

BC Sprawl Report

Economic Vitality and Livable Communities

2004



Creating
more livable
communities

SmartGrowthBC
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Executive Summary

Quality-of-place—particularly natural, recreational, and lifestyle amenities—is absolutely vital in attracting knowledge workers and in supporting leading-edge high technology firms and industries. Knowledge workers essentially balance economic opportunity and lifestyle in selecting a place to live and work. Thus, quality-of-place factors are as important as traditional economic factors such as jobs and career opportunity in attracting knowledge workers in high technology fields. Given that they have a wealth of job opportunities, knowledge workers have the ability to choose cities and regions that are attractive places to live as well as work” – Richard Florida, *Competing in the Age of Talent: Quality of Place and the New Economy* (Pittsburgh: R.K. Mellon Foundation, Heinz Endowments, and Sustainable Pittsburgh, January 2000).

In 2001, Smart Growth BC undertook a study of sprawl in BC and explored some of the linkages between sprawl, quality of life and infrastructure efficiency in 26 selected communities. That study, conducted by two of the authors of the present report (Don Alexander and Ray Tomalty), and entitled the *BC Sprawl Report 2001*, found that close links exist between density and the efficiencies with which land and infrastructure are used and the degree of automobile dependence. These observations support the arguments of smart growth advocates that smarter development is more environmentally sound, fiscally prudent, and consistent with quality of life goals.

The present study builds upon this work and expands the range of issues explored. The key addition is the stronger focus on the relationship between urban form (density and integration of land uses), on the one hand, and livability and economic vitality, on the other. The report also explores in more detail the relationship between livability and economic performance.

The findings, while tentative, suggest that communities that are developing smarter, and with less dependency on automobiles, also tend to be associated with a higher quality of life, and seem to be more adept at attracting the leading edge sectors of the economy. While being mindful of the importance of differences in community size and geography, the first key finding is that there are significant linkages among the three dimensions of smart growth—urban form, livability, and economic vitality—for larger municipalities, and a weaker link for medium and smaller communities.

For instance, with respect to the relationship between urban form and livability, denser, more mixed communities tend to excel on many quality of life indicators, even as they prove inferior on housing costs. However, enhanced quality of life does not flow automatically from a compact urban form. Much recent urban development and redevelopment has ignored essential rules of good urban design, and has thus undermined the very attributes of livability that smart growth advocates are seeking to encourage. Ensuring housing affordability and availability in town centres is also essential if “successful” urban centres are to remain good places for all to live in. Attention to these issues will ensure greater acceptance of smart growth goals and strategies.

The link between urban form and livability is currently weak in the case of small communities. However, this relationship will likely strengthen, especially as baby boomers seek out places to retire. There are many benefits, including fiscal ones, associated with more compact communities, and offering more housing choice and enhanced walkability will become more important priorities as the population ages.

A second key finding is that there is a close statistical relationship between livability and economic vitality for larger communities, with a slightly lower correlation for those of medium size. This fits with research undertaken by Richard Florida and his colleagues, both in the United States and Canada. However, there is a negative correlation in the case of smaller communities. Smaller communities in BC, whose fortunes have traditionally been tied to resource industries currently in decline, have been experiencing a loss of population and economic stagnation. Tourism and knowledge-related businesses, which depend more on quality of place factors, will continue to grow in importance in communities of all sizes, and attention to livability issues will be a key part of attracting and retaining these firms and the kinds of individuals they seek to employ. Livability will also be a factor for baby boomers seeking places to retire.

The 27 indicators considered in this study represent an important first step towards developing a more comprehensive set of measures to assess these complex issues. Future indicators might include crime, health (e.g., life expectancy), air quality, strength of the tourism sector, and qualitative data drawn from public opinion polls concerning quality of life. While the results from this study are preliminary, the study provides a unique exploration of the linkages between urban form and livability, and between urban form/ livability and economic vitality, and has demonstrated the correlations existing among these factors.

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Table 1: Overall Summary of Indices and Rankings, 2001

Community	Urban Form Index	Urban Form Index Rank	Community	Livability Index	Livability Index Rank
Victoria	82.23	1	Chetwynd	63.92	1
Vancouver	71.04	2	Nelson	59.81	2
New Westminster	59.15	3	Vancouver	57.23	3
Nelson	56.42	4	Rossland	53.39	4
Richmond	52.17	5	New Westminster	51.93	5
Penticton	50.68	6	Smithers	51.92	6
Smithers	50.07	7	Fort St. John	50.19	7
Creston	49.00	8	Victoria	48.84	8
Terrace	46.82	9	Kelowna	48.81	9
Fort St. John	46.17	10	Port Moody	48.33	10
Kelowna	44.22	11	Revelstoke	48.06	11
Revelstoke	43.75	12	Richmond	46.88	12
Kamloops	43.05	13	Creston	46.69	13
Chetwynd	42.31	14	Penticton	46.46	14
Abbotsford	42.04	15	Campbell River	45.44	15
Vernon	41.99	16	Terrace	44.87	16
Quesnel	41.73	17	Vernon	43.90	17
Chilliwack	36.10	18	Abbotsford	43.70	18
Campbell River	35.98	19	Squamish	43.46	19
Surrey	35.37	20	Surrey	42.45	20
Squamish	35.18	21	Kamloops	42.13	21
Port Moody	32.22	22	Quesnel	40.41	22
Maple Ridge	29.76	23	Chilliwack	38.62	23
Rossland	27.18	24	Maple Ridge	33.96	24

Community	Economic Vitality Index	Economic Index Rank	Community	Overall Smart Growth Index	Overall Smart Growth Index Rank
Vancouver	73.99	1	Vancouver	67.42	1
Port Moody	62.45	2	Victoria	62.88	2
Victoria	57.58	3	Nelson	54.01	3
Richmond	56.31	4	New Westminster	53.64	4
Surrey	50.60	5	Richmond	51.79	5
New Westminster	49.83	6	Chetwynd	49.61	6
Fort St. John	47.66	7	Smithers	49.00	7
Kelowna	47.52	8	Fort St. John	48.01	8
Nelson	45.81	9	Port Moody	47.67	9
Smithers	45.02	10	Kelowna	46.85	10
Revelstoke	43.64	11	Revelstoke	45.15	11
Kamloops	43.52	12	Creston	43.80	12
Abbotsford	43.49	13	Abbotsford	43.08	13
Maple Ridge	42.77	14	Kamloops	42.90	14
Chetwynd	42.59	15	Penticton	42.87	15
Rossland	42.01	16	Surrey	42.81	16
Squamish	40.76	17	Vernon	41.49	17
Campbell River	39.90	18	Rossland	40.86	18
Vernon	38.58	19	Campbell River	40.44	19
Creston	35.71	20	Terrace	40.34	20
Chilliwack	34.19	21	Squamish	39.80	21
Penticton	31.48	22	Chilliwack	36.30	22
Terrace	29.33	23	Quesnel	36.27	23
Quesnel	26.67	24	Maple Ridge	35.50	24

1 Introduction and Purpose

There is growing awareness of the importance of urban sprawl as a factor contributing to many of the environmental, social and economic problems that are troubling North America. A number of research studies have linked sprawl to poor health, obesity and sedentary lifestyles, air pollution, respiratory disease, climate change, the urban heat island effect, traffic congestion, poor housing affordability, disappearing foodlands, increasing public expenditures on infrastructure, police and fire services, schooling costs, health costs, and other economic ills.¹

Many of these impacts are being felt in high-growth areas of BC. The daily news carries reports of conflicts over land removals from the Agricultural Land Reserve, traffic congestion, and the spiralling costs of creating infrastructure and services to support sprawled development. There is an emerging consensus that sprawl is damaging the environment and eroding the quality of life in BC, while placing higher demands on local governments—putting pressure on them to increase property taxes and find new sources of revenue.

Sprawl is poorly planned development characterized by the conversion of natural or agricultural land to low-density residential suburbs, commercial centres, and business parks, all separated from one another by roads and parking lots. Sprawl means long distances between homes and work or shopping, heavy reliance on roads and automobiles, and the destruction of the very feature that induces many to live in rural developments—the natural landscape.²

As communities attempt to address these issues, there is a need for objective information on the nature and extent of sprawl in BC, and how it impacts the ability of BC communities to achieve their goals.

In 2001, Smart Growth BC undertook a study of sprawl in BC and explored some of the linkages between sprawl, quality of life and infrastructure efficiency in 26 selected communities. That study, conducted by two of the authors of the present report (Don Alexander and Ray Tomalty), and entitled the *BC Sprawl Report 2001*, found that close links exist between density and the efficiencies with which land and infrastructure are used.³ Moreover, it was found that density can be inversely correlated with long commutes to work and other destinations. These observations support the arguments of smart growth advocates that smarter development is more environmentally sound, fiscally prudent, and consistent with quality of life goals.

¹ See, for instance, Lawrence Frank, Peter Engelke, and Thomas Schmid, *Health and Community Design: The Impacts of the Built Environment on Physical Activity* (Washington, DC: Island Press, 2003); David Gurin, *Understanding Sprawl: A Citizen's Guide* (Vancouver: David Suzuki Foundation, 2003); Sierra Club of Canada, *Sprawl Hurts Us All* (Toronto: Sierra Club, 2003); Reid Ewing and Robert Cervero, "Travel and the Built Environment: A Synthesis," *Transportation Research Record* 1780 (Paper No. 01-3515), 2001, and Robert W. Burchell, et al., *The Costs of Sprawl – Revisited* [TCRP Report 39] (Washington, DC: Transportation Research Board/National Academy Press, 1998).

² Adapted from The Biodiversity Project, *Making the Biodiversity-Sprawl Connection* (Madison, WI, 2000).

³ See Don Alexander and Ray Tomalty, *BC Sprawl Report 2001* (Vancouver: Smart Growth BC, 2001).

The present study builds upon this work and expands the range of issues explored. The key addition is the stronger focus on the relationship between urban form (density and integration of land uses), on the one hand, and livability and economic vitality, on the other. The report also explores in more detail the relationship between livability and economic prosperity. The findings, while tentative, suggest that communities that are developing smarter, and with less dependency on automobiles, also tend to be associated with a higher quality of life, and seem to be more adept at attracting the leading edge sectors of the economy.

Creating a robust and vibrant economy, and providing jobs in the process, is a core challenge for communities, especially in smaller cities and towns. The traditional way of doing this has been to focus on meeting short-term economic and financial goals represented by jobs, an enhanced tax base, and increased investment. This short-term focus has usually occurred at the expense of quality of life or real wealth, and has generally failed to consider the broader factors that contribute to real wealth.

For instance, conventional patterns of development in North America have resulted in the dominance of big box stores and other highway-oriented retail, the strict separation of employee centres—such as office parks—from places where people live, and the gradual erosion of any sense of place in our communities. As suburban retail has expanded, downtown centres have declined and highways have become sites for destination retail in the form of big box stores and large scale malls.

While providing some short-term tax dollars, this approach to economic development results in a decline in locally-owned businesses spending their money in the community, in more people using their cars, and loss of a distinctive sense of place. In the process, one community becomes indistinguishable from another.

While chasing “smokestacks” or big box stores remains an option, the livability of our communities is becoming an increasingly important element in influencing where individuals and families choose to work and live and where companies and industries conduct their business. These factors, often overlooked in the past, are increasingly becoming a community’s hidden assets.

One reason for this is that, in many communities and regions, the “knowledge industry” is beginning to emerge as a leading sector of the economy, whereas in the past a community’s prosperity was linked to the production of manufactured goods or the resources that went into making them. Increasingly, these activities are being supplemented, or even eclipsed, by companies whose stock and trade is coming up with useful ideas—either new technologies, such as hydrogen fuel cells, or expertise to help solve ecological and social problems, as with the consultant industry. As Richard Florida, professor of regional economic development at Carnegie Mellon University, argues, “today’s economy is fundamentally a creative economy,” where knowledge and information are the “tools and materials of creativity. Innovation, whether in the form of a new technological artefact or a new business model or method, is its product.”⁴

⁴ Richard Florida, *The Rise of the Creative Class and How It's Transforming Work, Leisure, Community and Everyday Life* (New York: Basic Books, p. 44).

In the past, the location of industry was largely determined by proximity to ports, rivers, and sources of raw materials. Once the factories were built, workers would flock to where the jobs were. Quality of life—clean air, green space, culture—was often a secondary concern.

The new knowledge industries, however, need to attract workers with the knowledge and creativity that will enable them to be successful. These workers—artists, and writers, designers and architects, scientists and engineers, and computer programmers—are more selective about where they choose to live. They often value livability factors more than financial incentives alone. They are drawn by quality of the environment, recreational opportunities, a diversity of lifestyle options, a thriving arts and entertainment scene, an atmosphere of tolerance, and an abundance of employment opportunities in their field.⁵

The mobility of these workers, combined with the fact that knowledge-intensive businesses often require less in the way of “bricks and mortar,” is leading to a situation where companies are going where the workforce wants to be, rather than the other way around. Moreover, it has been found that the biggest predictors of success in this new economy are “the three Ts”—a concentration of technology, talent (people with relatively high educational attainments), and tolerance. While the initial studies were conducted in the US, the same trends have been noted for Canada.⁶

The knowledge economy will never completely replace the traditional resource and manufacturing sectors, much less the service sector—which is also growing rapidly—nor will it make retaining jobs in those traditional areas any less important. Nonetheless, the evidence suggests that quality of place is proving to be as or more important than traditional financial incentives and concessions in attracting investment or encouraging local entrepreneurs to build up their enterprises. Quality of place is also the basis for an increasingly thriving tourism industry.⁷

⁵ Betsy Donald and Douglas Morrow, *Competing for Talent: Implications for Social and Cultural Policy for Canadian City-Regions* (Ottawa: Strategic Research and Analysis, Strategic Planning and Policy Coordination, Heritage Canada, 14 May 2003).

⁶ Meric Gertler, Richard Florida, Gary Gates, and Tara Vinodrai, *Competing on Creativity: Placing Ontario's Cities in North American Context* [a report prepared for the Ontario Ministry of Enterprise, Opportunity and Innovation and the Institute for Competitive and Prosperity] (Toronto: Government of Ontario, November 2002).

⁷ In 2002, investment in the accommodations and food industry in BC (\$232.4 million) was nearly equal to that in forestry, agriculture, commercial fishing, and hunting combined (\$289.8 million). *2003 BC Financial and Economic Review* (Victoria, BC: Ministry of Finance, July 2003). Moreover, this trend will likely continue as an aging population seeks out travel opportunities. See Elliott Ettenberg, “Building Tourism in the Next Economy” [presentation at the BC Tourism Industry Conference, Victoria, 27 February 2004].

What is being said about the ‘knowledge economy’ and the ‘creative class’

“Decisions about where to locate businesses...once dependent on questions of access to ports, roads, rails, or raw materials – are increasingly dependent instead on the ability to link often scarce human resources.... [I]ncreasingly, wherever intelligence clusters, in small town or big city, in any geographic location, that is where wealth will accumulate.... If people, companies or industries can truly live anywhere, or at least choose from a multiplicity of places, the question of where to locate becomes increasingly contingent on the peculiar attributes of any given location.... The more technology frees us from the tyranny of place and past affiliation, the greater the need for individual places to make themselves more attractive. Surveys of high-technology firms find that among factors that drove their decision of where to locate, a ‘quality of life’ that would make the area attractive to skilled workers was far more important than any traditional factors such as taxes, regulation, or land costs.” – Joel Kotkin, *The New Geography: How the Digital Revolution is Reshaping the American Landscape* (New York: Random House, 2000).

“...experience suggests that companies are moving to a particular city not because the city has offered tax breaks or physical facilities, but rather because the city has a bigger and better stock of talented and creative people. Access to talented people and creative people is to modern business what coal and iron ore were to steelmaking.... Indeed the record now clearly shows that companies are moving to or forming in places that have skilled people, rather than people moving to where the companies are. As a result, the role of cities is changing. In the past the challenge for cities was to attract companies, which in turn would attract the people. Cities are now being challenged to attract the people who in turn will attract the companies.... While there is no question that ‘information’ and new ‘knowledge’ are critical to economic development, what is now recognized is that ‘knowledge’ on its own has very little use – that indeed we need people – people who can use the new information and knowledge in an innovative way – people who can create the new knowledge and the products and services that flow from it – people, who for want of a better term, are *creative*.... As former Seattle mayor Paul Schell once said, success lies in ‘creating a place where the creative people can live and the creative experience can flourish.’” – Dr. Martha C. Piper (President of the University of British Columbia), “The New Creative Economy: Vancouver’s Competitive Advantage” [speech to the Vancouver Board of Trade, 23 September 2003].

“...a sense of place and the spirit of community will be crucial for successful economic development well into the next century.... Quality of life is the amalgam of those things that make a place out of a location and a community out of a bunch of houses. That’s why the debate cannot be allowed to place economic development and quality urban design in opposition to each other. Today, for lots of reasons, economic growth will only take place on a sustainable basis where there is a high quality of life.... Missoula mayor Kemmis reinforces this. He says ‘Any serious move by a local development organization goes hand in hand with an effort to identify and describe the characteristics of that locality which set it apart and give a distinct identity.’” Donovan Rypkema, “The Dependency of Place,” *Places* 10, no. 2 (1996).

The growing importance of these factors suggests that communities need to rethink their economic development strategies, as is already occurring in the US, with cities like Pittsburgh, Seattle, Portland, and Austin. And it is also beginning to occur in BC, in communities such as Nelson, Kelowna, Powell River, and Port Moody.⁸ Key factors include maintaining a strong sense of place, a healthy environment, excellent recreational amenities, a diversity of housing and shopping options, a diversity of transportation options (including access to air travel), high quality computer infrastructure, cosmopolitanism, and a rich arts and entertainment scene. Many of these things can be enhanced more effectively in small increments, rather than in major big ticket items like sports stadiums.

In being mindful of these emerging realities, communities should also build on their traditional strengths and not use “quality of place” as a superficial gimmick. Not every community is going to be able to attract high tech or computer software firms, but maintaining and enhancing livability will help in retaining existing residents, including youth, will help attract baby boomers as they approach retirement age, and will fuel growth in the local tourism sector.⁹

Finally, it's important to recognize that the knowledge worker group – dubbed the “creative class” by Richard Florida – is not homogenous. Young singles will probably be more comfortable in the hustle-bustle of a downtown neighbourhood, where they can walk to many attractions, whereas workers with families may seek out quieter residential neighbourhoods with good schools.¹⁰

Being relatively affluent, knowledge workers can often drive up the prices of housing and other goods and services, making life more difficult for other residents – and even for other creative types, such as artists, who are often quite poor. Thus, in order for everyone to be able to enjoy the increased prosperity, it is essential that communities pay attention to preserving and expanding affordable housing options for a variety of household types and sizes. To be truly successful, communities must enhance quality of life for everyone and must engage the creative energies of all their citizens.¹¹

In the end, the research suggests that traditional economic development strategies are, by themselves, no longer sufficient to attract and retain businesses and households, especially when they are part of the new economy. As Kirk Watson, the former mayor of Austin, Texas—a major success story in the new economy—suggests, “economic development is no longer just about creating jobs.... It's about creating a culture in your community that lets jobs be created because of that culture.”¹² It is hoped that the present research will shed more detailed light on the relationships between efficient land use planning, livability goals, and vibrant local and regional economies – relationships that might be expected, but which have not yet been demonstrated in the BC context.

⁸ Presentations by Kelowna and Port Moody officials at *Creating Prosperous, Livable Communities: A Strategic Forum* hosted by Smart Growth BC, 5 March 2004, Vancouver; Harold Kalman and Dennis McGuire, “Economic Impact of the Arts in Nelson, British Columbia,” *Municipal World* February 2004: 11-14, 33.

⁹ Maintaining quality of place is partly about remaining true to one's roots, and celebrating a community's unique heritage, including one's industrial or agricultural heritage. Cultural creatives thrive on authenticity, not fake quaintness. Ross Atkin, “A Tale of Cool Cities,” *Christian Science Monitor* [online], 8 October 2003, available at www.csmonitor.com/2003/1008/p11s02-lihc.html.

¹⁰ Availability of educational opportunities for all members of the cultural creative household has been found to be key. See Martha O'Mara, “Strategic Drives of Location Decisions for Information-Age Companies,” *Journal of Real Estate Research* 17, no. 3: (1999): 365-386.

¹¹ See Florida [footnote 4].

¹² Kirk Watson, keynote address, at *Creating Prosperous, Livable Communities: A Strategic Forum* hosted by Smart Growth BC, 5 March 2004, Vancouver.

2 Method

The study was conducted using the following steps:

■ Step 1 – Selection of sample municipalities

In consultation with Smart Growth BC, a sample of BC communities of different sizes was selected based on perceived diversity of urban form characteristics and the availability of relevant information.

■ Step 2 – Selection of quantitative indicators

Quantitative indicators (27 in total) were selected to represent the three “smart growth” dimensions: urban form, livability, and economic vitality. These were selected on the basis of standard indicator selection criteria including: a) relevance to the dimension of smart growth being measured; b) ability to be intelligible and easily understood by readers, and c) availability of data for all the municipalities being compared.¹³

■ Step 3 – Quantitative data gathering

Data for the 27 indicators were collected from a number of statistical sources (e.g., Statistics Canada, BC Statistics) and organized into a series of tables.

■ Step 4 – Creation of indices

The data were then “normalized” – that is, converted into a grade between 0 and 100 basis points. A score of 100 was assigned to the community with the best score or performance for any indicator and other community performance scores were then related to this best performance benchmark. The result is a series of scores from 0 (worst performance) to 100 (top performance). These normalized scores were then added up to generate an aggregate index. For each of the three indices (urban form, livability, and economic vitality) nine indicators are aggregated, using the normalized data set, and equally weighted to create an average composite index score. The best possible average index score is 100 (i.e., if a community was the best performer in all nine indicator categories).¹⁴ Finally, all three sub-indices were amalgamated creating a composite Smart Growth Composite Index providing a single index of smart growth for each community.

■ Step 5 – Identification of relationships

The quantitative data (using correlation analysis) were then analyzed to identify relationships among urban form, livability, and economic vitality.

¹³ Because of the limits on the types of data available, the indicators chosen were fairly blunt, “one size fits all,” instruments, and do not necessarily present a full and complete picture of the issues under study. Had more time been available, we might have also delved into other data sources to round out the picture—such as growth in tourism, overall diversity of the economic base, crime rates, and air quality statistics. For purposes of comparison, data had to be available for *all* communities. A number of communities in the sample had more detailed information.

¹⁴ As further discussed below, the rankings have to be taken with a grain of salt because of the limits on the comprehensiveness of the indicators. Moreover, many communities have inherited advantages or disadvantages that represent an historical legacy. In the latter case, planners and elected councils are often doing their best to rectify past problems.

