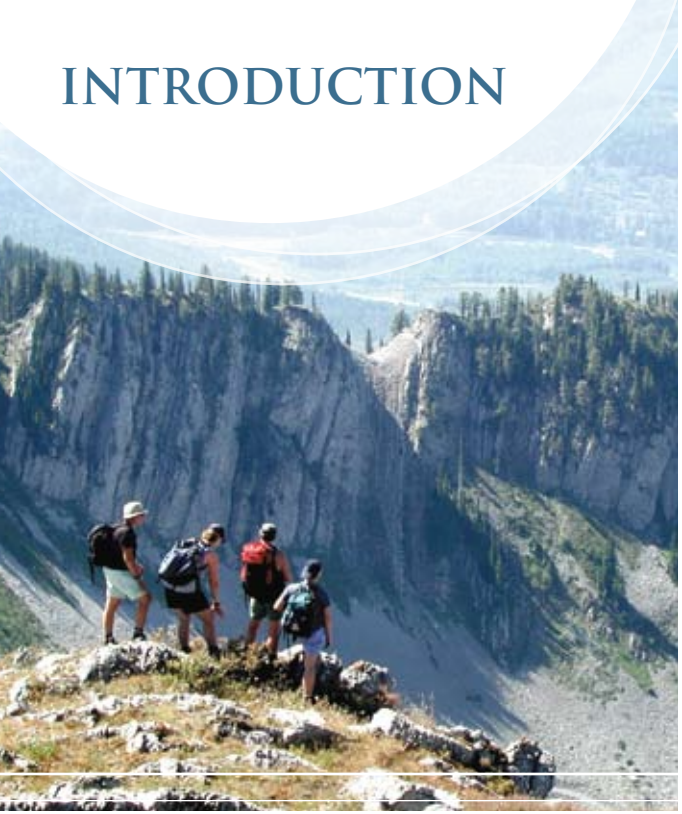
COLUMBIA BASIN TRUST
A legacy for the people

2008 State of the Basin Report

INTRODUCTION



Have you ever wondered what the average income level is in your community? Are you curious about how it compares with neighbouring communities, or with other rural areas in BC? Are you eager to know how environmental conditions are changing in the region?

This kind of information can be difficult to find and interpret without a lot of effort. Given the rapid pace of change in today's society, it is more important than ever to have access to current and reliable information.

Columbia Basin Trust (CBT) is responding to this demand for information. The State of the Basin initiative is testing a model for monitoring and reporting on social, environmental, economic, and cultural indicators and trends in the CBT area (the Basin – see map on page 30).

By providing accessible, credible information, the intent is to make it easier for Basin residents, communities, and organizations to know more about the area and to use up-to-date local information in planning and decision-making.

This report is accompanied by a website containing raw data and other information links as well as contacts for support. CBT will also support some pilot planning efforts in the Basin that incorporate the use of information.

CBT invites you to explore this model of indicator reporting in the Basin.

WHAT IS INDICATOR REPORTING?

Indicators are factors that can be measured to provide information and clues about conditions in complex systems.

We already use indicators every day. For example, most people are familiar with indicators such as stock market indexes, unemployment rates, and water quality coliform counts.

These examples illustrate how indicators inform us about current conditions, but not about why any changes have happened. They prompt us to ask questions and learn more in order to fully understand what is happening and what the implications might be for ourselves, our families, and our communities.

An indicator report compiles information for a number of selected indicators and often assesses the trends over time to signal positive or negative changes compared to a set of desired conditions.

Most large urban cities and government agencies in Canada prepare indicator reports. Both the Islands Trust in the Gulf Island area and the Fraser Basin Council, somewhat similar organizations to CBT, have indicator reporting processes. Within the Basin, indicator reporting is being used in Golden, Revelstoke, and Castlegar and other communities are considering this approach to tracking community trends.

ABOUT THE STATE OF THE BASIN MODEL

Basin communities, organizations, and residents have requested a number of alternative ways to swiftly access up-to-date information and use this information in planning and decision-making. The State of the Basin initiative consists of three components. Further details for each of these components are in the pages that follow.

BASIN-WIDE INDICATOR REPORT	Print and web-based indicator report, monitoring conditions in the Basin and in local areas.
WEB-BASED LINKS	On-line links to information about the Basin that are available from existing sources such as BC Stats, Stats Canada, local governments, community organizations, etc. On-line access to raw data and analysis completed for the indicators in the Basin-wide report, at the smallest geographic scale available to support further analysis and reporting for smaller areas.
SUPPORT	Contacts and specialists to provide advice and assistance with accessing, interpreting and using data. Providing support to planning efforts in the Basin that incorporate the use of information.

WHAT'S INSIDE

INTRODUCTION

Testing the Waters

This report is intended to test the concept of indicator reporting in the Basin by presenting a sample of credible, locally-relevant information.

We need your input

Please read this report and visit the website. Let us know what you think by completing the feedback form enclosed in this report or online. Your input will help CBT to evaluate this model.

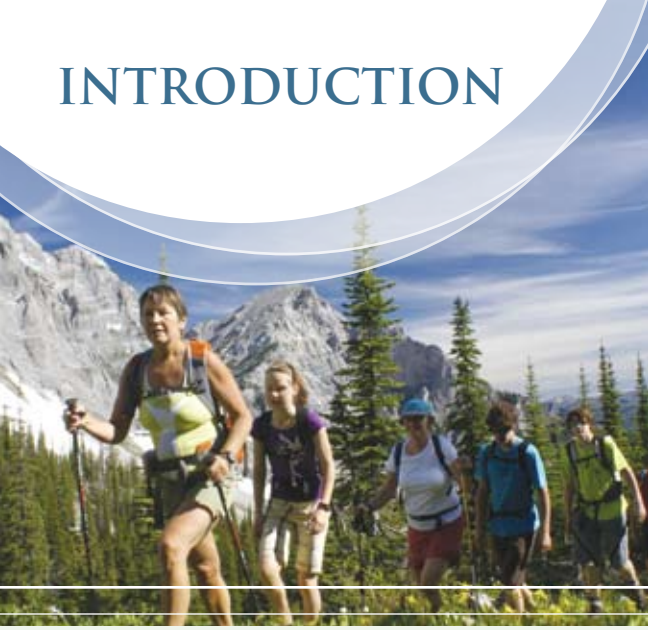
State of the Basin website:

www.cbt.org/stateofthebasin

Questions?

Please refer to the contact information on the inside back cover for people who can be contacted for various types of support.

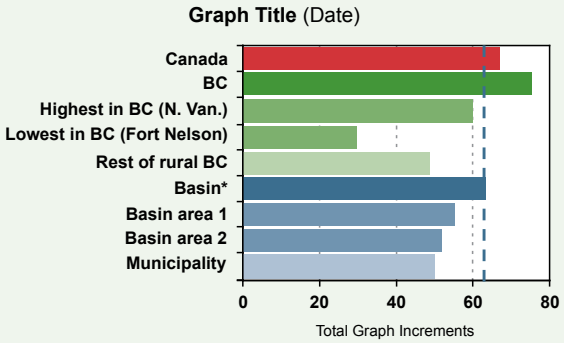
INTRODUCTION



How to read the graphs in this report:

- Canada
- BC
- High/Low for BC
- Rest of Rural BC
- The Basin
- Basin Areas
- Municipalities
- Other Values

- Basin Comparison Line
- BC Comparison Line
- Other Comparison Line



MORE ABOUT THE MODEL

Indicator reporting can have many uses. The State of the Basin model of indicator reporting hopes to:

- **Inform** citizens and organizations about the people, natural environment, communities, and economy of the Basin by providing access to accurate, credible, and timely information;
- **Encourage** understanding of complex issues and trends over time, including into the future when possible;
- **Signal** whether conditions are similar or different within the Basin, and in comparison to other areas to highlight and celebrate areas of achievement, and to identify significant issues, ideally before they become critical; and
- **Motivate** discussion, information sharing, strategic evidence-based decisions and collective action.

As an organization, CBT can use the reporting information as one tool to support its own strategic thinking, planning decisions and program implementation and to improve accountability by being better informed about Basin conditions.

The model for indicator reporting in the Basin is grounded in a thorough review of models used elsewhere, using promising attributes and common pitfalls to guide its design. A working group of Basin residents and a team of technical advisors provided input on the model and on the indicators that would be relevant in the Basin. These have been invaluable touchstones as the model developed.

The framework for indicators in the Basin is shown *(diagram on facing page)*. It follows the lead of successful approaches used elsewhere while reflecting on circumstances that are specific to the Basin. This framework helps to explain how indicators are organized in this report and hopes to make it easier for users to find the information they are looking for.

Provincial and federal government agencies, local governments, interest groups and others provide a great deal of information about the Basin already. The challenge is to build on what exists by improving the availability and understanding of this information.

The following served as guiding principles for developing the indicator reporting model for the Basin:

- **Meaningful** to Basin communities by reflecting what is important to residents and illuminating the diversity of the Basin;
- **Add value** by building on and going beyond data and information that is readily available;
- **Credible** by using accurate, trustworthy information sources and clear presentation;
- **Accessible** by providing easy access to understandable information; and
- **Affordable** by using indicators that can be monitored with reasonable resources over time.

Basin-Wide Indicator Report

This 2008 State of the Basin Report transforms information available from public sources into indicators for the Basin and its local areas. This is the first time this information has been presented as indicators in one easily available report for the Basin area.

Selecting the information to present as indicators in this report was no small task. To test the feasibility and usefulness of this model, this report uses the framework *(diagram on facing page)* to present a sample of credible, locally-relevant information. This means that this report does not include the full suite of currently available information and information that could be collected for additional indicators. For example, the Economy section includes indicators for the tourism and forest sectors.

Indicators for the mining, agriculture, and retail sectors would be added in a complete Basin indicator report. Similarly, indicators representing arts, culture and heritage conditions were not available for this report, but would be considered in a full report. Additional information that is available for Basin areas is listed in this report and can be accessed through the State of the Basin website.

For each indicator, the team of technical advisors assisted in compiling the available information and preparing a concise summary for each indicator, including:

- **What does this measure?** – a definition of the indicator;
- **Why is this important?** – the relevance of the indicator to Basin well-being;
- **What are the trends and current conditions?** – explanation of the information using both text and graphics; usually, the graphics compare local areas in the Basin to the Basin as a whole, and to BC overall; where readily available, comparisons are also made to the remaining rural area of BC (excluding the Lower Mainland, Victoria/Capital Region and the CBT area), Canada and globally.

Detailed analyses of the reasons why particular conditions exist in the Basin, or why they persist in specific areas, are not included in this report. CBT hopes you will discuss the indicator results with others in your community, local area or community of interest to understand the unique and often complex local conditions and to plan actions when appropriate.

Web-Based Links

The State of the Basin website is an important component of the model. It hosts this report as both a complete downloadable document and as an on-line version. The on-line report contains live links to the raw data sources, analyses, and additional information associated with each indicator in the report. Having the raw data available allows interested individuals to review information for more specific communities or combined areas.

The website also includes raw data and links to additional information that were explored as part of the indicator selection process, but in the end were not chosen for the report.

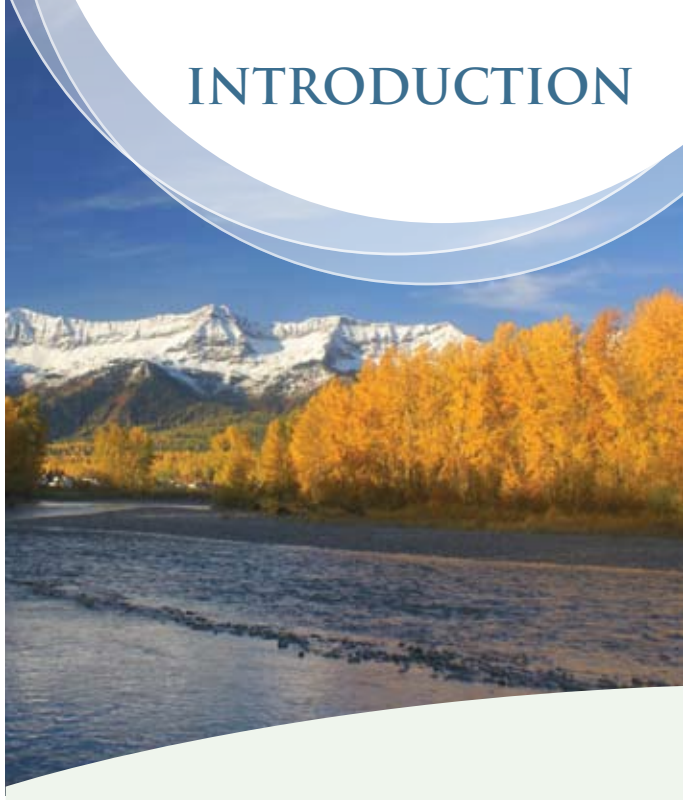
Support

CBT intends to use a variety of support means in order to test the feasibility and usefulness of the model. Contact information for technical experts is provided for each indicator in this report. CBT staff are also available to assist with accessing data on the website or answering questions about the model and the initiative in general.

CBT also intends to support some pilot planning efforts in the Basin that incorporate the use of information. An invitation will be extended to municipalities, regional districts, not-for-profit organizations, and other groups to submit a project proposal related to information-supported planning that aligns with existing priorities established by the CBT. The pilots will encourage the use of information in planning and generate learning to inform future planning efforts.

FRAMEWORK FOR WELL-BEING IN THE BASIN

INTRODUCTION



Local Areas

Please refer to the Basin map at the end of this report to better understand how local areas have been defined and used to compile indicator data.

Indicator Information Sources

The following websites contain indicator information referenced repeatedly in this report:

BC Stats Socio-Economic Profiles at:
www.bcstats.gov.bc.ca/data/sep/index.asp

BC Stats Community Facts at:
www.bcstats.gov.bc.ca/data/dd/facsheet/facsheet.asp

BC Stats 2006 Census Profiles at:
www.bcstats.gov.bc.ca/data/cen06/profiles/detailed/ch_alpha.asp

BC Environmental Trends 2007 at:
www.env.gov.bc.ca/soe/et07

DEMOGRAPHICS

Demographics describe the age, gender, ethnicity and family types of residents in a particular area. This information is used to better understand current community needs for public and private goods and services and to predict future needs.

Notes on population estimates in the Basin:

1) These estimates are for full-time residents and do not include part-time residents or seasonal home-owners. Measuring the number of part-time home-owners is a challenge that is being looked at by the Selkirk College Rural Innovation Chair (see contact below).

2) These estimates are based on the 2006 census and have been adjusted by BC Stats to incorporate an estimate of the census undercount. They will differ from the estimates provided by Statistics Canada.

TOTAL POPULATION 2001/2006[1]

What does this measure?

