

Trends Analysis: Infrastructure & Basic Services



OVERVIEW

Infrastructure and basic services are an important part of every community across the Columbia Basin-Boundary region, as well as across the country, providing the foundation upon which we build our lives and economy. While infrastructure is often thought of as physical systems (e.g., roads, buildings), how infrastructure is defined is increasingly inclusive of services (e.g., health, education).¹⁻³ Investments in infrastructure and services contribute to our economy, as well as enhance quality of life.⁴ Local governments are responsible for nearly 60% of public infrastructure in Canada.⁴ Even where responsibility rests with upper levels of government, local action related to infrastructure and basic services can result in changes, such as the recent decision to declare broadband access a basic service.⁵

OVERVIEW CONTINUED

Understanding the current state of and trends around these infrastructure systems and services can help us to understand and solve challenges, change behavior, and enhance quality of life. The indicators covered in this trends analysis are divided by theme, including:

- Health Services
 - Wait Times;
- Education & Learning
 - Day Care Centres;
- Water & Waste
 - Drinking Water Quality;
 - Waste Generation & Diversion;
 - Consumptive Water Use;
- Transportation
 - Traffic Volumes;
 - Percentage of Properties Near a Transit Link;
- Housing
- Household Internet Access;
- Residential Property Value;
- Municipal Spending on Parks, Recreation, & Culture; and
- Major Projects.

Each indicator is presented in detail below, including a description of what is measured and its importance, as well as current data and trends where available.

HEALTH SERVICES: WAIT TIMES

WHAT DOES THIS MEASURE & WHY IS IT IMPORTANT?

Wait times have been identified as one of the critical issues facing our health care system.⁶ This is a complex indicator, as there are challenges in defining ‘wait lists’, as well as in finding reliable data.⁶ For example, there are many factors to consider when determining wait times for family doctors, and wait times vary widely depending how this is defined, as well as where you live and the level of service required. Initiatives like *A GP for Me*, which ran from 2013 to 2016 worked to address this issue by bringing new doctors to BC and matching patients with doctors⁷, however access to family doctors is an issue that remains. There are also wait times for other health services, such as mental health care.

Wait times for specialized medical care, such as surgeries, is one indicator where data are collected consistently and where there are some [national benchmarks](#).⁸ That does not mean that there is a single wait list, as there are various lists, like provincial lists (e.g., Transplant Services), regional lists, hospital lists (e.g., for a CT scan), and lists for individual physicians.⁹ However, there is a common data source that allows us to examine average wait times for surgeries at hospitals within the Columbia Basin-Boundary region.

WHAT ARE THE CURRENT CONDITIONS?

The province [tracks wait times](#) for all surgical procedures for adults and pediatrics, including details on health region, facility, and individual specialists.¹⁰ Waits are divided into the time it took for 50% of patients to receive services and the time it took for 90% of patients to receive services.¹⁰ When looking at this information it is important to remember that not every hospital provides every procedure. Hospitals like the East Kootenay Regional Hospital or the Kootenay Boundary Regional Hospital perform more procedures than smaller facilities like the Creston Valley Hospital. Additionally, not every procedure available for adults in a facility is available for pediatrics, which is typically more specialized in certain hospitals. It is also important to remember that of the more than 500,000 surgeries performed in BC each year, more than half are emergencies or unscheduled, and as a result these patients never appear on a waitlist.⁹

Figure 1 shows a snapshot of average surgical wait times for select hospitals within the Columbia Basin-Boundary for the time period between August 1 and October 31, 2016. Surgeries are divided into adult (time it took 50% of patients to receive services and time it took 90% of patients to receive services) and pediatric (time it took 50% of patients to receive services and time it took 90% of patients to receive services). The average wait times for this time period range from two weeks to 33 weeks.

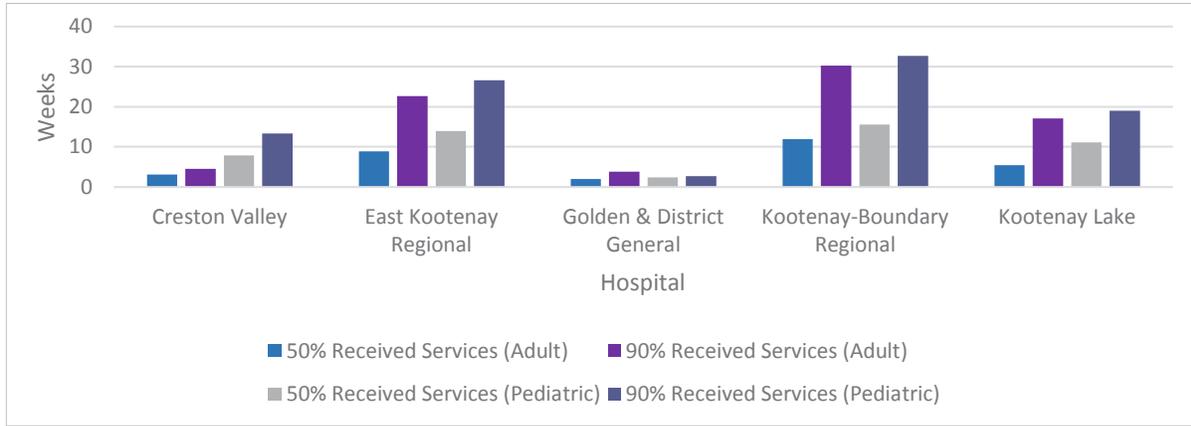


Figure 1: Average surgery wait time by hospital – August to October, 2016¹⁰

It is difficult to compare facilities because the different facilities perform different procedures and the average for each procedure can vary. For example, the East Kootenay and Kootenay-Boundary hospitals are regional facilities and provide more services. This increased number and variety of services could contribute to longer average wait times. **Figure 2** provides an example from the same time period for the Kootenay Lake Hospital for each procedure. This figure illustrates the variance in wait times between procedures, as well as how few pediatric procedures are performed.

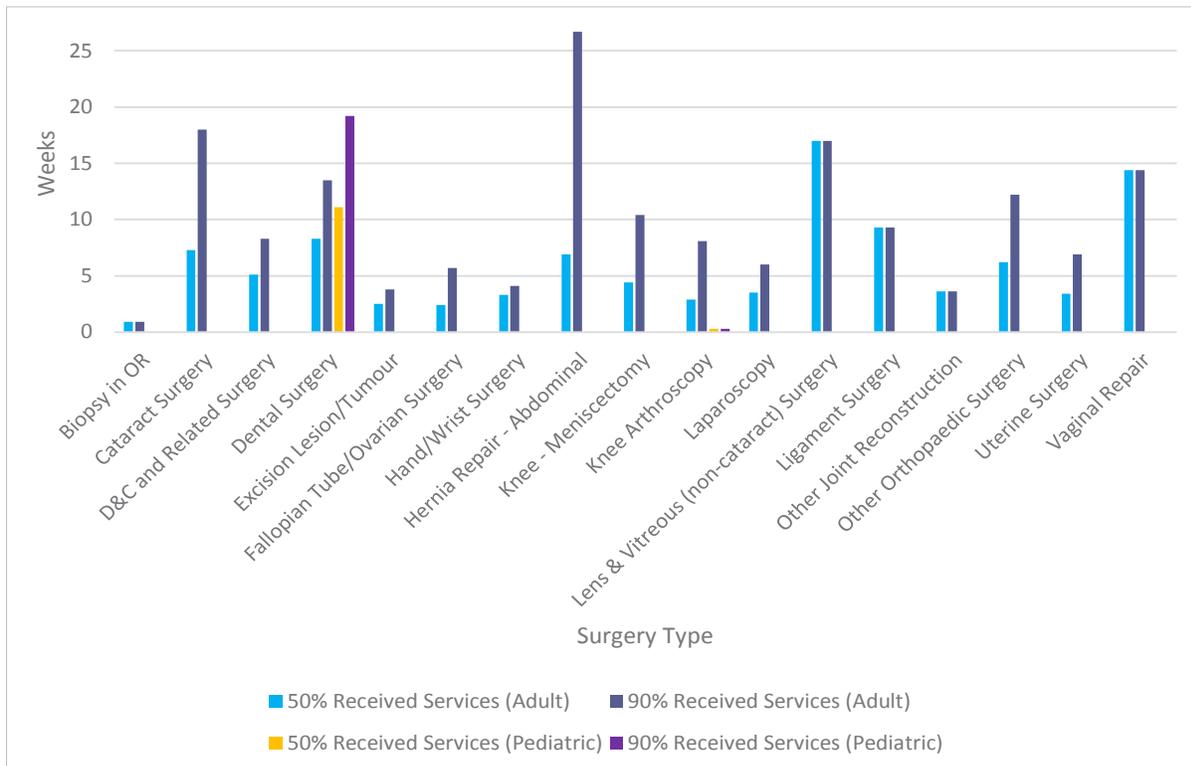


Figure 2: Kootenay Lake Hospital, wait times by procedure, August to October, 2016¹⁰