■ Step 6 – Qualitative data gathering

Interviews were conducted with planners and those knowledgeable about the business environment in a sub-set of the sample communities in order to shed more light on these linkages.¹⁵

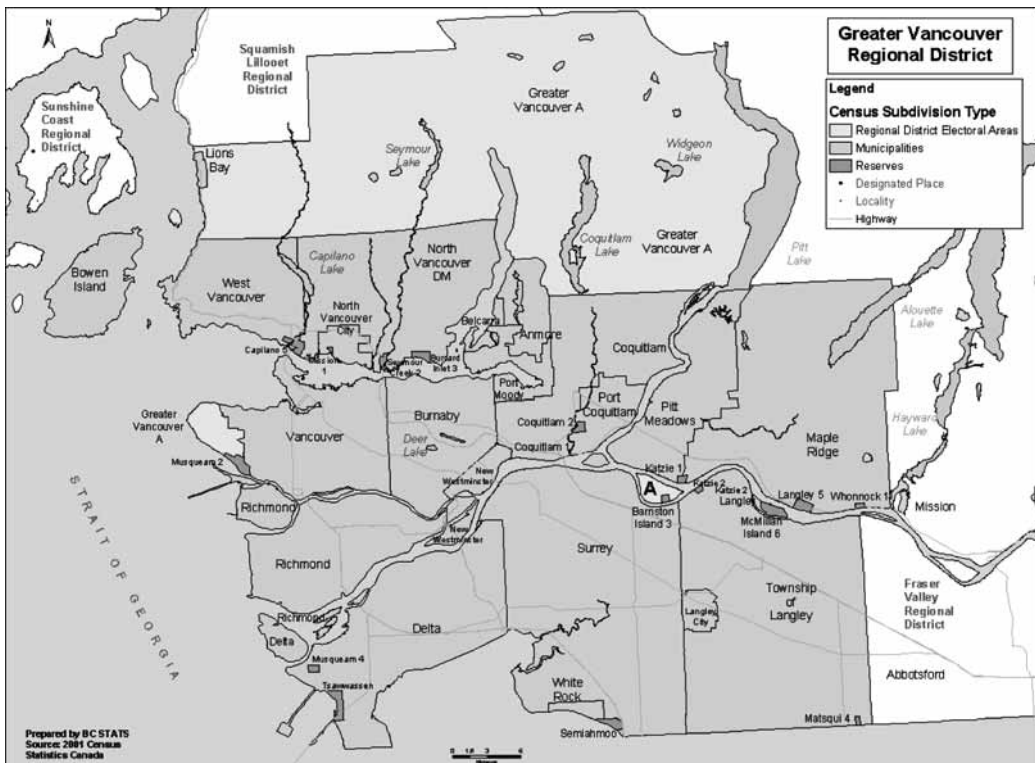
■ Step 7 – Creation of municipal case studies

Municipal case studies were developed using the quantitative and qualitative information gathered in the preceding steps.

3 The Study Municipalities

Twenty-four municipalities were selected for study in three categories: large, medium, and small. There are four in the large category (100,000 people and above), nine in the medium category (25,000-100,000), and eleven in the small (less than 25,000). Communities were selected that met three criteria: they exhibited a diversity of urban form characteristics, they represented a cross-section of the different regions of the province, and they had data available in all or almost all of the indicator categories.

Map 1: Sample of Study Communities Outside the Greater Vancouver Regional District



¹⁵ We were constrained in the kinds of qualitative data that were able to gather. Currently, polls on quality of life are only conducted for a few major urban centres.

Map 2: Sample of Study Communities Inside the Greater Vancouver Regional District

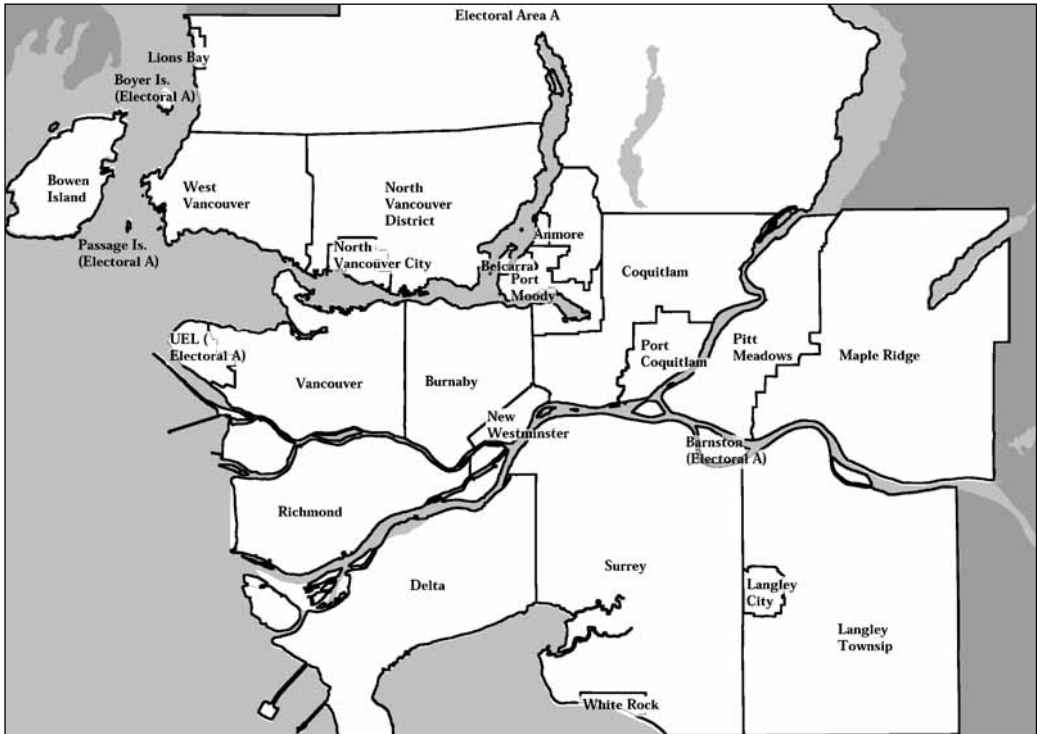


Table 2: Sample of Communities and Their Population Growth Rates
 (Source: Statistics Canada)¹⁶

Municipality	Regional District	2001 Population	1996 Population	% of Population Growth, 1996-2001
Large:				
Abbotsford	Fraser Valley	115,463	105,403	9.5%
Richmond	Greater Vancouver Regional District (GVRD)	164,345	148,867	10.4%
Surrey	GVRD	347,825	304,477	14.2%
Vancouver	GVRD	545,671	514,008	6.2%
Medium:				
Campbell River	Comox-Strathcona	28,456	28,851	-1.4%
Chilliwack	Fraser Valley	62,927	60,186	4.6%
Kamloops	Thompson-Nicola	77,281	76,394	1.2%
Kelowna	Central Okanagan	96,288	89,442	7.7%
Maple Ridge	GVRD	63,169	56,173	12.5%
New Westminster	GVRD	54,656	49,350	10.8%
Penticton	Okanagan-Similkameen	30,985	30,987	0.0%
Vernon	North Okanagan	33,494	32,165	4.1%
Victoria	Capital	74,125	73,504	0.8%
Small:				
Chetwynd	Peace River	2,591	2,980	-13.1%
Creston	Central Kootenay	4,795	4,816	-0.4%
Fort St. John	Peace River	16,034	15,021	6.7%
Nelson	Central Kootenay	9,298	9,585	-3.0%
Port Moody	GVRD	23,816	20,847	14.2%
Quesnel	Cariboo	10,044	10,532	-4.6%
Revelstoke	Columbia-Shushwap	7,500	8,047	-6.8%
Rossland	Kootenay-Boundary	3,646	3,802	-4.1%
Smithers	Bulkley-Nechako	5,414	5,624	-3.7%
Squamish	Squamish-Lillooet	14,247	13,994	1.8%
Terrace	Kitimat-Stikine	12,109	12,783	-5.3%

¹⁶ The provincial government's statistics for population are higher than those of Statistics Canada because of the Province's perception of systematic under-counting in the census. However, because so much of our data derives from Statistics Canada sources, we have used its population figures for the sake of consistency.

4 Measuring Urban Form

This study looks for connections between urban form in a community and its quality of life and economic vitality. In order to undertake this investigation, a definition and key measures of urban form—either sprawled or compact—are needed. Many researchers have attempted to capture the meaning of sprawl, defining it as being characterized by low density, separation of land uses, and automobile dependence. It often features a strong segregation of people by income or ethnic groups.¹⁷

Compact, “smart” development, by contrast, exhibits higher density, with a greater integration of land uses—often around higher-density transit nodes—and with more opportunities for people to get around without relying on their cars. It aims to provide a diversity of housing options for people of all income classes and age groups, seeks to optimize quality of the built environment and provide opportunities for sense of community and citizen involvement.

4.1 The Indicators

In order to assess the degree of sprawl or compactness in a measurable way, a number of indicators were used and the best were chosen based on what was available. The following nine indicators were selected as being the most useful.

¹⁷ Adapted from Robert W. Burchell, et al., *The Costs of Sprawl – Revisited* [TCRP Report 39] (Washington, DC: Transportation Research Board/ National Academy Press, 1998).

Table 3: Urban Form Indicators

[**Note:** All data collected for these indicators are for 2001, the last year of the census, unless otherwise indicated.]

Indicator	Rationale and Limitations
1. Population density (total population divided by the municipality's taxable land base, minus lands in the Agricultural Land Reserve)	Enables an assessment of the relative efficiency with which land is used in communities. However, it still includes some non-residential land, and some municipalities may have boundaries much larger than the urbanized area.
2. Density of housing units (total number of housing units divided by the municipality's taxable land base, minus lands in the Agricultural Land Reserve)	Enables an assessment of the relative efficiency with which land is used in communities. However, it still includes some non-residential land, and some municipalities may have boundaries much larger than the urbanized area.
3. % of Housing Units that are Single-Detached	This is one measure of the efficiency with which land and infrastructure are being used. However, the indicator does not take into account the number of secondary suites.
4. Hectares of Streets, Roads and Alleys Per 1,000 People	Provides a measure of the efficiency of the road network. Sprawled communities tend to require more road surface per capita. However, in some cases, roads are also used extensively to service the agricultural community.
5. Kilometres of Sewer and Water Infrastructure Per 1,000 People	Compact communities generally require fewer kilometres of sewer and water mains per capita. The same caveat applies as in #4.
6. % of Employed Labour Force Working Within Own Census Subdivision (Municipality)	A rough proxy for the "jobs/ housing" balance in a community—i.e., the ability of a community to provide a sufficient employment base and thereby reduce commuting. May underestimate the number of home-based workers and businesses.
7. % of Commuters Who Are Drivers of Automobiles (Modal Split for the Trip to Work)	One measure of the degree of dependence on the automobile, with many commuters being single occupancy drivers (SOVs)
8. % of Commuters Who Drive 5 Kilometres or Less	A measure of the distances between housing and jobs.
9. The Mean Length of Commute (in kilometres) for the Trip to Work	A measure of the distances between housing and jobs.

4.2 The Urban Form Index Rankings

The following ranks are based on an average of normalized scores for the nine indicators described above. Detailed data for each of the nine indicators that comprise the Urban Form Index are presented in the Appendix section of this report.

Table 4: Urban Form Index Rankings

Urban Form Index Ranking	Community	Urban Form Index Score (out of 100 maximum)
1	Victoria	82.23
2	Vancouver	71.04
3	New Westminster	59.15
4	Nelson	56.42
5	Richmond	52.17
6	Penticton	50.68
7	Smithers	50.07
8	Creston	49.00
9	Terrace	46.82
10	Fort St. John	46.17
11	Kelowna	44.22
12	Revelstoke	43.75
13	Kamloops	43.05
14	Chetwynd	42.31
15	Abbotsford	42.04
16	Vernon	41.99
17	Quesnel	41.73
18	Chilliwack	36.10
19	Campbell River	35.98
20	Surrey	35.37
21	Squamish	35.18
22	Port Moody	32.22
23	Maple Ridge	29.76
24	Rosland	27.18

5 Measuring Livability

Authors writing on smart growth have hypothesized that more compact communities will tend to be more livable. Of course, there are many different dimensions to livability, and quality of life is also in the eye of the beholder. There is no one lifestyle that will appeal to everyone. Indeed, smart growth advocates seek to ensure that all communities are able to offer more choice, including suburbs that currently cater mainly to the single-family home market.

Nonetheless, after a half century and more of sprawled development, many individuals and families are rediscovering the pleasures of pedestrian-friendly mixed-use communities, where shops and services, and recreational and cultural amenities are close at hand. They also appreciate communities that exhibit a high degree of social and cultural diversity, and provide opportunities to experience diverse foods, festivals, arts venues and performers.¹⁸

5.1 The Indicators

In order to evaluate quality of life, indicators were required that could be related both to urban form and to economic vitality. The following nine indicators were considered the most useful given the limited range of indicator options available.

¹⁸ The indicators chosen do not do a good job of measuring the “social capital” in a community—the degree to which it is close-knit and supportive. Communities that score high in livability do not necessarily do well with respect to social capital. See Kenneth Naylor, “About Face: How Social Capital Transformed Chattanooga,” *The Next American City* 3 (2003), available at www.americancity.org/Archives/Issue3/naylor_issue.html.

Table 5: Livability Indicators¹⁹

[**Note:** All data collected for these indicators are for 2001, the last year of the census, unless otherwise indicated.]

Indicator	Rationale and Limitations
1. % of Owners Spending More Than 30% of Income on Housing	A measure of housing affordability. However, some communities spending a smaller proportion of their income on housing may also be more affluent.
2. % of Renters Spending More Than 30% of Income on Housing	A measure of housing affordability.
3. Housing Diversity Index (based on mix of single-detached, ground-oriented units, and apartments)	A measure of the kinds of housing options that will be available for a variety of individuals and families.
4. Hectares of Parks and Playground Per 1,000 People (within the municipality)	A measure of green space within a community. However, it does not give an indication of a community's proximity to other recreational lands.
5. Post-secondary Educational Establishments Per 10,000 People	A rough proxy for the educational opportunities available to residents. Note that it gives equal weight to large universities and small trade schools, so it is not a measure of the number of educational spaces available per capita. ²⁰
6. Bookstores Per 10,000 People	One indication of the kinds of cultural services available, especially important from the perspective of the "creative class." ²¹
7. Art Galleries and Art-related Establishments Per 10,000 People	One indication of the kinds of cultural services available, especially important from the perspective of the "creative class."
8. Specialty Food Stores Per 10,000 People	One measure of the diverse products and experiences that are available in a community.
9. % of Housing Stock Built Before 1946	A proxy for the number of potential heritage houses and sense of place that a community possesses. It doesn't describe their condition or actual heritage value.

¹⁹ In a recent article on the "best places to reinvent your life," ten criteria of livability are offered: availability of jobs, affordable housing, culture and entertainment, access to outdoor recreation, safety, continuing education opportunities, sense of community, quality of health care, good schools, and ease of getting around. The evaluation of communities was from the perspective of aging baby boomers who are considering their future retirement options. This report was not able to consider all of these criteria. See Grace Lichtenstein, Elaine Robbins, and Michael Dupuis, "The 15 Best Places to Reinvent Your Life," *AARP: The Magazine* [online], 31 July 2003, available at www.aarpmagazine.org/travel/Articles/a2003-03-27-mag-bestplaces.html.

²⁰ This measure includes a wide diversity of institutions: universities, colleges, trade schools (including computer and secretarial), schools for arts and athletic training, and more.

²¹ Another factor often cited as being compatible with the presence of cultural creatives is high ethnic diversity and tolerance for people with alternative lifestyles, such as gays and lesbians. However, measuring these factors was beyond the scope of the present report.

5.2 The Livability Index Rankings

The following ranks are based on an average of normalized scores for the nine indicators described above. Detailed data for each of the nine indicators that comprise the Livability Index are presented in the Appendix section of this report.

Table 6: Livability Index Rankings

Urban Form Index Ranking	Community	Livability Index Score (out of 100 maximum)
1	Chetwynd	63.92
2	Nelson	59.81
3	Vancouver	57.23
4	Rossland	53.39
5	New Westminster	51.93
6	Smithers	51.92
7	Fort St. John	50.19
8	Victoria	48.84
9	Kelowna	48.81
10	Port Moody	48.33
11	Revelstoke	48.06
12	Richmond	46.88
13	Creston	46.69
14	Penticton	46.46
15	Campbell River	45.44
16	Terrace	44.87
17	Vernon	43.90
18	Abbotsford	43.70
19	Squamish	43.46
20	Surrey	42.45
21	Kamloops	42.13
22	Quesnel	40.41
23	Chilliwack	38.62
24	Maple Ridge	33.96

While composite indices are desirable for simplicity of reporting, they can often mask some of the difficulties associated with the individual indicators that make them up. The index could understate quality of life in some communities. For instance, Victoria has abundant assets—high quality green space, recreational opportunities close to the city, and three large post-secondary institutions with a wide diversity of opportunities—within or near its boundaries, and yet it only scored 8th on our list. This reflects the limitations of the green space and educational indicators. Similarly, New Westminster scored 5th, and yet it has very few natural spaces left, has a delinquent downtown core, and offers few jobs for local residents.

6 Measuring Economic Vitality

This report breaks new ground by exploring the ways that urban form and livability impact on the economic vitality of a community. It attempts to determine whether the hypothesized relationships between quality of place and economic success, suggested by Richard Florida and others, are playing themselves out in BC.

At the same time, it is recognized that most of Florida's findings have pertained to cities that are large by Canadian standards. In addition, Florida and his colleagues do not examine the link between compact urban form and economic vitality but, if such a link exists, it would likely exert itself indirectly through its contribution to livability.

Kirk Watson, the former mayor of Austin, Texas, points out that the shift towards the feasibility of an economic development strategy based on quality of life is still in process. Under the old economy, communities sought to attract firms with tax breaks and concessions. This economy, and the competitive pressures it has generated, has not disappeared.²² The costs of land and labour remain competitive factors. Still, the trend is towards what Carly Fiorina, CEO of Hewlett Packard, indicated in a meeting with US governors: "Keep your tax incentives and highway interchanges; we will go where the skilled people are."²³ And the skilled people are going to places where they can enjoy a good quality of life.

²² Kirk Watson, keynote address, at *Creating Prosperous, Livable Communities: A Strategic Forum* hosted by Smart Growth BC, 5 March 2004, Vancouver.

²³ Qtd. in Dr. Martha C. Piper, "The New Creative Economy: Vancouver's Competitive Advantage" [speech to the Vancouver Board of Trade, 23 September 2003], 2.

6.1 The Indicators

The following nine indicators were considered the most useful for our purposes.

Table 7: Economic Vitality Indicators

[**Note:** All data collected for these indicators are for 2001, the last year of the census, unless otherwise indicated.]

Indicator	Rationale and Limitations
1. Number of Businesses Per 1,000 People	A proxy for the health of the local business climate.
2. Incorporations Per 10,000 People	A proxy for the health of the local business climate. Consistent data on business bankruptcy rates would have been helpful but were not available.
3. Residential Building Permits Per 10,000 People	Level of activity in the housing sector reflects on the health of the economy as a whole.
4. Unemployment Rate (% of the Population 15 and Over)	Provides a measure of the availability of jobs for local residents. A high ranking equals low unemployment.
5. Dependency on the Safety Net: Government Transfers as a % of Total Income	A measure of the robustness of the local economy and the degree to which people can support themselves without dependence on the safety net.
6. High-Tech Index (tech businesses as % of total businesses) ²⁴	A measure of the strength of these “new economy” sectors in the local economy.
7. Bohemian Index (a measure of the number of “cultural creatives,” as defined by Richard Florida)	Measures the potential critical mass of creative people who are a big attractor for the new economy industries.
8. Education Index (number of people with a Bachelor degree or higher) ²⁵	A measure of workers with potential knowledge and skills and, in Florida’s work, a predictor of economic success.
9. Consultants Index (consulting businesses as a % of total businesses)	One measure of the number of knowledge-intensive firms in a community.

²⁴ Indicators 6, 7, and 8 are based on research methods used in Meric Gertler, Richard Florida, Gary Gates, and Tara Vinodrai, *Competing on Creativity: Placing Ontario’s Cities in North American Context* [a report prepared for the Ontario Ministry of Enterprise, Opportunity and Innovation and the Institute for Competitive and Prosperity] (Toronto: Government of Ontario, November 2002). The definitions used for high tech businesses, and for bohemians, are quite narrow.

²⁵ Originally dubbed the “Talent Index” in Florida’s work, we have re-dubbed it because of its elitist correlation of education with talent.

6.2 The Economic Vitality Rankings

Table 8: Economic Vitality Index Rankings

The following ranks are based on an average of normalized scores for the nine indicators described above. Detailed data for each of the nine indicators that comprise the Economic Vitality Index are presented in the Appendix section of this report.

Economic Vitality Index Ranking	Community	Economic Vitality Index Score (out of 100 maximum)
1	Vancouver	73.99
2	Port Moody	62.45
3	Victoria	57.58
4	Richmond	56.31
5	Surrey	50.60
6	New Westminster	49.83
7	Fort St. John	47.66
8	Kelowna	47.52
9	Nelson	45.81
10	Smithers	45.02
11	Revelstoke	43.64
12	Kamloops	43.52
13	Abbotsford	43.49
14	Maple Ridge	42.77
15	Chetwynd	42.59
16	Rossland	42.01
17	Squamish	40.76
18	Campbell River	39.90
19	Vernon	38.58
20	Creston	35.71
21	Chilliwack	34.19
22	Penticton	31.48
23	Terrace	29.33
24	Quesnel	26.67

As noted in previous sections, composite indices can mask the relative comparative strengths of some communities over others in terms of individual indicators. For example, Smithers ranks #1 in terms of the number of businesses per capita (suggesting a rich diversity of businesses), yet ranks only 22nd in terms of the number of “Bohemian” cultural-creative people living and working in the community. Alternatively, Vancouver has the highest number of Bohemians (ranked #1), but ranks lower (#7) in terms of the unemployment rate.

7 Links Between Urban Form and Livability

The relationship between urban form and quality of life in the sample communities was studied by determining the degree of correlation between the urban form and livability indices in the 24 communities studied. The results are mixed (see Table 9). Large communities show a very high correlation (0.9830), and medium communities a lower, but still significant, correlation (0.6912). For small communities, however, there is a very low correlation (0.2086).

Table 9: Urban Form, Livability and Economic Vitality Correlation Analysis

Detailed Correlation Analysis	Using Normalized Data	Strength of Correlations
Large		
Urban Form and Livability Indices	0.9830	*****
Urban Form and Economic Indices	0.9179	*****
Livability and Economic Indices	0.9520	*****
Medium		
Urban Form and Livability Indices	0.6912	****
Urban Form and Economic Indices	0.6849	****
Livability and Economic Indices	0.4550	**
Small		
Urban Form and Livability Indices	0.2086	*
Urban Form and Economic Indices	(0.2298)	*
Livability and Economic Indices	0.3851	**

Correlation	From Weakest to Strongest
0.000–.299	*
0.300–.499	**
0.500–.599	***
0.600–.699	****
0.700–.799	*****
0.800–.899	*****
0.900–1.00	*****

In large denser communities, housing tends to be more expensive, but there is greater housing choice, as well as a variety of transportation options. A finer-grained mix of land uses permits and encourages a diversity of cultural and retail amenities. Smaller and more remote communities, regardless of their densities, tend to have a greater abundance of green space within their boundaries and lower housing costs, but at the same time they have fewer cultural amenities.²⁶ As noted before, livability is highly subjective and many residents of communities that might score low on our index may still rate their quality of life quite highly.²⁷ Nelson, it should be noted, is one small community that scored well on both urban form and livability.

8 Links Between Urban Form and Economic Vitality

The relationship between urban form and economic vitality in the sample communities was studied by determining the degree of correlation between urban form and economic indices in the 24 communities. The results (see Table 9) show a very strong correlation (correlation coefficients of 0.9830) between urban form and economic vitality indices for the larger communities (Abbotsford, Richmond, Surrey and Vancouver). However, the strength of these correlations diminishes as the communities become smaller. The correlation coefficient for medium sized communities is 0.6849, and is dramatically lower for smaller communities with a negative coefficient of -0.2298.

This suggests that, at least with respect to the larger communities, there is a relatively strong relationship between urban form and economic vitality. At the same time, larger cities tend to have an advantage in attracting knowledge industries because of their critical mass of creative, educated people and cultural amenities. That notwithstanding, small communities like Nelson have also scored very well – 3rd place overall in the composite Smart Growth Index, with rankings of 2nd in the livability index, 4th in the urban form index, and with one of the highest economic rankings for a small community.

9 Links Between Livability and Economic Vitality

The relationship between livability and economic vitality in the sample communities was also studied by determining the degree of correlation between urban form and economic indices in the 24 communities. Again (as per Table 9) the larger communities show the highest correlation between livability and economic vitality indices with a correlation coefficient of 0.9520. The strength of this correlation diminishes progressively with medium and smaller communities. Although seemingly trivial, the greatest correlation on the individual indicator level can be found between the number of bookstores, art galleries, and specialty food stores, on the one hand, and the Tech, Bohemian, and Education indices, on the other. (For detailed figures, see the tables in the Appendix.)

There is also other anecdotal and published evidence that a beautiful and well-protected natural environment, and access to abundant outdoor recreational opportunities, are important contributors to economic vitality, not least because of their contribution to tourism. However, we had limited access to data on these attributes across all communities.

