entire FVRD grew to a population of 387,000, Chilliwack would be projected to have a population of 119,800 people, or 31% of the regional population. This total of 119,800 people (as well as 44,000 dwelling units and 46,500 jobs) is 55% of its theoretical capacity. Many of the outlying areas zoned for residential land would remain undeveloped or experience minimal growth.

In order to reach this population and dwelling unit total by 2021, the District of Chilliwack would have to grow at an average annual rate of 2.79% per annum. From 1971 to 1996, Chilliwack grew at an average annual rate of 2.45 %, and grew at an average annual rate of 3.97% during the five-year period from 1991 to 1996.

### Mission

With a Fraser Valley population of 387,000, and assuming its proportion of the region's population remains relatively constant, Mission would have a population of 53,900 people and 17,600 dwelling units by 2021. In order for the District to grow to 53,900 people from its 1996

population of 30,500, the average annual population growth rate would be 2.30% --significantly lower than its annual growth rate between 1991 and 1996 of 3.10%

The District of Mission has a considerable amount of urban reserve within its boundaries. A slower growth scenario would suggest that most of this land would remain in its present (undeveloped) state. Furthermore, areas already zoned for future development, such as the Silverdale Urban Reserve, would not be developed significantly under a low growth scenario.

### Hope

The 387,000 scenario projects Hope's population to be 9,100 people and 3,600 dwelling units by 2021. This would represent a 45% increase over its 1996 population of 6,200 people and an annual growth rate of 1.55%. According to the Theoretical Municipal Capacities report, Hope's theoretical capacity is almost 23,000 people. This scenario would represent only 40% of its theoretical population capacity and would provide a job base for 5,100 people.

### Kent

The District of Kent would grow to over 7,800 people and 2,700 dwelling units under the slower growth scenario. This would represent a 1.96% per annum growth rate until 2021. Much of the growth in Kent, under a slower growth scenario, would likely occur in Agassiz, as it is currently the major centre for population in the district. Kent would be an employment base for 3,800 people under this scenario.

### Harrison Hot Springs

Harrison Hot Springs recorded a growth rate of 37.1% between 1991 and 1996. The resort nature of Harrison means that it does not grow for the same reasons, or in the same way as the other areas. For this scenario, the projected 2021 population for the Village of Harrison Hot Springs is 2,300 people, and 860 dwelling units. The population in Harrison grew at an average annual rate of 6.51% between 1991 and 1996. This is nearly twice the rate of the Fraser Valley. In order for Harrison to reach its projected population under this scenario, an annual growth rate of 3.82% would be required. Harrison's population, as calculated in this model, is considered to be a seasonal maximum, as it implies full occupation of all dwelling units.

### Unorganized Areas

Many of the outlying areas in the Fraser Valley have small populations and, as a result, show great percent changes in population from one census period to another. Also, the OCPs for these areas are often out-dated, or have little information regarding future projections. Forecasting using these percent changes can be misleading. Historical trends show a great deal of fluctuation in growth rates and overall population, making accurate projections difficult. Due to the relative size of these areas, changes in population will not significantly influence the regional population. Given all of these factors, population in these areas would grow only marginally over the 1996 Census.

Tzone	Area (ha)	Employment		Total
		Retail	Non-Retail	
9300	60	192	706	898
9310	3857	307	1,289	1,596
9320	373	98	499	597
9330	447	268	626	894
9340	190	223	1,178	1,400
9350	255	857	2,684	3,541
9360	2388	507	11,273	11,781
9370	316	282	760	1,042
9380	378	199	1,053	1,252
9390	167	833	3,859	4,692
9400	173	555	2,269	2,824
9410	265	989	3,254	4,243
9420	275	1,156	3,664	4,820
9430	1187	127	4,261	4,388
9440	3314	151	432	584
9450	71	43	781	825
9460	481	344	1,236	1,581
9470	694	340	1,224	1,565
9500	181	590	3,509	4,099
9510	183	343	1,928	2,270
9520	730	337	4,153	4,489
9530	121	137	660	797
9540	600	295	1,501	1,796
9550	2742	69	331	401
9560*	5632	275	1,223	1,498
SA"H"9561		19	67	86
9570	7131	75	443	518
Totals	32,213	9,610	54,865	64,475