There are national benchmarks for some surgeries. These benchmarks are the number of days a patient waits from the booking date (i.e., the date the patient and the physician agree to a service) to the day the patient receives the service.⁸ Benchmarks do not include the time patients wait to visit a physician. For example, the national benchmark for hip and knee replacements is 182 days or 26 weeks.⁸ In BC on average the benchmark for hip replacements is met 61% of the time, while the benchmark for knee replacements is met 47% of the time.⁸ Specifically within the Interior Health Authority region the numbers are lower, with the benchmark for hip replacements met 49% of the time, and the benchmark for knee replacements met 34% of the time.⁸ Within the Columbia Basin-Boundary region only the Kootenay-Boundary Regional Hospital and the East Kootenay Regional Hospital performed hip and knee replacements. For the time period looked at the wait times at both hospitals were longer than the benchmark of 26 weeks. 90% of patients received hip replacements in 34 weeks at Kootenay-Boundary Regional Hospital and 35 weeks at East Kootenay Regional Hospital.¹⁰ Knee replacements took longer, at 36 weeks for 90% at Kootenay-Boundary Regional Hospital and 43 weeks for 90% at East Kootenay Regional Hospital.¹⁰

EDUCATION & LEARNING: DAY CARE SPACES

WHAT DOES THIS MEASURE & WHY IS IT IMPORTANT?

Access to quality early childhood education and child care have been shown to strengthen the foundations of lifelong learning, as well as provide support to the educational and social needs of families.¹¹ This indicator is an inventory of licenced day care centres within the Columbia Basin-Boundary region. This inventory is available on the [Digital Basin](#), providing the name, location, and contact information for licenced day care centres.¹² While this indicator does not provide detail specific to quality of care, it is indicative of the level of services available within the region. It is important to note that this indicator does not include need or affordability, both of which are key pieces of information requiring further research. Other indicators relating to early childhood education and care can be found in the [Education & Learning Trends Analysis](#).

WHAT ARE THE CURRENT CONDITIONS?

In 2013 there were 126 licenced day care centres in the region (74 group care and 52 licenced family) identified and listed on the Digital Basin.¹² **Figure 3** illustrates the geographic distribution of these facilities.

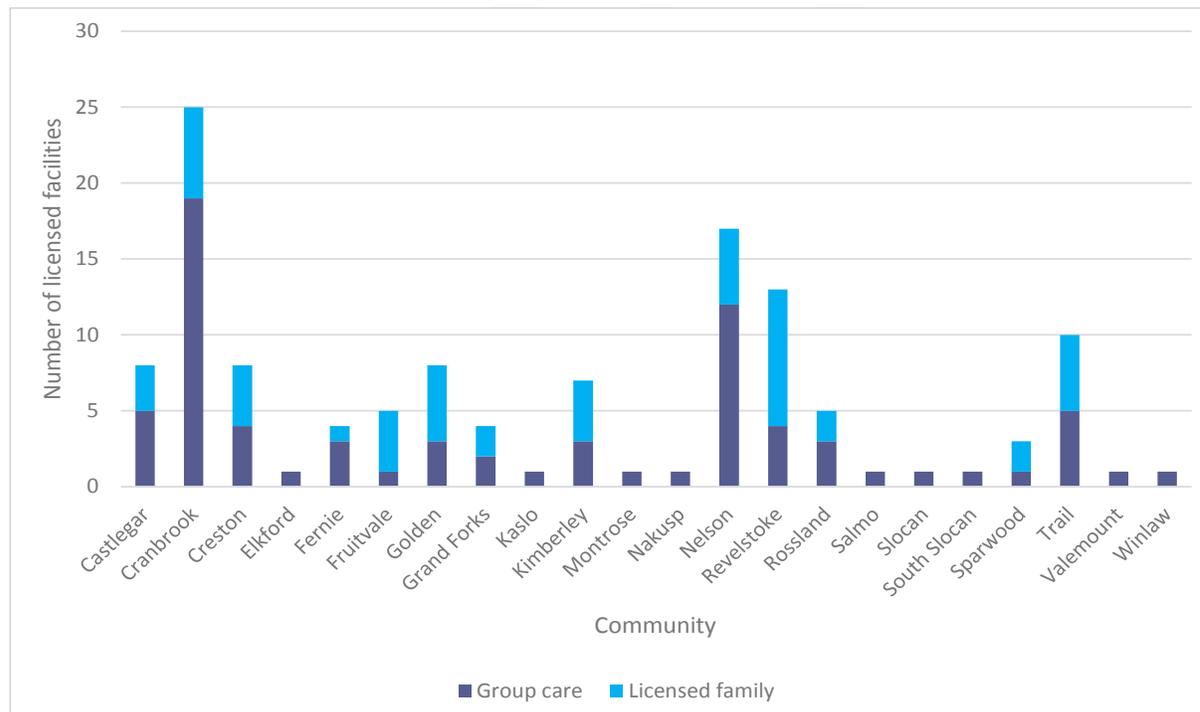


Figure 3: Licensed day care centres by community¹²

More recent information released in the [2016 State of the Family Report](#) delved deeper into this subject, expanding analysis to include the types of facilities, and also the number of spaces available (see **Table 1**).¹³ Comparing the spaces available with the population estimates and age breakdowns shown in the [Demographic Trends Analysis](#) provides some indication of whether current services are able to serve needs. However, there are additional factors that would also have to be identified and considered.

Community	License not required		Licensed family daycare		Group		Pre-schools		School-age	
	Number of facilities	Number of spaces	Number of facilities	Number of spaces	Number of facilities	Number of spaces	Number of facilities	Number of spaces	Number of facilities	Number of spaces
Boundary Country (Grand Forks)	4	8	3	21	1	42	2	16	0	0
Castlegar & Area	2	4	1	7	5	101	3	70	2	52
Columbia Valley (Invermere, Canal Flats, Radium Hot Springs)			1	7	7	108	3	45	1	10
Cranbrook	6	12	8	56	10	120	4	80	4	76
Creston Valley			6	44	2	49				
Elk Valley (Fernie, Sparwood, Elkford)			4	31	6	107	5	94		
Golden	1	2	6	42	1	16	2	23	1	20
Kaslo					1	10	1	10		
Kimberley	4	8	6	44	2	28	1	16	2	36
Lower Columbia (Fruitvale, Montrose, Warfield)			1	7	1	8	2	38	1	20
Nakusp					1	16				
Nelson / North Shore	8	16	9	66	7	162	1	20	6	99
Revelstoke	4	8	13	92	3	65	3	60	1	24
Rossland			2	14	4	80			1	10
Salmo					1	16	1	12	1	10
Slocan Valley (New Denver, Silverton, Winlaw, Slocan)	2	4	2	14	4	68	1	12		
Trail	3	6	4	28	3	55	1	16	3	52
Valemount					1	24	1	20		

Table 1: Childcare facilities and spaces¹³

When asked to rate access to childcare on a scale of 1 to 7, the 2016 annual poll of residents showed a range of responses. 50% indicated the question was not applicable, while 10% provided an extremely poor, very poor or poor rating and 24% an extremely good, very good or good rating.¹⁴

WATER & WASTE: DRINKING WATER QUALITY

WHAT DOES THIS MEASURE & WHY IS IT IMPORTANT?

This indicator measures the number of Columbia Basin-Boundary drinking water systems for which the health authorities (Interior Health - IHA and Northern Health) issued a drinking water advisory as of June 10, 2016. Drinking water advisories (“Water Quality Advisories” or “Boil Water Notices”) are issued by health authorities when there is concern over the safety of the water supply. June 10 was selected as a sample date because of its correlation with spring freshet, which tends to affect turbidity (i.e., cloudiness) in surface water sources, potentially challenging the effectiveness of water treatment systems.¹⁵

Our region has a high number of small water systems, many of which struggle to consistently meet regulatory guidelines for drinking water quality. There are several reasons for this challenge, including the affordability of modern treatment systems, aging infrastructure and increasingly stringent regulations. Access to clean, reliable drinking water is one of the most important factors affecting human health and the ability of rural regions to achieve their development goals.¹⁶

WHAT ARE THE TRENDS & CURRENT CONDITIONS?