Finally, it can be noted that communities—such as Vancouver, Victoria, and Nelson—that score relatively well on their Tech, Bohemian, and Education indices also have a high proportion of houses built before 1946. Creative people tend to like houses and apartment buildings with “character” which, in turn, add to the character and sense of place of the larger community.

Judging by the high cost of housing in many economically vital cities, the price of housing up to a point does not seem to be a deterrent to many knowledge workers, who often command fairly high salaries. While many employees of the knowledge industries can often afford, and help fuel, rising housing costs, other fractions of the “creative class” cannot. Artists, who add immeasurably to the cultural vitality of communities, are often lower on the income scale and require inexpensive living and studio space. In Toronto, the vibrancy of Queen Street—the result of a thriving arts scene—has largely dried up because creeping gentrification of the street and rising rents have made the “scene” too expensive for artists. Ensuring affordable housing and studio/business space is essential—not only for artists, but to ensure that communities retain people of all income levels. This is essential from a social justice standpoint, but also so that essential service providers can remain in the community. Many creative businesses also start out with a minimum capability for paying overhead, as Jane Jacobs noted well over forty years ago, and need to be protected during their incubation period.²⁸

²⁶ The fact of fewer amenities is often offset by a strong participatory sports community and a stronger sense of community in general. The arts organizations, while small, tend to exhibit a high degree of community participation.

²⁷ Communities that score low on many of the livability criteria measured in this report often are rich in “social capital” – in their sense of community, and in their traditions of reciprocity and trust. Kenneth Naylor, “About Face: How Social Capital Transformed Chattanooga,” *The Next American City* 3 (2003) [online], available at www.americancity.org/Archives/Issue3/naylor_issue3.html.

²⁸ Jane Jacobs, *The Death and Life of Great American Cities* (New York: Vintage, 1961).

Table 10: Summary of Indices and Rankings, 2001

Community	Urban Form Index	Urban Form Index Rank	Community	Livability Index	Livability Index Rank
Victoria	82.23	1	Chetwynd	63.92	1
Vancouver	71.04	2	Nelson	59.81	2
New Westminster	59.15	3	Vancouver	57.23	3
Nelson	56.42	4	Rossland	53.39	4
Richmond	52.17	5	New Westminster	51.93	5
Penticton	50.68	6	Smithers	51.92	6
Smithers	50.07	7	Fort St. John	50.19	7
Creston	49.00	8	Victoria	48.84	8
Terrace	46.82	9	Kelowna	48.81	9
Fort St. John	46.17	10	Port Moody	48.33	10
Kelowna	44.22	11	Revelstoke	48.06	11
Revelstoke	43.75	12	Richmond	46.88	12
Kamloops	43.05	13	Creston	46.69	13
Chetwynd	42.31	14	Penticton	46.46	14
Abbotsford	42.04	15	Campbell River	45.44	15
Vernon	41.99	16	Terrace	44.87	16
Quesnel	41.73	17	Vernon	43.90	17
Chilliwack	36.10	18	Abbotsford	43.70	18
Campbell River	35.98	19	Squamish	43.46	19
Surrey	35.37	20	Surrey	42.45	20
Squamish	35.18	21	Kamloops	42.13	21
Port Moody	32.22	22	Quesnel	40.41	22
Maple Ridge	29.76	23	Chilliwack	38.62	23
Rossland	27.18	24	Maple Ridge	33.96	24

Community	Economic Vitality Index	Economic Index Rank	Community	Overall Smart Growth Index	Overall Smart Growth Index Rank
Vancouver	73.99	1	Vancouver	67.42	1
Port Moody	62.45	2	Victoria	62.88	2
Victoria	57.58	3	Nelson	54.01	3
Richmond	56.31	4	New Westminster	53.64	4
Surrey	50.60	5	Richmond	51.79	5
New Westminster	49.83	6	Chetwynd	49.61	6
Fort St. John	47.66	7	Smithers	49.00	7
Kelowna	47.52	8	Fort St. John	48.01	8
Nelson	45.81	9	Port Moody	47.67	9
Smithers	45.02	10	Kelowna	46.85	10
Revelstoke	43.64	11	Revelstoke	45.15	11
Kamloops	43.52	12	Creston	43.80	12
Abbotsford	43.49	13	Abbotsford	43.08	13
Maple Ridge	42.77	14	Kamloops	42.90	14
Chetwynd	42.59	15	Penticton	42.87	15
Rossland	42.01	16	Surrey	42.81	16
Squamish	40.76	17	Vernon	41.49	17
Campbell River	39.90	18	Rossland	40.86	18
Vernon	38.58	19	Campbell River	40.44	19
Creston	35.71	20	Terrace	40.34	20
Chilliwack	34.19	21	Squamish	39.80	21
Penticton	31.48	22	Chilliwack	36.30	22
Terrace	29.33	23	Quesnel	36.27	23
Quesnel	26.67	24	Maple Ridge	35.50	24

10 Case Studies

Although the findings reported above are significant and interesting in themselves, it has to be recognized that they are based on statistical generalizations. In order to flesh out these findings and to place them in their appropriate contexts, six of the 24 study municipalities were chosen for more in-depth analysis: Richmond and Abbotsford for the large communities, Kelowna and Chilliwack for the medium, and Nelson and Rossland for the small.

Information for the case studies was gathered through interviews with municipal planners, economic development officers, social planners and local investors. This information was complemented with articles from local newspapers, business magazines, and other printed sources. Finally, the official community plans were consulted in each municipality along with a wide variety of other official documents (e.g., transportation plans, downtown plans, economic development plans, statistical compendiums, etc., as available).

10.1 The City of Richmond

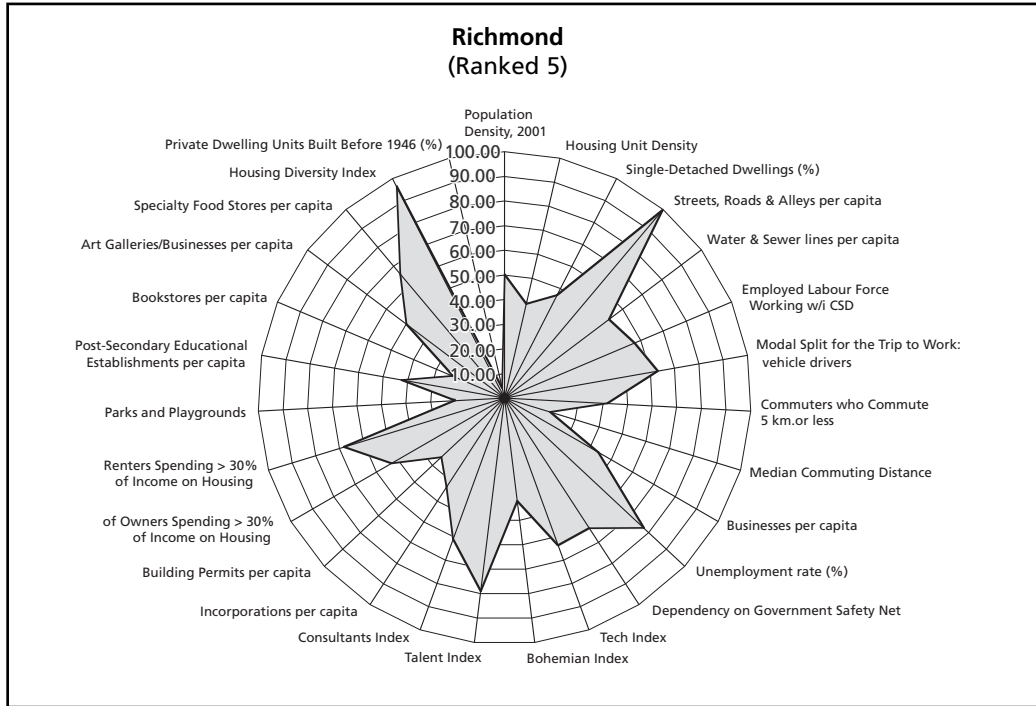
Richmond is an island city, located at the mouth of the Fraser River within the Greater Vancouver Regional District, south of the City of Vancouver. The municipality includes the Vancouver International Airport, which covers over 10% of the municipal land surface. About 37% of the municipal land base is high-quality farmland, protected by the ALR, and a further 13% is made up of conservation areas, especially along the shoreline.

With a 2001 population of about 164,000, Richmond has grown rapidly over the last 20 years. In the first half of the 1990s, it grew by 17.6%, although growth slowed to 10.4% in the latter half of the decade. This rapid growth, much of it due to a wave of immigration from Asia, has brought major changes to Richmond: rising land and housing values, a denser urban fabric, cultural diversity, and a booming economy. The population is expected to reach 212,000 in 2021.

Richmond ranked 5th of the 24 study municipalities on the overall Smart Growth Index, with a higher showing on the economic index (4) than on the urban form (5) or livability (12) indices. Figure 1 provides a portrait of the “state of smart growth” for Richmond, showing all 27 urban form, economic vitality and livability indicators.²⁹

²⁹ Each indicator in this “composite performance spider graph” reflects the relative standing of Richmond with respect to the performance of all of the other 23 communities benchmarked in our study. For example, Richmond scores very high (99.4 out of a possible 100, ranked 2nd overall) in terms of the streets, roads and alleys per capita but scores poorly with respect to median commuting distance with a low score of 19.4 (out of a possible 100), being ranked 20th overall. The diagram thus shows Richmond’s relative strengths (assets) and weaknesses (areas that could use improvement). To interpret the diagram, consider that the fuller the overall “footprint” or area of the shaded of spider graph, the higher the overall “smart growth” performance of the community; the smaller the area the lower the community’s overall performance.

Figure 1: Richmond Composite Urban Form, Livability and Economic Vitality Indicators Portrait, 2001



Urban Form

Some key statistics on urban form are:

- municipal population density was 55 people per hectare or 19 units per hectare (4th in the sample)
- 47% of the housing stock was single-detached (5th in the sample)
- there were 4 hectares of road per 1,000 people (2nd in the sample)
- there were 10 km of water and sewer mains per 1,000 people (4th in the sample)
- 46% of the municipal labour force worked within the city boundaries (19th in the sample), an increase from 43% in 1996
- 77% of work trips were made by car (14th in sample) and only 7% by public transit, while 5% bike
- only 38% of commuters had a trip to work of less than 5 km (18th in the study)
- the median commuting distance was 7 km (20th in the study).

The statistics reveal that Richmond has strengths and weaknesses from a smart growth point of view. On the one hand, the city is quite compact compared to other municipalities in the study, with a high population and unit density, and low amounts of roads, sewers and water mains per capita. On the other hand, commuting distances are long, with a high proportion of commuters needing to leave the municipality for work and a high percentage of commuting trips made by car.

Both the GVRD's 1996 Livable Region Strategic Plan (LRSP) and Richmond's Official Community Plan (OCP) commit the City to pursuing smart growth principles. The LRSP provides a strong regional planning context by requiring member municipalities, such as Richmond, to:

- protect a large and well-defined green zone, including agricultural land and environmentally sensitive areas;
- create a compact metropolitan area with a mix of housing types;
- develop complete communities with a mix of land uses;
- increase transportation alternatives to the car, including transit, biking and walking.

The LRSP designates the Richmond City Centre as one of seven regional town centres: higher-density mixed-use nodes eventually to be linked by rapid transit. Richmond's 1999 OCP supports this vision by designating the City Centre as a major growth area that will accommodate about half of the expected population and employment increase to 2021.

Making Progress

- **Green zone** – The OCP supports the preservation of agricultural land and activities within the municipality. The City has just completed an Agricultural Viability Strategy that will help preserve the agricultural sector as a viable way of life as pressures on farming grow. Environmentally-sensitive areas of the city have been mapped and catalogued, and are protected through a Development Permit process.
- **City Centre** – The Richmond City Centre, designated as a regional town centre by the GVRD's LRSP, used to be a modest retail area characterized by low-density strip-malls and commercial spaces, surrounded by low-density single-family housing on large lots and business parks. Richmond's OCP and City Centre plan envisions a vibrant commercial core, with high- and medium-density development, able to attract a greater and varied number of residents and businesses. Over the last 15 years, the area has seen an increase in high- and medium-density buildings and a mushrooming of retail businesses. The population of the centre has increased from 17,500 to 35,000.
- **Arterial intensification** – Infill is also being encouraged through the gradual implementation of the arterial road redevelopment policy for established neighbourhoods outside the City Centre. This process encourages the redevelopment of low-density residential lots along selected arterial roads with small-scale infill projects (mostly 20 units or less). The process is transforming selected roads into more urban landscapes, with higher densities, back lanes and fewer driveways. The City has also designated new residential zones allowing smaller single-family lot sizes and a second unit above garages. These zones are permitted along arterial roads with lane development.

- **Lot splitting** – Densities are also increasing in low-density residential areas through subdivisions of existing lots into smaller ones. This process, referred to as the Single Family 702 Lot Size Policy, sets out a procedure for amending the zoning bylaw to permit property owners in specific single-family areas to divide their lots into two smaller lots, essentially doubling the housing densities. About 522 new lots have been created through this process, although it has now more or less run its course. Few new lots are expected to result from the 702 policy.
- **Jobs-housing balance** – Taken as a whole, Richmond has achieved a favourable balance between employment opportunities and the resident labour force. In 2001, the city had 104,500 jobs compared to a resident labour force of 85,700. The resulting jobs/resident ratio was 1.22, similar to that of the City of Vancouver.
- **Alternative development standards** – In a few developments, developers have worked with the City and other service providers such as BC Hydro to reduce engineering standards. For instance, in the six-unit Vermilyea Place project, road right-of-ways were reduced from the 17 m conventional standard to 11.8 m, and the cul de sac radius was shrunken from 17 m to 10.65 m. Road right of ways are also being reduced in many other current projects.
- **Transit-friendly urban design** – Many of Richmond’s residential sub-divisions have been based on conventional designs, including cul de sacs and poor pedestrian connectivity. This appears to be changing as plans for major new development areas adjacent to the City Centre (which are evolving from semi-rural to urban) feature streets on a grid pattern (which are easier to serve by transit), a mix of uses, and pedestrian-friendly urban design.
- **Transportation demand management** – The OCP encourages the application of transportation management techniques, such as allocating more road space to non-car travel, providing employer incentives for trip reduction programs, launching a “walk to school” campaign, reducing parking requirements, and introducing traffic control devices to give transit, pedestrians and bicyclists priority over cars. Except for employer incentives, these policies are currently being implemented in Richmond.

Needs improvement

- **Complete communities** – Although the OCP supports the notion of complete communities, the concept does not seem to be catching on at the local scale. With few exceptions (such as Steveston Village, a historic fishing village with a full range of services and retail opportunities), there is little land use diversity in Richmond’s residential areas. Neighbourhood shopping centres in particular are lacking.
- **City Centre** – In the City Centre, mixed use (such as residential above commercial) is permitted but the uptake on this type of development has been slow. City Centre zoning permits big box formats, which may contradict the City’s goal of building a pedestrian-oriented, diverse downtown. Some large-sized blocks have been shortened to a more walkable scale by punching through new streets, but the City Centre has a long way to go before it becomes pedestrian-friendly.

- **Sub-centres** – In most of the suburban sub-centres, development is proceeding along conventional car-dependent lines with large shopping malls and entertainment complexes surrounded by parking. Efforts have been made to convince commercial developers to create more urban landscapes by putting their facilities close to the street, but developer interest is low.
- **Greenfield development** – There have been only two significant greenfield developments in Richmond in the last 10 years (accommodating less than 5% of Richmond's residential growth), but both of them have been controversial. The most recent controversy involves a project in East Richmond (called Riverport) on land that was zoned for industrial uses. The area is distant from other residential areas and services and is surrounded by agricultural land, meaning that most residents will need to drive to most destinations. The GVRD board opposed the development but was sidestepped when the provincial minister responsible for municipal affairs refused to support the board's decision. The development, which is currently under construction, poses a worrying precedent for advocates of strong regional growth management policies.
- **Secondary suites** – The OCP is very protective of single-family neighbourhoods, limiting the potential for gradually increasing densities and introducing a mix of land uses. For example, the OCP generally does not permit secondary suites (although illegal suites exist).
- **Business parks** – The OCP supports the targeting of population and job growth for areas that are served by transit in order to reduce automobile dependence and traffic congestion. However, much job growth is occurring in business parks (especially along the Knight Street corridor) that feature ample car parking but that are poorly served by transit, are inaccessible by foot, and segregated from other services and amenities. The development of major office parks outside the regional town centre undermines the LRSP and contributes to car dependency.

Livability

Richmond, which ranked 12th on our livability index, is known for its quality parks, leisure facilities, and recreation services. Richmond has over 1,200 acres of park land and a wide variety of recreational amenities. The City also maintains a system of inter-connecting perimeter dyke trails, which provide for a variety of recreational opportunities as well as scenic views of the north shore mountains and natural and historic areas. Cultural facilities include libraries, a performing arts theatre, art gallery, arts centre, museums, archives and heritage sites. There is also a wide range of housing types available. On the other hand, the availability of affordable housing is a serious issue affecting the quality of life in the city, and few dwellings are of heritage vintage.

Some livability statistics:

- 22% of home owners spent more than 30% of their income on housing costs (19th in our sample) and 43% of renters did likewise (9th in our sample)
 - the housing diversity index for the city was 0.84 (2nd in our sample)
 - there were 4 hectares of parks and playgrounds per 1,000 residents (12th in our sample)
 - there were 4 post-secondary educational establishments per 10,000 population (15th in our sample)
 - only 2% of private dwellings were built before 1946 (23rd in our sample).
-

Making progress

- **Housing diversity** – Over the last ten years, the range of housing types available in Richmond has widened considerably, including executive housing in village-like settings on the river, high-rise condos in the City Centre, and coachhouse units above garages along arterial roads.
- **Trails** – The OCP encourages the development of a network of sidewalks, paths, and trails through parks, natural areas, and waterways to link neighbourhoods and destination areas, and to actively promote more pedestrian activity and bicycle use. The city has 36 km of designated cycle routes (on-street bike lanes, off-street pathways, or shared curb lanes). The network has grown by an annual average of 16% since 1995. The city has 40 km of off-road developed trails, the majority of which are on the perimeter of the island and built upon Richmond's dyke system.
- **Retail amenities** – The population growth and, in particular, the influx of Asian immigrants, over the last 15 years has added immensely to the diversity of retail activities in the city, including cafés, specialty shops, and restaurants.
- **Transportation choice** – The dedication of a bus lane along the city's main road (No. 3 Road) and heading to downtown Vancouver has reduced travel time between the two city centres and yielded an increasing ridership on the route. TransLink recently announced that it would be building a new rapid transit line from the Richmond City Centre to the international airport in Richmond and on to downtown Vancouver, making it available for the 2010 Olympics.

Needs improvement

- **Housing affordability** – Housing policies in the OCP aim to match housing supply with the requirements of the work force, particularly entry-level priced housing for young, working households. However, housing prices remain high in Richmond and very little rental housing has been created over the last decade. The result is that many working people with modest paying jobs in the city are forced to commute from lower-priced areas in Surrey, White Rock and Tsawwassen.

- **Heritage** – Heritage retention regulations could be more stringent. Some important heritage battles have been lost in Richmond, including many fish canneries along the river front. The City has a heritage commission and an inventory of all heritage buildings, but there are only eleven officially designated heritage sites at present. Other heritage sites have been “identified” by the City, but have not been formally designated.
- **Traffic** – Richmond remains car-dependent and there are serious traffic problems in the city, especially at bottlenecks such as the bridges across the Fraser River leading to Vancouver.
- **Walkability** – Although the city is very walkable for recreational purposes, it is only walkable for practical purposes in a few selected areas (e.g., Steveston). There is little in the way of main streets with shops and services for pedestrians. Many arterial streets are very wide, with rapidly moving traffic.
- **Transit facilities** – Many residential areas have infrequent bus service. The very long blocks between suburban arteries make for long walks to a transit stop.

Economic Vitality

Richmond has a diverse economy, including services, retailing, tourism, technology industries, light manufacturing, airport services and aviation, agriculture, fishing and government. In recent years, Richmond has been emerging as a leading centre for high-tech industries and many jobs have been added in the import-export sector.

The city ranked 4th on our economic index. Some statistics include:

- there were 90 businesses per 1,000 population (11th rank)
- 4 residential building permits were issued per 1,000 population (11th rank).
- the unemployment rate was 7% (5th in our sample)
- 10% of total income came from government transfer (6th rank)
- 7% of total businesses were in technology (5th rank)
- the bohemian index for Richmond was 0.93 (8th rank)
- the education index was 24% (4th in our sample)

Economic development seems tied to the availability of reasonably priced land in accessible locations: it is five minutes to deep water, five minutes to rail, five minutes to an international airport, 20 minutes to the US border, and 30 minutes to downtown Vancouver.

Employers in Richmond also have access to a vast pool of high-quality labour from the region’s two major universities and many colleges and trade schools. The current development boom appears to be fuelled by low interest rates, and the coming of the 2010 Olympics.

Much of the recent population growth has been from Asian immigrants, who now represent approximately one half of Richmond residents. These newcomers have contributed significantly to the growth of the small business and retail sectors in the city and have added to its diversity and vibrancy, including the addition of restaurants, food stores, and cultural activities. These qualities are all positive from the business point of view.

According to the OCP, Richmond's job base is expected to grow from its 2001 level of 104,500 to 150,000 by 2021, an increase in 50% in less than 25 years. Economic development is to be based on three guiding principles:

- to encourage job-intensive businesses;
- to foster a diverse economic base by building on the city's existing strengths and natural advantages;
- to support traditional activities of fishing and farming, particularly the protection and productive use of agricultural land.

Although there is little evidence that urban form and livability factors are major considerations in the location decisions of businesses coming to Richmond, it remains true that the City's economic goals cannot be achieved without close attention to these factors. In particular, Richmond will need to address the growing traffic congestion that slows down business transactions, preserve its agricultural sector, and provide a full range of housing choices at an affordable price—particularly entry-level priced housing for young, working households. These objectives, in turn, will rely on the City's ability to hold the line on the urban/rural boundary, steer employment growth to the City Centre, intensify existing neighbourhoods and shift investment from roads to transit.

These are challenging objectives, and there are powerful countervailing forces arrayed against them. Most importantly is the tendency for much office employment to gravitate to the car-dependent office parks outside the City Centre. Not only does this lead to more traffic congestion, it undermines transit usage, and impairs the ability of Richmond "downtown" to function as a true regional centre. In the long run, it could even undermine support for the planned rapid transit link between Richmond City Centre, the airport and downtown Vancouver, which would have region-wide consequences.

Another important threat to future economic growth based on smart growth principles is the preservation of Richmond's farmland base, which contributes over \$60 million in gross farm receipts every year. High land costs have driven some farmers out of business and placed large amounts of high-quality farmland into the hands of speculators, hoping for a relaxation of the rules governing exclusions from the Agricultural Land Reserve (ALR). Sheer physical proximity to a growing city has also undermined productive use of some farmland within the municipal boundaries. The sight of fallow land raises questions among the public as to the need to protect it for agricultural use and increases pressures to exclude parcels from the reserve so that they can be converted to urban uses. To date, City Council has not supported major exclusions from the ALR (only 14 hectares of land were excluded between 1995 and 2001) but support for development in areas close to the ALR (such as the Riverport development described above) is a worrying signal. Increased development in and travel to such locations can only further weaken the viability of farming in the area and support for maintaining the ALR.

10.2 The City of Abbotsford

The City of Abbotsford is bounded by the Fraser River on the north, the US border on the south, and extends between Chilliwack and Langley, east to west. It is approximately 70 km from downtown Vancouver. The municipality resulted from the amalgamation of two district municipalities in 1995, which themselves were comprised of several historic towns.