The total number of residents in local areas and the Basin in 2006 compared to 2001.

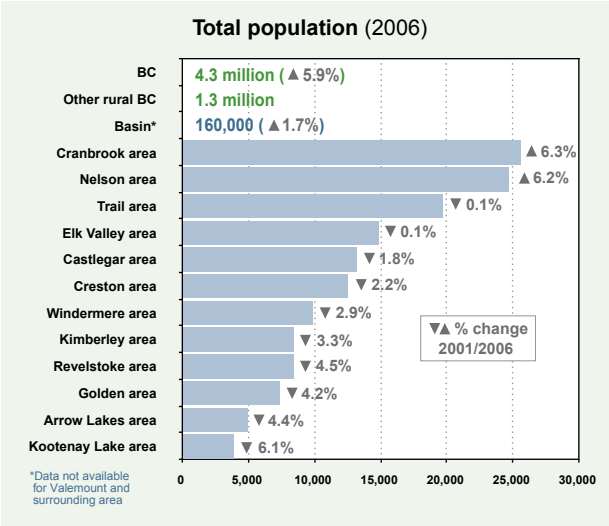
Why is this important?

The total population gives us an idea of the types of services that are likely to be available in an area. Changes in total population over time signal potential shifts in community needs.

What are the trends and current conditions?

A total of 158,923 people are estimated to have resided in the Basin in 2006. This is 3.7% of the provincial population of 4.3 million. Total population in the Basin declined by 1.7% over five years while the provincial population grew by almost 6%.

There are substantial differences in total population in local areas across the Basin. These differences range from regional centres like Cranbrook, Nelson and Trail with about 20-25,000 people, to large rural areas with less than 5,000 residents. In the past five years the population change in local areas has varied from increases of 6% to declines of 6%.



NUMBER OF PEOPLE BY AGE AND GENDER – 2006[2]

What does this measure?

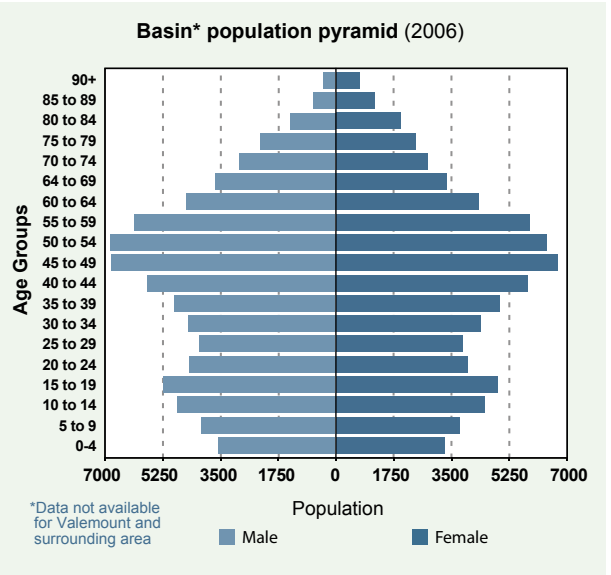
The total number of people in the Basin in 2006 in five year age groups or 'cohorts' for females and males.

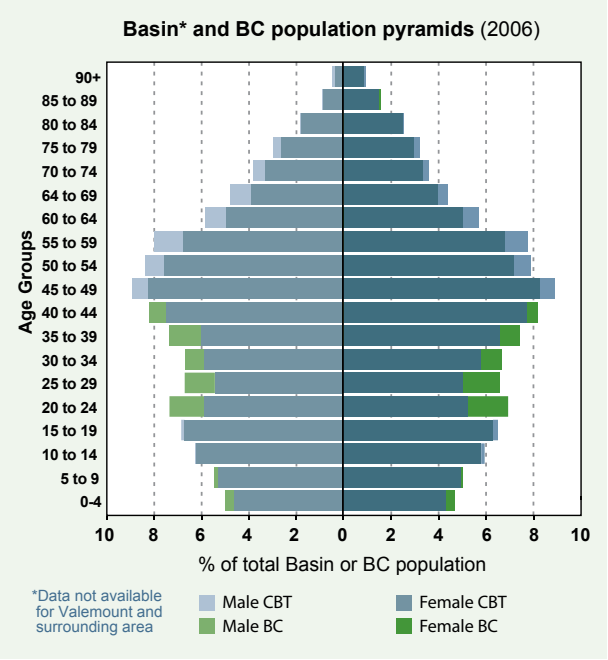
Why is this important?

As we age our needs change: young people need family care, schooling, and recreation services, working people are concerned about employment opportunities and daycare and during retirement supportive housing and other services are essential. Health needs shift over time as well. Substantial differences between the size of age groups may signal a need to significantly change services and economic opportunities.

What are the trends and current conditions?

The Basin population pyramid (see pyramid) shows there are fewer children in the Basin below 10 years old than from 10 to 20 years. From 25-44 years the cohort size grows continuously. The relatively large number of 'boomers' aged 45-59 who will be retiring in the next 20 years are shown, followed by much smaller, older cohorts.





Compared to BC, a higher percentage of people aged 45-74 live in the Basin, with a lower percentage of people aged 20-44 years (see pyramid).

Note: Population pyramids for all local areas with comparisons to the Basin and CBT can be viewed at www.cbt.org/stateofthebasin

DEPENDENCY – 2006[3]

What does this measure?

The percentage of residents who are not likely in the workforce, compared to those who are in the workforce.

Both child and senior dependencies are provided: children are under age 18 and seniors are over age 65. The workforce includes ages 18-64.

The dependency level is calculated by dividing the dependent population by the workforce population. For example, in a population with 1,000 children, 600 elders and 3,000 people of working age, the child dependency rate would be 33% and the senior dependency rate would be 20%, with a total of 53% of the population 'dependent' on the workforce.

Why is this important?

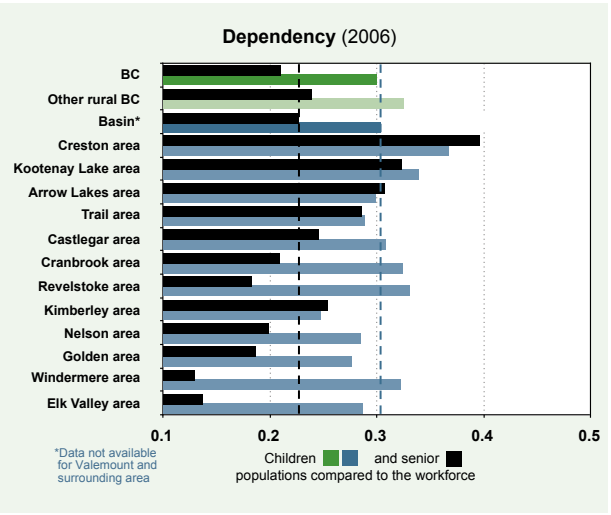
Many of the supports provided to children and seniors such as personal care, parenting, education, playgrounds, health care, activity programs, and facilities are supported by personal time and tax dollars contributed by those who are in the workforce. With higher percentages, dependency increases, and the greater the challenge may be for the workforce to maintain these supports and services.

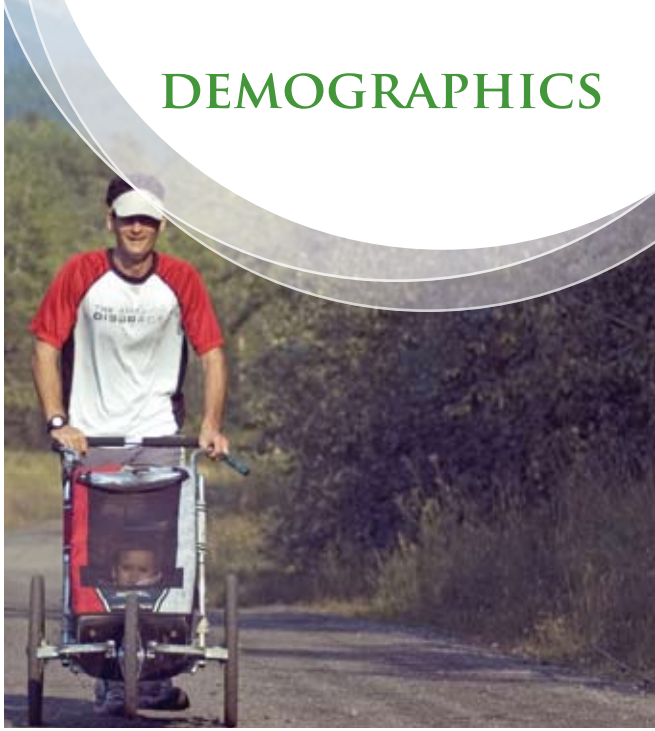
What are the trends and current conditions?

In 2006 the child and senior dependence in the Basin was two percent lower than in the rest of rural BC, and very similar to BC as a whole. In the Basin the child dependence rate was 30% and the senior rate was 23%.

Within the Basin child dependence varies from 25% to 37%(see graph), and senior dependence ranges from 13% to 40%. Total dependence ranges from 43% to 77%.

The "boomer" generation will start to reach age 65 in 2011, so senior dependency rates are likely to increase significantly over the next 10 years.





DEMOGRAPHICS

ADDITIONAL INFORMATION

Links to the following data are available on the State of the Basin website to complement the indicators in this report:

- Families and households
- Aboriginal population information
- Immigration
- Ethnicity

Technical Advisor

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Selkirk College 250-365-1434 gpenfold@selkirk.ca

Information Sources

[1] and [3] BC Stats Socio-Economic Profiles
www.bcstats.gov.bc.ca/data/sep/index.asp

[2] BC Stats 2006 Census Profiles
www.bcstats.gov.bc.ca/data/cen06/profiles/detailed/ch_alpha.asp

HEALTH

Health is a foundation of well-being. The World Health Organization defines health as complete physical, mental and social wellness and not merely the absence of disease or infirmity. This positive definition promotes health as something that enables us to meet life's challenges and realize our aspirations. While most people appreciate what good health is, there is no consensus on how to measure it. Life expectancy and potential years of life lost to various causes are basic indicators that describe the 'quantity' of life we are achieving.

LIFE EXPECTANCY – 2003/2007[2]

What does this measure?

The number of years a person is expected to live, starting from birth, based on mortality statistics for a given period of time for a defined area.

This is a widely used indicator of the health of a population. Life expectancy measures quantity rather than quality of life.

Why is this important?

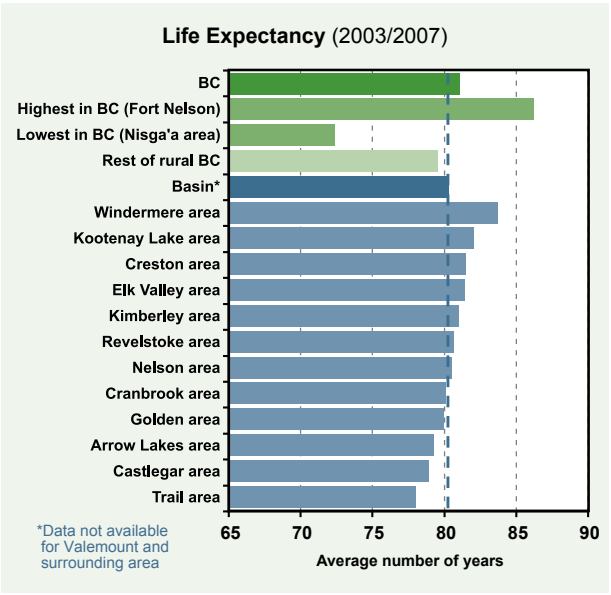
The trend to longer life expectancy continues in Canada, and much of the developing world. While a longer life does not automatically mean a better life, it is generally understood to be an important and positive trend.

This indicator also reveals impacts on society when more citizens live to older ages. These include changes in patterns of health, disease and disability and impacts on our health, social and other community services.

What are the trends and current conditions?

In BC, life expectancy has risen from below 74 years in 1972/1976 to just over 81 in 2003/2007, with reduced death rates in older age groups, especially for coronary heart disease and stroke.

In the Basin, average life expectancy for 2003/2007 is less than one year lower than the BC average and almost one year higher than for the rest of rural BC. Differences between local areas (see graph) are more significant, with a 5.7 year spread between the highest and the lowest in the Basin.



MORTALITY RATIOS & CAUSES – 2002/2006[2]

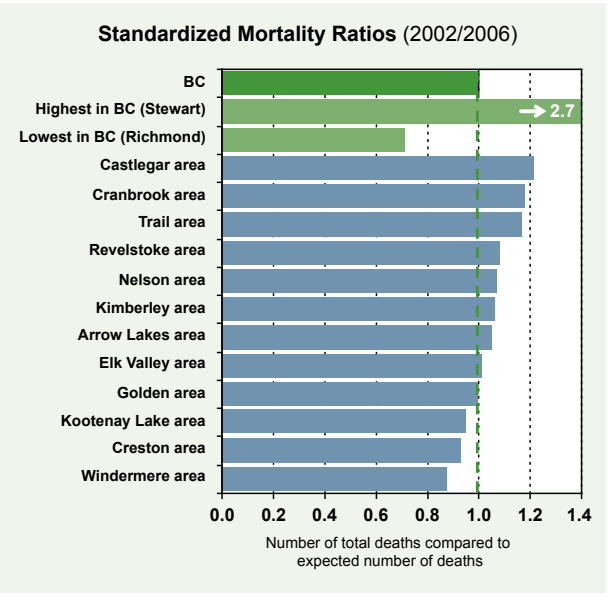
What does this measure?

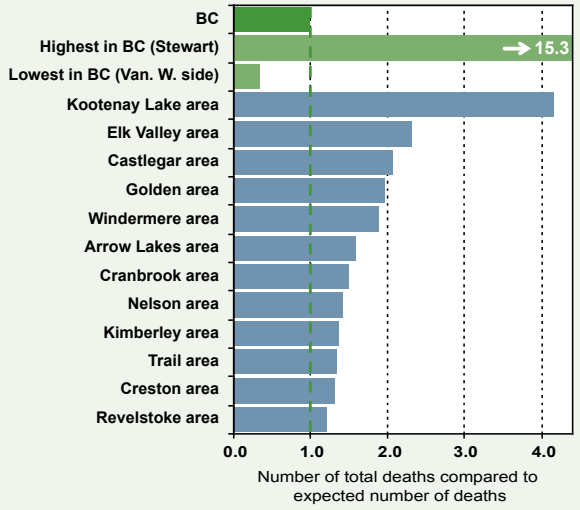
The ratio of the number of actual deaths to the number of expected deaths of residents in a geographic area based on provincial age-specific mortality rates.