As of June 10, 2016, IHA reported public water notifications were issued for 112 water systems.¹⁷ For the same date no water notifications were active for the portion of our region served by Northern Health. The number of notifications for 2016 was down from the 153 issued in 2015.

People in small or remote communities, particularly those on small systems (i.e., those systems serving under 500 people in a 24 hour period) typically face the greatest challenges around drinking water, from a lack of adequate treatment to a lack of funding for making infrastructure improvements.¹⁸ However, despite the region having a large number of small systems, when residents of the Columbia Basin-Boundary were asked to rate their drinking water on a scale of 1 to 7, on the extreme ends of the scale 43% of respondents indicated that drinking water is not a problem (7/7), versus the 1% who indicated it is a big problem (1/7) (see details in **Table 2**).¹⁴

Rating	Percentage of respondents
Big problem	1%
2	4%
3	4%
4	7%
5	12%
6	27%
Not a problem	43%
Don't know	1%

Table 2: Columbia Basin-Boundary resident poll: Rate Drinking Water¹⁴

There are a number of causes for issuing water notifications, however specific causes were not available in the data for the 2016 notices. In previous years' inadequate disinfection or treatment and source water contamination were the causes associated with the greatest number of advisories. The former generally indicates that a system fails to meet the provincial government’s objectives for treatment of their water source, while the latter generally indicates that a system’s water quality tests have returned positive results for bacterial contamination.

Of the notices reported in 2016, 101 were boil water notices (BWN) – meaning there is a health risk determined to be in the source and water should be boiled for at least one minute.¹⁹ The remaining 11 were water quality advisories (WQA) – meaning there is a level of risk with consuming the water, but not to the level requiring a boil water notice.¹⁹ The majority of notices (75) have been active for longer than 5 years,

indicating a long-term concern with either a water system’s source or treatment infrastructure (see **Figure 4**). The high prevalence of long-term water quality notices is a major driver of efforts targeting small systems.¹⁸

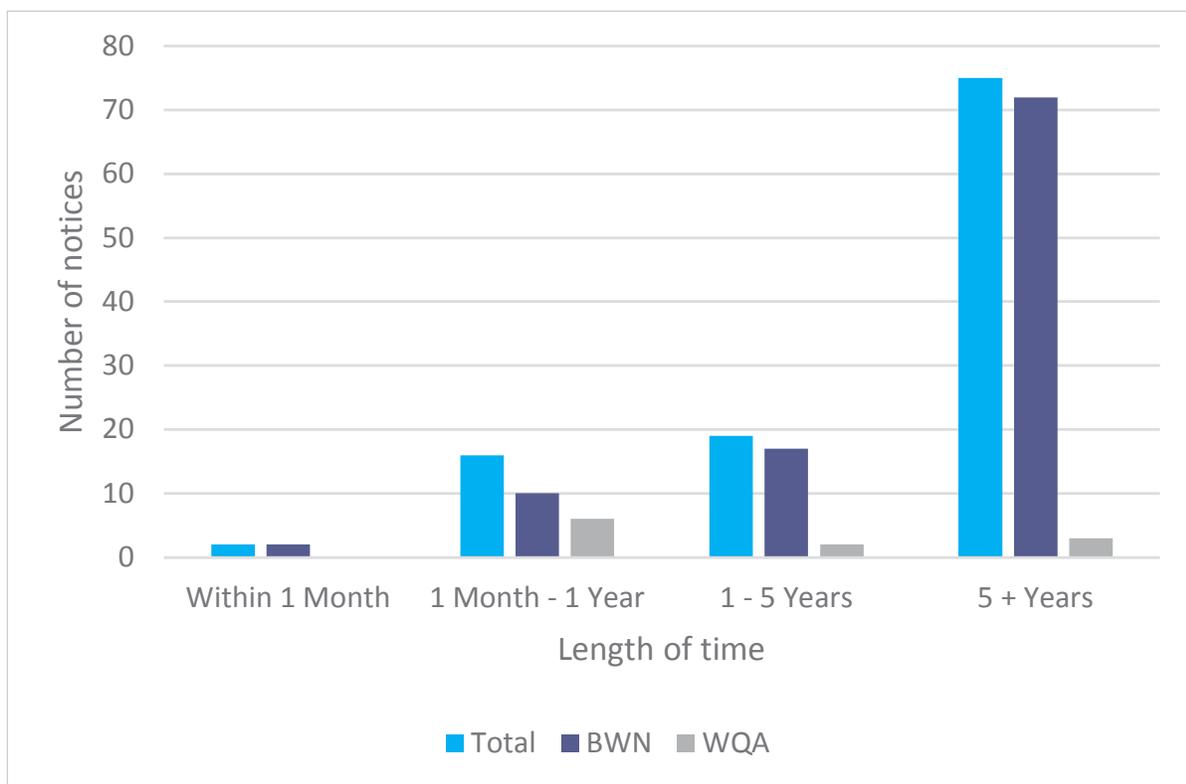


Figure 4: Length of term of water notices, Columbia Basin-Boundary water systems, 2016¹⁷

WATER & WASTE: WASTE GENERATION & DIVERSION

WHAT DOES THIS MEASURE & WHY IS IT IMPORTANT?

The waste disposal indicator tracks the amount of municipal solid waste generated by communities in the Columbia Basin-Boundary region each year. Results are reported by regional district. Waste disposal data were acquired from the BC Ministry of Environment’s [Environmental Reporting](#) system. Disposal rates include waste from residential, institutional, commercial, light industrial, construction, demolition, and renovation sources and activities.²⁰ This rate does not include waste that is reused or recycled, as well as waste that is hazardous, biomedical, agricultural, or related to motor vehicles, or heavy industry.²⁰ To provide context to waste disposal data, this indicator also considers information on waste diversion acquired directly from Columbia Basin-Boundary Regional Districts.

Our communities produce waste, and the management of that waste has financial and environmental costs. For example, decomposition of organic waste in landfills produces methane, a greenhouse gas with significant global warming potential.²¹ Efforts to reduce the amount of waste we generate, and to recover unavoidable waste (through reuse or recycling) can result in environmental benefits and savings for tax payers.



WHAT ARE THE TRENDS & CURRENT CONDITIONS?

The most recent provincial data include waste disposal rates from 1990 to 2014. As of 2014 the average per-capita waste disposal rate for the province was 520 kg/person (see the orange bar on **Figure 5**). The per capita average within the Columbia Basin-Boundary is typically higher than the provincial average. The Regional District of Fraser Fort George, represented in our region by the Village of Valemount, reported the highest waste disposal rate, provincially and in the region, at 854 kg/person (see **Figure 5**). The Regional District of Central Kootenay (RDCK) reported the lowest waste disposal rate in the region and the only average within the region lower than the provincial average (452 kg/person).

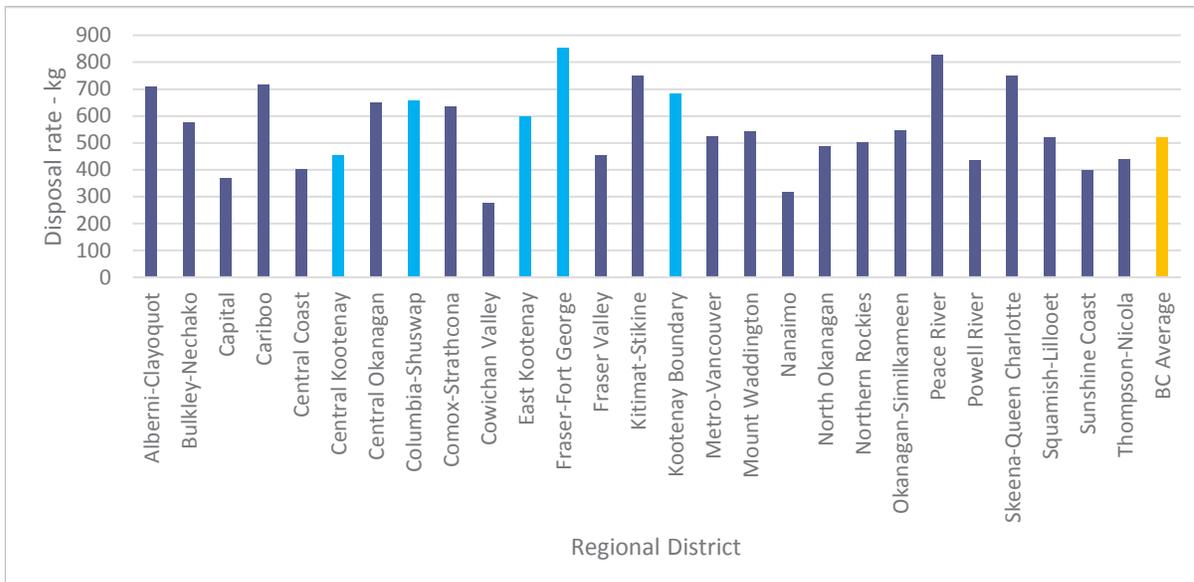


Figure 5: Per capita waste disposal rates by BC Regional District, 2014²⁰

Many factors can influence the amount of waste collected or diverted in a given year, including the existence of major construction or demolition projects in a landfill's service area, or changes to waste disposal programs or regulations. For this reason, it is difficult to reliably compare year-to-year waste disposal and diversion rates. Instead, waste managers look at general trends over time. The BC average has been decreasing over time, however the trend lines within the region are mixed (see **Figure 6**).