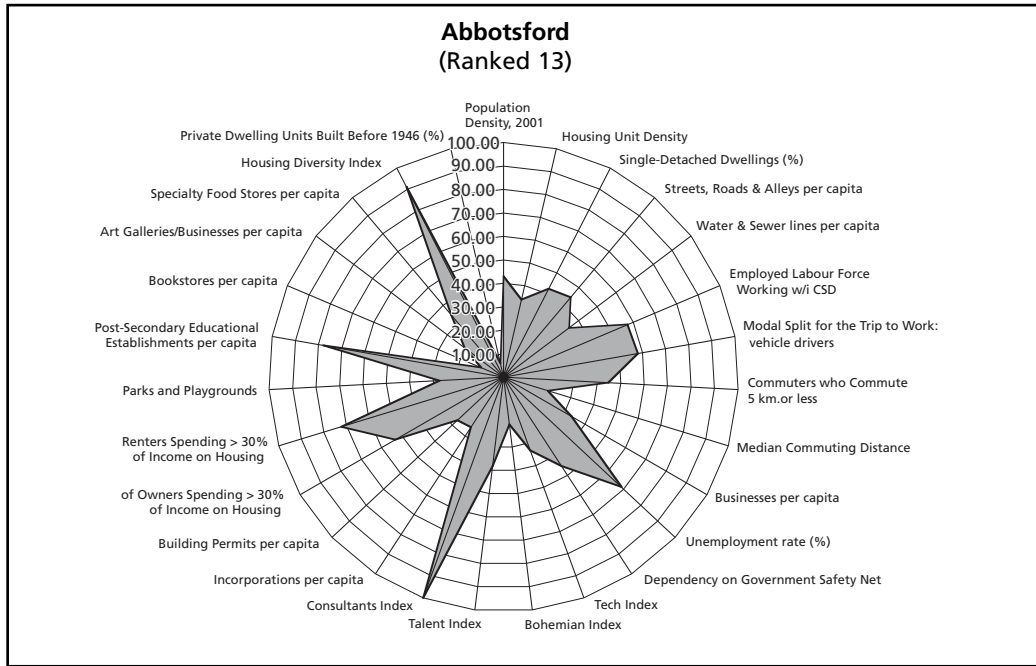
The population of Abbotsford was 115,463 in 2001, making it the fifth most populous municipality in British Columbia. Population growth from 1996-2001 was 9.5%, almost twice the rate of BC as a whole. From 1991-1996, growth was even more marked, with the city growing by 21.3% (while BC as a whole grew by 13.5%).

City planners anticipate that Abbotsford's population growth will continue to be strong, possibly reaching 155,000 by 2011 and 192,000 by 2021. About 41,400 new jobs will be needed by 2021 in order to support the anticipated population growth, about half of which will be accommodated in the city industrial area. The remaining jobs will be in the city's commercial areas, agricultural operations, institutions and home-based businesses.

Abbotsford's urban core is surrounded by highly productive farmland and rural communities. Of a municipal land base of 360 sq km, about 277 sq km (75%) is used for agriculture, taking up much of the low-lying valley land. About 56 sq. km is within the urban development boundary and the rest of the land base is undevelopable due to topographic constraints (i.e., cliffs).

Abbotsford ranked 13th of the 24 study municipalities on the overall Smart Growth Index, with its lowest ranking (18) for livability and higher rankings on the economic (13) and urban form (15) indices. Figure 2 provides a portrait of the "state of smart growth" for Abbotsford, showing all 27 urban form, economic vitality and livability indicators.

Figure 2: Abbotsford Composite Urban Form, Livability and Economic Vitality Indicators Portrait, 2001



Urban Form

Abbotsford is the largest municipality in the Fraser Valley Regional District (FVRD), which also includes Chilliwack, Mission and a number of smaller towns in the Lower Fraser Basin. The Regional District does not have a growth management plan in place, but one was being prepared at the time of writing.

The population of Abbotsford has mushroomed since 1971, when it was about 31,000. Because of the large amount of developable land that was included within the urban development boundary when the ALR was created in 1974, this tremendous growth has been accommodated without substantial exclusion of land from the ALR.

The 1996 Abbotsford OCP was based on the assumption that rapid population and employment growth would have to be accommodated without removing land from the ALR. The City has carried through with this commitment with respect to residential and commercial development by accommodating growth without requesting further exclusions from the ALR. However, the plan is now being revised and the City's position is that exclusions will be required in order to meet the need for employment growth to 2021. Thus, it has proposed that 1,100 acres of land adjacent to the airport be removed from the ALR for industrial uses. The City argues that population growth will need to be balanced with employment growth if commuting from Abbotsford to employment-rich areas in the GVRD (such as Surrey) is to be avoided. The City is currently negotiating the exclusions with the Agricultural Land Commission. The draft FVRD growth strategy appears to support this exclusion by suggesting that urban growth boundaries need to be flexible as conditions change over time.

Some key statistics on Abbotsford's urban form are:

- municipal population density was 48 people per hectare or 16.5 units per hectare (5th in the sample)
- 52% of the housing stock was single-detached (7th in the sample)³²
- there were 8 hectares of road per 1,000 people (12th in the sample)
- there were 15 km of water and sewer mains per 1,000 people (14th in the sample)
- 47% of the municipal labour force worked within the city boundaries (18th in the sample), virtually unchanged from 1996.³³
- 84% of work trips were made by drivers of private vehicles (23rd in sample) and a further 9% were vehicle passengers. Only 1% of commuters used public transit, while 5% biked to work
- 41% of commuters had a trip to work of less than 5 km (17th in the study)
- the median commuting distance was 7 km (19th in the study).

Abbotsford scored low on measures related to transportation, with a high proportion of commuters commuting outside the municipality for work, and the second to highest modal share for car drivers in our study. For a larger city, it also had relatively high amounts of infrastructure (roads, sewers and water mains) per capita. On the other hand, its population and housing density is quite high. These statistics may reflect the contrasting nature of Abbotsford. It is at once the fifth largest city in the province but three-quarters of its land area is rural. For example, more than half of the City's road network serves the farming community and more than 66% of the agricultural area is served by the City's municipal water system.

Making Progress

- **Central Area intensification** – The OCP encourages increased residential densities in, and adjacent to, the Central Area. Several high-rise apartment buildings have been built over the last few years in or near the Central Area, and many single-family homes in the adjacent area have been replaced with duplexes or townhouses. Approximately 500 hectares are designated for high- and medium-density residential uses in the downtown area and up to 37,500 new residents are expected to settle there by 2021 (half the city-wide projected population growth). A Central Area Plan has been drafted that emphasizes a more intensive use of land, a mix of uses and more urbane, pedestrian-friendly streetscapes.
- **Secondary suites** – The City has a supportive secondary suite policy, which has considerably increased the density of single-family neighbourhoods. Secondary suites are permitted in most urban zones and over 3,500 are formally registered with the City (in addition, there may be another 500 units that are not registered). In one area of town—the Townline Hill area—almost 90% of the new homes built there have secondary suites.

³² This includes the approximately 5% of the stock that houses a secondary suite.

³³ The City has access to finer grain data which suggest a higher proportion working within the city.

- **Commercial intensification** – The city has seen the redevelopment of a number of older strip malls and regional shopping centres to more intensive office and commercial uses in recent years. The most recent redevelopment saw a lower density shopping centre (0.18 FSR³⁴) replaced with a denser shopping/office building (0.42 FSR), with two storeys and underground parking.
- **Alternative development standards** – The OCP permits small-lot (less than 420 sq. m.) developments within the context of new urbanist designs (i.e., centred on a retail/civic centre, walkable scale, connected street network, lanes, no cul de sacs, mix of housing types, and so on). A new neighbourhood, called Auguston, is being developed under this policy in the hillside area to the east of the urban core. It will have up to 2400 dwelling units focused around a 55,000 sq. ft. commercial hub, two elementary schools, a secondary school, numerous neighbourhood parks and environmental reserve lands. The housing mix will include single detached and townhouses, many of them on small lots, along with multi-family designs. Of the areas that have been developed, the densities range from 17 units per hectare (UPH) to 28 UPH, depending on the unit type. The first phase is complete and selling well and the second phase is now under construction.
- **Transit ridership** – Transit is provided in Abbotsford by the Central Fraser Valley Transit System. The modal share of transit remains low (at about 1% of daily commutes), but ridership has been increasing rapidly. Between 1996 and 2002, ridership on the Abbotsford portion of the system increased by over 68% while the city's population increased by a more moderate 14%, and ridership between the City of Abbotsford and Mission more than doubled. Service was significantly expanded over that period, including new routes and the addition of bike racks to 40% of the bus fleet.

Needs improvement

- **Industrial densities** – The industrial FSR in Abbotsford is about 0.17. By contrast, the FSR in Richmond is 0.45. The City policy is to reach an FSR of 0.25 and at least one recent industrial development exceeded this goal, but many of the companies attracted to Abbotsford are land intensive—trucking, distribution, farm equipment sales, and so on.
- **Suburban commercial development** – Large scale, car-dependent commercial development in suburban areas has drawn energy and investment away from the downtown core, which is in serious need of revitalization. This development is ongoing. For instance, the Sumas Highway business area south of Highway 1 is Abbotsford's newest commercial area, and is home to several shopping centres and large-scale retailers.

³⁴ FSR stands for "floor space ratio," which measures the amount of floor space in a building relative to its 'footprint.' A three storey rectangular building would have an FSR of 3.

- **Hillside development** – Much of the population growth in Abbotsford has been accommodated on greenfield lands. An average of about 70 acres of such land has been converted to urban use each year over the last 10 years, and much future development will be directed to the forested hillside areas (known as Sumas Mountain) to the east of the city centre. Hillside areas are remote from jobs and most commercial services and are highly car-dependent. While hillside developments provide breathtaking views to their residents, they have been criticized for compromising the natural beauty of the landscape as seen from the rest of the city. Servicing these areas with municipal infrastructure is also very expensive.
- **Transportation demand management (TDM)** – The OCP encourages the implementation of transportation management measures, such as HOV lanes, trip reduction programs, and parking facilities for bikes. To date, however, few TDM measures have been implemented by the City or in conjunction with local employers.

Livability

Abbotsford ranked 18th on our livability index. The city is located in a pleasant setting with valley lowlands, rolling hills and mountains and is close to recreational areas, such as Hemlock Valley and Manning Park, and the city hosts many major sporting events. The city has an array of civic organizations and ethnic/racial diversity, such as the large Indo-Canadian community. However, the city is not known for its strong cultural life or built heritage. There is a wide variety of housing types, but despite lower housing costs than in the Greater Vancouver Regional District, much is still not affordable to low-income workers in the agricultural sector.

Some livability statistics:

- 22% of home owners spent more than 30% of their income on housing costs (18th in our sample) and 41% of renters did likewise (7th in our sample)
 - the housing diversity index for the city was 0.79 (4th in our sample)
 - there were 6 hectares of parks and playgrounds per 1,000 residents (10th in our sample)
 - there were 8 post-secondary educational establishments per 10,000 population (3rd in our sample)
 - 3% of private dwellings were built before 1946 (21st in the ranking).
-

Making progress

- **Housing diversity** – The City of Abbotsford’s housing stock is shifting from being predominantly single-family to increasingly multi-family. In 1981, multi family housing made up only 30% of the housing stock. In 2003, multi-family developments made up 41% of the city’s housing stock, a distribution that is comparable to more urbanized communities in the GVRD.

Needs improvement

- **Cultural activities and heritage preservation** – Despite the fact that it is a relatively large city by BC standards, Abbotsford has one of the lowest per capita funding commitments to arts and heritage initiatives in the province. Other than Clayburn Village – which is designated as a heritage conservation area – Abbotsford has little in the way of heritage interpretation, museums, or art galleries and offers only two large performing arts spaces. The City is currently developing an Arts and Heritage Master Plan to help address these issues.
- **Bike trails** – The OCP commits the City to developing a network of bike paths for recreational and commuter use. Over time rural roads have been widened to accommodate bikes, but little has been accomplished in terms of accommodating bikes on city streets. Although there are trails on Sumas Mountain and other locations, there is a perceived shortage of cycling trails in city parks. The City is updating the Parks and Recreation Master Plan, which may address some of these deficiencies.
- **Housing affordability** – The city’s housing stock is more affordable than in other municipalities south of the Fraser River that lie to the west (e.g., Langley and Surrey). However, housing prices are rising rapidly and many households are paying more than 30% of their incomes on housing costs. There is little accommodation available for seasonal agricultural workers or other low-income households. The City does not have an affordable housing strategy and its OCP says little about the need for affordable housing or how the growing demand will be met. Some recent proposals for temporary shelter and low-income housing have been defeated due to local resistance.
- **Traffic** – Abbotsford is a highly car-dependent city. Traffic has been a problem, particularly at highway interchanges. The City’s response has been to lobby the provincial government for increased spending on the highway system linking Abbotsford to the GVRD.
- **Walkability** – The city does not have compact, mixed use and pedestrian-friendly areas that would encourage walking. Even the downtown core (which is an amalgamation of the core areas of previously separate municipalities) lacks a clear identity and is not very walkable. The City is creating a Central Area Plan with the aim of creating a more walkable and livable urban core.
- **Transit facilities** – The proliferation of low-density residential areas in the city and the lack of any transit hubs makes it difficult to provide good quality transit services throughout the city. In fact, many residential areas have infrequent bus service. More service is needed, especially in outer areas.

Economic Vitality

Vancouver's growth and redevelopment have produced a steady eastward trend for both the centre of population and many industries. The trend to relocate many industrial operations away from Vancouver will continue to have an effect on all communities in the Fraser Valley. Abbotsford is able to attract new investment due to its excellent transportation linkages, including two major highways (one east-west and the other north-south) and the Abbotsford International Airport, the largest airport in the Lower Mainland next to Vancouver International. The sectors with the largest employment in Abbotsford are manufacturing, retail, health care/social services, farming, and food and accommodations.

Abbotsford has few of the physical attributes—such as a lively, walkable downtown, with a variety of specialty food stores, cultural events and bookstores—that would be attractive to knowledge workers. Indeed, the city does not have a strong high tech sector and offers limited opportunities to people with such qualifications. However, the breathtaking views from hillside developments in Abbotsford are attracting some upper income households. The expansion of the aerospace sector, the aviation training programs at the local University College, and the BC Cancer treatment centre and regional hospital are expected to generate a demand for highly-trained workers.

Abbotsford ranked 13th on our economic index. The ranking probably understates Abbotsford's economic vitality. Its economy is fairly diverse, and is rapidly growing.

Some economic statistics include:

- there were 7 businesses per 1,000 population (19th rank)
- 3 residential building permits were issued per 1,000 population (13th rank)
- the unemployment rate was 8% (10th in our sample)
- 14% of total income came from government transfer (17th rank)
- 4% of total businesses were in technology (20th rank)
- the bohemian index for Abbotsford was 0.45 (16th rank)
- the education index was 11% (14th in our sample).

The agricultural sector is the basis of the Abbotsford economy. Between 1991 and 2001, employment in the sector increased by 60%. Although Abbotsford has only 0.5% of the province's total ALR land, farm receipts were almost 20% of the Province's gross farm receipts (the highest of any municipality in BC). About 13% of the city's labour force works in the farm sector. About 60% of the farmland in the city is actively being farmed, a proportion that is not decreasing (unlike other areas in the Lower Mainland).

In its official documents, the City strongly supports preservation of a strong agricultural sector. There are, however, two challenges facing the agricultural industry in Abbotsford that are linked to smart growth issues: labour and land.

Labour shortages associated with seasonal work are becoming an increasingly significant problem for the agricultural industry. This is linked to the lack of suitable and affordable accommodation for low-wage workers. The City needs to improve its performance by providing incentives for this type of development and dealing effectively with neighbourhood concerns related to the development of low-cost housing.

The shortage of land for industrial uses is another looming problem in Abbotsford that threatens the integrity of the agricultural land base. About 41,400 new jobs will be created in Abbotsford by 2021, about half of which will have to be accommodated in the city's industrial areas. According to the City, this will create a demand for industrial space that exceeds the current supply and will inevitably require that some land be removed from the ALR in order to augment industrial land supplies and prevent a land price surge.

The main arguments in favour of this approach are found in *The City in the Country*, a strategic economic development plan currently being finalized. The document claims that the best way to protect the agricultural land base is to release some land for industrial purposes and then capture some of the economic benefit of the industrial activity that results in order to consolidate and strengthen the agricultural base.³⁵ The City's "net benefit" proposal would see a \$20,000 charge placed on each acre of land excluded from the ALR for industrial purposes. The resulting cash flow—amounting \$20 million over twenty years—would be placed in a reserve fund and used for agricultural support programs.

The City claims that the requested exclusion will be a unique event, never to be repeated. This is based on the premise that demand for new industrial land will trail off by 2021, which seems unlikely. Once the City embarks on a path of removing land from the ALR for non-agricultural employment, it will be difficult to argue in the future that more removals are not justified. As the balance of employment shifts from agriculture to non-agricultural activities, political support for preserving the ALR may be eroded.

Economic prosperity in Abbotsford is closely tied to the agricultural land base and it should be protected from encroachment by other uses. Protecting the land base would also increase the pressure on the city to intensify its industrial areas—building up instead of out. By increasing employment densities in existing industrial areas, transit services could be improved, the overwhelming dependency on cars in Abbotsford might be moderated, and existing infrastructure and services could be used more efficiently, rather than requiring additional, costly infrastructure.

³⁵ The City also claims that the remaining agricultural land base can be more efficiently exploited, by, for instance, rehabilitating some of the many open pits that have supplied gravel that mark the area.

10.3 The City of Kelowna

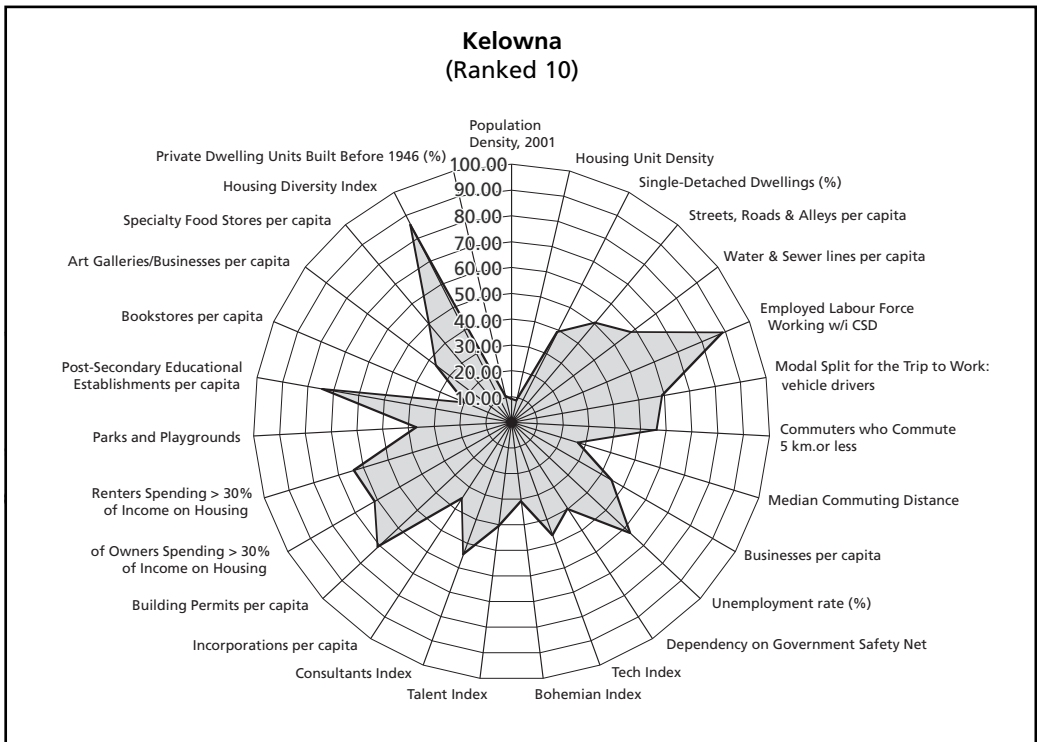
Kelowna is the largest city in the Okanagan Valley and also one of the largest cities in the BC Interior. It is located on Lake Okanagan in the south-central region of the province, about 400 km. east of Vancouver.

With a population of 96,288 in 2001, Kelowna makes up about two-thirds of the population of the Central Okanagan Regional District (population 147,000). The city grew 7.7% from 1996 to 2001 and a remarkable 17.8% from 1991 to 1996, making it one of the fastest growing jurisdictions in Canada. Strong population growth is expected to continue, reaching about 153,000 by 2020.

The municipality covers about 217 sq. km. of which 86 sq. km. (40%) are in the agricultural land reserve. Steep hillsides and inland water bodies limit the use of a further 15.5% of land. With residential, commercial, industrial and other urban uses accounting for a further 31% of the land base, only 13.5% of the city's area is vacant and potentially developable.

Kelowna was in 10th place on the overall Smart Growth Index. Its urban form rank was 11th, while livability was 9th and economic vitality was 8th.

Figure 3: Kelowna Composite Urban Form, Livability and Economic Vitality Indicators Portrait, 2001



Urban Form

Some key statistics on Kelowna's urban form include:

- municipal population density was 10 people per hectare (12th rank) or 4.16 units per hectare (13th in the sample)
 - 56% of the housing stock was single-detached (11th in the sample), unchanged from 1996
 - there were 6.9 hectares in road per 1000 people (6th in the sample)
 - there were 9.1 kms of water and sewer mains per 1000 people (3rd in the sample)
 - 73% of the municipal labour force worked within the city boundaries (7th in the sample), up from 72% in 1996.
 - 82% of work trips were made by drivers of private vehicles (20th in the sample) and a further 6% were vehicle passengers. Three percent of commuters used public transit, while 5% biked or walked to work. In 1996, 81% of commutes were by drivers.
 - 52% of commuters had a trip to work of less than 5 kms (12th in the study)
 - the median commuting distance was 4.8 km (12th in the study).
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The City of Kelowna adopted an Official Community Plan (OCP) in 1995, which was updated in the form of an amendment in 2002. The plan sets out a growth strategy to direct future development and redevelopment in a way that will avoid urban expansion onto agricultural land (the City has not applied for major exclusions from the ALR since the early 1990s as it became clear that the commission was not willing to contemplate further erosion of the agricultural land base). The plan aims to strengthen the city's Urban Centres, promote mixed-use development, and increase densities in existing and newly developing areas of the city.

These themes were echoed in the growth management strategy adopted by the Central Okanagan Regional District in 2000. The strategy provides a smart growth policy framework for member municipalities, including Kelowna. The framework covers the need to have growth contained within existing urban growth boundaries, to be focused on Town Centres, provide a range of housing types, and to help create the conditions for alternative travel options.

Making Progress

- **Residential densification in the downtown** – The OCP favours densification of Urban Centres in order to reduce sprawl. Several high-rise projects have been undertaken in the waterfront and downtown areas. Because they contrast with the low-density nature of the city, most high-density projects in Kelowna have been strongly opposed by area residents.
- **Rural designation** – The OCP establishes a new land use designation for rural areas not in the ALR with a minimum lot size of 4 hectares. This is designed to discourage peripheral rural development.

- **Financial incentives** – The City has revised its Development Cost Charges (DCCs) to more accurately reflect the true costs of providing services to different areas of the city. DCCs for developments closer to the city's core are lower than those for more suburban developments. The City has also lowered the DCCs charged on higher density development in the urban core and sub-centres. The City is offering incentives to hasten the achievement of concentrated nodes of urban development. In particular, it has made 25 parking credits available in the downtown area whereby the cash-in-lieu parking requirement will be paid by the City from its general fund, essentially lowering the parking requirement for the affected projects. If successful, this program will be expanded.
- **Mixed-use projects** – The OCP encourages a mix of residential, employment and other uses within individual buildings. A few apartment buildings (in the downtown and the South Pandosy Urban Centre) have been built with commercial space on the ground floor. The City is encouraging further projects of this type.
- **Secondary suites** – The OCP supports suites in every neighbourhood. In some parts of the City, zoning permits suites outright. Where suites are not permitted under prevailing zoning, the City has made it easy for potential suite operators to obtain any required rezoning. Suite rezoning applications are less expensive than other rezonings and are dealt with more expeditiously. Less than 10% of applications are turned down.
- **Auxiliary suites** – The City permits auxiliary suites in the backyards of existing houses wherever secondary suites are permitted. This helps intensify low-density areas but has given rise to some complaints from neighbours concerned about the size of the suites. Council imposed new restrictions related to height, lot coverage, and parking but the buildings are still permitted in about 25% of residential areas.
- **Alternative development standards** – Kettle Valley is the first of three new urbanist neighbourhoods to be developed in Kelowna. The first neighbourhood of over 1000 dwelling units will be focused around a neighbourhood commercial centre, with residential units above stores, and higher than traditional densities. The community is about 30% built. In other developments, especially on the hillsides, smaller residential lots have become more common since the City reduced lot size minimums in 1998. The City is also allowing reduced road standards and the use of pull out parking bays (which minimizes the paved road surface), and smaller front yard set backs.
- **Transportation Demand Management** – The Regional District of the Central Okanagan has a population of approximately 150,000. There are some 91,000 registered vehicles, and the average household travels over 30,000 kilometers per year by car. These statistics have given the region the unique distinction of being the most automobile dependent in the province. In response, the City of Kelowna and the Central Okanagan RD have developed one of the province's most comprehensive Transportation Demand Management (TDM) programs in order to help shift travel from car to transit, walking or biking, with three full-time staff dedicated to this goal. The TDM program involves a car-pooling program, the promotion of cycling, limits on parking, and public education and awareness campaigns. The City is now working on a social marketing strategy to alter travel behaviour.