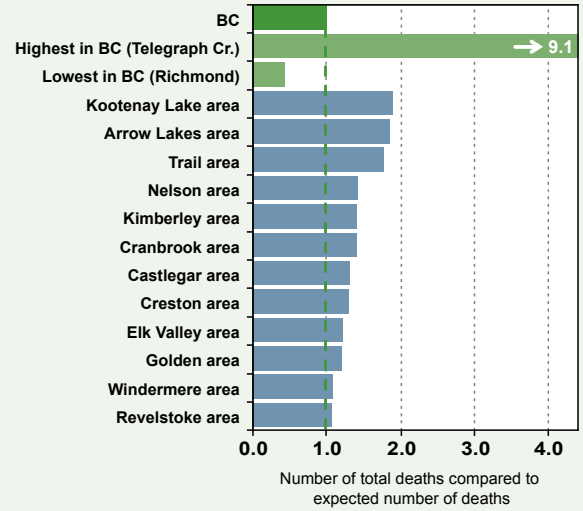
A standardized mortality ratio above 1 signals a greater number of deaths than expected; below 1 signals fewer deaths than expected. This ratio is a good measure for comparing mortality causes for geographic areas, particularly with a relatively small number of deaths.

Why is this important?

This measure helps us understand the causes of death, and compare the rates of death from different causes in defined geographic areas. It is useful in identifying health service priorities and opportunities to improve the health of individuals and the population as a whole.







What are the trends & current conditions?

The standardized mortality ratios for local areas for all causes for the period of 2002/2006 vary from 1.21 to 0.87. In seven of the twelve local areas the ratio has declined over the past 15 years (see graph).

Similar to other rural areas of BC, circulatory system diseases, cancers, respiratory system diseases and alcohol-related deaths are the main causes of death in the Basin area.

For two causes of death, motor vehicle accidents and alcohol-related deaths, all of the local areas in the Basin have higher ratios than would be expected (see graphs).

ADDITIONAL INFORMATION

Links to the following data are available on the State of the Basin website to complement the indicators in this report:

- Infant mortality and low birth weight rates
- Child/youth health measures (suicides, teen pregnancy)
- Premature mortality causes

More detailed information on causes of death and additional health information can be found in Local Health Area Profiles at:
www.interiorhealth.ca/information.aspx?id=696

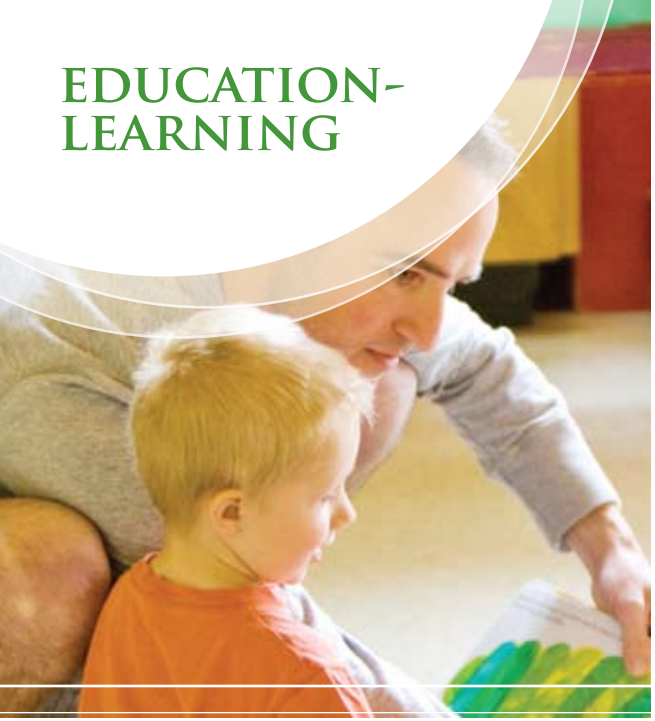
Or contact the local public health office and ask to speak to the Medical Health Officer.

Information Sources

[1] BC Stats Socio-Economic Profiles:
www.bcstats.gov.bc.ca/data/sep/index.asp

[2] BC Vital Statistics Agency 2006 Annual Report at:
www.vs.gov.bc.ca/stats/annual/2006/index.html

EDUCATION-LEARNING



The links between ongoing learning, population health, vibrant economies and well-being are well known. The learning we do in our early years establishes a foundation for future activities. Lifelong learning helps people maintain competence and competitiveness in today's economy while enhancing personal growth and fulfillment.

EARLY DEVELOPMENT VULNERABILITY – 2000/2007[1]

What does this measure?

The percentage of kindergarten children in Basin school districts who were vulnerable in at least one aspect of their development (physical, social/ emotional or intellectual).

Data collected between 2004/2007 is compared with the previous collection during 2000/2004.

Vulnerability is assessed by kindergarten teachers using the Early Development Instrument (EDI), which measures the development readiness of a group of children.

Why is this important?

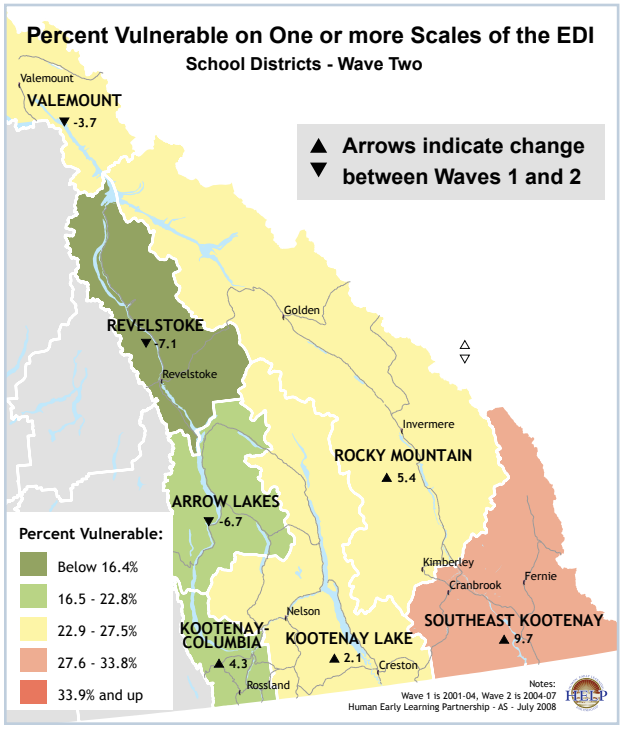
The early years of life are crucial in influencing a range of health and social outcomes throughout one's life. Research shows that many challenges in adult society – mental health problems, obesity, heart disease, criminality, competence in literacy and numeracy – have their roots in early childhood.

Children are considered vulnerable when some aspect of their development is delayed at kindergarten entry. Understanding where young children live who are most vulnerable allows us to allocate our resources and adjust policies to most effectively support all children in their early years.

What are the trends and current conditions?

In school districts within the Basin between 12% and 32% of kindergarten children were vulnerable on at least one of aspect of their development in 2004/2007 (see map). All but one district is below the provincial average of 29.6% of kindergarten children being vulnerable in at least one aspect of their development. All districts are well below the highest vulnerability in BC of 54%. Two of the three districts with the lowest vulnerability in BC are in the Basin.

However, in four out of the six districts in the Basin, vulnerability increased in 2004/2007 compared to 2000/2004 which is consistent with the provincial trend.



HIGH SCHOOL COMPLETION – 2004/2007[2]

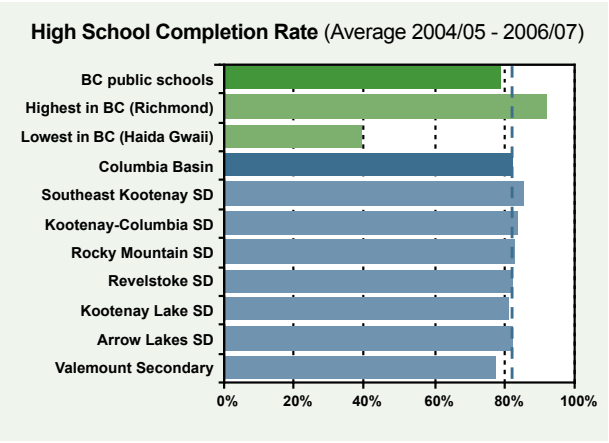
What does this measure?

The percentage of Grade 8 students in public schools who completed high school in the next 6 years in Basin School Districts (SD) (see map above for SD boundaries) and Valemount Secondary School.

The average rate for the 2004/05 to 2006/07 school years is provided.

Why is this important?

This measure tells us how successful our schools, families and communities are in supporting young people to achieve high school graduation. High school graduation is now the minimum education level for most employment options so this is an important foundation for future employment success and well-being.



What are the trends and current conditions?

The high school completion rates in all school districts were higher than the BC average during the 2004/2005 to 2006/2007 school years (see graph). In 2006/07, in the Basin and in BC girls had a higher completion rate than boys (7% difference).

WORKFORCE EDUCATION LEVELS – 2006[3]

What does this measure?

The portion of the workforce aged 15 to 64 in 2006 who do not have high school graduation or some other certificate, diploma or degree and the portion that have some level of advanced education (trades, college, or university level).

Note: The local areas in the central Kootenays are slightly different than for other indicators. See the map at the end of the report.

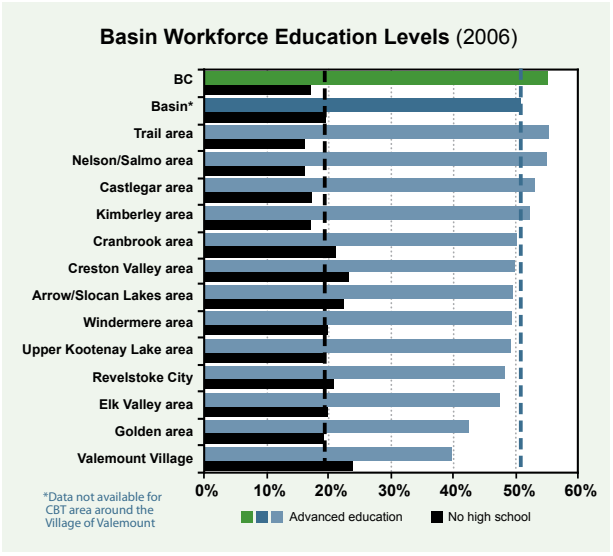
Why is this important?

The education level of a local workforce influences the types of industries and economic sectors that develop, and the ability of individuals and communities to adapt to changes. Most businesses today require a workforce with some level of advanced education. Advanced education also makes transitions in employment and other conditions easier for individuals, families and communities.

What are the trends and current conditions?

The portion of the Basin workforce that did not have a certificate, diploma, or degree (17%) was very similar to the BC average of 19% in 2006. In local areas the percentage ranged from 16% to 24% (see graph).

Fifty percent of the Basin workforce had some level of advanced education in 2006. This was five percent less than the BC average. Local areas had advanced education levels spanning from 40% of the workforce to the BC average of 55%.



ADDITIONAL INFORMATION

Links to the following data are available on the State of the Basin website to complement the indicators in this report:

» Standardized school test scores

Technical Advisors:

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George Penfold, Regional Innovation Chair, Selkirk College, 250-365-1434 | gpenfold@selkirk.ca

Information Sources

[1] Human Early Learning Project (HELP) mapping portal at: www.ecdportal.help.ubc.ca

[2] Ministry of Education Reporting website at: www.bced.gov.bc.ca/reporting/

[3] BC Stats 2006 Census Profiles www.bcstats.gov.bc.ca/data/cen06/profiles/detailed/ch_alpha.asp

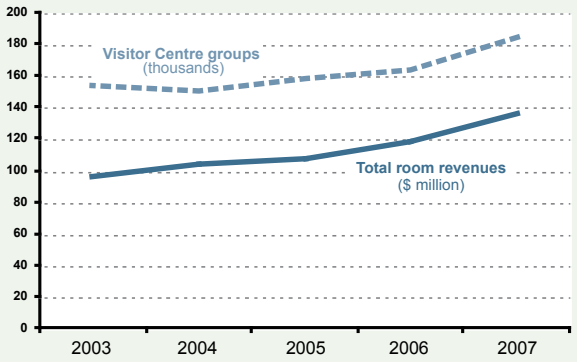
ECONOMY

This element measures the level of activity and diversity in the local economy. A busy, diverse economy supports community resilience and individual well-being.

TOURISM – 2003/2007[1]

Note: The Kootenay Rockies tourism region is the geographic area used for these indicators. This region includes the entire Basin, with the exception of Valemount.

Basin Visitor Centre Use and Accommodation Room Revenues



VISITOR CENTRE USE[1]

What does this measure?

The number of groups who sought travel advice at Visitor Centres annually within the Kootenay Rockies tourism region.

Why is this important?

This is the best available measure of the number of tourists who travel through the Basin. A stable or growing level of visits usually signals a stable or growing tourism sector.

What are the trends and current conditions?

Between 2003 and 2007 the number of groups who sought information from Visitors Centres in the Basin increased 20% to 184,000 per year (see graph). During this period the provincial increase was 8%. In 2007 11% of all visits to Visitor Centres in BC were in the Basin. Visitor numbers were highest in August with 47,700 groups and lowest in December with 2,750 groups.

ROOM REVENUES[2]

What does this measure?

The gross revenues from rooms rented annually in the Kootenay Rockies tourism region (not including operations with fewer than three rooms).

Why is this important?

Room revenues provide a measure of the financial activity of the accommodation sector, which is a large component of the tourism industry in the Basin.

What are the trends and current conditions?

Room revenues in the Basin have increased steadily over the past decade. By 2007 revenues reached $135 million, 110% higher than in 1997 and 40% higher than in 2003 (see graph). In comparison, BC room revenues grew 70% over the decade and 33% since 2003.

Basin room revenues were 7% of provincial revenues in 2007. August consistently has the highest room revenues at $19.6 million in 2007, with November being the lowest month at $5.3 million.

FOREST INDUSTRY MILL CAPACITY – 2001/2006[3]

What does this measure?

The size and diversity of the capacity of timber based businesses in the Basin to produce a range of products including lumber, veneer based products, post and poles, and pulp.

Why is this important?

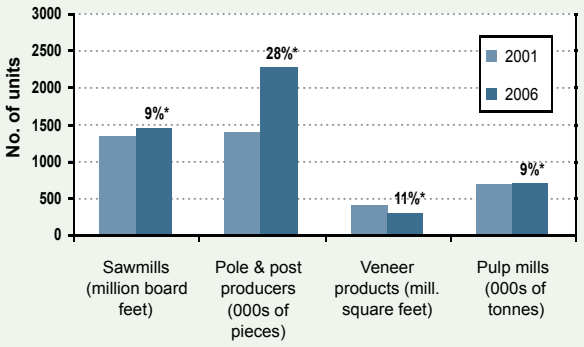
The forest sector is one of the largest employment and income producing sectors in the Basin. A diversity of producers, in terms of products, capacity and ownership, indicates a more resilient, competitive, and stable industry that is better able to withstand challenges.