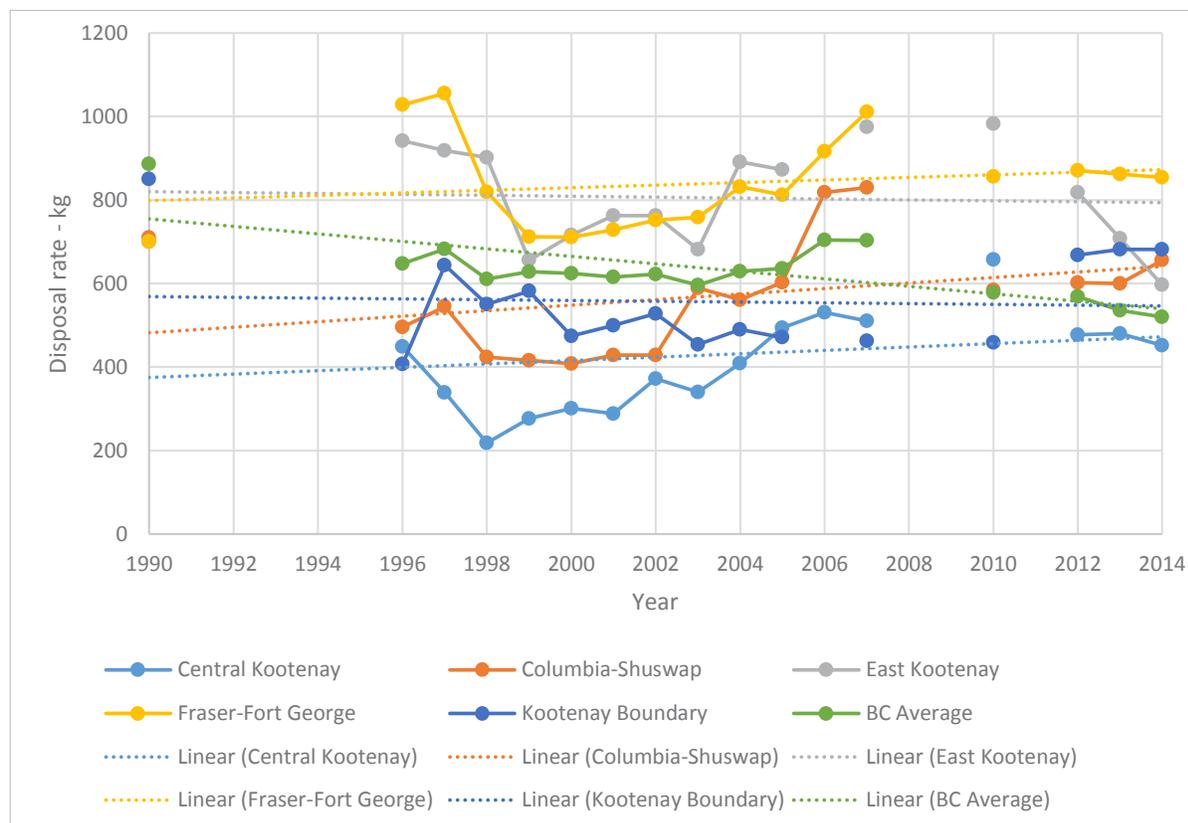


Figure 6: Per capita waste disposal rates by Regional District, 1990 to 2014²⁰

In 2014 the RDI sampled and analyzed data from several landfills around the region. At the time of that analysis it was found that buried waste typically accounts for half to three quarters of the total amount of waste handled by Columbia Basin-Boundary regional districts. For example, in the area served by the Columbia Shuswap Regional District's (CSRD's) Golden landfill in 2012, 6,282 tonnes of waste were buried, 5,857 tonnes were diverted on-site, and 317 tonnes were collected through recycling programs.^{22,23} In the area served by the Regional District of East Kootenay's (RDEK's) Central Subregion landfill in 2013, 23,734 tonnes were buried, 7,295 tonnes were diverted on-site, and 3,724 tonnes were collected through recycling programs.²⁴

Waste management policies across local governments and at individual landfills also influence waste generation and diversion rates. For instance, tipping fees create a disincentive to generate waste, and differential tipping fees create an incentive to separate recyclable or recoverable materials from buried wastes (which are generally more expensive to dispose of). In 2014, the RDCK and RDKB's landfills had the highest tipping fees for household waste in the region, while the RDEK and RDFFG had the lowest or no fees for this type of waste. However, high tipping fees are one factor that can contribute to illegal dumping.

On-site diversion programs remove recoverable materials from the waste stream for re-use at the landfill or for collection by third party recyclers. The CSRD's on-site diversion programs include certain heavy and bulky materials like concrete and drywall that are not diverted at some other landfills in the region.

WATER & WASTE: CONSUMPTIVE WATER USE

WHAT DOES THIS MEASURE & WHY IS IT IMPORTANT?

This indicator considers two measures of consumptive water use: 1) average per capita daily supply, and 2) gross annual supply (total fresh water withdrawal per water utility).

Fifteen Basin-Boundary municipalities are included in this year’s analysis. Data and contextual information for this indicator were provided by the [Columbia Basin Water Smart Initiative](#)¹ and the City of Grand Forks.²⁵ The baseline year used to compare change in gross annual supply is 2009.

Consumptive water use is an important issue in the Columbia Basin-Boundary region for several reasons. First, rates of water use in this region are typically higher than the reported averages for BC and Canada.²⁶ Second, the diversion, treatment, and delivery of drinking water has costs—both financial (e.g., infrastructure operations, maintenance, and expansion costs) and environmental (e.g., drawdown of water sources). These costs increase with growing water demand. Third, certain areas of the region sometimes experience water shortages during periods of peak demand. This issue may become more widespread if projected climate changes materialize and Basin-Boundary communities are not prepared to adapt.

WHAT ARE THE TRENDS & CURRENT CONDITIONS?

Across reporting Water Smart communities, average per capita daily supply stands at 985 litres per person per day (see **Figure 7**), up from the previous year’s 968 litres and roughly 160% of the reported 2009 BC average of 606 litres per person per day.²⁶ This figure does not include the City of Grand Forks, where there is uncertainty around the total service population. There are several probable reasons for our high per capita usage rates, of which three issues stand out:

- water distribution infrastructure in the region is generally aging and therefore prone to leakage;
- there is a common perception in the region that sees water as an abundant resource; and
- residential and commercial water use is largely unmetered and may be under-priced in comparison to other areas in BC and Canada.