- **Biking** – The City has prepared a Bicycle Network Master Plan and boasts a 210-kilometre on-street bicycle lane network – one of the highest ratios per population in the country, and an annual capital budget in the range of \$600,000 for yearly improvements. The Kelowna Regional Transit system was the first in the province to have its entire fleet equipped with bicycle racks
- **Parking requirements** – The Zoning Bylaw pertaining to Urban Centres has been amended to place a cap on the car parking that can be provided and to require both employee (long term) and visitor (short term) bicycle parking. The City sets the monthly parking charge in City owned lots and facilities at 10% above the monthly cost for a transit pass in order to give a financial incentive to commuting via transit. Several of the City-owned parkades are equipped to automatically charge car poolers for a single stall, even if several different cars are used on different days.
- **Transit** – Transit improvements have included construction of a new transit station, which acts as the hub for the regional transit system. Moving to a more efficient commuter service model has allowed service expansions within existing budgets. Double decker buses were added to handle existing overload routes, and a shuttle service is planned to connect several Urban Centres. Over the past ten years Kelowna Regional Transit has had the fastest growing transit ridership in the province – now nearing 3 million riders annually. Bus routes reach most parts of the City and serve major destinations well.

Needs improvement

- **Intensification of existing neighbourhoods** – The OCP says densities in existing neighbourhoods should increase through rezonings, but no specific targets towards this end are established. Minor intensification in the form of secondary suites, splitting of wide lots, and duplexing has occurred, but few major rezonings have taken place.
- **Commercial strength of the downtown core** – The Downtown's economic base has been undermined over the past two-and-half decades by commercial sprawl outside the downtown, especially along Highway 97. The City is working in partnership with the Downtown Kelowna Business Association and the Chamber of Commerce to promote local employment and attract new businesses to the downtown but progress has been slow. There is a lot of underutilized commercial floor space in the downtown area, partially due to the difficulty of supplying underground parking in an area with a high water table.
- **Mixed-use sub-centres** – The City has designated three areas outside the downtown to become self-reliant Urban Centres: South Pandosy, Rutland, and the Springfield and Highway 97 area. According to the OCP, these town centres are to be mixed-use, high-density and pedestrian-oriented. However, implementation has been uneven. For example, the Highway 97 / Springfield area of the city is still marked by fragmented land uses, car-oriented big box retail, poor pedestrian facilities, and an overall unattractive visual quality. Only South Pandosy appears to be making real progress.

- **Neighbourhood mixed-use** – The OCP supports a limited mix of uses through redevelopment of existing neighbourhoods, but developers have shown little interest in this type of development.
- **Highway commercial** – The Province has had control over the development of the uses that line highway 97, which bisects the city. Retail uses that could have located in the downtown or other Urban Centres have instead gravitated towards available highway locations.
- **Hillside development** – In the past 10 years approximately 2200 ha of greenfield lands have been converted to urban uses. About two-thirds of this development has been on hillsides, due to the lack of developable land in the valley, and most of the anticipated population growth over the next two decades will be accommodated in hillsides areas. These areas are steep and do not lend themselves to intensive development, employment uses, institutional services or walking.
- **Residential development outside Kelowna** – The unincorporated area west of Kelowna is experiencing very rapid residential growth, adding to commuter traffic over the Okanagan Lake Bridge. The area is governed by the Regional District, which may not be equipped to deal with the complex planning issues that arise as a rural area undergoes urbanization.

Livability

Situated on the east side of Lake Okanagan, Kelowna has been attracting seniors and other new residents in large numbers in recent years. Part of the attraction has been its spectacular vistas, and hot, sunny climate and all the amenities of a major city—fine dining, unique shops and a vibrant cultural life. Kelowna is home to several local theatre groups, a symphony orchestra, a museum and numerous art galleries. Lake Okanagan offers opportunities for boating, swimming or fishing. The nearby mountains attract hikers, skiers and outdoor enthusiasts of all descriptions. There are three major ski hills within a one-hour drive—Big White, Silver Star and Apex.

This is not to say that the city is without its problems—issues that include air quality, increasing traffic congestion, and high housing prices.

Kelowna ranked 9th on the livability index. Some livability statistics:

- 19% of home owners spent more than 30% of their income on housing costs and 46% of renters did likewise (14th in our sample)
 - there were 8 hectares of parks and playgrounds per 1000 residents (5th in our sample)
 - there were 7.75 post-secondary educational establishments per 10,000 population (4th in our sample)
 - the housing diversity index for the city was 0.75 (8th in our sample)
 - 4% of private dwellings were built before 1946 (15th rank).
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Making progress

- **Housing diversity** – The OCP encourages the development of a variety of housing forms to meet the needs of different population groups, especially through the construction of more apartments and townhouses, both within Urban Centres and in other urban locations. Currently about 64% of the homes in Kelowna are detached or semi-detached dwellings and 36% are multi-family. The long-term goal is to achieve a 50:50 ratio of detached to multi-family housing. The City appears to be on its way to achieving this goal as the proportion of detached and semi-detached housing starts has fallen to 58% over the last three years.
- **Cultural development** – The city has a burgeoning arts and cultural district in the downtown. The city can boast several major cultural facilities such as Prospera Place, a 6,000-seat multi-purpose facility, and the new Rotary Centre For The Arts.
- **Downtown revitalization** – The 1999 Downtown Plan envisions a highly walkable, culturally vibrant, economically healthy core in Kelowna. In realizing the plan, the City has cooperated with downtown businesses to improve streetscape façades in the downtown and the public realm (e.g., Stuart Park on the Waterfront Promenade will be developed over the next several years). Transit improvements and an emphasis on short-term parking provision are designed to encourage downtown employees to use alternatives to the car in their commutes to the area. These efforts are making the downtown a more walkable, attractive place for both residents and tourists, but there is still room for progress. Elsewhere, however, the City is not very walkable.
- **Trails** – The City is gradually adding to the recreational trail system and has created a linear park plan that will see trails along creeks and corridors. One trail, the Mission Creek Greenway, runs east west through city and is now close to 15 kms in length.
- **Heritage protection** – Kelowna has one designated heritage conservation district (Abbott Street and Marshall Street Heritage Conservation Area) where any changes to the buildings must be consistent with the heritage values of the area. It has also undertaken an inventory of heritage buildings outside that area. The 200 buildings on the inventory are not designated or subject to any special regulatory controls, but building owners are offered zoning incentives (e.g., density bonusing) in exchange for preservation or restoration of heritage values. Heritage buildings are also afforded certain flexibility under the BC Building Code in order to encourage renovation. Finally, the City offers grants for restoring the facades of these buildings.

Needs improvement

- **Housing affordability** – Kelowna is considered to be one of the most expensive housing markets in the country. The average cost of a detached house in Kelowna was \$323,000 in 2003 and almost half the renters in the city are struggling to pay their rents. Kelowna has policies in place to try to stimulate affordable and special needs housing (especially in the downtown core), e.g., by offering density bonuses for more affordable units and by providing land at a discount to non-profit housing developers. In newly developing areas, the City will consider rezoning to higher densities where affordable housing is concerned. The City also has a Housing Opportunities Reserve Fund to help subsidize housing projects, but it does not have a secure revenue source and struggles to attract donations. Thus, where lower income people are going to live is still an issue in Kelowna. The provincial housing program has helped subsidize a number of units, mostly focused on families and seniors, but cannot keep up with the needs of the growing low-income population.
- **Traffic** – Traffic congestion has been identified as the most serious community issue on two successive surveys in Kelowna. Congestion is worst along provincially controlled corridors such as Highway 97 and the Okanagan Lake Bridge. The provincial and municipal governments have announced major upgrades in the local road infrastructure, such as building a new bridge across Lake Okanagan, but smart growth advocates are concerned that this will merely aggravate sprawl and car-based development in an already highly car-dependent region.
- **Air quality** – Air quality problems have reached serious proportions in Kelowna, due to woodstove burning, agricultural operations, and vehicle traffic. Frequent temperature inversions due to the mountainous surroundings have exacerbated conditions and led to public health concerns. The recently established Okanagan Airshed Coalition Committee (including the three regional districts in the valley) is promising to improve matters but projected increases in the population and traffic will require major changes in travel behaviour if conditions are not to worsen.

Economic Vitality

Kelowna has become the main marketing and distribution centre of the Okanagan Valley. The main industries in Kelowna are retail and health services and tourism, with growing light industrial and high-tech (e.g., aerospace) sectors. The area is also known for its agriculture (fruit trees), wines, and forestry products. Population and economic growth are closely related to Kelowna's high quality of life, including its climate, combination of small community character with big-city cultural amenities, and recreational opportunities. Labour costs are low (and good-paying jobs are scarce) because of the so-called "sunshine tax," i.e., the willingness of workers to accept a lower salary in return for the high quality of life found in the area.

The City's strategy of investing in the arts and the public realm in the downtown is paying dividends in terms of the attractiveness of the city to tourists, new residents and business investors. Because of the limited availability of land for employment growth, the City's economic strategy appears to be one of retention and enhancement, especially of the high-tech sector, rather than attracting new industries.

The city ranked 8th on our economic index. Some statistics include:

- there were 92 businesses per 1000 population (9th rank)
 - the unemployment rate was 9% (13th in our sample)
 - 15.2% of total income came from government transfer (20th rank)
 - 5% of total businesses were in technology (12th rank)
 - the bohemian index for Kelowna was 0.7 (9th rank)
 - the education index was 12% (9th in our sample)
 - 7 residential building permits were issued per 1000 population (5th rank)
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There are several important growth-related issues facing the City of Kelowna. One issue is the ex-urban development occurring in Westbank on the west side of Lake Okanagan. This formerly rural area under the jurisdiction of CORD is rapidly becoming a bedroom community to Kelowna. This trend is being driven by the availability of cheaper housing in Westbank, but is feeding into the traffic and air quality problems being experienced in Kelowna itself.

Westbank has already grown to about 28,500 people and growth in the area is expected to reach 50,200 by 2020. The City has responded by lobbying the provincial government for a second bridge to the area, which will be built by 2008. If patterns that have become familiar elsewhere – with new transportation infrastructure spurring more suburban sprawl – prevail in this situation, the bridge can be expected to stimulate further ex-urban growth and traffic within the city itself.

If this pattern continues, it could eventually compromise the economic prospects of the region: not only can traffic congestion drive away new businesses, but it can compromise the quality of life and attractiveness of the city and undermine population growth in the urban core and sub-centres, so important to achieving the urban form and livability goals found in the OCP. The city's road network is already under extreme pressure and City Council has been hamstrung in its search for ways to improve flows by the sheer lack of space in which to run new roads and resident opposition to widening existing roads.

From a smart growth point of view, a new bridge spanning the lake may not be the best response to this situation. In order to short-circuit the process, the price differential in housing between Kelowna and Westbank needs to be reduced. To help accomplish this, the City will need to take more aggressive measures to spur rental and low-cost ownership housing within the City. The City should also explore the feasibility of incorporating Westbank into Kelowna, a solution that would allow the City to gain planning control over the area and create a more complete, independent community. A Westbank governance committee is currently looking into this and other options for the area.

Kelowna residents agree that their City needs affordable housing. They also favour preservation of environmentally sensitive areas and protection of agricultural lands. To achieve both, the City recognizes it has to move to higher density housing forms, such as secondary suites, infill lots, townhouses and apartments. As we have seen, policies promoting higher density housing are part of the Official Community Plan. When it comes to building this type of housing, however, proponents often encounter so much neighbourhood resistance that implementation of the policies becomes difficult. It is easier to build single-family homes, although these are unaffordable to many people and contribute to urban sprawl.

In part, resistance to densification arises from the fact that many newcomers to the area are seniors or families purchasing a second home, people for whom growth and change are undesirable. The City planning department acknowledges it has a tough sell on its hands and has adopted a strategy of de-emphasizing talk of “densifying” the city and instead linking the need for a range of housing choices to changing demographics and lifestyles. As they are pointing out to residents, as neighbourhoods’ older residents age they will be forced to move out of their communities to find more appropriate housing unless greater housing choice is made available.

10.4 The City of Chilliwack

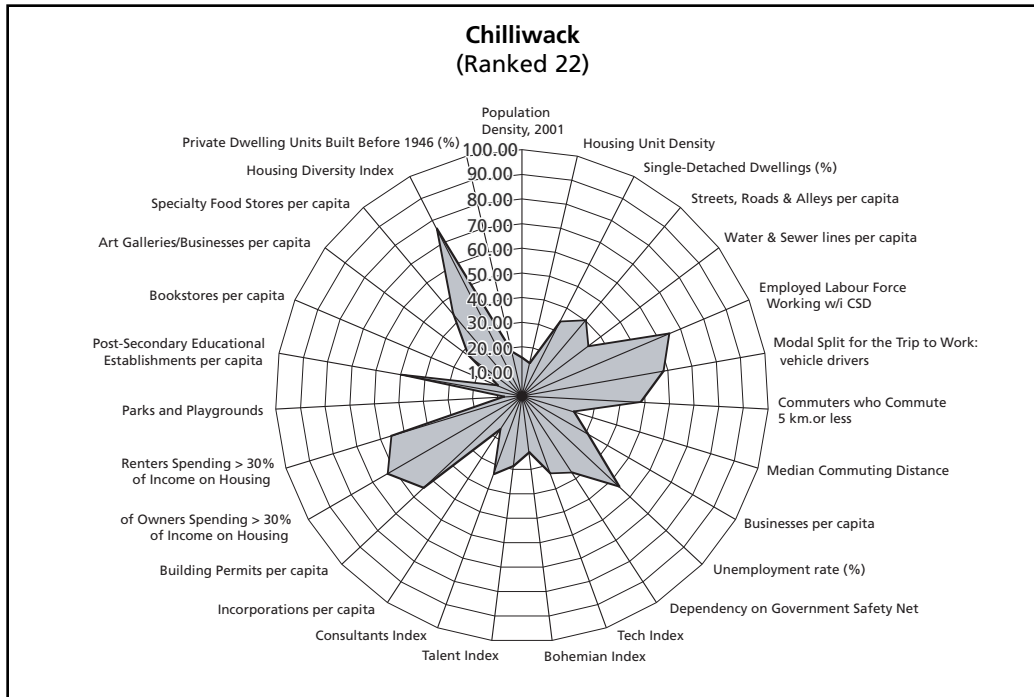
Chilliwack is situated in the Fraser Valley, amidst a rich agricultural valley landscape, surrounded by the Coast and Cascade Mountains. It is connected to the GVRD by the Trans Canada Highway, and CN's main east/west line passes through the city.

The municipality covers about 260 sq km, of which 65% (173 sq. km) is agricultural land, including some of the most productive land in the province.

In 2001, the population of Chilliwack was 62,927, a 4.6% increase from the 1996 population. Almost half the population lives in the older area of the city, located north of the Trans Canada Highway. Known as Chilliwack Proper, this area includes the downtown and adjacent mature suburbs. The newer suburban sections of town, such as Sardis and Vedder – which grew around historic hamlets – are south of the highway. Some of the residential development is occurring in the uplands/hillsides on the southeast side of the city. Growth is expected to continue in Chilliwack, with an projected population of 85,000 and 8,600 new jobs by 2011.

Chilliwack was in 22nd place on the overall Smart Growth Index, with the livability index ranked 23rd, economic vitality index ranked 21st, and urban form index ranked 18th. Figure 3 provides a portrait of the “state of smart growth” for Chilliwack, showing all 27 urban form, economic vitality and livability indicators.

Figure 4: Chilliwack Composite Urban Form, Livability and Economic Vitality Indicators Portrait, 2001



Urban Form

Chilliwack ranked 18th on the urban form index. Some key statistics on Chilliwack's urban form include:

- municipal population density was 17 people per hectare or 7 housing units per hectare (10th in the sample)
 - 66% of the housing stock was single-detached (17th in the sample), unchanged from 1996
 - there were 9 hectares of road per 1,000 people (16th in the sample)
 - there were 16 km of water and sewer mains per 1,000 people (15th in the sample)
 - 52% of the municipal labour force worked within the city boundaries (16th in the sample), down from 55% in 1996
 - 85% of work trips were made by drivers of private vehicles (24th in the sample) and a further 7% were vehicle passengers. Only 1% of commuters used public transit, while 6% biked or walked to work. In 1996, 81% of commutes were by drivers.
 - 44% of commuters had a trip to work of less than 5 km (16th in the study)
 - the median commuting distance was 6 km (18th in the study).
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Chilliwack is the second largest municipality in the Fraser Valley Regional District, (FVRD), after Abbotsford. Like Abbotsford, Chilliwack scored relatively low on indicators related to urban form, with densities significantly lower and with greater car dependency than in Abbotsford.

Some of the urban residential development in Chilliwack over the last 15 years has been on hillsides lands that were removed from the ALR in the late 1980s.³⁶ There are enough developable lands in these areas to accommodate about half the anticipated residential growth to the year 2008. The remaining population growth will be accommodated through densification of the already settled valley lands.

The industrial land within Chilliwack's urban growth boundary is almost completely developed, with only 20 hectares of land remaining to support industrial growth. While preparing its OCP in the late 1990s, the City asked for exclusion from the ALR of several land parcels adjacent to its existing industrial districts for future industrial expansion, but the Agricultural Land Commission rejected the request. Thus, the 1998 OCP was based on the existing urban growth boundary and the limited amount of land available for greenfield development within it. A combined strategy of densification (of residential, commercial, industrial and institutional areas), upland/hillside development, and local job growth was to permit the City to accommodate growth, encourage local self-sufficiency, and reduce out-of-town commuting.

³⁶ Since 1985, almost 700 hectares of land have been removed from the ALR in Chilliwack.

Since adopting its OCP in 1998, Chilliwack has revised its growth management strategy, making the case that about 250 hectares of land (in four blocks) should be removed from the ALR for future growth. The implied shift in the urban growth boundary is supported in the draft growth strategy currently being prepared by the FVRD.

Making Progress

- **Increased density of new development** – The Chilliwack OCP sets target densities for new urban development in the valley: 50 units per acre (UPA) in the downtown core,³⁷ 80 UPA near the downtown, 40 UPA in areas surrounding downtown, and 7.25 UPA in the suburbs of Chilliwack Proper and Sardis-Vedder. The elevated suburban densities are being achieved on average in recent developments, such as the redevelopment of the former Canadian Forces Base (which closed a few years ago) and a major infill project called Village at Sardis Park, a greenfield development on a patch of farmland that was completely surrounded by urban development. The targets do not apply on the hillsides where topographic and environmental conditions prevent intensive development.
- **Densification of existing neighbourhoods** – The OCP strongly favours densification of existing neighbourhoods in order to reduce development pressure on valley bottomlands. Half the anticipated population increase, about 11,000 new residents by the year 2011, are supposed to be accommodated in already settled areas. While some densification is occurring along major arteries in Chilliwack proper, and major new projects such as Garrison Crossing and Village at Sardis Park will add population south of the highway, it is unlikely that the OCP densification target will be met. This is due mostly to the lack of strong demand for multi-family housing in Chilliwack during the 1995-2000 period when the Lower Mainland housing market was in a doldrums. However, the recent rises in housing prices (especially for single family homes) and in the cost of land has greatly strengthened the demand/starts in townhouses, and the recovery of the apartment market is also anticipated in the near future.
- **Industrial densification** – Given the lack of land for greenfield development, industry has grown in Chilliwack through densification of the existing land base. In the last few years, almost half of all industrial building permits have been for expansion of existing properties, i.e., building up or out on an existing site.
- **Alternative development standards** – Garrison Crossing is a major new urbanist development beginning construction on the former CFB Chilliwack in Sardis. The project is characterized by a mix of housing types and will have a mixed-used neighbourhood centre, the nature of which will be determined as the project is built out over the next ten or more years. Many of the 1800 dwellings will be on small lots of about 350 sq m (compared to the standard 450-500 sq m), with a continuous streetscape, no driveways, and rear lane access. Internal streets will have smaller rights-of-way. While this is the most important project in Chilliwack that involves alternative street standards and laneways, the average lot size for single-family homes has been dropping steadily for the last 10 years elsewhere in the city.

³⁷ A lower residential density is assigned to the downtown because residential development has to share the same land base with commercial and institutional uses. Much of the future residential development will be apartments above ground-level-businesses.

- **Cycling** – The City is gradually creating a network of on-street bike paths by re-assigning road space on existing roads and incorporating paths into new roads. There are now about 107 km of delineated and separate bicycle paths (paved shoulders and segregated bike lanes).

Needs improvement

- **Downtown revitalization** – The Downtown's economic base has been undermined over the past two-and-half decades by the suburban shopping centre trend. Many new professional offices and retail shops have located outside of the downtown, dispersing employment beyond it. The City is working in partnership with the downtown Business Improvement Association and the Chamber of Commerce to promote local employment and attract new businesses to the downtown. The City has built its new courthouse and recreational facility in the downtown. These initiatives and public investments are beginning to attract new private investment, but achieving a vibrant, diverse downtown will take many years.
- **Redevelopment of commercial malls** – The potential to redevelop malls into more urban settings with parking lots replaced by street-scale development (commercial at grade and residential above) is identified as a major emerging opportunity in the OCP. Two malls have seen some commercial infilling and redevelopment (e.g., two restaurants, a credit union and a retail shop have been added to the parking/ landscaped area of a mall), but none of the city's many malls have seen the type of human-scale, mixed-use development contemplated in the OCP.
- **Jobs-housing balance** – The last three censuses have reported that an increasing proportion of Chilliwack's workforce is commuting outside of the municipality, primarily to the west. The City is committed to creating local jobs but claims that its ability to do so is constrained by the lack of employment lands within the urban growth boundary.
- **Mixed-use** – The OCP states that the City will promote the redevelopment of existing neighbourhoods to create mixed-use local commercial centres. To date, developer interest in this form of development has been low, largely because the retail market is dominated by large-scale retailers.
- **Secondary suites** – The City permits secondary suites in residential areas only if they are being used by relatives of the homeowners.
- **Shift from cars** – In order to minimize automobile use, the OCP commits the City to drafting a comprehensive transportation plan as well as a travel demand management plan. So far, no plans have been developed and there are few if any TDM measures in place in the city. As the city grows and traffic congestion becomes an issue, transportation demand management may become a higher priority for the City Council.
- **Transit** – Transit service in Chilliwack is limited to the central area and certain suburban areas. With the densification prescribed in the OCP, there will be opportunities to increase transit services to the rest of the city.