What are the trends and current conditions?

Forest product capacity in the Basin shifted between 2001 to 2006 with lumber, poles/posts and pulp/paper increasing, and veneer products decreasing (see graph).

Sawmill capacity increased 9% from 2001 to 1.4 million board feet in 2006, enough timber to build about 100,000 homes. The 21 sawmills in the Basin accounted for 9% of the BC capacity in 2006. These mills include small family operations and medium sized mills.

Since 2006 three mills that produced about 25% of the lumber production in the Basin have stopped operating indefinitely and others have reduced operations. These production declines are greater than in the remainder of the interior of BC.



The nine post and pole companies in the Basin account for 28% of the producers in BC and had the capacity to generate almost 2.3 million pieces in 2006. This sector increased by 65% between 2001 and 2006, primarily to process beetle-killed pine trees.

Veneer operations in the Basin declined by 29% to a capacity for 277 million square feet of products in 2006 at two mills. These operations contributed 11% of BC capacity.

Pulp capacity has been relatively stable with a 4% increase to 699 thousand tonnes from two mills. This was 9% of the total BC provincial capacity.

ADDITIONAL INFORMATION

Links to the following data are available on the State of the Basin website to complement the indicators in this report:

- Mining indicators – dollars spent on exploration and coal, mineral, and construction aggregate production over time
- Agriculture indicators – Agriculture Land Reserve changes by land type, number of farms, products, and farm receipts
- Business formations/bankruptcies

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Information Sources

[1, 2] Tourism BC Research
www.tourismbc.com/template.asp?id=2

[3] Ministry of Forests Economics and Trade Branch
www.for.gov.bc.ca/het/

EMPLOYMENT

Employment is an important part of life and contributes to well-being through income, social connections, and psychological benefits or impacts. Having a ready labour force over the long term is a factor in local economic stability.

LABOUR FORCE REPLACEMENT - 2006[1]

What does this measure?

The ratio of the number of people aged 0 to 14 in 2006 who will be entering the workforce to the working population aged 50 to 64 who will be leaving the workforce, in the next 15 years.

The higher the ratio, the more young people there are relative to potential retirees. A ratio of 1.0 would mean the populations are the same.

Why is this important?

If an area is not able to maintain the current labour force with regional replacement workers (i.e. where the ratio is less than 1.0), it will either have to find ways to encourage older workers to continue to work, bring in labour from other regions or countries, adopt technology to replace labour or scale-down the economy to fit the available labour force (for example: reduced hours of business operation).

What are the trends and current conditions?

The labour force replacement ratio for the Basin is 0.7, which is lower than for the province (0.83). This is because the population in the Basin is older compared to the province, with more potential retirees compared to potential new workers.

One local area has a higher replacement ratio than the province at 0.87. Three local areas have ratios of just over 0.5 indicating only half as many new workers in the current resident population compared to possible retirees.

EMPLOYMENT INSURANCE RECIPIENTS – 2006/2007[2]

What does this measure?

The percentage of adults aged 19-64 who received employment insurance (EI) benefits, the percentage of these individuals who were youth 19-24 years old and the percentage who were female.

Individuals who are unemployed after working defined periods of time are eligible for EI benefits.

Note: EI levels only account for those individuals who meet the eligibility rules and are currently seeking work; they do not account for those who do not meet these rules and thus underestimate the levels of unemployment in an area.

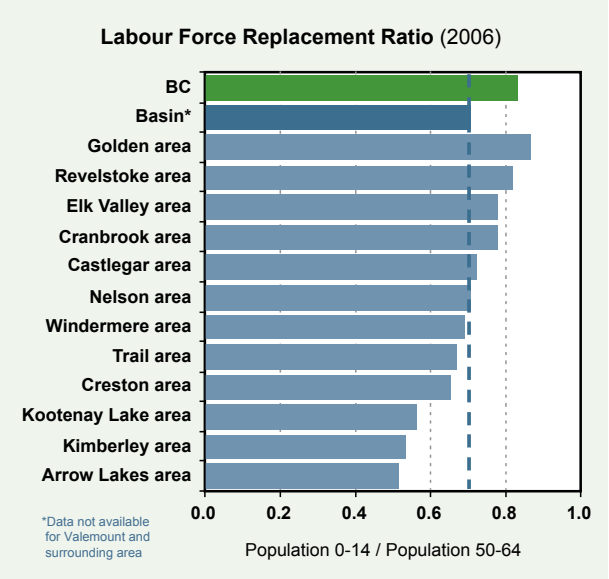
Why is this important?

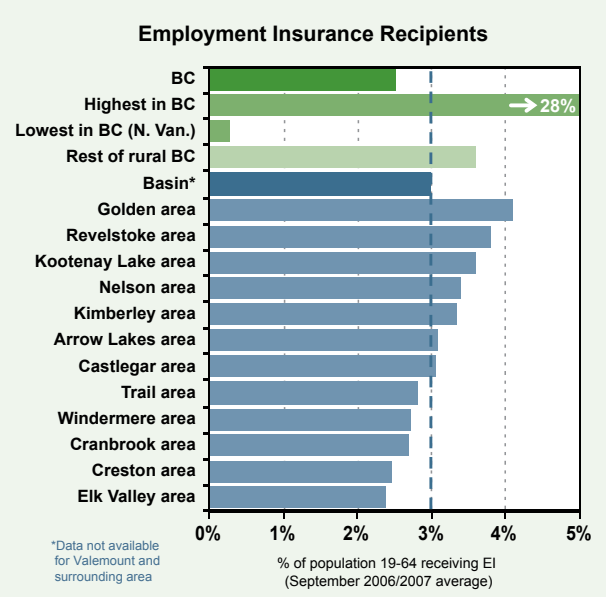
The portion of the working population receiving EI indicates the scale of challenges in matching worker abilities with employment opportunities in an area.

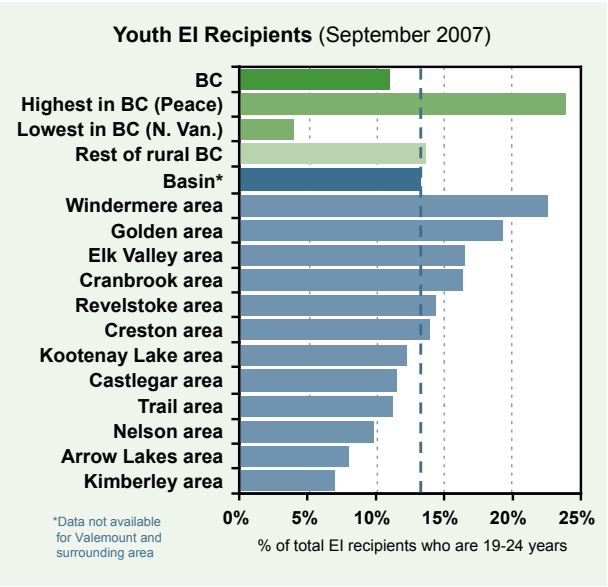
What are the trends and current conditions?

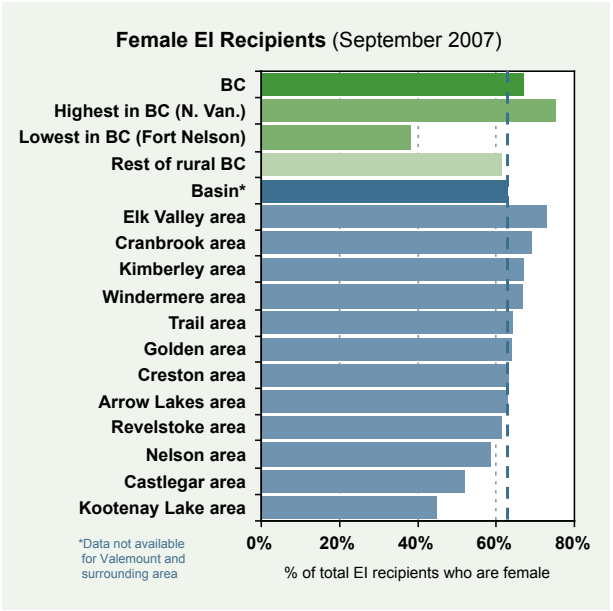
EI levels have declined in recent years in part because of changes in the eligibility requirements and improved opportunities for employment. The level of EI in the Basin for the year ending September 2007 (3.0%) was higher than in BC as a whole (2.5%), and less than in other rural BC areas (3.6%). Rates varied in local areas from 4.1% to 2.4%, with one area equal to and one less than the provincial average (see graph).

Across the Basin there were fewer recipients during April to September than from October to March which is similar to the rest of rural BC.









Over 13% of EI recipients in the Basin in September 2007 were youth aged 19-24, virtually the same as for the rest of rural BC, and two percent higher than for BC. In local areas rates ranged from 22.6% to 6.9%, and all but three were higher than the BC average (see graph).

In the Basin 63% of EI recipients were women in September 2007, which was 1.5% higher than in the rest of rural BC and 4% less than the BC average. In local areas, women accounted for 73% to 44.9% of recipients during this period with two areas higher than the BC average (see graph).

ADDITIONAL INFORMATION

Links to the following data are available on the State of the Basin website to complement the indicators in this report:

» Labour participation rates (portion of the adult population that is employed) by gender and age
» Employment by industry types (full-time and part-time)

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Information Sources

[1] BC Stats 2006 Census Profiles
www.bcstats.gov.bc.ca/data/cen06/profiles/detailed/ch_alpha.asp

[2] BC Stats Socio-Economic Profiles
www.bcstats.gov.bc.ca/data/sep/index.asp

INCOME

Having an income that is sufficient to meet basic needs is critical for the well-being of individuals and households. Inadequate income increases the vulnerability of individuals and families to conditions such as poor nutrition and health, and high stress, particularly for those most at risk such as children, single parent families, people with disabilities, and seniors.

PERSONAL INCOME – 2000/2005[1]

What does this measure?

The median income of the population in 2005 for people 15 years and over (as reported in the 2006 census).

The median represents the mid-point, meaning half of the population have incomes above that point and half below. Indicators are provided for the total population and for men and women.

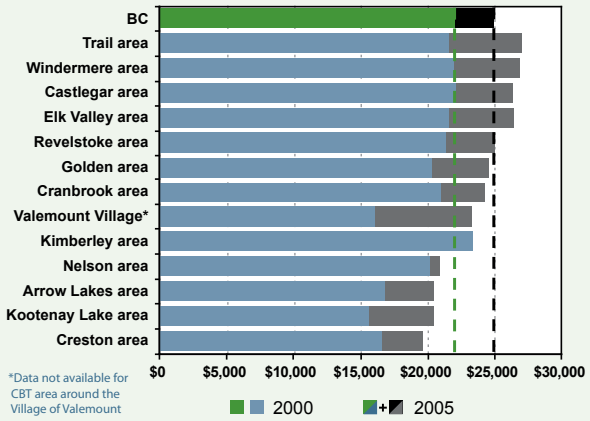
Note: Data is not readily available to compile a median income for the Basin area.

Why is this important?

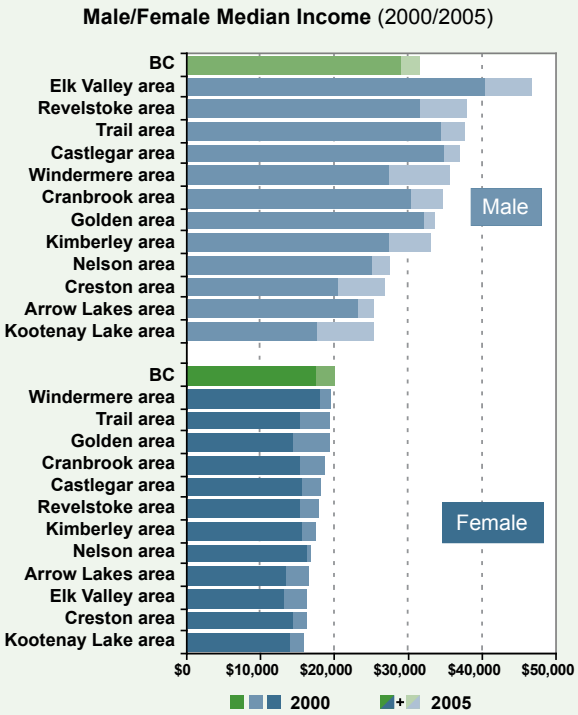
Median income reflects the relative income opportunities in a local economy. The median levels for men and women illustrate the differences between the genders, and may highlight income challenges for women in a particular area.

What are the trends and current conditions?

Median incomes in 2005 in local areas ranged from $27,000 to $19,700 (see graph), compared to the BC median income of $24,900.



Men earn higher median incomes than women in BC and in all local areas. Median income for men varies from $25,000 to $53,500 in local areas (see graph), and all but four areas exceed the BC median income for males of $31,600. In contrast, none of the local areas has a median income for women exceeding the BC level of $20,000. Median incomes for women in local areas range from $15,750 to $19,425 (see graph).



INCOME ASSISTANCE RECIPIENTS - 2007[2]

What does this measure?

The percentage of residents of a specific age who receive BC Basic Benefits or the Guaranteed Income Supplement (GIS).

Residents from 0-64 years are eligible for BC Basic Benefits if their family is unable to earn an adequate income and they qualify based on restrictive criteria. The first indicator measures the percentage of residents in this age group who receive Benefits; the second specifically measures the percentage of children aged 0-18 receiving Benefits.

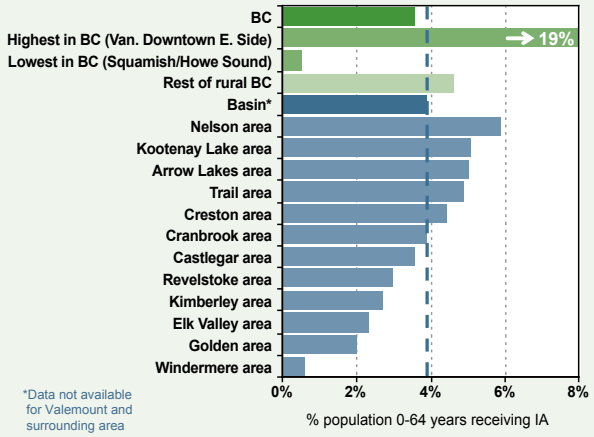
Residents older than 64 years are eligible for the Guaranteed Income Supplement (GIS) if their income from other sources is not adequate. The third indicator measures the portion of older residents receiving the maximum GIS.

Note: As there are eligibility criteria that restrict accessibility to BC Basic Benefits, this measure underestimates this portion of a local population.

Why is this important?

This indicator provides a rough estimate of the level of poverty in an area, and an indication of the need for income support to reduce the situation.