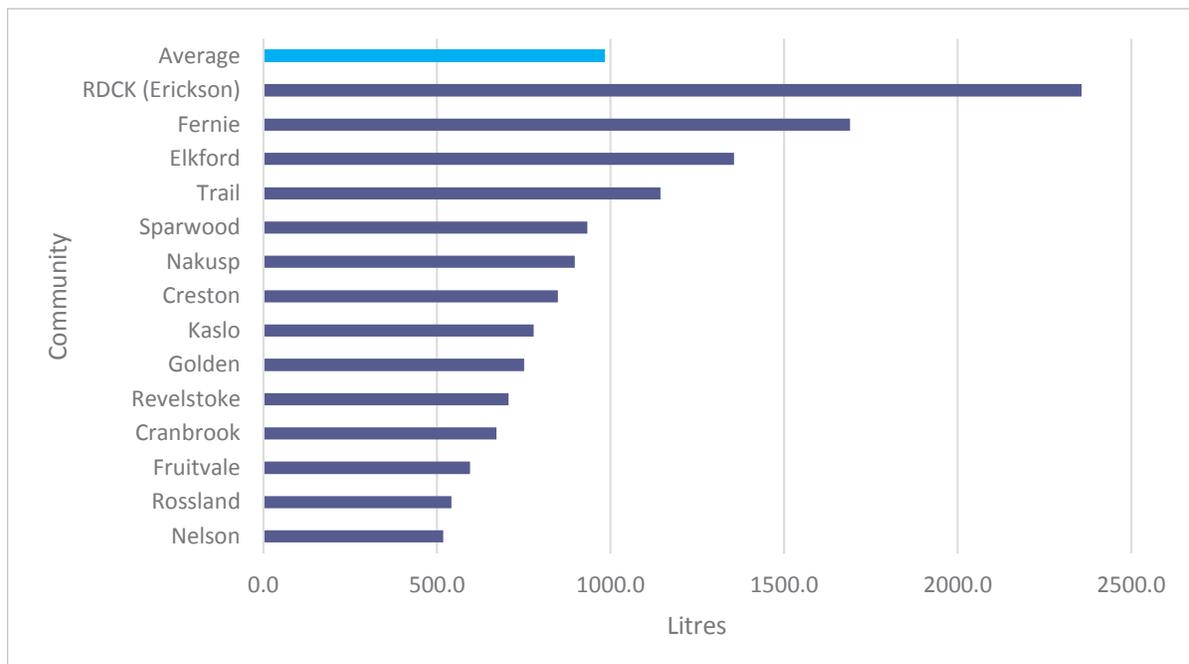


Figure 7: Per capita daily water supply (in litres), 2015²⁵

The Columbia Basin Water Smart initiative is ending, however data collection and analysis will continue through the RDI. Support for data collection and analysis will be available to all Basin-Boundary communities.

Most reporting communities reduced their consumptive water use over the period 2009 to 2015 (see **Figure 8**). Gross annual supply (which includes commercial, industrial, institutional, and residential consumption, as well as water loss in the distribution system) changed by an average of -11%.

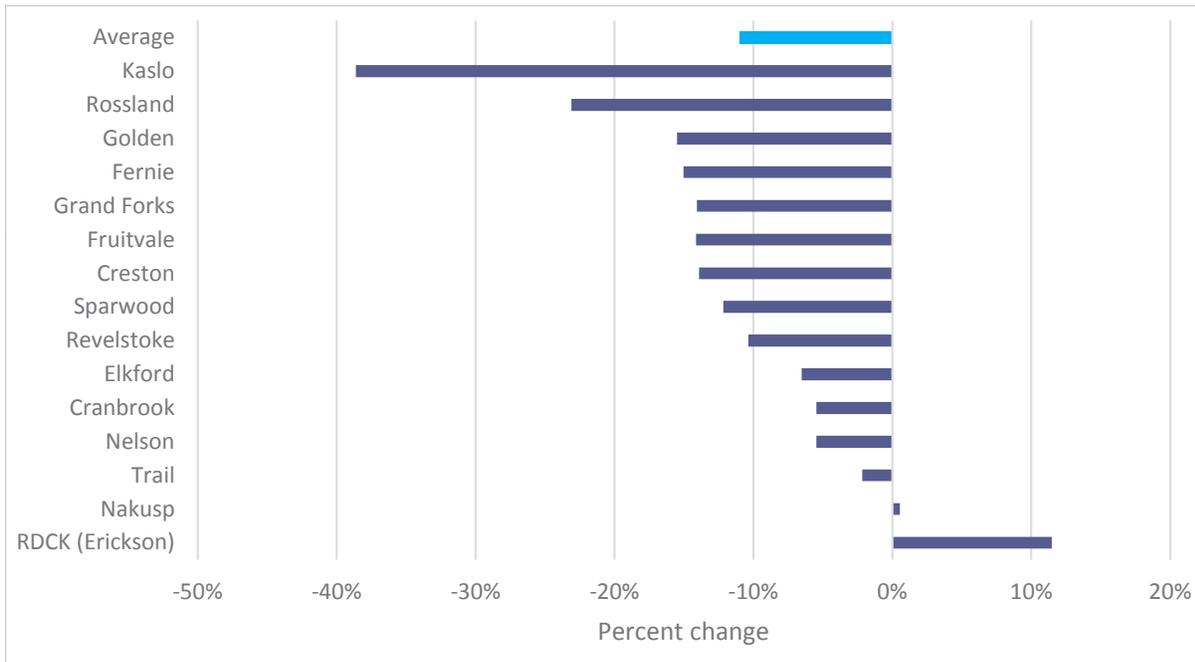


Figure 8: Change in gross annual water supply, 2009 compared to 2015^{25,27}

Figures for individual communities can vary year to year for a range of reasons, including changes in water demand, differences in weather year to year (e.g., temperature, precipitation), the impact of water conservation initiatives, or changes in infrastructure (e.g., deterioration, repair). Plotting the average percent change for all fifteen communities between 2009 and 2015 we see an overall downward trend within the region (see dotted line, **Figure 9**). However, it is important to note that, as shown above, changes vary between communities. Additionally, these fifteen reporting communities are not representative of every water system within the region, particularly those small systems that are not operated by local governments.

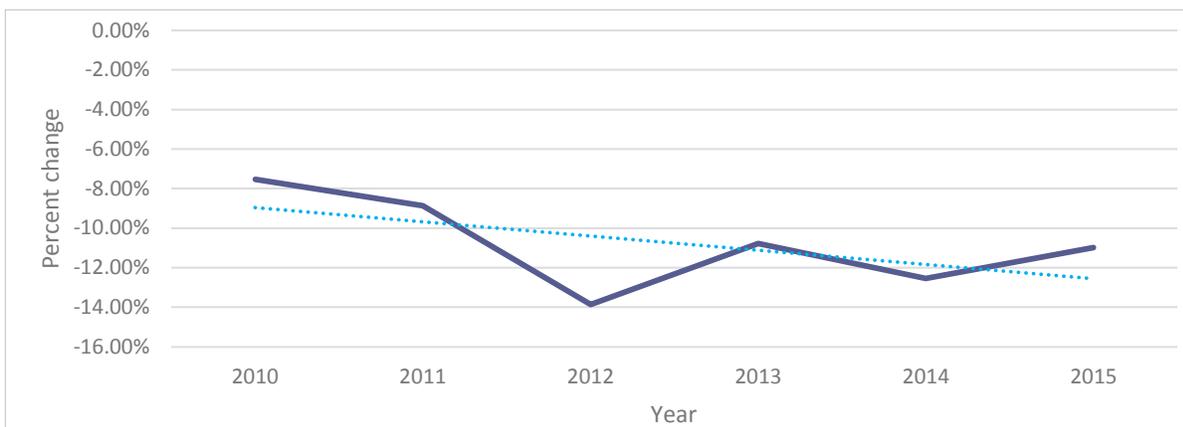


Figure 9: Average change in gross annual water supply, 2009 to 2015^{25,27}

Most communities continue to build their capacity to effectively manage and reduce water demand through a variety of actions, although these actions may not yet be reflected in the gross annual supply figures. Such actions typically include water data acquisition improvements, infrastructure repair and replacement, public awareness and education, and improvements in distribution system operations and maintenance. Some utilities are choosing to install water meters on their systems in an attempt to better understand their usage profile. These investments in our region’s water systems are expected to result in substantial water savings in future years.

TRANSPORTATION: TRAFFIC VOLUMES

WHAT DOES THIS MEASURE & WHY IS IT IMPORTANT?

This indicator monitors annual average daily traffic volumes at 21 permanent traffic count stations across the region (i.e., daily traffic counts measured in number of vehicles). Data were acquired from the BC Ministry of Transportation and Infrastructure’s Traffic Data Program.²⁸

Traffic volumes indicate demand on a component of our publicly-funded infrastructure, helping planners to properly design and construct transportation networks. Our roads are used for commuting, tourism, and transportation of goods, among other purposes. Traffic data can help us understand how shifts in the economy affect our communities and our transportation needs.

WHAT ARE THE CURRENT CONDITIONS?

Last year’s analysis found that traffic volumes for 2014 at stations in the region remained relatively constant when compared to 2013. In contrast, the 2015 data show that, compared to 2014, annual average daily traffic counts increased. The average one-year change across all stations was an increase of 4.5%. Findings vary by community, however. Yahk saw the largest increase at 8.7%, while Oasis saw the largest decrease at -1.1% (**Figure 10**).