Age Structure	Age Structure						65+
	0..4	5..12	13..17	18..24	25..44	45..64	
267	580	328	369	1,216	894	294	
436	948	537	603	1,989	1,463	481	
324	527	275	326	1,002	582	192	
1,162	1,410	645	791	3,447	1,306	483	
947	1,149	526	645	2,809	1,064	394	
1,292	1,635	947	1,512	4,263	2,391	1,630	
264	342	162	234	896	611	316	
825	1,455	786	823	3,054	1,825	918	
458	808	437	457	1,697	1,014	510	
883	894	596	1,292	3,378	2,782	5,244	
776	1,369	740	775	2,874	1,717	864	
1,183	1,650	1,036	1,342	3,762	2,406	1,692	
867	1,198	708	1,191	3,349	2,041	2,876	
485	577	339	548	1,268	749	340	
405	659	344	408	1,253	728	240	
898	1,518	738	767	3,538	1,488	739	
1,126	1,921	896	798	4,178	1,464	450	
293	243	176	690	1,798	1,087	962	
396	432	279	578	1,750	857	779	
147	170	82	139	460	587	568	
298	599	384	382	1,302	758	314	
599	1,336	729	724	2,585	1,755	599	
236	380	159	199	720	356	103	
726	1,621	885	878	3,136	2,129	726	
36	80	44	43	155	105	36	
236	380	159	199	720	356	103	
15,563	23,880	12,933	16,714	56,599	32,517	21,853	
						180,059	

387,000 Scenario	Population	Dwellings
3,947	1,366	
6,458	2,235	
3,229	1,117	
9,243	3,198	
7,534	2,607	
13,669	4,730	
2,825	978	
9,687	3,352	
5,382	1,862	
15,068	5,214	
9,114	3,154	
13,070	4,523	
12,228	4,231	
4,305	1,490	
4,036	1,397	
9,687	3,352	
10,833	3,748	
5,248	1,816	
5,071	1,755	
2,153	745	
4,038	1,397	
8,327	2,881	
2,153	745	
10,102	3,496	
498	172	
2,153	745	
180,059	62,304	

	Employment		Total
	Retail	Non-Retail	
	438	2,910	3,348
	406	1,589	1,995
	1,112	5,646	6,758
	511	3,829	4,340
	380	3,110	3,489
	797	2,788	3,585
	1,971	10,931	12,902
	1,089	2,157	3,246
	528	2,990	3,519
	154	978	1,132
	165	984	1,149
	52	158	210
	129	350	479
	72	212	284
	21	62	83
	7,825	38,695	46,520

	Age Structure						65+
	0..4	5..12	13..17	18..24	25..44	45..64	
	633	1,002	542	694	2,447	1,553	1,187
	612	968	524	671	2,365	1,501	1,147
	1,018	1,611	872	1,116	3,937	2,499	1,910
	793	1,255	680	870	3,067	1,947	1,488
	659	1,043	565	722	2,548	1,617	1,236
	1,269	2,008	1,087	1,391	4,906	3,114	2,380
	1,838	2,908	1,574	2,015	7,104	4,510	3,446
	430	681	369	472	1,663	1,056	807
	1,071	1,695	918	1,174	4,142	2,629	2,009
	310	490	265	339	1,197	760	580
	167	264	143	183	646	410	313
	95	150	81	104	366	233	178
	295	467	253	324	1,141	724	554
	173	273	148	189	667	423	324
	49	78	42	54	191	121	93
	9,412	14,893	8,063	10,318	36,387	23,097	17,650
							119,821

387,000 Scenario	
Population	Dwellings
8,058	2,962
7,787	2,863
12,964	4,766
10,099	3,712
8,389	3,084
16,156	5,939
23,395	8,600
5,478	2,014
13,638	5,013
3,940	1,449
2,127	782
1,207	444
3,758	1,382
2,196	807
630	231
119,821	44,046

Tzone	Area (ha)
Chilliwick	
9600	6,142.39
9610	589.37
9620	1,286.15
9630	970.91
9640	1,047.48
9650	911.22
9660	903.03
9670	1,107.41
9680	938.70
9690	3,394.56
9700	2,434.82
9710	1,971.16
9720	1,542.54
9730	2,041.90
9740	1,369.04
Totals	26,651