Income Assistance Recipients (September 2007)

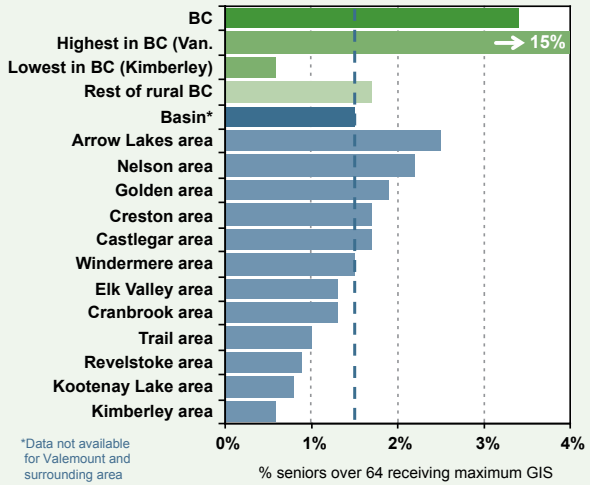


*Data not available for Valemount and surrounding area

What are the trends and current conditions?

At almost 3.9%, the portion of Columbia Basin residents aged 0-64 qualifying for and receiving BC Benefits was less than in the rest of rural BC (4.6%), and slightly greater than the BC average (3.6%). The differences between local areas is substantial, ranging from 0.6% to 5.9%.

Guaranteed Income Supplement Recipients (2007)



*Data not available for Valemount and surrounding area

The portion of Basin children aged 0 -18 who receive benefits is 3.3%, which is lower than for other rural BC areas (4.4%), but almost the same as for BC at 3.2%. The proportion of children in each local area receiving benefits within the Basin closely follows the ranking for all residents, with a range from 0.6% to 6.4%. Data for each local area can be found at: www.cbt.org/stateofthebasin

More than twice as many seniors (over 64 years) in BC (3.4%) receive the maximum GIS than in the Basin (1.5%). The Basin level is also slightly lower than for the rest of rural BC (1.7%). Local areas range from 0.6%, the lowest in BC, to 2.5% (see graph).

ADDITIONAL INFORMATION

Links to the following data are available on the State of the Basin website to complement the indicators in this report:

» Median household income
» Family/household income distribution and portion living below low-income cut-off levels

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Information Sources

[1] BC Stats 2006 Census Profiles
www.bcstats.gov.bc.ca/data/cen06/profiles/detailed/ch_alpha.asp

[2] BC Stats Socio-Economic Profiles
www.bcstats.gov.bc.ca/data/sep/index.asp

BUILT INFRASTRUCTURE- HOUSING

Adequate shelter is an essential requirement for human well-being. There are a variety of types of housing and people either own or rent their housing. For most households, housing is usually one of the major costs. Being able to access reasonably-priced housing that meets the needs of a household leaves more money for the household to spend on other essentials for well-being.

Notes:

1) This section is longer than the others because of the high level of concern about housing in the Basin and the ready availability of recent census data.

2) Data was not available for the regional district lands in the Revelstoke Area and the CBT area around the Village of Valemount.

3) Local areas in the Central Kootenays have had to be redefined slightly (see map on page 30).

HOUSING TYPES – 2001/2006[1]

What does this measure?

The percentage of households living in detached houses as compared to multi-family dwellings (eg. Duplexes, apartments or mobile homes)

Why is this important?

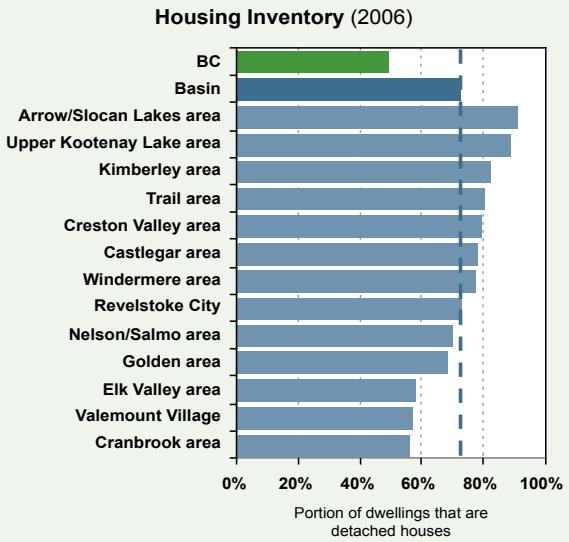
Households differ in terms of the number of adults and children living together, their income levels, and living needs. A variety of types of housing are needed to meet this range of needs and financial resources. Without this variety, it is likely that some households will not be adequately accommodated. If the proportion of detached houses is high, there may not be enough multi-family and apartment units to accommodate smaller or lower income households.

What are the trends and current conditions?

Just over 70% of the dwellings in the Basin were detached houses in 2006, compared to just under 50% in BC. Everywhere in the Basin there were a greater proportion of detached houses than in BC.

In local areas the portion of detached houses ranged from 55% to 90% (see graph). In areas with fewer detached houses, apartments were usually the next most common type of dwellings for households.

Since 2001, mobile homes have become more prevalent dwellings in Valemount and the East Kootenay and Columbia Shuswap Regional District areas of the Basin, with little change in other areas.



RENTING HOUSEHOLDS – 2001/2006[1]

What does this measure?

The portion of households who rented their homes in 2006.

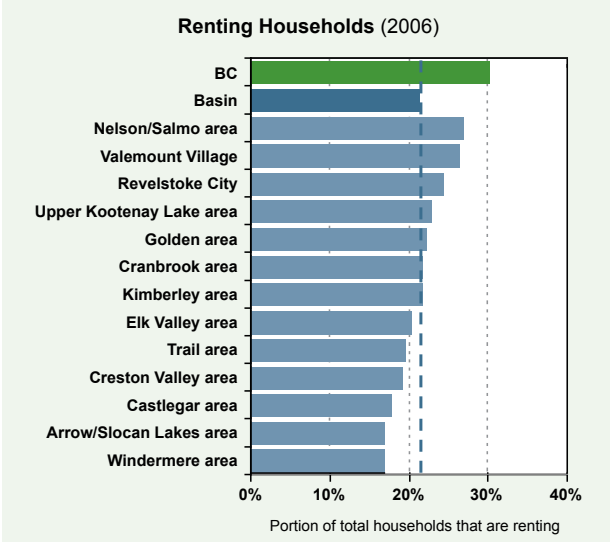
Why is this important?

Some households cannot afford to, or do not choose to own their homes. Young people and families often rent as a starting point to build equity to buy their first home. Low income households often rely on rental accommodation as their only shelter option, especially in escalating housing markets. Rental options create more opportunities for residents.

What are the trends and current conditions?

In the Basin approximately 21% of all households are renting compared to 30% in BC. In all areas of the Basin there are fewer rental households than provincially, with renters varying from 17% to 27% of households (see graph).

In the Basin in 2006, the number of renting households dropped by almost 9% from 2001, which was a greater decline than BC's 3.5%. In some Basin areas, renting households increased as much as 50%, while in others a decline of 27% occurred.



HOUSING AFFORDABILITY – 2001/2006[1]

What does this measure?

The portion of residents who spent more than 30% of their household income on housing.

For home owners the measure is based on owner's major payments. Gross rent is the housing cost measure for renters. Spending 30% or more of household income on housing is a common measure of a threshold for housing affordability.

Indicators are provided for all households, for different household types (i.e. one person or couples with/ without children), and for homeowners and renters.

Why is this important?

This measure indicates the scale of the challenge of finding affordable housing in a particular area. It can indicate the need for both policies and programs that lead to lower cost types of housing being available. Understanding what types of households are passing the housing affordability threshold helps to target policies and supports effectively.

A note on housing affordability: Not all households spending 30% or more of their income on shelter costs are necessarily experiencing housing affordability problems. For examples, households with high incomes and households that choose to spend more on shelter than on other goods would not be experiencing affordability challenges. This measure also does not address the issue of homelessness.

What are the trends and current conditions?

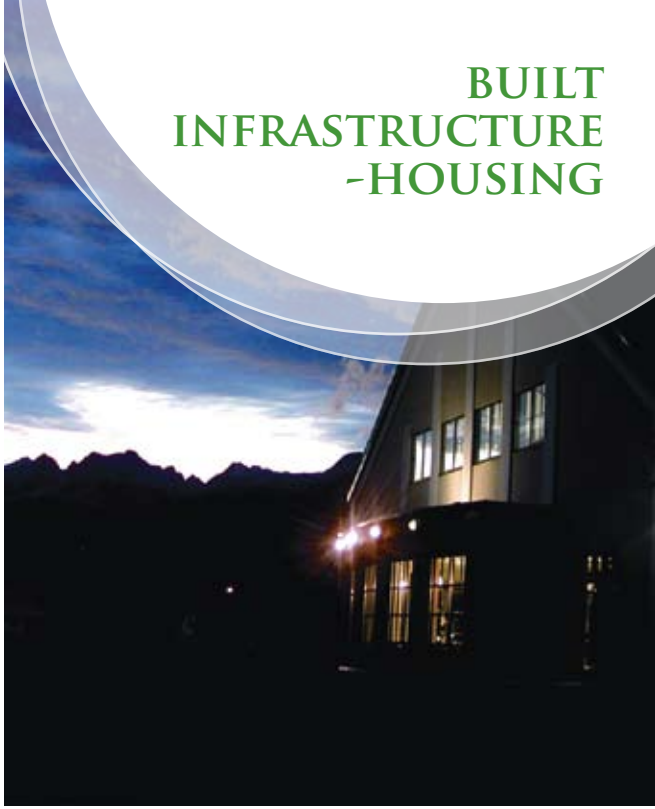
More than 13,000 households or approximately 21% of all households in the Basin were spending more than 30% of household income on housing in 2006. The Basin average was below the BC average of over 28%.

Seventeen to 30% of all households in local areas of the Basin exceeded the affordability threshold (see graph), with two areas equal to or above the BC average.

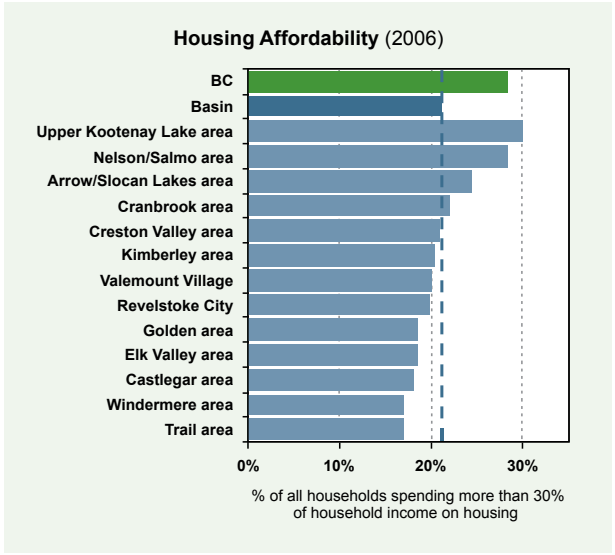
Single person households without children most frequently exceeded the affordability threshold in the Basin in 2006. Almost 50% of all the households that exceeded the threshold were single people – slightly over 6,000 in total. The number of single-person households grew between 2001 and 2006, to 29% of all households, and will continue to grow as the population ages. Couples, couples with children, and single parent households with children accounted for 18%, 16%, and 14% respectively of the total households that exceeded the threshold in the Basin in 2006 – significantly fewer than single-person households without children.

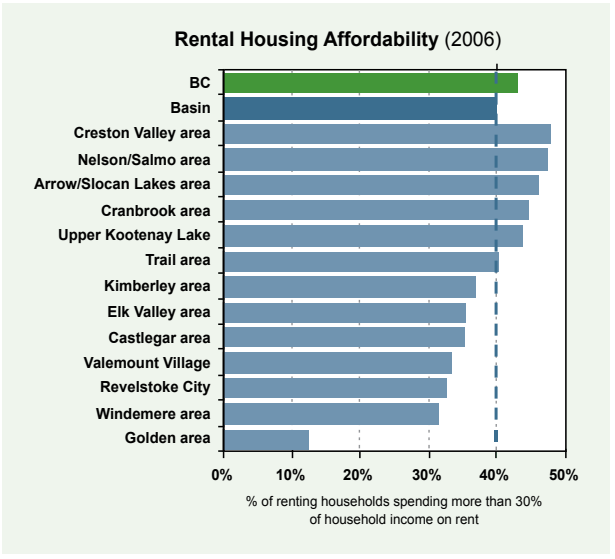
Renters, in particular, face housing challenges. Although about 20% of households in the Basin were renting in 2006, 40% of the total households that exceed the housing affordability threshold were renters.

For only the households who were renters in the Basin, 40% exceeded the threshold, which was three percent lower than for BC. There were large differences between local areas where from 48% to 12% of renters exceeded the threshold (see graph).



BUILT INFRASTRUCTURE -HOUSING





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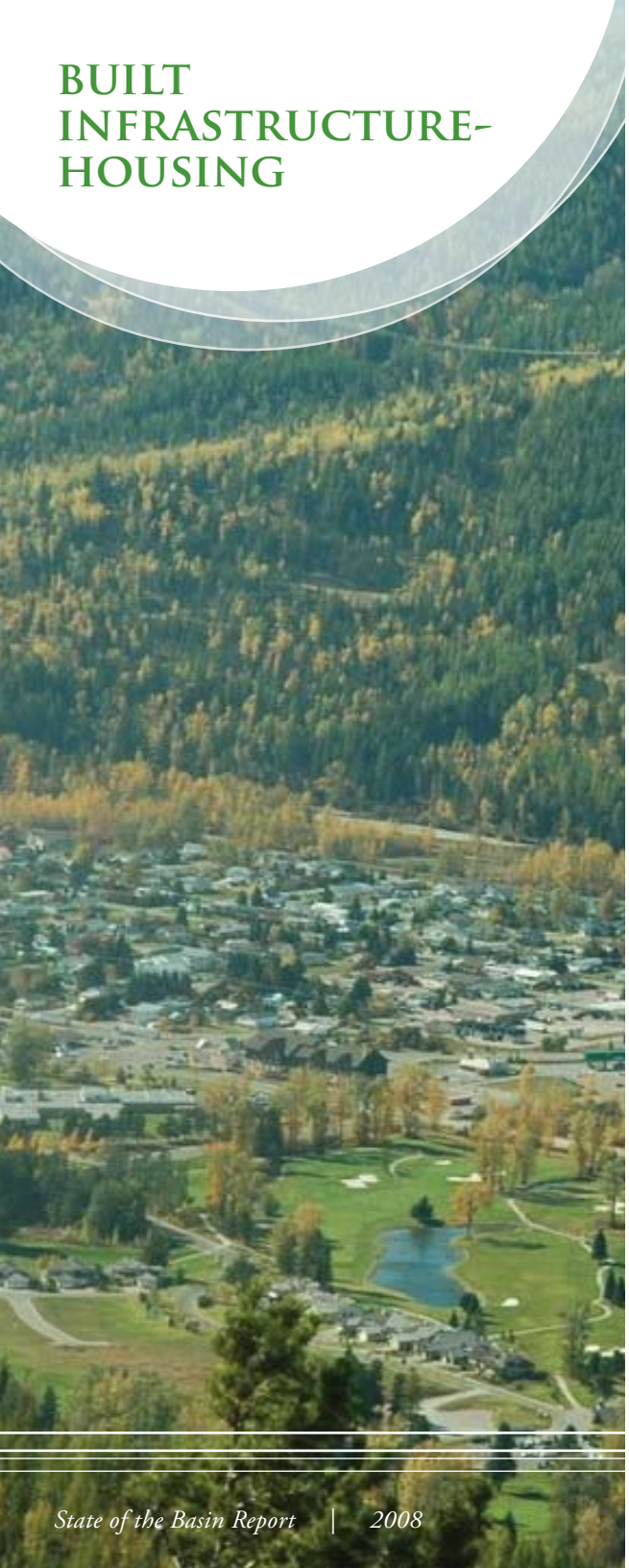
BUILT INFRASTRUCTURE-HOUSING



HOME OWNERSHIP AFFORDABILITY – 2001/2006[1, 2]

What does this measure?