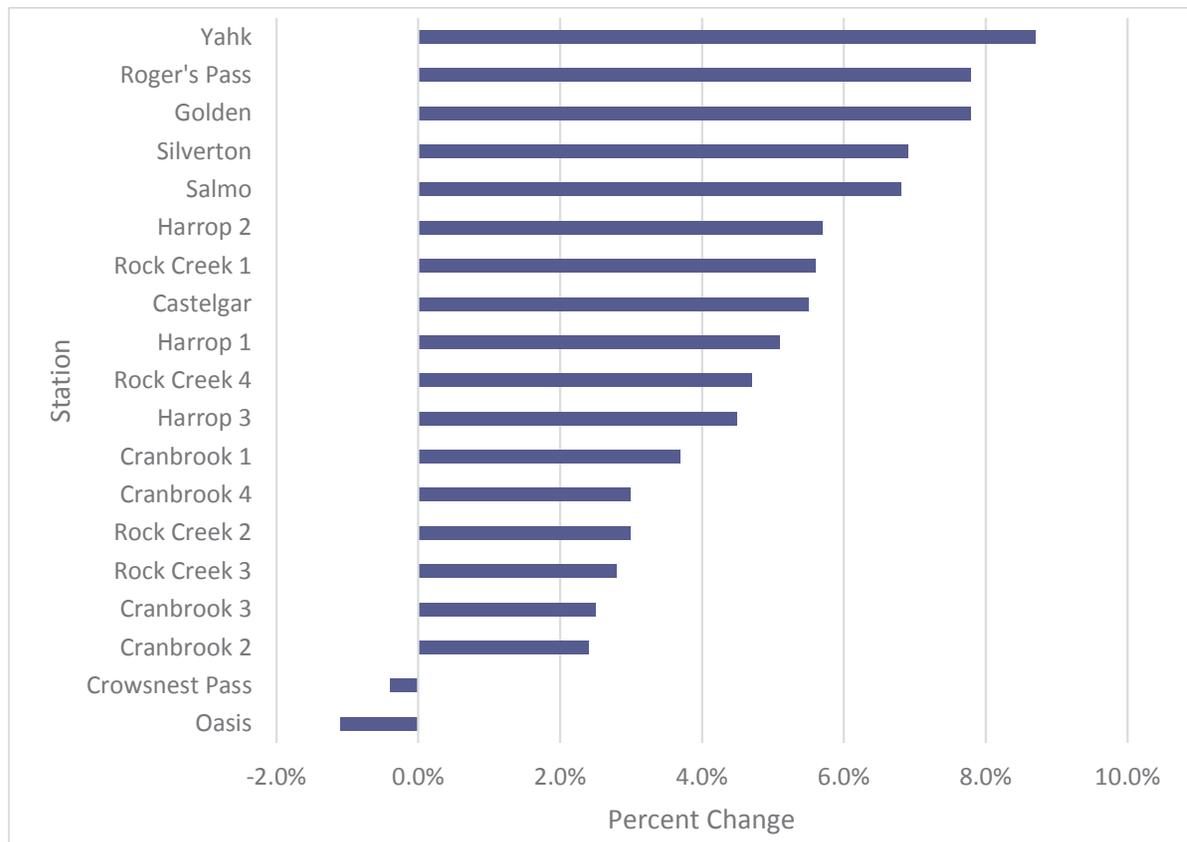


Figure 10: Change in annual average daily traffic counts for Columbia Basin-Boundary communities, 2014-2015²⁸

Traffic volumes on Basin-Boundary highways are generally much higher during the summer months. The Ministry of Transportation and Infrastructure characterizes traffic at eight of 21 stations as “highly seasonal”, another 12 as “seasonal”, and only one as consistent. In some cases, traffic doubles or triples in August as compared to January. This significant variation in infrastructure demand presents noteworthy planning challenges for communities and transportation managers.

TRANSPORTATION: PERCENTAGE OF PROPERTIES NEAR A TRANSIT LINK

WHAT DOES THIS MEASURE & WHY IS IT IMPORTANT?

This indicator measures the percentage of developed properties (with registered addresses) in the region that are within one kilometre of a fixed route operated by BC Transit. Spatial data for this indicator were provided by BC Transit and analysed by the Selkirk Geospatial Research Centre.

Public transit provides an important service to Columbia Basin-Boundary residents who cannot, or prefer not to, drive to the places where they live, work, go to school or recreate. Since users of transit often include vulnerable citizens, having transit services available can also encourage inclusive communities. Public transit also enables energy-efficient commuting, which can help reduce greenhouse gas emissions.

It is important to note that this indicator only considers fixed transit services—those that operate on a set schedule with a predictable route. Some Columbia Basin-Boundary transit systems also include HandyDART services, which offer flexible schedules and routing to meet the needs of residents who cannot otherwise access conventional services.

WHAT ARE THE CURRENT CONDITIONS?

In 2014, the Selkirk Geospatial Research Centre calculated that almost 68% of developed properties in the Columbia Basin-Boundary region are within one kilometre of a fixed transit route. However, service levels vary widely across the region (see **Figure 11**). The West Kootenay corridor has the highest level of transit

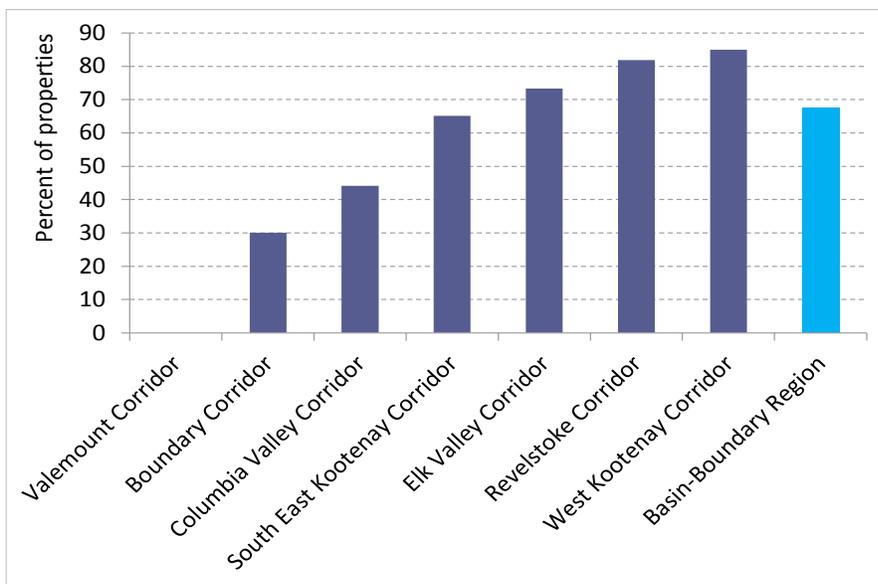


Figure 11: Percent of developed properties within 1 km of a fixed transit route³⁰

service, with over 80% of properties located close to transit. Service levels are lowest in the Boundary corridor (30%) and in the Valemount corridor, where no fixed transit routes exist. Statistics Canada found that only 2.5% of Columbia Basin-Boundary residents over the age of 15 use public transit to travel to work, which is considerably lower than BC as a whole (12.6%).²⁹ Only one Columbia Basin-Boundary census subdivision, Elkford, showed a rate of transit use (33.2%) that was higher than the BC average. Commute time is a related indicator, the details of which can be found in the [Community & Society Trends Analysis](#).

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HOUSING: ACCESS TO INTERNET

WHAT DOES THIS MEASURE & WHY IS IT IMPORTANT?

Access to broadband internet is an increasingly critical element of modern life, an important element of telecommunications infrastructure.³¹ However the ‘broadband gap’ remains a reality in rural places.³¹ This indicator attempts to identify access to broadband within the Columbia Basin-Boundary.

WHAT ARE THE CURRENT CONDITIONS?