		387,000 Scenario		Age Structure							Employment		
Tzone	Area (ha)	Population	Dwellings	0..4	5..12	13..17	18..24	25..44	45..64	65+	Retail	Non-Retail	Total
<b>Mission</b>													
9000	2,731.40	1,393	435	121	172	82	87	482	230	72	74	546	619
9010	6,114.55	2,969	928	258	366	175	185	1,028	491	154	185	1,326	1,511
9020	1,625.95	1,692	539	113	242	132	115	624	317	129	75	1,298	1,372
9030	1,078.46	1,692	539	113	242	132	115	624	317	129	116	277	392
9040	195.30	3,581	1,130	361	515	261	344	1,203	593	391	177	938	1,115
9050	57.96										41	796	836
9060	282.35	11,219	3,666	1,188	1,769	850	809	4,000	1,497	1,188	468	1,818	2,286
9070	321.44	12,078	3,881	1,066	1,970	1,039	1,010	4,239	2,132	980	483	1,517	2,000
9080	119.89	4,154	1,483	310	401	208	307	1,155	635	628	445	2,789	3,234
9090	287.02	1,702	663	110	128	71	129	432	261	288	1,400	5,294	6,694
9100	647.71	10,187	3,317	829	1,771	1,044	793	3,788	1,860	784	470	895	1,365
9110	889.34	526	164	41	88	52	39	188	92	39	20	546	566
9120	748.95	2,697	882	212	407	242	220	875	553	257	154	1,530	1,684
9130	9,315.39												
<b>Totals</b>	<b>24,416</b>	<b>53,889</b>	<b>17,626</b>	<b>4,723</b>	<b>8,070</b>	<b>4,288</b>	<b>4,152</b>	<b>18,638</b>	<b>8,979</b>	<b>5,040</b>	<b>4,107</b>	<b>19,568</b>	<b>23,675</b>
													<b>53,889</b>

Tzone	Area (ha)
<b>Kent</b>	
9181	
9182	
9191	
9192	
9193	
<b>Totals</b>	

387,000 Scenario	
Population	Dwellings
2,691	921
953	326
4,115	1,409
<b>7,758</b>	<b>2,657</b>

Age Structure						
0..4	5..12	13..17	18..24	25..44	45..64	65+
199	352	184	222	796	582	357
70	124	65	79	282	206	126
304	538	281	340	1,217	889	545
<b>574</b>	<b>1,014</b>	<b>529</b>	<b>641</b>	<b>2,295</b>	<b>1,677</b>	<b>1,028</b>
						<b>7,758</b>

Employment		
Retail	Non-Retail	Total
		3
19	60	79
358	2,423	2,781
71	285	356
203	385	589
<b>651</b>	<b>3,156</b>	<b>3,807</b>

<b>Harrison</b>	
9194	182.94
9195	121.80
<b>Totals</b>	<b>305</b>

1,324	524
966	337
<b>2,290</b>	<b>861</b>

98	173	90	109	392	286	176
71	126	66	80	286	209	128
<b>169</b>	<b>299</b>	<b>156</b>	<b>189</b>	<b>678</b>	<b>495</b>	<b>304</b>
						<b>2,290</b>

405	1,846	2,251
267	724	991
<b>672</b>	<b>2,570</b>	<b>3,242</b>

<b>Hope</b>	
9201	
9811	
9812	
<b>Totals</b>	

26	9
6,567	2,614
2,513	977
<b>9,106</b>	<b>3,600</b>

2	3	1	2	8	6	4
413	754	379	393	2,006	1,610	1,012
158	288	145	150	768	616	387
<b>573</b>	<b>1,045</b>	<b>526</b>	<b>545</b>	<b>2,782</b>	<b>2,233</b>	<b>1,403</b>
						<b>9,106</b>

2	179	180
435	2,480	2,915
167	1,812	1,979
<b>604</b>	<b>4,470</b>	<b>5,074</b>

<b>Unorg</b>	
9140	26,093.00
9150	6,915.69
9160	9,679.26
<b>Totals</b>	

40	15
10,313	4,104
3,946	1,534
<b>14,300</b>	<b>5,654</b>

3	5	2	2	12	10	6
649	1,184	596	617	3,151	2,529	1,589
248	453	228	236	1,206	968	608
<b>899</b>	<b>1,641</b>	<b>826</b>	<b>855</b>	<b>4,369</b>	<b>3,506</b>	<b>2,203</b>
						<b>14,300</b>

1	286	287
381	3,124	3,506
155	1,901	2,055
<b>537</b>	<b>5,311</b>	<b>5,848</b>