The ratio of average dwelling values in 2006 compared to average household income in 2005.

A larger number indicates a greater difference between dwelling values and incomes.

Note: In the 2006 census, which is the source of the data for this indicator, respondents were asked for their household income in the previous year.

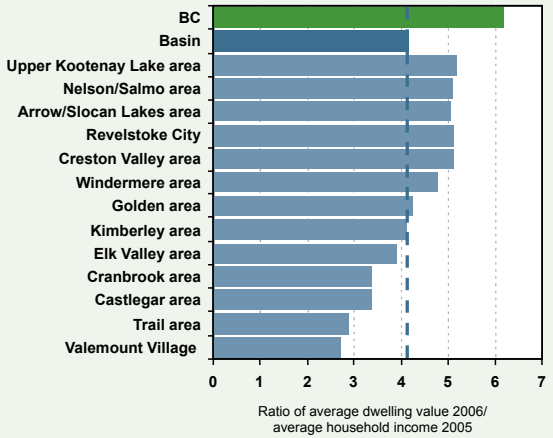
Why is this important?

Home ownership is the preferred housing option for many households. As home values increase compared to average household incomes, home ownership becomes more unaffordable, making it difficult for some households to buy their first home or to upgrade as their families and needs grow. Rapid increases in housing values without similar increases in incomes create particular stresses.

What are the trends and current conditions?

In all areas of the Basin in 2006 the ratio of average dwelling value to average income was lower than the BC ratio of 6.2. Local areas range from 5.2 to 2.7.

In BC the ratio grew from 4 at the time of the 2001 census to 6.2 in the 2006 census, largely due to an 80% increase in dwelling values. In all local areas this ratio increased during this time frame as well, with the largest increase from 2.3 to 5.1 and the smallest increase from 4.1 to 5.2. Increased dwelling values were the reason for the increase in the Basin as well, where increases in dwelling values varied from 42% to 120%.



ADDITIONAL INFORMATION

Links to the following data are available on the State of the Basin website to complement the indicators in this report:

» Building permit number and value by type (institutional, commercial, residential)

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Information Sources

[1] Stats Canada Housing and Shelter Costs
www12.statcan.ca/english/census06/data/topics/index.cfm?Temporal=2006&APATH=3

[2] Stats Canada 2006 Census Community Profiles
www12.statcan.ca/english/census06/data/profiles/community/Index.cfm?Lang=E

Our actions have the potential to benefit or damage the Basin environment now and in the long term. Conservation actions such as reducing water use, waste, and green house gas emissions lessens our impacts on the environment, which will improve our well-being.

WATER USE - 2004[1]

What does this measure?

The estimated average daily residential water use per person served with municipal water.

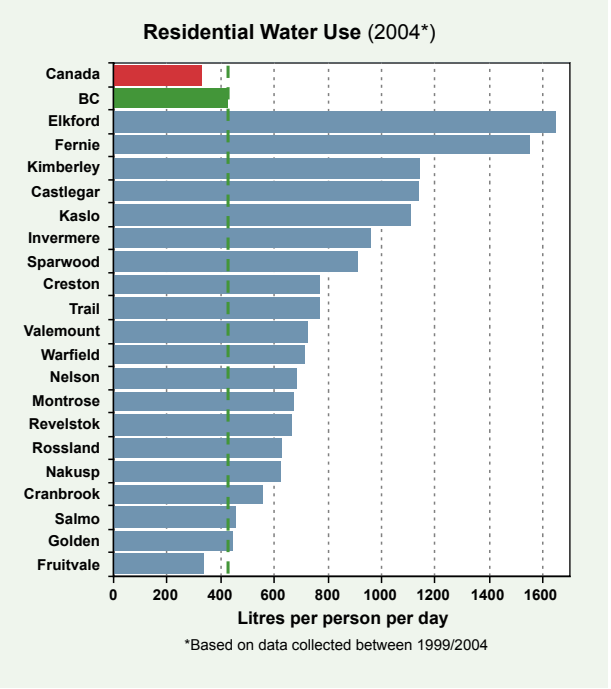
Note: Industrial and commercial uses and water provided from non-municipal sources are not included in this indicator.

Why is this important?

This measure shows the demand that residential water use is placing on local water sources. Excessive water use can reduce natural stream flows and draw down aquifer levels, creating effects such as seasonal water shortages with impacts on natural systems and human users. Excessive water use can also increase the size and cost of municipal water treatment facilities and distribution systems.

What are the trends and current conditions?

Between 1999 and 2004, residential water use in all but three Basin municipalities was substantially higher than the BC average level of 426 litres per person per day – about three full bathtubs. Residential water use in seven Basin municipalities was more than twice the BC rate during this period (see graph).



COMMUNITY WASTE WATER TREATMENT - 2004[2]

What does this measure?

The portion of the population in municipalities with primary, secondary, and tertiary wastewater treatment.

Treatment levels are defined as:

» Primary: Solids are separated from fluids and floatable solids, oil and grease are usually skimmed off.

» Secondary: Further treatments (eg. lagoons and infiltration ponds) reduce the level of contaminants by fostering consumption of organic matter by organisms in the wastewater.

» Tertiary: Includes treatments to reduce suspended solids and biological oxygen demand and remove specific contaminants.

Note: This does not include Basin residents who live outside of municipal boundaries (approximately 40% of the total population) and for the most part have on-site sewer systems.

Why is this important?

By volume, municipal sewage and sewer overflows are one of the largest point sources of pollution in Canada. In most places, municipal sewage is treated before it is discharged to the environment. The level of treatment is an indicator of the amount of pollutants being discharged to the environment. As more of the population is served with higher levels of wastewater treatment, there is a potential reduction in environmental impacts.

CONSERVATION

What are the trends and current conditions?

In 2008, with one exception, all the municipalities in the Basin have wastewater treatment facilities providing secondary level treatment. The remaining community has plans to move from primary to secondary treatment in a year or two.

This compares favourably to wastewater treatment levels in BC municipalities generally. In 2004, the last date for which provincial data is available[3], 35% of the population in municipalities in BC had primary treatment, 57% had secondary treatment and 8% had tertiary treatment. In comparison, in the Basin 18% of the municipal population had primary treatment, with secondary treatment in place for the remaining 82%.

ADDITIONAL INFORMATION

Links to the following data are available on the State of the Basin website to complement the indicators in this report:

» Waste production and recycling

Technical Advisors

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819-953-1538 | h2o-info@ec.gc.ca

Wastewater Treatment - BC Ministry of Environment, Kootenay Region 250-354-6355

Information Sources

[1] Environment Canada Municipal Water and Wastewater Survey at: www.ec.gc.ca/water/MWWS/en/index.cfm

[2] BC Ministry of Environment staff

[3] BC Environment Trends 2007
www.env.gov.bc.ca/soe/et07

ENVIRONMENT

The unique, diverse natural landscapes and resources of the Basin are the foundation for many aspects of well-being. These landscapes provide habitats for a diversity of species, clean air and water for humans, as well as the backdrop for economic, recreation and culture pursuits.

Note: This section is longer than others to include indicators for land, water, air and climate conditions.

LAND
PROTECTED AREA – 2007[1]

What does this measure?

The portion of the land in BC and in ecosections within the Basin that is legally protected.

Ecosections are areas with relatively similar physical terrain and climate conditions. The Basin includes all of 12 ecosections and portions of three more.Thirteen ecosections are included in this measure. The portions of two ecosections surrounding Valemount are not included.

Areas in legally designated parks, protected areas, wildlife reserves, ecological reserves or other designations managed by Parks Canada or the BC government are included in this indicator.

Note: Areas managed by land conservation organizations are not included.

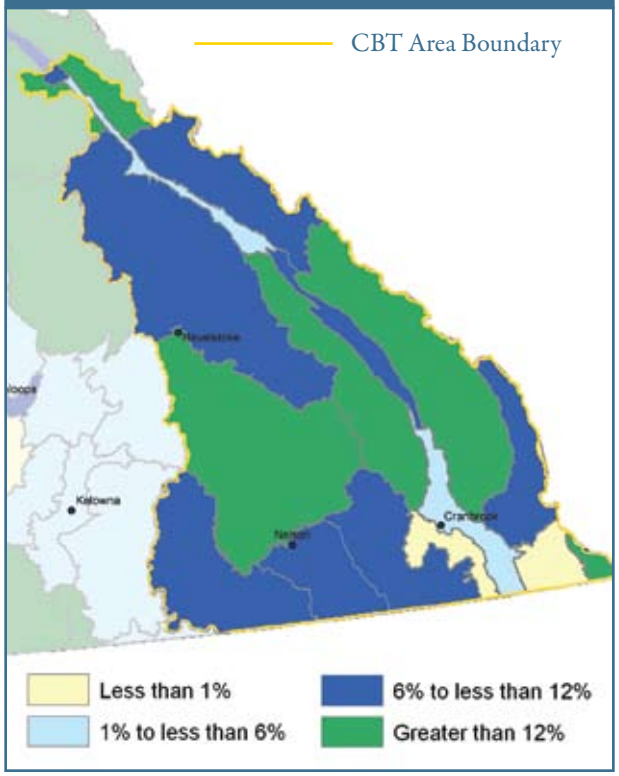
Why is this important?

Protected areas provide many benefits including: conservation of biodiversity, habitat and specific natural features; contributions to human health and recreation; and preservation of wilderness areas and ecosystems for long-term research and monitoring. Protecting samples of ecosections provides benchmarks to improve understanding of ecological changes.

What are the trends and current conditions?

Approximately 15% of the land in the Basin was within legally protected areas in 2007, compared to 13.4% within BC. Within the 13 ecosections in the Basin, the level of protection ranges from 0 to 34% (see map).

Protected Area within Ecosections (2007)



Half of the Basin area is within ecosections with less than 12% protection, including 10% of the Basin which has protection levels of 1% or less. The ecosections with the lowest level of protection include lower elevation landscapes where private land is prevalent and where ecosections span the US border.

SPECIES AT RISK - MOUNTAIN CARIBOU MID- 1990S/2006[2]

What does this measure?

The population levels of mountain caribou within the Basin and in BC.

Mountain caribou was selected because it is a long-lived species that historically ranged throughout most of the Basin. As well, up-to-date population information is readily available and is likely to be kept current through recovery planning activities.

Why is this important?

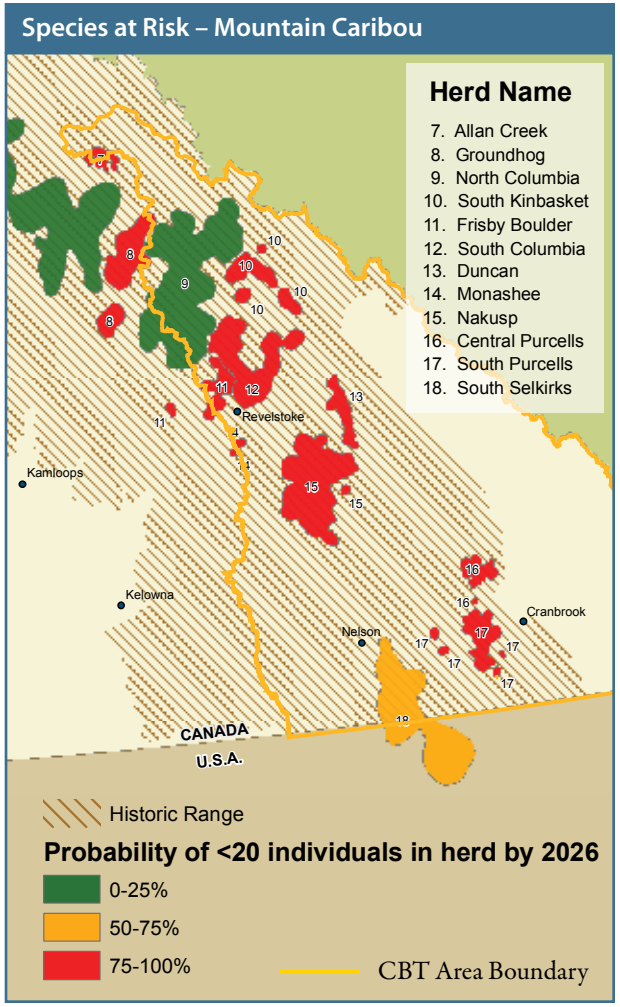
Mountain caribou are a globally unique population as the world's southernmost caribou population and the only remaining caribou that live in rugged, mountainous habitats, foraging in winter on lichens growing on trees. Almost all of the remaining mountain caribou habitat is in BC, with eight of the 12 BC sub-populations residing in the Basin.

The population has drastically declined over this century, with a sharp decline from about 2,500 animals in 1995 to about 1,900 today. BC has placed mountain caribou on its 'red list' of species at risk. A steep, continuing decline in population size or in geographical distribution places a species at risk of extinction.

What are the trends and current conditions?

Historically, mountain caribou ranged throughout all but the southeast corner of the Basin (see map). Since the mid-1990's the mountain caribou populations using habitats in the Basin declined by 60%, from approximately 845 to 350 caribou in 2006. In the same time period, the population in

Species at Risk – Mountain Caribou



the remainder of BC declined by 10%.
Recent declines have been most substantial, with Basin sub-populations dropping by 12% between 2002 and 2006.