According to the provincial government, 95% of BC households have access to high-speed internet services.³² Coverage can be searched using the Network BC Connectivity Map, illustrated in **Figure 12** below where the shaded green areas indicate access is available.³²

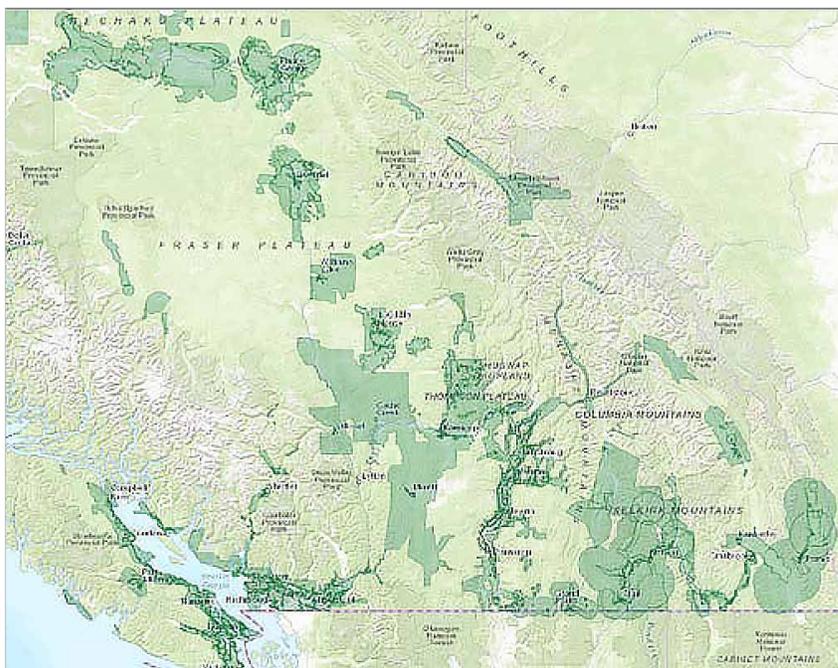


Figure 12: Network BC connectivity³²

However, the 2016 annual poll of residents revealed 65% of respondents felt access to high-speed internet was extremely good, very good or good (see **Table 3**). Poll data suggests access is perceived as worse in the East Kootenays, with 23% of respondents rating the service as extremely poor, very poor, or poor. Conversely in the Northern Basinⁱⁱ 76% of respondents felt the access was very good, and no one in the Northern Basin rated the service lower than a four.

	Total	Central Kootenay	Northern Basin	East Kootenay	Kootenay Boundary
Extremely poor	4%	2%		6%	5%
2	4%	3%		4%	9%
3	7%	3%		13%	5%
4	9%	10%	8%	8%	8%
5	14%	15%	21%	11%	16%
6	18%	22%	11%	16%	19%
Extremely good	33%	37%	44%	28%	30%
Don't know	3%	3%	3%	3%	1%
Not applicable	8%	5%	13%	11%	7%

Table 3: Columbia Basin-Boundary residents rating of access to high speed internet^{14,iii}

ⁱFor the purposes of the resident poll the ‘Northern Basin’ includes Golden and area, Revelstoke and area, and Valemount.

ⁱⁱⁱWhile the number of people surveyed are statistically significant for the Basin-Boundary as a whole, the sub-regional breakdown is not statistically significant.



HOUSING: RESIDENTIAL PROPERTY VALUE

WHAT DOES THIS MEASURE & WHY IS IT IMPORTANT?

This indicator measures the median^{iv} total assessed value (including land and improvements) for Columbia Basin-Boundary properties that are used as single family residences. Data used to generate this indicator were provided by BC Assessment. The decision to use single family dwelling values as a general indicator of housing prices is supported by the Housing Stock Diversity Trends Analysis completed as part of the 2013 State of the Basin, which confirms that over three quarters of private dwellings in the Basin-Boundary region are classified as single detached.³³

Housing costs affect, and are affected by, many socio-economic factors that are important to Columbia Basin-Boundary communities. Housing costs can indicate the desirability of an area, the condition of the housing stock and, importantly, the cost of living in a community. Though home ownership in our region has historically been more affordable than in other parts of BC, local governments and social service organizations recognize the need to ensure that housing prices remain within the means of a diverse cross-section of residents.

^{iv}The median is the value that is the middle point, where half the numbers are above the median and half are below.

WHAT ARE THE CURRENT CONDITIONS?

The 2016 median value of all single family residences in our region is \$273,000, up from the 2015 median of \$260,100.³⁴ **Figure 13** shows the 2016 median value of all single family residences. Current median values are highest (>\$400,000) in parts of the East Kootenay Regional District, including the Columbia Lake 3 Indian Reserve, the City of Fernie, and East Kootenay Electoral Areas F, B, and A. Median values are lowest (<\$150,000) in Greenwood and Fraser-Fort George Electoral Area H.

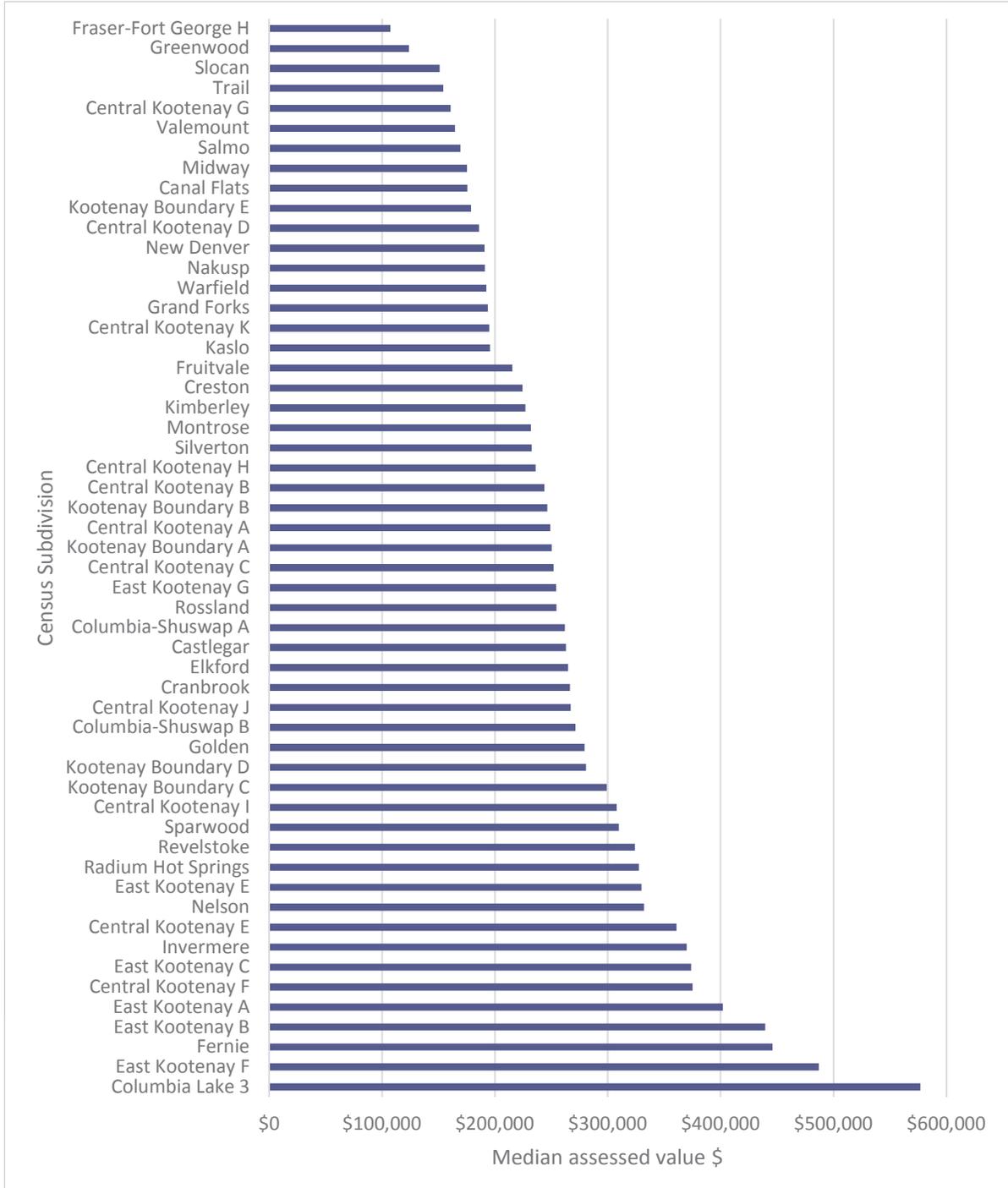


Figure 13: Median total assessed value for single family residences by Census Subdivision, 2016³⁴

Compared to last year, residential property values increased at the regional scale, with a 5% change between the 2015 median of \$260,000 and the 2016 median of \$273,000. However, the variability between jurisdictions ranged from a percent change of -6% (Trail) to +30% (Fraser-Fort George Area H). Of the 54 census subdivisions within the Columbia Basin-Boundary region, 10 experienced a decrease in assessed values between 2015 and 2016, while the remaining 44 experienced an increase.

It is important to note that there are a number of other considerations related to housing, including housing affordability, vacancy rates, and subsidized housing, which can be found in the [Poverty Trends Analysis](#).