Livability

Some livability statistics for Chilliwack include:

- 19% of home owners spent more than 30% of their income on housing costs (13th in our sample) and over 53% of renters did likewise (23rd in our sample)
 - the housing diversity index for the city was 0.65 (16th in our sample)
 - there were 2 hectares of parks and playgrounds per 1,000 residents (21st in our sample)
 - there were 5 post-secondary educational establishments per 10,000 population (12th in our sample)
 - just over 7% of private dwellings were built before 1946 (9th rank).
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Despite the fact that Chilliwack ranked 23rd on our livability index, it has some attractive features: it is located in a splendid mountain valley region, with the valley hillsides and uplands providing a backdrop to the developed valley bottomlands. It offers a small town lifestyle near the big city: life is less frenzied, there is less traffic, less violent crime, and fewer crowds. Surrounded by farmland and green space, there are many recreation opportunities close at hand. Although the statistics indicate that some renters are straining to afford their dwellings, this may be more a reflection of the very low household incomes among this population than unaffordable rent levels. The city provides ownership housing at far more affordable prices than areas to the west of the city.

The city has a small cultural sector (including an Arts Centre, Music Academy, and a theatre at the University-College of the Fraser Valley) that draws enthusiastic local crowds, but Chilliwack is not known for its cultural attractions. Air quality is an issue affecting the health of many residents as a result of pollution that blows up the valley from Greater Vancouver.

Making progress

- **Ownership housing affordability** – Much of the growth in Chilliwack is fuelled by the availability of housing at lower prices than in the GVRD. In 2001, a detached house in Chilliwack was only \$202,000, less than half the price of the average detached housing in the City of Vancouver (\$433,000) and significantly less than in Abbotsford (\$250,100). Moreover, housing prices in Chilliwack are relatively stable, with prices today comparable to what they were 10 years ago.
- **Housing diversity** – At almost 68%, the housing stock of the city is weighted heavily towards single-family forms. This imbalance is beginning to be addressed, with a gradually declining share of single-family dwellings in annual housing starts (56% on average from 1993-2003). This is a tendency that is strongly supported by OCP policies.

- **Trails** – As of 2003, Chilliwack had 27 km of designated and developed trails. Its dykes, which surround 60% of the municipality (from Vedder River to the east end of the Fraser River), provide another 54 km of unofficial maintained trails for cycling, hiking and horseback riding.

Needs improvement

- **Rental housing affordability** – The affordability of the rental stock is an issue in Chilliwack, perhaps reflecting the growing number of low-income households being attracted by the city's low rents.³⁸ The City is attempting to address this by offering flexible zoning and expedited approvals for rental projects. However, developer interest in rental construction has been low due to rock bottom interest rates and high land prices, which make condominium development more attractive. The City does not see itself as a funder of social housing and does not offer developer incentives or subsidies. Chilliwack cannot meet the demand for low-income housing without provincial support.
- **Crime** – Public safety in the downtown has been a public concern. Drug use and lack of active pedestrian street activity during the evening have contributed much to that concern. Downtown revitalization, which creates an interesting pedestrian environment and street front activity, will provide more 'eyes on the street' and help restore public confidence in the safety of the area.
- **Parks** – Recreation and park space is unevenly distributed over the city, with some areas poorly served. Care needs to be taken to designate local recreation and park space in redeveloped and new neighbourhoods in order to redress this imbalance. In the downtown, the price of land is prohibitive and the City will need to find innovative solutions to address the deficiency of parks in the area.
- **Walkability** – Much of Chilliwack has become dependent upon private automobiles to access shopping, community facilities, and work. As a result, residents in many neighbourhoods must travel outside their immediate vicinities in order to meet daily needs. Neighbourhood-based planning that accentuates local shopping, recreation and employment opportunities could create an enhanced sense of community.
- **Heritage protection** – Heritage sites are designated on a voluntary basis in Chilliwack. To date only 12 buildings (the majority of them public properties) have been designated as heritage sites. In the early 1990s, the City created a Heritage Inventory, which identified 129 properties worthy of preservation. When development proposals involving these buildings come forward, the City offers to relax zoning requirements in order to provide the developer with an incentive to preserve the heritage values involved.
- **Air quality** – Much of the air pollution in Chilliwack originates in the GVRD to the west, but conditions are aggravated by local automobile use, industrial pollution, farm practices, and waste burning. Air quality has been improved over the last 15 years as a result of the provincial and regional air quality control measures, but nonetheless remains a concern. Vigilance is required in order to ensure that future development patterns do not worsen the situation.

³⁸Chilliwack has the lowest rent level in the entire Lower Mainland – \$450 to \$550 a month for average one and two bedroom apartments.

Economic Vitality

Chilliwack's employment base is composed of retail services, health care/social services, manufacturing, tourism, and construction trades. The main drivers of economic development in Chilliwack are its location relative to the GVRD, easy access to the United States, and low labour and land costs. The lower cost of labour reflects the high unemployment rate (especially in the aftermath of the closure of Canadian Forces Base in the city) and the low cost of housing in the city.

Attracted to these advantages, several medium-and large-sized firms have chosen to locate in Chilliwack over the last few years, creating jobs in manufacturing (e.g., windows and screens), service (call centres), and resource processing (flour milling).

There appears to be little in the way of high-technology or other firms requiring a specialized work force being attracted to Chilliwack. The city's urban form, being spread out with a highway running through its middle, along with the many visually unattractive residential and employment precincts in the city, would not help attract cultural creatives or knowledge workers.

The city ranked 21st on our economic index. Some statistics include:

- there were 62 businesses per 1,000 population (20th rank)
- 5 residential building permits were issued per 1,000 population (8th rank)
- the unemployment rate was 11% (19th in our sample)
- 17% of total income came from government transfer (22nd rank)
- 4% of total businesses were in technology (21st rank)
- the bohemian index for Chilliwack was 0.5 (15th rank)
- the education index was 9% (21st in our sample).

An important part of the City's economic strategy is to diversify its economic base and attract more firms requiring high-skilled labour. In the City's view, realizing this vision is hampered by the constraints that the ALR imposes on the supply of industrial and commercial land in Chilliwack. As the OCP says: "The community faces a crisis because it lacks the ability to implement economic development initiatives without a suitable land base." It claims that "emerging economic development trends indicate that business parks with a large land base are essential to long-term healthy economic growth. But at present there are no industrial reserves in Chilliwack suitable for the accommodation of those trends."

The Agricultural Land Commission's recent announcement that about half the requested industrial lands will be excluded from the ALR, which will meet the projected demand for about 13 years. As that point approaches, the City will likely request that the other half of the original application be granted. The City justifies this position by assuming that if employment does not grow along with the residential population of Chilliwack, residents will be forced to commute to employment-rich locations outside Chilliwack, with all the social and environmental consequences that entails.

However, from a smart growth perspective, removing land from the ALR cannot be seen as the right answer to Chilliwack's impending "crisis". Not only would such a strategy chip away at the agricultural basis of the local economy, it would allow further employment growth in car-dependent business parks and relieve the pressure to intensify existing business park developments.

An alternate strategy, more in keeping with smart growth principles, would be to continue on the path towards densification that the City has already embarked upon, and to further invest in the revitalization of Chilliwack's ailing downtown. Most importantly, the City could redirect office and commercial development to the downtown.

As part of this strategy, the City could also put more effort (e.g., in the form of developer incentives) into stimulating the creation of neighbourhood mixed-use centres and redevelopment of suburban malls, as the demand materializes, into mixed use communities – two policies that were strongly endorsed by the OCP but have not been realized in practice. Together with a stronger downtown, development along these lines would help reduce dependency upon private vehicle use and increase neighbourhood shopping, recreation and work opportunities, and could assist in improving air quality.

One of the major challenges to pursuing this growth management strategy will be addressing neighbourhood concerns over densification. Protests have already been raised in the community over changes to the existing character of neighbourhoods. Further densification may be strongly resisted unless carried out in a well-planned way that is sensitive to community aspirations. The potential for conflict over densification was anticipated in the 1998 OCP, which contained a recommendation that a process to resolve community concerns be put in place. To date, this recommendation has not been acted on.

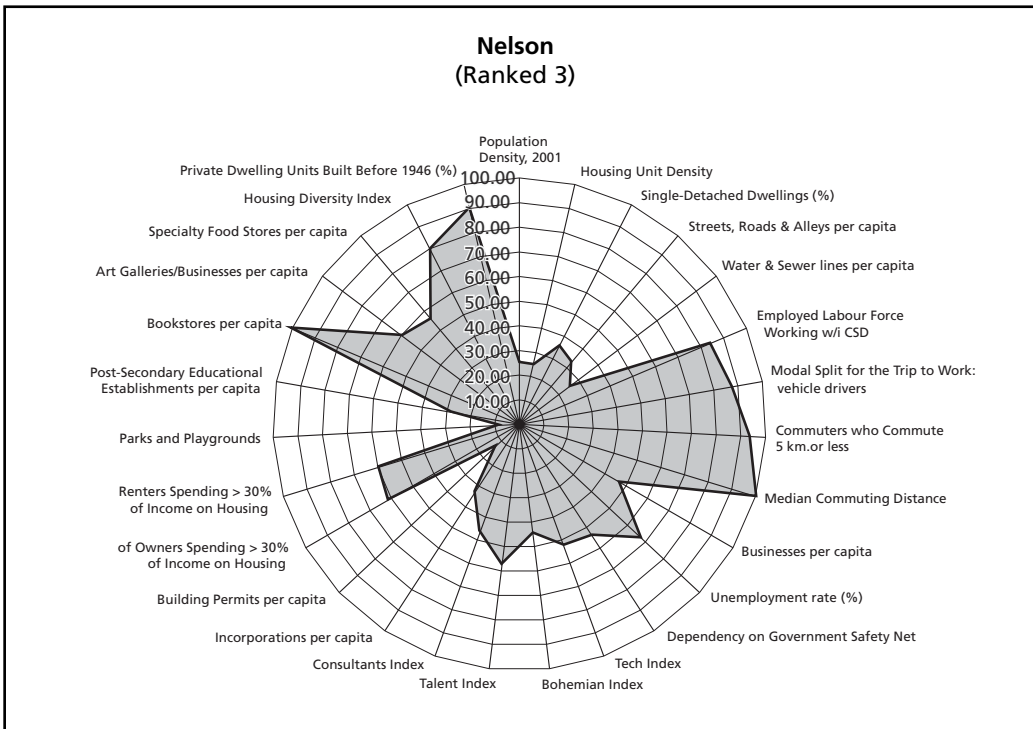
10.5 The City of Nelson

Nelson is located in the Central Kootenay Regional District, surrounded by mountains and set on the shores of Kootenay Lake. Nelson’s charm and natural scenery create a pleasant small town setting. Outdoor sports and recreation opportunities in neighbouring wilderness areas, including the Kootenay Glacier Provincial Park, attract residents and tourists alike.

While Nelson’s population experienced considerable decline during an economic recession in the 1980s, in the long term, the population has been very stable. As in the case of other small towns in BC, Nelson’s population is aging, and the school-aged population is decreasing. Recently however, the pre-school aged population has increased. Nelson’s role as the education and administrative centre for the Kootenays ensures that the city’s population will remain stable and may even grow over the long term.

Nelson ranked 3rd of the 24 study municipalities on the overall Smart Growth Index, and has relatively good ratings on the economic vitality (9th), urban form (4th), and livability (2nd) indices. Figure 4 provides a portrait of the “state of smart growth” for Nelson, showing all 27 urban form, economic vitality and livability indicators.

Figure 5: Nelson Composite Urban Form, Livability and Economic Vitality Indicators Portrait, 2001



Urban Form

Nelson ranked 4th on the urban form index. The city's location on a mountainside and lakefront has prevented the urban sprawl and strip development that typifies much recent small town development in BC. The municipality has a compact downtown and features a gridiron street pattern.

Some key statistics on urban form are:

- municipal population density was 27 people per hectare or 12 units per hectare (6th in the sample)
 - 62% of the housing stock was single-detached (15th in the sample)
 - there were 11 hectares of road per 1,000 people (18th in the sample)
 - there were 21 km of water and sewer mains per 1,000 people (20th in the sample)
 - 68% of the municipal labour force worked within the city boundaries (9th in the sample)
 - 56% of work trips were made by car (2nd in the sample), 33% by walking or cycling, and 2% were made by public transit
 - 86% of commuters had a trip to work of less than 5 km (5th in the study)
 - the median commuting distance was 1 km (1st in the study).
-

The statistics reveal that Nelson has strengths and weaknesses from an urban form point of view. The city is quite compact compared to other municipalities in the study (especially smaller ones), with a relatively high population and unit density. The number of people leaving the municipality for work was relatively low, and commuting distances were very short. The amount of roads, sewers and water mains per capita, on the other hand, were relatively high. The latter is most likely because much of the growth in the Nelson area is located in the rural fringe areas.

Making Progress

- **Compact development** – While the majority of residential development in Nelson consists of single-family dwellings, the city is quite compact in most areas. Geographic constraints such as being located on a mountainside and lakefront necessitate this. The downtown is a particularly compact area.
- **Infill development** – OCP policies encourage infill residential development. In the past, residential growth was directed towards newly annexed areas. Now, development activity is being directed to already existing neighbourhoods and multi-family units are being encouraged.
- **Secondary suites** – Secondary suites are permitted on lots that are over 5,000 square feet.

■ **Mixed-use development** – The OCP identifies certain areas of Nelson as suitable places for mixed-use development. In addition to commercial uses, the downtown is designated to accommodate office space, government services, cultural and entertainment facilities, and multi-family housing. The lakefront lands, a former industrial area, is another area targeted for mixed-use development.

■ **Protection of greenspace** – The OCP recognizes the need to protect the natural environment and strike a balance between providing for growth and preserving/enhancing the spectacular natural features which define Nelson. The OCP states that “The West Arm of Kootenay Lake, the valley or basin formed by the lake, the backdrop of mountains, and the creeks and ravines which occur within the city all contribute to the unique character of Nelson. To jeopardize these natural elements would endanger the very reason why people have chosen Nelson for their home.”

Needs improvement

■ **Leapfrog development** – Although the OCP supports compact development, and outward growth of the city is limited, much of Nelson’s population growth has nonetheless been occurring just outside the municipal boundary. In addition, companies have recently started to locate just outside the town due to perceived lower development costs and the lack of developable land within Nelson. This development is occurring beside the highway in the form of strip development, and could pave the way for further development of this type.

■ **Mixed use** – While the OCP promotes mixed use in the downtown, the downtown is not a very big area, constituting between 5-10% of the city. Small-scale commercial development in residential areas, convenience stores for example, is permitted but is not typical. Policies for mixed use in residential neighbourhoods are mostly concerned with the development of more typical neighbourhood land uses such as schools. In addition, the introduction of commercial uses in residential areas is perceived to detract from consumer expenditures in the downtown.

■ **Transit** – The transit system is used because the municipality is very hilly, making walking difficult for some people (e.g., seniors). Transit service is infrequent and buses do not service areas lying just outside the city, where most of the population growth is occurring.

Livability

Nelson, which ranked 2nd on our livability index, is known for its wilderness areas, outdoor recreation and sports opportunities, and heritage downtown. Nelson’s urban-rural balance attracts residents who appreciate both small town life, and the cultural diversity of larger cities. Home to the Kootenay School of the Arts, Nelson has a vibrant fine arts scene, with many local artists, writers, and art galleries. The municipality also has opera and theatre companies, and numerous different types of music groups. In addition, the municipality has a library, museum, and a sports centre.

Some livability statistics:

- more than 19% of home owners spent more than 30% of their income on housing costs (15th in our sample) and 49% of renters did likewise (17th in our sample)
 - the housing diversity index for the city was 0.69 (12th in our sample)
 - there were 2 hectares of parks and playgrounds per 1,000 residents (20th in our sample)
 - there were 3 post-secondary educational establishments per 10,000 population (21st in our sample)
 - 42% of private dwellings were built before 1946 (number 1 rank).
-

Making progress

- **Walkability** – Nelson deserves kudos as a very walkable city, in which pedestrians can reach most retail shops within a four-block radius. This pedestrian convenience is particularly important to shoppers such as seniors and tourists. The OCP consequently contains policies that strive to maintain and enhance the ease of pedestrian movement. In addition, the municipality has sidewalks throughout, providing favourable pedestrian conditions.
- **Heritage retention** – Nelson has over 350 heritage buildings, most of which are clustered in and around the downtown. Nelson's heritage buildings generate a sense of community pride and identity. Nelson was one of the towns to receive provincial funding and to vigorously pursue the "Main Street" program in the 1980s, and has since maintained a vibrant main street atmosphere in its downtown. Twelve buildings have been official designated as heritage properties. OCP polices include design guidelines that ensure renovations and new development are consistent with and do not detract from the heritage atmosphere of the downtown. Views of natural areas and heritage buildings (from the downtown) are also protected.
- **Trails** – Nelson's surrounding wilderness areas have an extensive system of hiking and mountain biking trails. In addition, the waterfront has four kilometres of recreational walking and cycling trails.
- **Waterfront redevelopment** – Nelson's waterfront was historically used for industrial purposes. With the changing economy, and community values, redevelopment of the waterfront has been guided by OCP polices to redevelop the area as a more "people-oriented" place. Policies address issues such as promoting a mixture of land use and enhancing accessibility for the general public.
- **The arts** – Many artists have chosen to make Nelson their home because of its established and vibrant arts community. As mentioned above, Nelson has numerous cultural amenities and activities.
- **Retail amenities** – Nelson has a favourable climate for a diversity of small and medium sized businesses. The population includes many artists, and environmentally aware and health conscious individuals. In addition, Nelson's successful tourism industry supports local shops, restaurants and cafés.

Needs improvement

- **Housing affordability and availability** – While the cost of home ownership in Nelson is relatively low compared to GVRD standards (the average price for a 3-bedroom bungalow is \$140,000), housing is less affordable when the typical salary in Nelson is considered (the average full time annual salary in Nelson is \$38,748, compared to \$46,806 in the Greater Vancouver Regional District). The housing market in Nelson however is currently very “hot”, and not much housing is available on the market. In addition, it is difficult to find decent rental accommodation, as the rental opportunities are few, and the stock tends to be in poor condition.
- **Transportation choices** – Transit service in Nelson is poor. Most destinations can be reached more quickly on foot than by transit.
- **Heritage retention** – As mentioned above, heritage protection is very strong in the downtown, where heritage buildings are protected by official designations. Outside the downtown, heritage preservation regulations could be more stringent. Even though Nelson has a relatively old housing stock, only one home has been officially designated for its heritage value.

Economic Vitality

The main industries in Nelson are retail, health care and social assistance, accommodation and food services, educational services, and public administration.

The city ranked 9th on our economic index. Some statistics include:

- there were 95 businesses per 1,000 population (8th rank)
 - 1 residential building permit was issued per 1,000 population (20th rank)
 - the unemployment rate was 9% (11th in our sample)
 - 11% of total income came from government transfer (11th rank)
 - 6% of total businesses were in technology (9th rank)
 - the bohemian index for Nelson was 0.97 (6th rank)
 - the education index was 17% (7th in our sample).
-

Nelson’s remote location restricts the number of out-of town commuting destinations compared to many similarly-sized municipalities outside major cities. This is beneficial in that the municipality has developed a more self-sufficient economy and supports a wide diversity of businesses. Nelson’s urban form (its compact, walkable city centre), and traditional small town atmosphere (heritage architecture) are recognized as features that attract an array of small and medium sized businesses, especially in the service, tourism, and arts and culture industries—all of which are well established in Nelson.

Employers in Nelson have access to a high-quality labour force. While the statistics show that the number of post secondary establishments in Nelson is low, the city attracts many educated people because of the lifestyle (e.g., opportunities for outdoor recreation) and urban form (e.g., traditional downtown). Recent provincial government cutbacks have left many well-educated and experienced public sector employees out of work. Many of these people are moving to larger cities in the Kootenays and the Okanagan, because of the current lack of opportunity in Nelson. Economic diversification would help retain Nelson's educated population and attract more educated newcomers as well.

While service industries currently make up about 26% of Nelson's employment base, Nelson's economy is expected to diversify as high-tech industry, education, tourism, value-added manufacturing, light industry and other areas of technology experience growth. The education and health sectors, for example, currently account for about 22% of employment in Nelson, and are expected to increase in the coming years. While diversification is important to Nelson's economic viability, the urban form and livability features should be preserved, as these contribute to the success of existing businesses and attract new ones.

While geographic constraints prevent (major) sprawl, companies have recently started to locate in areas just outside the municipal boundary due to perceived lower development costs and the lack of large tracts of developable land in Nelson. Much of the residential growth in the region is also occurring in such areas. This growth is not only expensive to service, it is undermining Nelson's reputation as a compact city with a small town character. This very character is what attracts so many residents, tourists, and innovative businesses to the city. Expansion into outlying areas would therefore detract from the long-term prosperity of the city and needs to be controlled through better cooperation between Nelson and the Central Kootenay Regional District.

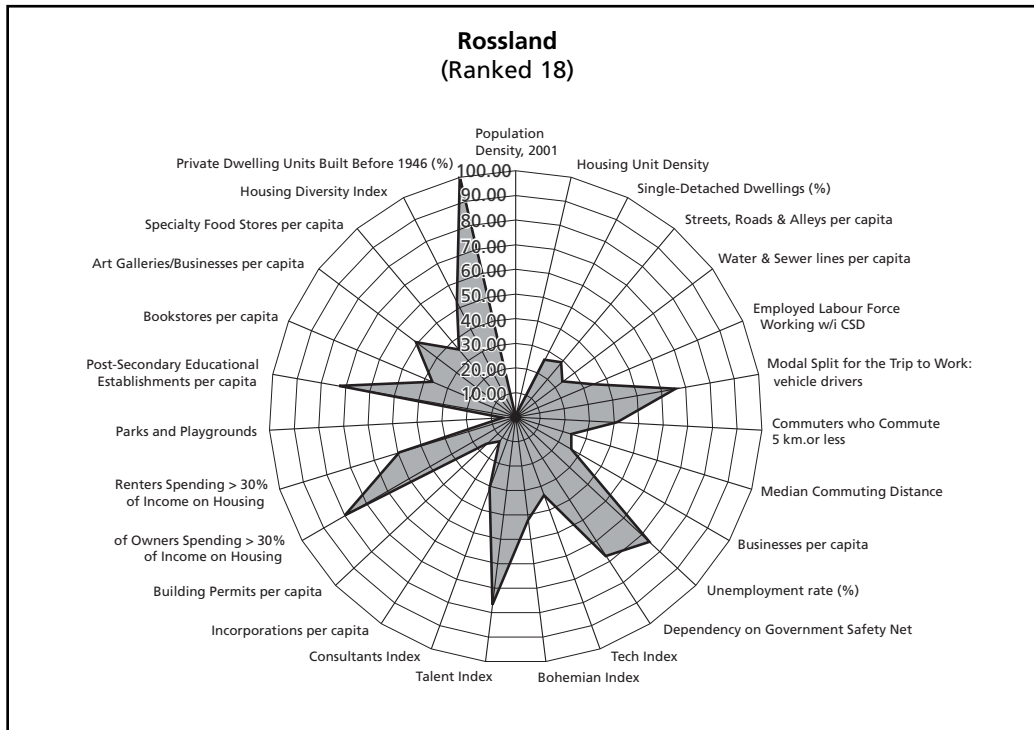
10.6 The City of Rossland

Rossland is a small city within the Greater Trail area, in the Kootenay-Boundary Regional District. Surrounded by natural areas, the municipality is renowned for its outdoor recreation opportunities, especially skiing and mountain biking. The Red Mountain resort area is located on the outskirts of the city, and is a major destination for residents and tourists alike. The municipality is largely residential (88% of land use), and commercial land uses constitute the remainder of the land use base.

With a 2001 population of 3,646, Rossland's population has remained relatively stable over the past 10 years. Demographics have slightly changed, similarly to other small towns in BC: the population has become slightly older, and the school-age population has shrunk. The expansion of the Red Mountain resort area, which is planned to start in June 2004, is expected to result in some population growth, although the amount of growth cannot be predicted accurately at this time. The expansion will also enhance the municipality's already healthy tourism and outdoor recreation industry.

Rossland ranked 18th out of the 24 study municipalities on the overall Smart Growth Index, with a higher showing on the livability (4th) index than on the economic (16th) or urban form (24th) indices. Figure 5 provides a portrait of the "state of smart growth" for Rossland, showing all 27 urban form, economic vitality and livability indicators.