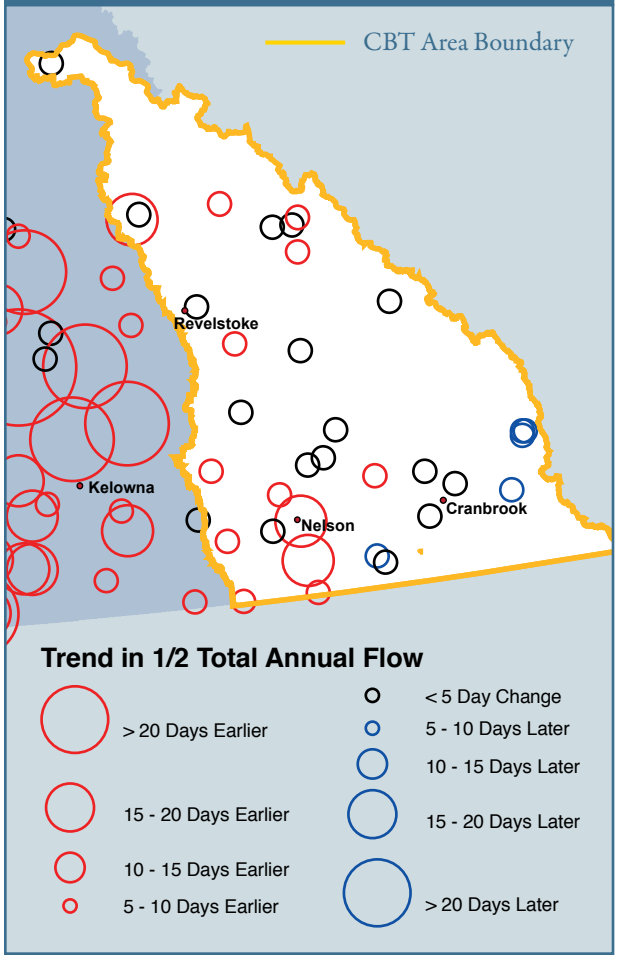
In 2006 it was estimated that 40 or fewer caribou existed in six of the eight sub-populations in the Basin (see map). Caribou scientists have estimated there is a 75-100% probability that these sub-populations will not persist in 20 years.

WATER
STREAM FLOW TIMING – 1956/2006[3]

What does this measure?
Fifty year trend (1956-2006) in 'half total flow dates' - the timing when half of the annual total stream flow occurs.

Note: This indicator does not measure peak flow levels or timing, or the total amount of stream flow annually.

50 Year Trend in Timing of the Date for 1/2 Total Annual Flow in Columbia Basin



Why is this important?
Streams and rivers in the Basin are fed by melting winter snowpack and glaciers. The timing of stream flows influences the ecological processes in each stream and the availability of water for human use. A trend to earlier half total flow dates indicates earlier peak flows and longer periods of low flows in the late summer and fall, unless rainfall patterns change. Low flows can cause increased water temperatures with implications for species that require cold water habitats.

What are the trends and current conditions?
The trend in the half total flow date in Basin streams from 1956 to 2006 was generally to earlier dates, by 1 to 13 days, with 60% being 1-5 days earlier (see map). The main exceptions are the very upper reach of the Kootenay River, the Columbia River above Donald, and the Elk Valley where half total flow dates are later in the year by 4 to 9 days.

The half total flow date trends in the Columbia system have changed less than in the neighbouring Okanagan system. In the Okanagan half total flow dates are 7 to 19 days earlier, with most being more than 10 days earlier.

ENVIRONMENT

SPECIES AT RISK - WHITE STURGEON - 2007[4]

What does this measure?

Recent population estimates for white sturgeon in the Basin.

White sturgeon is a long-lived species that historically inhabited much of the Columbia and Kootenay River systems in BC and the USA. Recovery activities provide recent population estimates that are likely to be kept current.

Why is this important?

White sturgeon is the largest freshwater fish species in Canada. The white sturgeon populations in the Columbia and Kootenay Rivers are two of six genetically distinct populations in inland rivers in BC. The white sturgeon populations in the Basin are at critically low levels and are listed as endangered under the Canadian Federal Species at Risk Act. White sturgeon in the Kootenay River system in the USA are classed as endangered.

What are the trends and current conditions?

Recent population estimates for the various sections of the upper Columbia River white sturgeon population identified that:

- in the Revelstoke and Mica reservoirs north of Revelstoke – unconfirmed presence;
- in the Arrow Lake reservoir from Revelstoke to the Hugh Keenleyside dam – approximately 50 adults;
- between the Canadian border and Hugh Keenleyside dam - approximately 950 adult wild fish; and
- from the Canada-USA border to Grand Coulee Dam in the USA – approximately 2,000 sturgeon present.

Almost all of the upper Columbia sturgeon are older than 30 years, suggesting an aging population with relatively few young to replace the old.

The Kootenay River population is estimated at less than 450 adults with declines of 9% annually. It appears that they also have not reproduced for 35 years.

AIR
AIR QUALITY – 2002/2006[5]

What does this measure?

The average annual levels from 2002/2006 of two sizes of particulates that are air pollutants and that create health hazards within and surrounding the nine communities in the Basin where air quality monitoring stations exist.

These are very small particles; the larger particulates (PM10) are about 1/8th of the diameter of a human hair.The remaining particles are even smaller.

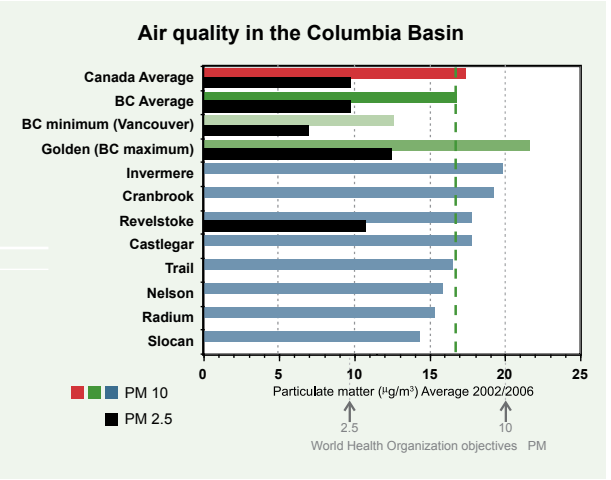
Why is this important?

Higher concentrations of particulates create greater health hazards and general environmental pollution. Both PM10 and PM2.5 particulates can be breathed into human lungs. The PM2.5 size is small enough to enter the deepest part of human lungs. These particulates aggravate human health conditions such as cardiovascular (heart-related) disease and respiratory or breathing complications. Vulnerable individuals such as infants, the elderly, and people with heart or lung problems are particularly susceptible to adverse health effects from air pollution.

What are the trends and current conditions?

From the data collected from 2002/2006, five of the nine communities had average annual PM10 particulate concentrations that exceed the BC and Canadian average, with Golden exceeding the World Health Organization (WHO) objective. Both Golden and Revelstoke exceeded the BC and Canadian averages and the WHO objective for PM2.5 particulate concentrations, which are most detrimental to human health. Particulate concentrations in Basin communities are higher than in Vancouver.

Airborne particulates have either shown little change or have been decreasing over time in all Basin communities. Since 2006 changes in forest sector waste and emission management in Golden and Revelstoke will lead to reduced particulate levels.



CLIMATE – 1913/2002[6]

What does this measure?

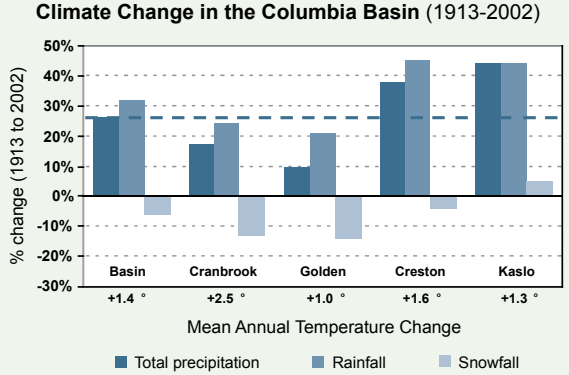
Average annual temperatures and precipitation changes for four communities (Cranbrook, Golden, Creston, Kaslo – the only communities in the Basin with climate records that were long enough for historical trend analysis) over the last century.

Why is this important?

Climate change has the potential to significantly impact all aspects of well-being in the Basin, both positively and negatively. For example, increased summer temperatures may improve timber and agriculture crop growth, or they may cause droughts with more intense wildfires. Increased precipitation may also improve timber and agriculture crop growth, as well as cause flooding with property damage, transportation disruptions and other impacts.

What are the trends and current conditions?

The average annual temperature in the Basin increased 1.4oC between 1913 and 2002 (equivalent to 1.5 oC per century). In one community the increase was 2.5 oC, while others ranged from 1.0 to 1.6 oC (see graph). These changes are larger than the average historical temperature difference between Cranbrook and Golden (0.9 oC between 1961 and 1990). The trends in the Basin are greater than the provincial rate of change of 1.1 oC per century and the global rate of 0.6 oC.



Warming has been most rapid in recent decades, with the rate of change in the Basin between 1971 and 2000 being three times greater than over the century. As well, warming has not occurred evenly across seasons and times of the day; minimum average temperatures have risen 1.6 oC, almost twice the increase of the maximum average at 0.9 oC between 1913 and 2002. This means there has been more warming during the winter months and at nighttime.

On average across the Basin, precipitation increased by 26% between 1913 and 2002, with a range of 10 to 44% in the communities (see graph). The Basin average reflects a 6% decline in snowfall and a 32% increase in rainfall. The 3% per decade increase in the Basin is lower than the 4% per decade increase in BC and greater than the 0.5 to 1% increase globally during similar time periods.

ADDITIONAL INFORMATION

In partnership with a number of Basin organizations, including the Columbia Basin Trust, the Geospatial Research Centre at Selkirk College hosts a number of interactive mapping tools with environmental information:
selkirk.ca/research/sgrc/onlinemapping/

Links to the following data are available on the State of the Basin website to complement the indicators in this report:
» Water quality in major rivers
» Snowpack changes

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250-472-4681 | tmurdock@uvic.ca

Information Sources

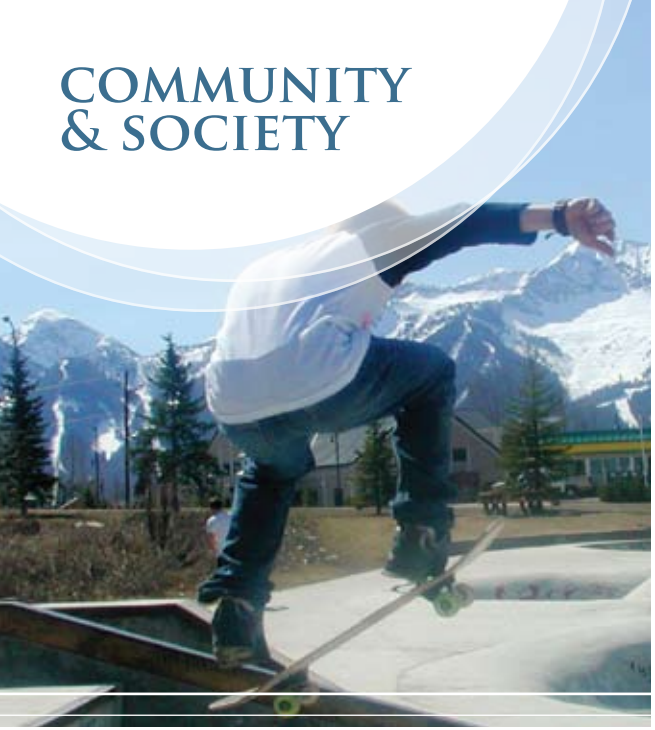
[1, 2, 3,] BC Environment Trends 2007
www.env.gov.bc.ca/soe/et07

[4] BC Ministry of Environment White Sturgeon website
www.env.gov.bc.ca/wld/fishhabitats/sturgeon/index.html

[5] BC Ministry of Environment special analysis

[6] Pacific Climate Impacts Consortium. Preliminary Analysis of Climate Variability and Change in the Canadian Columbia River Basin: Focus on Water Resources.
www.cbt.org/Files/ClimateChangeAnalysis.pdf

COMMUNITY & SOCIETY



The community and social aspects of well-being include how people contribute to their communities and their sense of belonging and security in their communities. Arts, culture and heritage activities, how people look after each other, crime and safety, cultural activities, levels of community involvement and opportunities for citizens all affect whether or not people feel welcome and included in their communities.

ANNUAL CHARITABLE DONATIONS – 2006[1]

What does this measure?

The percentage of people filing tax returns in Basin municipalities (defined by postal codes) who make charitable donations, and the median donation, based on the amounts claimed for tax credit on T1 income tax returns for 2006.

The median donation tells us the mid-point of donations made by taxfilers in an area – half of the donators have donated more; half less.

Notes:

1) Tax return data only reports donations to charities for which tax receipts are given; it does not include donations for which no tax claim is made. Nevertheless, the consistency in reporting methods allow for comparisons over time in changes in charitable giving.
2) Tax return data is compiled for municipalities and selected 'rural communities' based on postal codes and is not available for all the areas in the Basin.

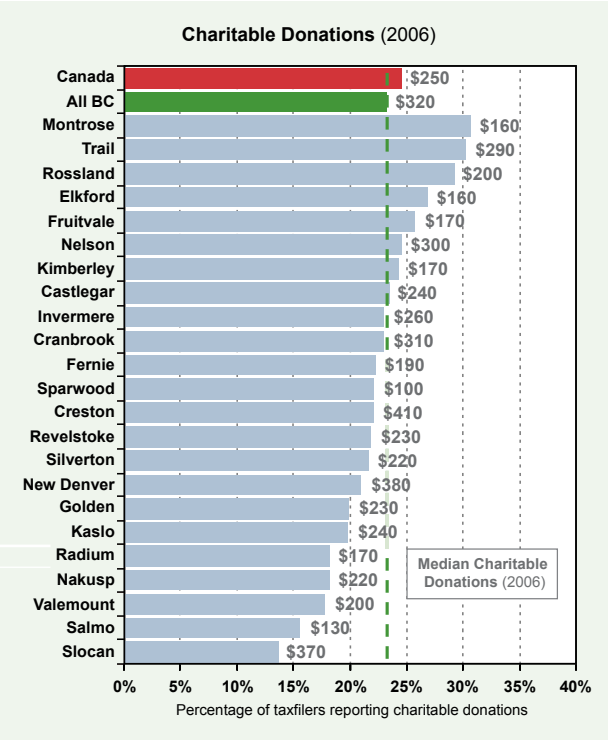
Why is this important?

Individuals donate money to charity to help others and to make a difference. They are most likely to give for altruistic reasons: out of compassion for those in need, because they personally believe in the cause supported by the organization, and/or to make a contribution to the area where they live. Rates of charitable giving are used as an indicator of community involvement. However, rates of charitable donations are directly related to household income, education level, age, and labour force status; as these factors improve so does the frequency and level of donation.

What are the trends and current conditions?

Over the last decade approximately one in four taxfilers in Basin municipalities, in BC and in Canada have consistently reported giving to charity.

Across the Basin in 2006, the proportion of donors varied from 31% to 13% of taxfilers in communities (see graph), consistent with the last decade.



Median donations in Basin communities ranged from $410 to $100, compared to a $300 to $90 in 1996. Three communities exceeded the median donation for BC in 2006 of $320.

SERIOUS CRIME RATES – 2004/2006[2]

What does this measure?

The number of reported offences for every 1,000 people for property and violent crimes during 2004/2006.

Property crimes include motor vehicle theft, breaking and entering, fraud, theft and possession of stolen goods. Violent crime includes homicide, attempted murder, sexual offences, assault, robbery and abduction. Only crimes reported to or by the police are included.

Why is this important?

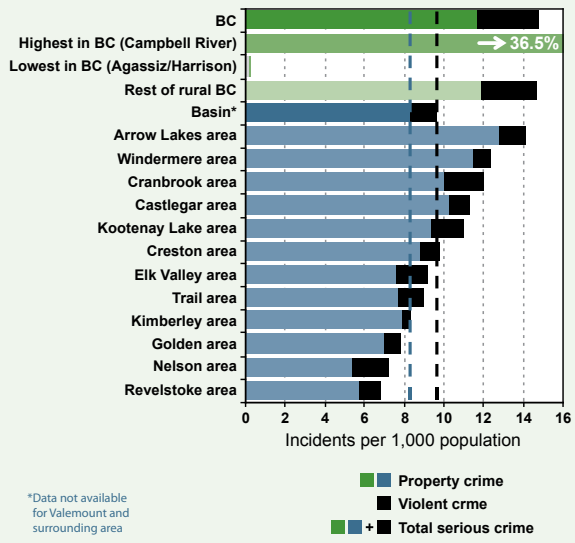
Crime rates provide an indicator of how we are doing in terms of creating safe communities. They help measure the effectiveness of law enforcement and community engagement initiatives and inform decision-making about law enforcement policies. Crime rates can also be a contributing factor to perceptions of safety in communities.

What are the trends and current conditions?

In the 2004/2006 reporting period, the total serious crime rate in the Basin was 9.7 incidents per 1,000 people, compared to 14.7 in the rest of rural BC, and 14.8 in all of BC.

Within the Basin the total serious crime rates in local areas were all below the BC level during this period ranging from 6.9 to 14.1 offences per 1,000 people (see graph).

In all local areas, property crimes made up the majority of the reported serious crimes. However, for all but one local area the property crime rate is lower than for the rest of rural BC and for all of BC.



The violent crime rates in the Basin were half the rate for other rural areas and less than half the BC rate.

The total serious crime rate in the Basin declined 4.7% between 2001/03 and 2004/06. During this period the total serious crime rate for other rural BC areas declined by 2.7%, while the rate for BC declined by 4.3%.

For drug-related crime, the non-cannabis drug offence rate (for all ages) in the Basin was 123 offences per 1,000 people, almost half the rate for both BC and other rural BC areas.

ADDITIONAL INFORMATION

Links to the following data are available on the State of the Basin website to complement the indicators in this report:

- Additional crime statistics
- Employment in arts, culture, recreation and sports organizations
- Permanence of residence (number of years residing in an area)

Technical Advisor

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Information Sources

[1] Statistics Canada by special request
[2] BC Stats Socio-Economic Profiles
www.bcstats.gov.bc.ca/data/sep/index.asp

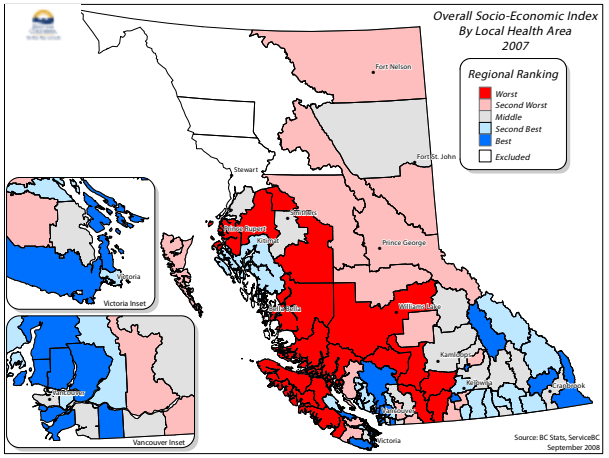
WELL-BEING ASSESSMENT

Many indicator reports provide assessments of whether the trends or conditions measured by each indicator, or for all of the indicators together, are positive or negative, or are getting better or getting worse. The State of the Basin model does not include this aspect of indicator reporting. Some communities - both geographic communities and communities of interest - may want to create their own indicator reports by expanding on the indicators used in this report and include their own, localized well-being assessment.

This section provides some examples of how well-being assessments are presented by other indicator reporting initiatives.

BC Stats Socio-Economic Indices [1]

BC Stats combines several indicators from their Socio-Economic Profiles to create 'indices' or measures to compare geographic areas. Separate indices for economic hardship, crime, health problems, education concerns and for two target groups (youth at risk and children at risk) are combined to create an Overall Regional Socio-Economic Index. The map below illustrates this index for local health areas in BC for 2007. This index does not include environmental indicators.

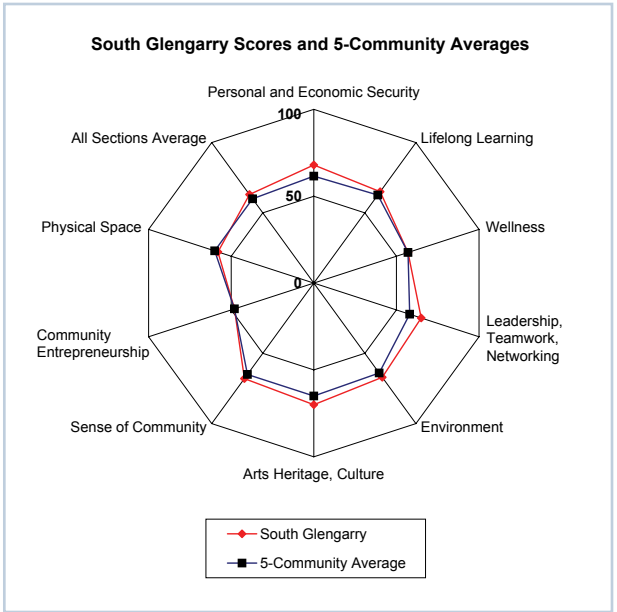


Newfoundland's Community Accounts [2]

An innovative on-line information system providing data for community level well-being assessment uses a similar but simpler 'scoring' approach.

Centre for Innovation and Entrepreneurial Leadership Community Vitality Initiative [3]

The Community Vitality Initiative measures the perceptions of community leaders and citizens about the quality of life in the community, then combines these perceptions with relevant statistical data to create scores for nine topics areas. These scores are compared to those from other communities using a unique graphic index (see example below).

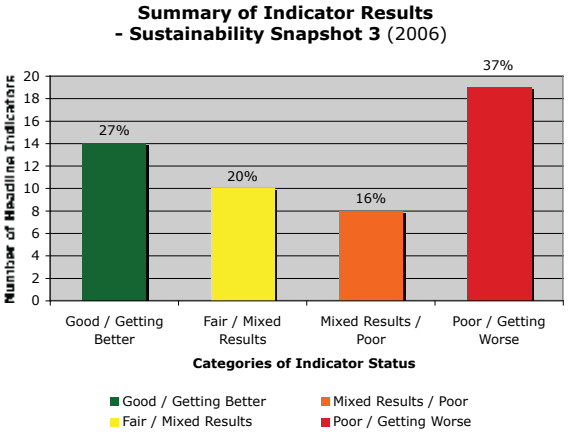


WELL-BEING ASSESSMENT

Fraser Basin Council Sustainability Snapshot [4]

The Fraser Basin Council periodically produces a Sustainability Snapshot report that compiles social, economic and environmental indicators across a broad range of topics. For each of the 19 topics a handful of indicators have been selected. Each indicator is rated as good/getting better, fair/mixed results, mixed results/poor or poor/getting worse.

The combined ratings are provided in a Summary of Sustainability Highlights which includes a chart of the status of the indicators (see chart).



Community Foundations Vital Signs Reports – Vancouver[5] and Victoria[6]

The Community Foundations of Canada has supported foundations in several metropolitan areas to develop and issue Vital Signs indicator reports. These reports provide information for five indicators within 12 topics areas. Citizens are involved in grading the conditions for each topic area based on the indicator information.

For the 2007 Vancouver report 400 invited civic, non-profit and business leaders as well as other informed members of the region participated in a Citizen Grading Panel to assign letter grades (A through F) for each topic area.

Grading for Victoria's 2007 report was open to the community through an on-line survey. The grading system is illustrated below.

Grading Scale

Through an on-line survey available to the community, the following grades have been assigned to the indicators in this report.

In dire need of corrective action	♥
Of concern, needs attention	♥♥
Progress is being made	♥♥♥
We're doing well and headed in the right direction	♥♥♥♥
Awesome! Victoria's tops!	♥♥♥♥♥

INFORMATION SOURCES

[1] BC Stats Socio-Economic Profiles and Indices
www.bcstats.gov.bc.ca/data/sep/

[2] Newfoundland Community Accounts
www.communitycounts.ca

[3] Centre for Innovation and Entrepreneurial Leadership
www.theciel.com/cvi.php

[4] Fraser Basin Sustainability Snapshot 2007
www.shim.bc.ca/atlases/fbc/ss3/Front_Page.html

[5] Vancouver Foundations VitalSigns for Metro Vancouver
www.vancouverfoundationvitalsigns.ca/

[6] Victoria Vital Signs
www.victoriavitalsigns.bc.ca/vitalsigns.php

BASIN MAP

One of the greatest challenges in this project has been to access and report information at geographic scales that are manageable and relevant to Basin residents, communities and organization.

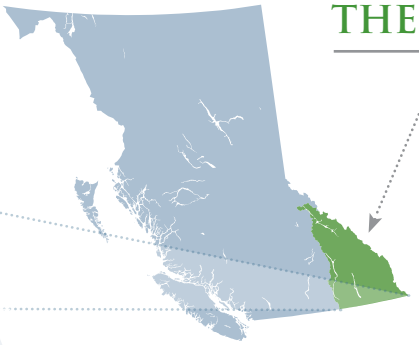
From a local government perspective and for Canada census purposes there are 23 municipalities, 21 electoral areas, two full regional districts and parts of 3 other regional districts in the Basin. In many areas the residents of municipalities and the adjacent electoral areas come together to make decisions and take actions. Also, there simply is not space to report on each local government area.

For these reasons, data was collected for the smallest geographic unit that it was available. This raw data is available on the State of the Basin website. The data for most indicators was then combined into 'local areas' shown on the large map. For most indicators these local areas follow the commonly used BC Local Health Areas, which are government defined areas that are used to collect various types of data.

The exceptions to using the 'local areas' shown to the left are:

- Slightly different boundaries were required for the housing and workforce education indicators for the Nelson, Arrow Lake, Kootenay Lake and Creston areas. These are shown in the smaller map to the left of the text.
- For some indicators data was only available for individual municipalities so this is the geography reported.
- Environment indicators are reported for the geographic areas that were available.
- Economy indicators are reported on a regional basis.
- The northern tip of the CBT area includes the Village of Valemount and surrounding regional district lands. This area is included in the Prince George Local Health Area, which stretches far northward, making it extremely difficult to report on the Valemount area separately in this report. Information that is readily available for residents within the Village of Valemount is included.

THE BASIN



CBT encourages you to discuss the indicator results in this report with others in your community, local area, or community of interest to better understand the unique local conditions, and to participate in actions to improve the well-being in your area.

WE NEED YOUR FEEDBACK

The State of the Basin initiative hopes to create a sense of the potential for this type of model for the Basin and its communities. This report and the website give Basin residents and organizations a taste of some of the tools that are available.

Now CBT needs to hear from you; is this type of indicator reporting helpful to you as a resident, in your work life, in your volunteer and community endeavors? How could it be improved?

Please take a few minutes to complete the feedback form enclosed in this report or on the website at www.cbt.org/stateofthebasin.

Your feedback will help CBT in evaluating this model.

CONTACT INFORMATION

To receive printed copies of this report or for help with accessing information on the project website contact: **Rina Gresiuk**, CBT Assistant Policy & Planning at **1-800-505-8998** or rgresiuk@cbt.org

For more information about the initiative more generally contact: **Sabrina Curtis,** CBT Director of Policy and Planning at **1-800-505-8998** or scurtis@cbt.org

To learn more about the indicators, contact information is also provided for Technical Advisors for each topic area. These advisors welcome questions about the information in this report and are available to discuss other sources of information for each topic area.

THANKS

Lead Consultants

This initiative would not have been possible without your dedication and perseverance.

Gary Ockenden, Withinsight Services
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Michael Hepher, Bluebeetle Creative

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Bob Ivison, Nelson
Rob Fogal, Castlegar
Charlotte Ezaki, Fernie
Ron Oszust, Golden
Hillary Page, Invermere
Ulli Mueller, Nakusp
Hugh Grant, Creston

Initiative Advisors

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Jim Hackett, Interior Lumber Manufacturers' Association
Dave Hillary, The Nature Conservancy
Rachel Holt, Veridian Ecological Consulting Ltd.
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Cathy LeBlanc, BC Ministry of Community Development
Steve Litke, Fraser Basin Council
Helen Lutz, Kootenay Boundary Regional Resource Cooperative
Archie MacDonald, Council of Forest Industries
Don MacRae, Cathy Stock and Karen Kirby, BC Stats
Ian Mason, Kootenay Real Estate Board
Ramona Mattix, Central Kootenay Regional District
Trevor Murdock, Pacific Climate Impacts Consortium
Derek Murphy, Castlegar Wellness Assessment
Nancy Newhouse, East Kootenay Conservation Program
Ted Nunn, West Kootenay Chamber of Mines
Derek Petersen, Parks Canada
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Tim Pringle, BC Real Estate Foundation
Todd Pugh, Civic Info BC
Kelvin Saldern, Kootenay Association for Science and Technology
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Joanne Schroeder, Human Early Learning Partnership, UBC
Rebecca Siggner and Jennifer Cleathero, Social Planning and Research Council of BC
Darrell Smith, BC Ministry of Agriculture
Ross Stanfield, East Kootenay Chamber of Mines
Mike Stolte, Centre for Innovation and Entrepreneurial Leadership
Tony Wideski, BC Ministry of Forests and Range

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a legacy for the people

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