Figure 6: Rossland Composite Urban Form, Livability and Economic Vitality Indicators Portrait, 2001



Urban Form

Rossland ranked 24th (last) in the urban form index. Some key statistics on urban form are:

- municipal population density was 0.77 people per hectare or 0.3 units per hectare (24th in the sample)
 - 85% of the housing stock was single-detached (24th in the sample)
 - there were 12 hectares of road per 1,000 people (21st in the sample)
 - there were 22 km of water and sewer mains per 1,000 people (22nd in the sample)
 - 28% of the municipal labour force worked within the city boundaries (22nd in the sample), the same as in 1996
 - 74% of work trips were made by car (8th in sample), while 15% were made by walking or cycling, and 1% were made by public transit
 - only 38% of commuters had a trip to work of less than 5 km (19th in the study)
 - the median commuting distance was 6 km (16th in the study).
-

The statistics reveal that Rossland has weaknesses from a smart growth point of view. For example, municipal population density and the percentage of single-family dwellings in the housing stock both ranked 24th in our survey. Many of these weaknesses are due to the fact that Rossland is a small town with a small, stable population, and has had little historical demand or need for new higher density development. In addition, the municipality has a small area (Happy Valley), which is designated for rural residential use (minimum 2 hectare parcels). This area contributes to the low density and high number of roads and other municipal services.

Rossland has relatively high proportions of employment outside the city and long commutes. This is attributable to the fact that many of the professionals living in Rossland commute to one of the surrounding municipalities, mainly Trail, about 10 km away. People generally prefer to live in Rossland because of its strong sense of community and opportunities for outdoor recreation.

Rossland ranked 8th in the work trips made by drivers of cars, which is relatively good. From a smart growth point of view, Rossland has a centrally located downtown, around which residential areas are evenly dispersed. It is not a “franchise strip” town, as are numerous other similar sized towns in BC.

The Central Kootenay Boundary District does not have a regional growth management plan. Rossland’s OCP was drafted in 1995 and has been amended several times. The plan encourages and promotes several smart growth principles.

Making Progress

- **Green space** – Environmentally sensitive areas are addressed and protected in the OCP. For example, the greenspace between the town core and the Red Mountain Ski Resort area is protected, and the municipality discourages strip development between these two areas. In addition, the City has completed a Watershed Management Plan which focuses on the protection of the city's water supply emanating from these lands.
- **Alternative development standards** – Alternative development standards are being pursued primarily in the expansion of the Red Mountain Resort base area.³⁹ Narrower road widths, steeper grades, and easements (for the storage of plowed snow) onto private lands adjacent to roads are being considered to allow greater development flexibility (e.g., narrower roads), on the mountainous terrain on which the resort is located.

Needs improvement

- **Density** – The OCP supports and encourages infill and higher density residential development in specific areas of the municipality such as the downtown core, the transition area (an area adjacent to the downtown core), and the Red Mountain base area (ski resort area within the city's boundary). As demonstrated by the urban form statistics presented above, higher density and mixed use development have not yet occurred “on the ground” in Rossland.
- **Mixed use** – The OCP supports and encourages mixed use development in the areas of the municipality where higher density is permitted (the downtown core, the transition area, and the Red Mountain base area). However, 88% of Rossland's land use is currently residential. A more diverse range of land uses could enhance employment options (e.g., more small businesses) and housing needs (e.g., apartments above stores) within the municipality, and therefore reduce the number of employees commuting to surrounding municipalities.
- **Transit** – While the OCP encourages alternate forms of transport including walking, cycling, skiing and public transit, transit service in Rossland is extremely under-utilized. Buses provide hourly service to surrounding municipalities, but these buses are almost always empty. The majority of people walk or drive to get around within Rossland; because of the small size of the municipality, local transit service is not justified.

³⁹ From a smart growth perspective, this is a double-edged sword as it would be preferable not to expand onto the mountain terrain.

Livability

Rossland ranked 4th overall in terms of the livability index. Rossland is renowned for its outdoor recreation and sporting opportunities. The municipality attracts residents who favour the “outdoor lifestyle”, and Rossland is also a major destination for tourists. The municipality is surrounded by natural areas and boasts the Red Mountain resort area, which offers world-class skiing. In addition to Red Mountain, numerous hiking, cross-country skiing, and mountain biking trails are located just on the outskirts of the town, within one kilometre of the downtown. This natural setting likely explains why Rossland is shown to have little parkland per resident within the city. The city has planned events including a fall festival, winter carnival, and winter sports tournament. In addition, the city is home to several cultural organizations including a light opera, orchestra and several music groups, and boasts a vibrant fine arts scene.

Some livability statistics:

- 15% of home owners spent more than 30% of their income on housing costs (5th in our sample) and 60% of renters did likewise (24th in our sample)
 - the housing diversity index for the city was 0.45 (24th in our sample)
 - there were 1 hectare of parks and playgrounds per 1,000 residents (24th in our sample)
 - there were 8 post-secondary educational establishments per 10,000 population (5th in our sample)
 - 42% of private dwellings were built before 1946 (number 2 rank).
-

Making progress

- **Heritage retention** – There is high community pride in the heritage of the downtown area. Significant "main street" enhancement has been undertaken over the last 15 or more years, and Rossland's extensive mining history is also visible throughout the community. Heritage protection and the enhancement in the downtown core are encouraged by OCP policies; a number of buildings from the Victorian era remain intact. In addition, Rossland uses the service of a Design Review Committee to ensure that renovations and new development fit the character of the historical downtown.
- **Walkability** – Rossland is very walkable for both practical and recreational purposes. Factors such as a main street atmosphere, heritage architecture, its human scale, and the fact that development in Rossland is centred around its downtown (as opposed to strip development), make Rossland's downtown very walkable. All edges of the city are located within one kilometre of the downtown.
- **Trails** – Rossland has an extensive trail network that is very well used by mountain bikers, hikers and cross-country skiers. There are 110 kilometres of marked trails and other informal trails as well. The trail network connects to surrounding communities and to the Red Mount resort area.

- **Retail amenities** – Rossland has a wide selection of local retail stores including art stores, specialty food stores, and outdoor supply stores. Likewise, cafes and a variety of restaurants are locally owned and operated. Retail amenities are equally supported by residents and tourists.
- **Housing affordability** – Housing prices are considered affordable for groups such as first time home-buyers.

Needs improvement

- **Housing affordability** – While home ownership opportunities are relatively affordable in Rossland, rental housing is problematic. The lack of affordable rental housing is an issue largely due to the influx of seasonal workers arriving in the winter to work and/or ski at the Red Mountain resort area.
- **Housing diversity** – While the OCP promotes and encourages higher density housing in certain areas of the municipality (the town core, transitional area, and the Red Mountain village core), thus far higher density housing has not been added to Rossland’s housing stock. The data shows that 85% of the housing stock is in the form of single-family dwellings, leaving little choice for lower-income or single person households.

Economic Vitality

The main industries in Rossland are manufacturing, educational services, tourism, health care and social services, and retail. Rossland’s economy supports about 400 jobs. About 28% of local employment is generated by the outdoor recreation and tourism industry, and the impending expansion of the Red Mountain Resort area is expected to generate more employment in this field. While there are year-round outdoor recreation opportunities in Rossland, most of the jobs in the tourism and recreation industry are geared towards the winter season.

Many professionals who live in Rossland commute to neighbouring municipalities, mainly Trail. Trail houses several major companies that provide regional employment including Telus, the telecommunications company for BC and Alberta, Firebird Technologies, an engineering firm, and the Teck Cominco smelter, a world leader in the production of zinc metal. Certain businesses established in Rossland in the last few years, such as Rackforce Hosting (a sales department for the company providing dedicated web hosting services to customers throughout North America), have enjoyed rapid growth, thus adding to the city's economic diversity and creating jobs.

The city ranked 16th on our economic index. Some statistics include:

- there were 54 businesses per 1,000 population (24th rank)
 - 2 residential building permits were issued per 1,000 population (18th rank)
 - the unemployment rate was 8% (6th in our sample)
 - only 9% of total income came from government transfer (3rd rank)
 - 4% of total businesses were in technology (19th rank)
 - the bohemian index for Rossland was 0.93 (7th rank)
 - the education index was 23% (5th in our sample)
-

Rossland ranks relatively high in the sample for the unemployment rate, percentage of total income from government transfer, and the bohemian index. The number of businesses, and the number of residential building permits issued per 1,000 population, ranked very low relative to the rest of our sample.

A previously mentioned, 88% of Rossland's land use is residential, thus explaining the low number of businesses. Many residents, especially professionals with relatively high salaries, choose to live in Rossland and commute to Trail. While the opportunity to commute to another municipality for work has benefits including contributing to the low unemployment rate, high median family income, and attracting a highly educated population, there are negative aspects that may become more apparent in the long run. First, depending on surrounding cities for employment does not encourage economic diversity within Rossland. This, combined with the aging population, could be problematic in attracting new businesses and residents in the future. Second, daily car commutes to Trail and other surrounding municipalities reinforce automobile dependence and could, in the long term, detract from both the regional and local quality of life. This could be negative from a business point of view.

Rossland's compact, walkable urban form and sense of community attract residents, and is also an attribute that appeals to tourists, who provide a significant and growing portion of the municipality's employment dollars. While the population in Rossland is small, employers have access to a high-quality labour force, as many professionals (e.g., engineers, doctors and other specialists) choose to make Rossland their home and are even willing to accept a slightly lower salary. While the population in Rossland is more or less static, the municipality has a range of locally owned and operated small businesses including outdoors and sporting goods stores, furniture and home decorating stores, and beer and wine stores. With an already established small business sector, relatively high median family income, and an influx of tourists, Rossland provides a favourable climate for small, independent businesses.

11 Recommendations

Based on the findings from both the quantitative and qualitative sources, the following recommendations are offered for enhancing the smart growth features of communities and thereby enhancing their long-term livability and economic vitality.

11.1 Mixed-Use, Walkable Districts

Livability of communities is enhanced when more shops, services, and activities are close at hand for children, youth, seniors, parents, and commuters. More densely built residential neighbourhoods can feature community centre and shopping nodes within a short walk or bike ride distance from homes. They also provide a focal point for neighbourhood life by providing facilities for community events and allowing for chance encounters. Such nodes can often be combined with the provision of multi-family housing and with transit connections.

Preserving pedestrian-friendly vital commercial cores, with heritage storefronts where these exist, is also important for maintaining a community's sense of identity and enhancing its attractiveness to tourists. Outdoor cafés and a visually interesting streetscape are key here, along with providing on-street parking and a variety of small, unique businesses that help keep money in the community and make for a more convivial shopping experience.

- Create neighbourhood nodes where these do not exist, and add density to existing neighbourhoods to support these nodes;
- Strengthen traditional downtowns by making them interesting and walkable, incorporating public art and heritage;
- Safeguard the viability of locally owned businesses that keep money in the community.

11.2 Compact urban form

Communities that are built more compactly, with higher density residential areas and mixed use neighbourhoods tend to be more vibrant and attractive. In addition, communities that direct investment and encourage economic development opportunities in their downtown cores enhance their sense of place, use land and existing infrastructure more efficiently, make it feasible to provide good transit service, and reduce dependency on the private automobile.

- Create compact, mixed use neighbourhoods that foster a strong sense of place;
- Direct investment and economic development opportunities into existing urban areas and downtown cores;
- Build sufficient density to support a viable and effective transit system.

11.3 Arts and Culture

Studies have revealed that the arts and culture sector is a potent one for economic spin-offs. It creates jobs, enhances tourism and general quality of life, and results in spending in other sectors. All municipalities, of whatever size, have an active arts community; it is merely a question of nurturing it. A community's art production can often become a focus for tourism, as has been the case to some degree with Nelson.⁴⁰ It makes a community more attractive for other creative types whose presence may prove to be a boost for the economy. The arts also promote community pride, provide a focal point for community involvement, and offer healthy opportunities for participation by people of all ages, from youth to seniors.

- Provide affordable venues for artists and arts organizations;
- Highlight the activities of local artists and promote public involvement in arts and culture;
- Include policies in an economic development strategy that strengthen arts and culture;
- Link the arts sector (via beautification, arts and crafts stores, and performance spaces) with downtown revitalization.

11.4 Recreation

Staying fit is a growing, and welcome, preoccupation. Having access to a variety of recreational amenities is important for people of all incomes and occupational backgrounds. Increasingly, communities are focusing on ensuring that they have an adequate supply of walking and cycling trails, and areas of natural beauty where people can swim, hike, ski, and mountain bike within their municipal limits or relatively close by. These assist in attracting new firms and their employees. Trails and bike paths can also be linked with planning for more walkable neighbourhoods, as they assist in providing alternatives for shorter trips.

- Where trails do not already exist create a network of walking and cycling trails that offer both a functional alternative to automobile travel, and an opportunity for exercise and rejuvenation;
- Encourage local sports associations and facilities;
- Expand green space and parks, and ensure that some are close to existing residential neighbourhoods.

⁴⁰ See Harold Kalman and Dennis McGuire, "Economic Impact of the Arts in Nelson, British Columbia," *Municipal World* (February 2004), 11-14, 33.

11.5 Affordable housing

The report has noted how cities that are attractive to cultural creatives may experience housing affordability problems as in-migrants with sought-after skills (or others attracted by diverse, walkable cities with a high quality of life) bid up housing prices and/ or bring down salaries. If unchecked, this tendency can fuel sprawl and traffic congestion as those seeking homes flee to lower-cost exurban areas.

Municipalities can help address this situation by rezoning land for higher densities, imposing density minimums in newly developing areas, expediting affordable housing proposals, facilitating the redevelopment of land (such as failing strip malls and shopping centres) to higher-density and mixed uses, and permitting secondary suites and auxiliary units as of right.

It has to be recognized, however, that municipalities acting on their own are unlikely to be able to address the housing needs of the low-income population. Here, provincial support will be required in the form of regulatory changes that provide municipalities with a wider range of tools (e.g., allow them to provide financial incentives to private developers of affordable housing) and resources (e.g., funding for assisted housing) to more adequately address this issue.

11.6 Heritage and a distinct sense of place

A sense of place is a crucial element in attracting new residents and tourists alike and in providing a community identity that can help market an area to footloose investors. A sense of place can be strengthened by caring for the natural environment, especially where natural features provide a strong backdrop or setting for the urban area, strengthening downtown and historic town centres, and by preserving built heritage that recalls the economic and social history of an area.

Municipalities in BC control many of the levers needed to build local identity including avoiding development in areas that compromise views of the natural environment (such as hillsides and hill tops), establishing a clear urban/rural boundary, ensuring the quality of surface bodies of water, and establishing conservation districts where heritage values are preserved and new development abides by design guidelines.

The BC Community Charter enables municipalities to alter zoning regulations and provide financial incentives to property owners in order to encourage preservation of built heritage.⁴¹ However, the Act may also discourage heritage designations by raising the possibility that owners would have to be compensated by the municipality for any loss of property value. These provisions should be changed.

⁴¹ For more on this, see Gary Paget, "Community Revitalization and the Community Charter," *PIBC News* 45, no. 5 (2003), 12-14.

12 Conclusions

While being mindful of the importance of differences in size and geographical context, the first key finding of this study is that there are significant linkages amongst the three dimensions of smart growth – urban form, livability, and economic vitality. This pertains to large municipalities, with a decreasing relevance in the case of medium and small communities.⁴²

For instance, with respect to the relationship between urban form and livability, denser, more mixed communities tend to excel on many quality of life indicators, even as they prove inferior on housing costs. However, enhanced quality of life does not flow automatically from a compact urban form. Much recent urban development and redevelopment has ignored essential rules of good urban design, and has thus undermined the very attributes of livability that smart growth advocates are seeking to encourage. Ensuring housing affordability and availability in town centres is also essential if ‘successful’ urban centres are to remain good places for all to live in. Attention to these issues will ensure greater acceptance of smart growth goals and strategies.

The link between urban form and livability is currently weak in the case of small communities. However, these linkages will likely strengthen, especially as baby boomers seek out places to retire. There are many benefits, including fiscal ones, associated with more compact communities, and offering more housing choice and enhanced walkability will grow as priorities as the population ages.

A second key finding is that there is a close statistical relationship between livability and economic vitality for larger communities, with a slightly lower correlation for those of medium size. However, there is a negative correlation in the case of smaller communities. Smaller communities in BC, whose fortunes have traditionally been tied to resource industries currently in decline, have been experiencing a loss of population and economic stagnation. Tourism and knowledge-related businesses, that depend more on quality of place factors, will continue to grow in importance in communities of all sizes, and attention to livability issues will be a key part of attracting and retaining these firms and the kinds of individuals they seek to employ. Livability will also be a factor for baby boomers seeking places to retire, and who will be bringing with them considerable spending power.

It must be emphasized that the findings in this report provide a preliminary and only limited portrait of urban form, livability, and economic vitality. Initial measurement efforts suggest room for further research and development of additional indicators to assist in measuring and understanding this complex subject. They also suggest opportunities to include more qualitative indicators. Such qualitative information could be derived from opinion polling about residents’ and business’ perceptions of many of the issues raised, especially in relation to livability. More interviews with investors would also have been useful to gain more insight into factors influencing choice of business location.

⁴² Given the small size of the sample, these results have to be treated as preliminary and as offering a starting-point for further research.

For all their limitations, quantitative indicators remain one of the few ways of tracking the progress of communities, and trying to understand the sources of success and failure. As governments begin collecting information that is more pertinent to smart growth and sustainability objectives—such as land use mix and annual vehicle kilometres travelled—it will be possible to provide a more complete picture of how trends are shaping up. Nonetheless, given the limitation of time and data sources, the set of indicators used here provides a good basis for bringing these relationships to light and establishing the ground for further investigation.

While tentative, the value of our benchmarking study is that it can help individual communities compare and assess the nature of their comparative advantages—strengths in urban form, livability, and economic vitality—with respect to other communities, while also addressing their weaknesses. The 27 indicators examined can form the basis of a ‘smart growth’ or ‘genuine wealth’ balance sheet to enable communities to chart their progress towards a more sustainable and prosperous future.



Appendix A

The following is the full data set for 27 indicators, with 9 indicators in each of the categories (urban form, livability and economic vitality indices) for 24 B.C. communities. Raw, normalized data (using the normalization methodology described in this report), and rankings of communities are provided for each of the 27 indicators. All data is for the year 2001.

In some cases where community performance scores are tied (e.g. UF9: Median Community Distance) and thus the rankings are tied, we apply a rule that takes the median point between respective ranks they occupy. For example, if two communities are tied for 13th spot then we take the median of 13 and 14 yielding 13.5 as the rank score for both tied communities, with the subsequent community ranked 15th.

Data sources are as follows for the 27 indicators:

Indicator	Data Source
Urban Form Indicators	
UF1. Population Density	Canada Census 2001, Statistics Canada population figures / Land Assessed for Taxation (less 2000 Agricultural land Reserve figures for number of hectares of farmland within municipalities), as found in Area and Population of Incorporated Municipalities as at December 31, 2001, Local Gov't Services and Infrastructure, BC Ministry of Community Aboriginal and Women's Affairs.
UF2. Housing Unit Density	Canada Census 2001, Statistics Canada total housing unit figures / Land Assessed for Taxation (less 2000 Agricultural land Reserve figures for number of hectares of farmland within municipalities), as found in Area and Population of Incorporated Municipalities as at December 31, 2001, Local Gov't Services and Infrastructure, BC Ministry of Community Aboriginal and Women's Affairs as at December 31, 2001, Local Gov't Services and Infrastructure, BC Ministry of Community Aboriginal and Women's Affairs.
UF3. % of Housing Units that are Single Detached	Canada Census 2001, Statistics Canada
UF4. Total Streets, Roads & Alleys – hectares per capita	Sewer, Water Main, Road, and Street Distance in kilometres of Incorporated Municipalities.
UF5. Total Water & Sewer – kms. per capita	Sewer, Water Main, Road, and Street Distance in kilometres of Incorporated Municipalities.
UF6. % of Employed Labour Force Working within the Census Subdivision (CSD)	Custom Data for 2001 from Statistics Canada
UF7. Modal Split for the Trip to Work – Vehicle Drivers as % of Total	Custom Data for 2001 from Statistics Canada
UF8. % of Commuters with a Commuting distance of 5 km. or less	Custom Data for 2001 from Statistics Canada
UF9. Median Commuting Distance (km.)	Custom Data for 2001 from Statistics Canada

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Indicator	Data Source
Livability Indicators	
L1. % of Owners Spending > 30% of Income on Housing	Canada Census 2001, Statistics Canada
L2. % of Renters Spending > 30% of Income on Housing	Canada Census 2001, Statistics Canada
L3. Housing Diversity Index	Canada Census 2001, Statistics Canada, analyzed according to an "ideal" division of housing types
L4. Total Parks and Playgrounds (in ha per 1000)	Area and Population of Incorporated Municipalities as at December 31, 2001, Local Gov't Services and Infrastructure, BC Ministry of Community Aboriginal and Women's Affairs as at December 31, 2001, Local Gov't Services and Infrastructure, BC Ministry of Community Aboriginal and Women's Affairs divided by population.
L5. No. of Post-Secondary Educational Establishments Per 10,000 Population	Canadian Business Patterns, June 2001, Statistics Canada
L6. Bookstores Per 10,000 Population	Canadian Business Patterns, June 2001, Statistics Canada
L7. No. of Art Galleries and Art-Related Businesses Per 10,000 Population	Canadian Business Patterns, June 2001, Statistics Canada
L8. No. of Specialty Food Stores Per 10,000 population	Canadian Business Patterns, June 2001, Statistics Canada
L9. % of Private Dwelling Units Built Before 1946	Canada Census 2001, Statistics Canada
Economic Vitality Indicators	
E1. Businesses per 10,000 population	Canadian Business Patterns, June 2001, Statistics Canada,
E2. Business Incorporations per capita	B.C. Statistics, Community Fact Sheets \ Population, 2001 Canada Census, Statistics Canada
E3. 2001 Residential Building Permits Per Capita	BC Statistics, Community Fact Sheets \ Population, 2001 Canada Census, Statistics Canada
E4. Unemployment rate (%) population 15 years and over	Statistics Canada, 2001
E5. Dependency on Safety Net: Government transfer payments as % of total income	2001 Canada Census, Statistics Canada
E6. Tech Index: Tech Businesses as % of Total Businesses	Canadian Business Patterns, June 2001, Statistics Canada
E7. Bohemian Index: Bohemian" Creative Class of Worker	Statistics Canada 2001 National Occupational Classification for Statistics, CD Rom
E8. Talent Index: Percentage of Population with Bachelor Degrees or Higher	2001 Canada Census, Statistics Canada
E9. Consultants Index: Consulting Businesses as % of total businesses.	Canadian Business Patterns, June 2001, Statistics Canada

Table 6: Urban Form Indicators: 2001 Raw Data, Normalized Data and Ranking

Municipality	Regional District	Urban Form Index Normalized Data (Total)	Urban Form Index Normalized Data (Average Index)	Urban Form Index (Ranked)	Population Density, 2001	2001 Population Density Rank	Normalized Data	2001 Unit Density	2001 Unit Density Rank	Normalized Data	% of Housing Units Single Detach-ed (2001)	2001 Rank of % Single-Family (lowest to high-est)	2001 Normalized Data	2001 Total Streets, Roads & Alleys Per Capita (in 1000s)	2001 Rank Order of Streets – ha. per Capita (lowest to highest)	2001 Normalized Data	2001 Total Water & Sewer – kms. per Capita (in 1000s)	2001 Rank Order of Streets – kms. per Capita (lowest to highest)	2001 Normalized Data	% of Employed Labour Force Working w/i CSD (2001)	Rank % of Employed Labour Force Working w/i CSD (2001)	Normalized Data	Modal Split for the Trip to Work (2001) – vehicle drivers as % of total	2001 Modal Split for Trip to Work Ranking (lowest to highest)	2001 Normalized Data	% of Commuters w/ a Commute of 5 km. Or less (2001)	2001 Ranking for % of Commuters commuting 5 kms. or less	Normalized Data	Median Commuting Distance (2001)	2001 Ranking of Median Commuting Distance*	2001 Normalized Data
			Total divided by 9 (indicators)				Max=optimum			Max=optimum			Min=optimum			Min=optimum			Min=optimum			Max=optimum			Min=optimum			Max=optimum			Min=optimum
							110.57			48.76			22.00			3.49			5.29			81.32			48.86			92.29			1.30
Large:																															
Abbotsford	Fraser Valley	378.36	42.04	15	47.60	5	43.05	16.50	5	33.84	52.00	7	42.31	7.85	12	44.46	15.15	14	34.92	46.66	18	57.38	84.11	23	58.09	41.18	17	44.62	6.60	19.0	19.70
Richmond	GVRD	469.56	52.17	5	55.41	4	50.11	19.14	4	39.25	47.00	5	46.81	3.51	2	99.43	10.01	4	52.85	46.32	19	56.96	77.49	14	63.05	38.48	18	41.69	6.70	20.0	19.40
Surrey	GVRD	318.30	35.37	20	25.69	7	23.23	8.55	8	17.53	55.00	10	40.00	5.91	5	59.05	13.21	10	40.05	31.16	20	38.32	79.45	15	61.50	25.21	23	27.32	11.50	22.0	11.30
Vancouver	GVRD	639.39	71.04	2	110.57	1	100.00	47.84	2	98.11	28.00	3	78.57	7.57	10	46.10	6.24	2	84.78	54.69	14	67.25	57.84	3	84.47	49.93	15	54.10	5.00	15.0	26.00
Medium:																															
Campbell River	Comox-Strathcona	323.85	35.98	19	2.32	22	2.10	0.92	22	1.89	69.00	21	31.88	8.54	14	40.87	19.93	19	26.54	61.78	12	75.97	77.07	11	63.40	50.46	13	54.68	4.90	13.5	26.53
Chilliwack	Fraser Valley	324.88	36.10	18	16.88	10	15.27	6.50	10	13.33	66.00	17	33.33	8.85	16	39.44	15.99	15	33.08	52.04	16	63.99	85.11	24	57.41	43.71	16	47.36	6.00	18.0	21.67
Kamloops	Thompson-Nicola	387.47	43.05	13	21.37	8	19.33	8.50	9	17.43	60.00	12	36.67	6.95	7	50.22	14.84	13	35.65	71.90	8	88.42	83.12	22	58.78	50.25	15	54.45	4.90	13.5	26.53
Kelowna	Central Okanagan	397.97	44.22	11	10.00	12	9.04	4.16	13	8.53	56.00	11	39.29	6.90	6	50.58	9.08	3	58.26	72.54	7	89.20	82.07	20	59.53	52.10	12	56.45	4.80	12.0	27.08
Maple Ridge	GVRD	267.82	29.76	23	5.90	18	5.34	2.11	17	4.33	65.00	16	33.85	7.17	8	48.68	12.43	6	42.56	29.22	21	35.93	83.04	21	58.84	26.90	22	29.15	14.20	24.0	9.15
New Westminster	GVRD	532.35	59.15	3	63.19	3	57.15	30.09	3	61.71	24.00	2	91.67	4.37	3	79.86	5.29	1	100.00	16.50	23	20.29	64.49	4	75.76	28.73	21	31.13	8.80	21.0	14.77
Penticton	Okanagan-Similkameen	456.09	50.68	6	21.28	9	19.25	9.79	7	20.08	50.00	6	44.00	7.46	9	46.78	13.04	9	40.57	67.66	10	83.20	77.32	13	63.19	80.31	8	87.02	2.50	7.0	52.00
Vernon	North Okanagan	377.95	41.99	16	6.85	17	6.20	2.99	15	6.13	54.00	8	40.74	7.76	11	44.97	14.69	11	36.01	58.63	13	72.10	80.71	17	60.54	63.98	11	69.32	3.10	8.0	41.94
Victoria	Capital	740.06	82.23	1	91.28	2	82.55	48.76	1	100.00	22.00	1	100.00	3.49	1	100.00	10.56	5	50.09	52.96	15	65.13	48.86	1	100.00	79.15	9	85.76	2.30	6.0	56.52
Small:																															
Chetwynd	Peace River	380.81	42.31	14	1.46	23	1.32	0.57	23	1.17	61.00	13	36.07	17.37	24	20.09	29.33	24	18.04	78.13	2	96.08	72.3	7	67.58	92.15	2	99.85	3.20	10.0	40.63
Creston	Central Kootenay	441.04	49.00	8	9.28	14	8.39	4.29	12	8.80	71.00	23	30.99	8.76	15	39.84	25.03	23	21.13	75.00	5	92.23	69.35	6	70.45	89.51	3	96.99	1.80	4.0	72.22
Fort St. John	Peace River	415.55	46.17	10	9.41	13	8.51	4.13	14	8.47	55.00	9	40.00	9.54	17	36.58	17.40	16	30.40	62.38	11	76.71	75.02	10	65.13	81.07	7	87.84	2.10	5.0	61.90
Nelson	Central Kootenay	507.80	56.42	4	27.43	6	24.81	12.02	6	24.65	62.00	15	35.48	10.76	18	32.43	20.87	20	25.35	68.17	9	83.83	55.77	2	87.61	86.42	5	93.64	1.30	1.0	100.00
Port Moody	GVRD	290.00	32.22	22	13.55	11	12.25	4.86	11	9.96	44.00	4	50.00	4.62	4	75.54	12.64	7	41.85	6.47	24	7.96	81.31	19	60.09	19.77	24	21.42	11.90	23.0	10.92
Quesnel	Cariboo	375.53	41.73	17	3.45	20	3.12	1.39	19	2.85	68.00	20	32.35	11.75	20	29.70	18.62	17	28.41	76.90	3	94.56	80.92	18	60.38	77.08	10	83.52	3.20	10.0	40.63
Revelstoke	Columbia-Shushwap	393.75	43.75	12	2.96	21	2.68	1.22	20	2.50	71.00	22	30.99	13.20	23	26.44	12.80	8	41.33	76.77	4	94.40	74.78	9	65.34	82.55	6	89.45	3.20	10.0	40.63
Roseland	Kootenay-Boundary	244.59	27.18	24	0.77	24	0.70	0.30	24	0.62	85.00	24	25.88	12.07	21	28.91	22.22	22	23.81	27.70	22	34.06	74.28	8	65.78	38.02	19	41.20	5.50	16.0	23.64
Smithers	Bulkley-Nechako	450.59	50.07	7	7.16	16	6.48	2.77	16	5.68	66.00	18	33.33	12.56	22	27.79	19.76	18	26.77	81.32	1	100.00	65.96	5	74.08	92.29	1	100.00	1.70	2.5	76.47
Squamish	Squamish-Lillooet	316.66	35.18	21	4.73	19	4.28	1.71	18	3.51	61.00	14	36.07	8.35	13	41.80	14.74	12	35.89	51.42	17	63.23	77.31	12	63.20	42.35	16	45.89	5.70	17.0	22.81
Terrace	Kitimat-Stikine	421.42	46.82	9	9.10	15	8.23	1.00	21	2.05	66.00	19	33.33	10.90	19	32.02	22.22	21	23.81	72.73	6	89.44	80.63	16	60.60	88.11	4	95.47	1.70	2.5	76.47

Note: *In the case of a tied ranking, i.e. UF9: Median Community Distance, we apply a rule that takes the median point between respective ranks they occupy. For example, if two communities are tied for 13th spot then we take the median of 13 and 14 yielding 13.5 as the rank score for both tied communities, with the subsequent community ranked 15th.

Table 7: Livability Indicators: 2001 Raw Data, Normalized Data and Ranking

Municipality	Regional District	Livability Index Normalized Data (Total)	Livability Index Normalized Data (Average Index)	Livability Index Normalized Data (Ranked)	% of Owners Spending > 30% of Income on Housing (2001)	2001 Ranking of Owners Spending >30% of Income on Housing	2001 Normalized Data	% of Renters Spending > 30% of Income on Housing (2001)	2001 Ranking of % Renters Spending > 30%	Normalized Data	Total Parks and Playgrounds (in ha per 1000) (2001)	2001 Ranking for ha of parks and playgrounds per 1000	Normalized Data	No. of Post-Secondary Educational Establishments Per 10,000 Population (2001)	2001 Ranking for Educational Establishments	Normalized Data	Bookstores Per 10,000 Population (2001)	2001 Ranking of Bookstores	Normalized Data	No. of Art Galleries and Art-Related Businesses Per 10,000 Population (2001)	2001 Ranking for Art-Related Establishments	Normalized Data	No. of Specialty Food Stores Per 10,000 population (2001)	2001 Ranking of Specialty Stores Per Capita	Normalized Data	Housing Diversity Index	2001 Housing Diversity Index Rank	Normalized Data	2001 % of Private Dwelling Units Built Before 1946	2001 Ranking for Having a heritage Housing Stock	Normalized Data
			Total divided by 9 (indicators)				Min=optimum			Min=optimum			Max=optimum			Max=optimum			Max=optimum			Max=optimum			Max=optimum			Max=optimum			Max=optimum
							11.79			29.3			21.23			10.39			7.53			16.38			7.72			0.87			0.40
Large:																															
Abbotsford	Fraser Valley	393.29	43.70	18	22.15	18	53.23	40.61	7	72.15	5.78	10	27.23	8.08	3	77.80	0.78	19	10.35	3.38	19	20.62	2.68	18	34.78	0.79	4	91.05	2.45%	21	6.08
Richmond	GVRD	421.92	46.88	12	22.26	19	52.96	43.00	9	68.14	4.27	12	20.11	4.40	15	42.35	1.70	12	22.63	8.15	8	49.77	5.05	6	65.43	0.84	2	96.21	1.74%	23	4.32
Surrey	GVRD	382.04	42.45	20	25.61	24	46.04	43.64	10	67.14	6.67	8	31.42	8.40	2	80.83	0.40	23	5.35	4.63	15	28.25	2.36	20	30.54	0.76	7	86.96	2.22%	22	5.51
Vancouver	GVRD	515.09	57.23	3	25.08	23	47.01	43.85	11	66.82	2.40	19	11.30	4.59	13	44.19	1.72	11	22.88	16.38	1	100.00	5.97	2	77.40	0.78	5	89.44	22.58%	3	56.06
Medium:																															
Campbell River	Comox-Strathcona	408.97	45.44	15	16.88	10	69.85	44.53	12	65.80	3.73	14	17.57	10.39	1	100.00	1.41	14	18.67	3.16	20	19.30	3.16	16	40.97	0.60	21	69.03	3.13%	18	7.77
Chilliwack	Fraser Valley	347.60	38.62	23	18.92	13	62.32	53.44	23	54.83	1.54	21	7.25	5.08	12	48.86	0.79	18	10.55	4.45	16	27.16	3.34	15	43.23	0.65	16	75.25	7.31%	9	18.15
Kamloops	Thompson-Nicola	379.15	42.13	21	16.78	9	70.26	52.37	21	55.95	6.66	9	31.37	7.42	6	71.46	0.78	20	10.31	3.11	21	18.96	2.33	21	30.17	0.70	10	80.26	4.19%	16	10.40
Kelowna	Central Okanagan	439.28	48.81	9	19.21	14	61.37	45.83	14	63.93	7.83	5	36.88	7.75	4	74.56	1.45	13	19.31	6.02	12	36.77	3.84	12	49.78	0.75	8	86.06	4.27%	15	10.60
Maple Ridge	GVRD	305.62	33.96	24	23.74	21	49.66	45.77	13	64.02	2.61	18	12.29	3.96	17	38.10	0.47	21	6.31	5.38	13	32.85	1.11	23	14.36	0.66	15	76.04	4.83%	13	11.99
New Westminster	GVRD	467.39	51.93	5	23.87	22	49.39	39.45	5	74.27	1.32	22	6.22	6.65	7	63.99	1.29	15	17.15	10.33	4	63.04	5.81	3	75.26	0.69	13	79.10	15.70%	6	38.98
Penticton	Okanagan-Similkameen	418.13	46.46	14	16.43	7	71.76	51.35	19	57.06	5.33	11	25.11	5.69	9	54.81	0.97	17	12.86	4.84	14	29.55	4.20	8	54.35	0.79	3	91.33	8.58%	8	21.30
Vernon	North Okanagan	395.08	43.90	17	19.46	16	60.59	51.58	20	56.80	8.45	4	39.80	4.45	14	42.83	1.19	16	15.86	3.88	18	23.69	3.88	11	50.28	0.77	6	88.09	6.90%	10	17.13
Victoria	Capital	439.57	48.84	8	22.48	20	52.45	47.97	16	61.08	3.48	15	16.39	2.46	23	23.68	2.16	8	28.67	12.41	2	75.76	3.51	13	45.44	0.70	11	80.04	22.58%	3	56.06
Small:																															
Chetwynd	Peace River	575.30	63.92	1	16.67	8	70.73	29.30	1	100.00	21.23	1	100.00	3.30	19	31.80	3.86	2	51.27	7.72	10	47.11	7.72	1	100.00	0.65	17	74.39	0.00%	24	-
Creston	Central Kootenay	420.21	46.69	13	12.15	2	97.04	52.85	22	55.44	2.71	17	12.76	2.11	24	20.27	2.09	10	27.70	8.34	6	50.92	4.17	9	54.04	0.57	22	65.05	14.90%	7	36.99
Fort St. John	Peace River	451.70	50.19	7	13.98	3	84.33	31.30	2	93.61	14.96	2	70.47	5.54	10	53.34	2.49	6	33.14	2.49	22	15.23	-	24	-	0.74	9	84.85	6.74%	11	16.73
Nelson	Central Kootenay	538.30	59.81	2	19.33	15	60.99	49.19	17	59.56	1.72	20	8.10	2.74	21	26.40	7.53	1	100.00	9.68	5	59.08	4.30	7	55.73	0.69	12	79.20	35.94%	2	89.23
Port Moody	GVRD	434.95	48.33	10	21.15	17	55.74	31.50	3	93.02	7.73	6	36.41	5.33	11	51.34	0.42	22	5.58	6.72	11	41.01	3.36	14	43.52	0.87	1	100.00	3.36%	17	8.34
Quesnel	Cariboo	363.69	40.41	22	11.79	1	100.00	50.51	18	58.01	1.19	23	5.61	2.99	20	28.75	2.99	4	39.67	-	24	-	3.98	10	51.59	0.63	18	72.46	3.06%	19	7.60
Revelstoke	Columbia-Shuswap	432.57	48.06	11	14.96	6	78.81	40.94	8	71.57	3.87	13	18.23	4.20	16	40.42	-	24	-	8.00	9	48.83	5.33	5	69.09	0.55	23	62.69	17.29%	5	42.92
Roseland	Kootenay-Boundary	480.55	53.39	4	14.83	5	79.50	59.62	24	49.14	1.10	24	5.18	7.53	5	72.47	2.74	5	36.43	8.23	7	50.22	2.74	17	35.53	0.45	24	52.07	40.28%	1	100.00
Smithers	Bulkley-Nechako	467.26	51.92	6	17.86	11	66.01	32.61	4	89.85	2.96	16	13.94	2.49	22	24.02	3.69	3	49.07	11.08	3	67.64	5.54	4	71.79	0.60	20	69.55	6.20%	12	15.39
Squamish	Squamish-Lillooet	391.13	43.46	19	18.28	12	64.50	40.35	6	72.61	7.72	7	36.36	6.26	8	60.23	2.11	9	27.97	4.21	17	25.71	1.40	22	18.19	0.68	14	78.47	2.86%	20	7.10
Terrace	Kitimat-Stikine	403.79	44.87	16	14.05	4	83.91	46.13	15	63.52	13.05	3	61.47	3.86	18	37.15	2.48	7	32.91	1.65	23	10.08	2.48	19	32.10	0.62	19	71.35	4.55%	14	11.30

Table 8: Economic Vitality Indicators: 2001 Raw Data, Normalized Data and Ranking

Municipality	Regional District	Economic Index Normalized Data (Total)	Economic Index Normalized Data (Average Index)	Economic Index Normalized Data (Ranked)	2001 Businesses per 1,000 population	2001 Ranking Businesses per 1,000 population	Normalized Data	2001 Unemployment rate (%) population 15 years and over	2001 Ranking of Unemployment rate (%) population 15 years and over, ranked lowest to highest	2001 Normalized Data	2001 Dependency on Safety Net: Government transfer payments as % of total income	2001 Ranking Dependency on Safety Net: Government transfer payments as % of total income	2001 Normalized Data	2001 Tech Index: Tech Businesses as % of Total Businesses	2001 Ranking of Tech Index	Normalized Data	2001 Bohemian Index	2001 Ranking of Bohemian Index	Normalized Data	2001 Talent Index: % of population 20 years and over with bachelor's degree or higher	2001 Rank of Talent Index: % of population 20 years and over with bachelor's degree or higher	Normalized Data	2001 Consultants Index: Consulting Businesses as % of total businesses	2001 Ranking of Consultants Index	Normalized Data	2001 Incorporations per 10,000 population	2001 Incorporations ranking	Normalized Data	2001 Building Permits Per 10,000	2001 Ranking for Building Permits	Normalized Data
			Total divided by 9 (indicators)				Max=optimum			Min=optimum			Min=optimum			Max=optimum			Max=optimum			Max=optimum			Max=optimum			Max=optimum			Max=optimum
							205.76			5.7%			6.1%			10.6%			2.20			29.9%			4.4%			162			100
Large:																															
Abbotsford	Fraser Valley	391.41	43.49	13	68.68	19	33.38	8.30%	10	68.67	13.5%	17	45.19	3.53%	20	33.26	0.45	16	20.40	11.4%	14	38.11	4.41%	1	100.00	41	13	25.40	27	13	27.00
Richmond	GVRD	506.77	56.31	4	90.35	11	43.91	7.40%	5	77.03	9.7%	6	62.89	6.74%	5	63.50	0.93	8	42.07	23.6%	4	78.78	2.67%	5	60.60	69	4	42.99	35	11	35.00
Surrey	GVRD	455.44	50.60	5	61.18	21	29.73	7.20%	3	79.17	10.9%	9	55.96	5.07%	11	47.72	0.63	10	28.49	13.7%	8	45.81	3.52%	3	79.67	42	11	25.88	63	6	63.00
Vancouver	GVRD	665.95	73.99	1	105.58	5	51.31	8.00%	7	71.25	9.6%	5	63.54	9.09%	2	85.58	2.20	1	100.00	29.9%	1	100.00	1.74%	11	39.44	123	2	75.82	79	4	79.00
Medium:																															
Campbell River	Comox-Strathcona	359.14	39.90	18	80.16	16	38.96	8.60%	12	66.28	14.0%	18	43.57	4.27%	15	40.21	0.60	12	27.00	7.8%	24	26.07	3.29%	4	74.66	44	10	27.40	15	19	15.00
Chilliwack	Fraser Valley	307.74	34.19	21	61.94	20	30.10	10.70%	19	53.27	16.6%	22	36.75	3.51%	21	33.11	0.50	15	22.79	8.5%	21	28.28	1.47%	16	33.41	26	20	16.03	54	8	54.00
Kamloops	Thompson-Nicola	391.72	43.52	12	72.19	18	35.08	11.20%	20	50.89	13.1%	15	46.56	4.62%	14	43.51	0.53	13	24.19	12.0%	12	40.15	1.67%	13	37.79	41	12	25.54	88	3	88.00
Kelowna	Central Okanagan	427.69	47.52	8	92.45	9	44.93	9.00%	13	63.33	15.2%	20	40.13	4.97%	12	46.77	0.68	9	30.85	12.2%	9	40.77	2.41%	7	54.65	57	6	35.25	71	5	71.00
Maple Ridge *	GVRD	384.95	42.77	14	56.09	23	27.26	6.20%	2	91.94	10.4%	8	58.65	5.70%	8	53.71	-	-	-	10.7%	15	35.63	2.03%	9	46.06	30	17	18.71	53	9	53.00
New Westminster	GVRD	448.48	49.83	6	105.73	4	51.38	9.10%	14	62.64	15.5%	21	39.35	7.05%	4	66.42	1.02	4	46.38	18.5%	6	61.89	2.51%	6	56.77	46	9	28.64	35	11	35.00
Penticton	Okanagan-Similkameen	283.33	31.48	22	81.23	14	39.48	10.20%	17	55.88	22.3%	24	27.35	3.82%	17	36.01	0.31	18	14.05	9.0%	18	29.91	1.72%	12	38.88	35	15	21.77	20	15	20.00
Vernon	North Okanagan	347.23	38.58	19	81.00	15	39.37	8.30%	9	68.67	19.4%	23	31.44	4.24%	16	39.93	0.34	17	15.29	9.6%	17	32.05	1.51%	15	34.30	55	7	34.18	52	10	52.00
Victoria	Capital	518.18	57.58	3	104.01	6	50.55	12.70%	21	44.88	14.3%	19	42.66	7.44%	3	70.13	1.92	2	87.05	24.6%	3	82.23	1.04%	20	23.67	162	1	100.00	17	17	17.00
Small:																															
Chetwynd *	Peace River	383.29	42.59	15	166.35	2	80.84	13.50%	23	42.22	8.9%	2	68.54	2.55%	23	24.04	-	-	-	8.3%	22	27.84	1.33%	19	30.25	15	24	9.55	100	1	100.00
Creston	Central Kootenay	321.37	35.71	20	146.61	3	71.25	7.30%	4	78.08	27.1%	25	22.51	3.27%	22	30.82	0.24	20	10.68	8.6%	20	28.79	1.63%	14	37.00	38	14	23.23	19	16	19.00
Fort St. John	Peace River	428.92	47.66	7	96.36	7	46.83	9.30%	15	61.29	11.8%	12	51.69	6.02%	6	56.70	0.60	11	27.15	8.0%	23	26.86	1.44%	17	32.55	113	3	69.85	56	7	56.00
Nelson	Central Kootenay	412.25	45.81	9	95.40	8	46.36	8.50%	11	67.06	11.4%	11	53.51	5.52%	9	52.04	0.97	6	44.06	17.2%	7	57.36	2.04%	8	46.25	53	8	32.61	13	20	13.00
Port Moody	GVRD	562.09	62.45	2	59.33	22	28.83	10.20%	18	55.88	6.1%	1	100.00	10.62%	1	100.00	1.35	3	61.28	25.1%	2	83.82	0.75%	23	16.94	25	21	15.33	100	1	100.00
Quesnel	Cariboo	240.06	26.67	24	91.60	10	44.52	13.40%	22	42.54	13.2%	16	46.21	1.85%	24	17.41	0.22	21	10.20	10.6%	16	35.31	0.98%	22	22.17	32	16	19.71	2	24	2.00
Revelstoke	Columbia-Shuswap	392.77	43.64	11	89.20	12	43.35	5.70%	1	100.00	12.9%	14	47.29	3.74%	18	35.20	0.30	19	13.66	8.9%	19	29.58	4.32%	2	97.84	24	22	14.85	11	21	11.00
Roseland	Kootenay-Boundary	378.06	42.01	16	53.76	24	26.13	7.70%	6	74.03	9.1%	3	67.03	3.57%	19	33.64	0.93	7	42.14	22.9%	5	76.55	1.35%	18	30.66	19	23	11.88	16	18	16.00
Smithers **	Bulkley-Nechako	405.19	45.02	10	205.76	1	100.00	8.00%	8	71.25	10.2%	7	59.80	5.30%	10	49.89	-	22	-	12.1%	11	40.31	1.81%	10	41.07	63	5	38.86	4	23	4.00
Squamish	Squamish-Lillooet	366.84	40.76	17	82.05	13	39.88	9.90%	16	57.58	9.5%	4	64.21	5.82%	7	54.79	0.99	5	44.93	11.4%	13	38.21	1.00%	21	22.57	30	18	18.67	26	14	26.00
Terrace	Kitimat-Stikine	263.93	29.33	23	74.24	17	36.08	19.10%	24	29.84	11.0%	10	55.45	4.78%	13	45.06	0.51	14	23.26	12.1%	10	40.35	0.46%	24	10.52	28	19	17.37	6	22	6.00

Notes: * Maple Ridge and Chetwynd Economic Index is based on only 8 indicators since the Bohemian Index is missing data for both communities.
 **Smithers has no "Bohemian" occupations (according to Statistics Canada 2001 National Occupational Classification statistics) therefore received a "zero" score for Bohemian Index.



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