MUNICIPAL SPENDING ON PARKS, RECREATION, AND CULTURE

WHAT DOES THIS MEASURE & WHY IS IT IMPORTANT?

This indicator measures the percentage of total municipal spending dedicated to parks, recreation, and culture relative to total municipal expenses. Data were acquired from the BC Ministry of Community, Sport & Cultural Development's [Local Government Statistics](#).³⁵

Spending is important because it provides an indication of the resources allocated to supporting the amenities and activities in a community. With adequate resourcing, cultural initiatives are more likely to succeed. The cultural sector is identified as a driver of economic prosperity, including the creation of jobs, as well as a means to attract new residents, tourists, and investors.³⁶ Research also suggests that cultural investments contribute to the development of a healthy 'creative economy', and can increase the success of an economic development strategy.³⁷ Parks and recreation are integral to individual and community well-being, and play an important role in community health and development.^{38,39}

WHAT ARE THE TRENDS & CURRENT CONDITIONS?

The trend in spending on parks, recreation, and culture over the past 30 years is similar in our region to all municipalities in BC (see **Figure 14**). The average of total spending for Columbia Basin-Boundary municipalities from 1985 to 2014 is 11.4%, while the average for all BC municipalities is 12%.

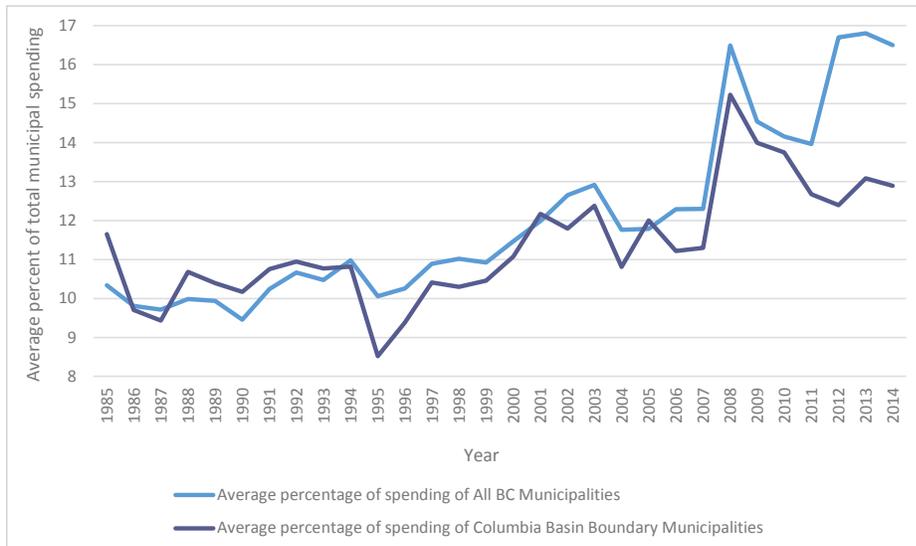


Figure 14: Average percent of spending by Columbia Basin-Boundary municipalities and BC average on parks, recreation and culture from 1985 to 2014³⁵

spending on parks, recreation, and culture has generally increased over time, peaking in 2008 (16.5% for all BC and 15.2% for Columbia Basin-Boundary municipalities). This may be related to a greater interest in spending on these amenities and activities, or possibly increasing costs to maintain assets and infrastructure. Increased spending at the municipal

level may also be related to a decrease in federal and/or provincial funding. After 2008, there was a dip in the average spending on parks, recreation, and culture, followed by another increase. As **Figure 14** shows, for the last few years, spending has been about the same in our region, whereas there is more of an increase in the average spending across all BC municipalities.

Several communities in our region show above average spending on parks, recreation, and culture over the last 30 years, including Elkford (19.8%), Fernie (15.6%), Kimberley (19.2%), Midway (18.8%), Nakusp (29.6%), Revelstoke (13.3%), Sparwood (23.3%), Trail (20.0%), Warfield (16.1%), and Valemount (18.5%). Some communities show considerably lower average spending, such as Creston (1.6%), Grand Forks (4.7%), Kaslo (4.9%), Radium Hot Springs (2.3%), and Salmo (2.0%).

The municipalities with the highest expenditures on parks, recreation, and culture in 2014 in our region included Kimberley (25.7%), Elkford (24%), Trail (23.4%), Valemount (22.9%), Fernie (22.4%), and Sparwood (20.9%). The lowest for 2014 was Jumbo Glacier, which was included in the municipal statistics for the first time, showing total expenses of \$66,437, but none of it was spent on parks, recreation, and culture. Other municipalities with the lowest expenditures on parks, recreation, and culture in 2014 include Creston (2.3%), Kaslo (3.4%), Salmo (4.8%), Radium Hot Springs (5.5%), Montrose (5.8%), and Grand Forks (5.9%).

Some communities with consistently higher spending may have more parks, recreation, or cultural facilities, which require more funds to maintain. In some years, communities may spend more because of capital projects or cultural developments, while in other years there may be different needs and priorities. It is important to note that each community is unique, and different variables influence spending on parks, recreation, and culture. It is also important to note that in the Regional District of Central Kootenay (RDCK), for example, Recreation Master Plans are developed which are intended to guide decision making regarding recreation facilities and services provided by the RDCK for the various municipalities and areas. These include consideration of “all associated stakeholders, including regional partners, other levels of government, local non-profit volunteer groups, and the private sector”.⁴⁰

Visit the [Digital Basin](#) to further explore data on local government spending on parks, recreation, and culture.⁴¹

MAJOR PROJECTS

WHAT DOES THIS MEASURE & WHY IS IT IMPORTANT?

The [BC Major Projects Inventory](#) is published quarterly and provides a summary of major private and public sector construction projects with an estimated cost of \$15 million or greater.⁴² Project information collected includes identification (e.g., name, description, location), status (e.g., proposed, on hold, completed), size, and other characteristics (e.g., public versus private, green status).⁴² The major projects inventory provides one indicator of investment in infrastructure. Data for this indicator are taken from the most recently published Major Projects Report – Q2 2016 (April – June 2016).⁴² Data are presented and compared at the development region level.

WHAT ARE THE TRENDS & CURRENT CONDITIONS?

The capital costs of all major projects under construction by the end of June 2016 was \$77.9 billion for the province, of which 4.6%, or \$3.6 billion, is in the Kootenay Development Region.⁴² The Thompson-Okanagan Development Region accounts for 18% (\$14 billion) of the projects under construction, while the Cariboo Development Region accounts for less than 1% (\$480 million).⁴² A further \$326 billion of major projects were proposed for the province at this time, of which 0.7%, or \$2.3 billion, are in the Kootenay Development Region.⁴²

When compared to the same quarter 5 years ago, in 2012, the capital costs of projects under construction was \$77.9 billion for the province and \$3.8 billion for the Kootenay, \$16 billion for the Thompson-Okanagan, and \$2.7 billion for the Cariboo Development Region, suggesting decreases in major projects across the Columbia Basin-Boundary region.⁴³

Table 4 shows the distribution of major projects by sector. Of the 28 projects listed for the Kootenay Development Region, the largest sector, with 10 projects, is Residential Commercial. Among the Development Regions in the province the Kootenay Development Region is shown to have the third lowest total number of projects.

Development Region	Residential Commercial	Transportation & Warehousing	Mining & Oil & Gas Extraction	Utilities	Manufacturing	Public Services	Other Services	Total
Vancouver Island / Coast	85	12	6	19	1	9	6	138
Mainland / Southwest	303	37	6	41	2	42	10	441
Thompson / Okanagan	55	11	4	20	1	10	7	108
Kootenay	10		5	6	1	1	5	28
Cariboo	6	3	8	7	1		2	27
North Coast	2	15	31	10	5	1		64
Nechako	1	1	9	5				16
Northeast	2	13	24	20	2	1		62
BC Total	464	92	93	128	13	64	30	884

Table 4: Summary of major projects by industrial category (excluding completed projects) April to June 2016⁴²

SUMMARY

Infrastructure and basic services are the foundation upon which society is built, and contribute to a critical portion of our economy and quality of life. The indicators reviewed above provide a brief look at a select set of infrastructure systems and services within the region. It is important to note that data related to infrastructure and services is typically challenging, owing to the number of related factors, as well as whether and how information is tracked (e.g., level of asset management). However, an examination of such indicators, combined with additional, context specific information can provide guidance for planning and decision making, helping to improve access and efficiency of services.

Within health services, we see that understanding medical wait times is complicated, with many variables and that this is a concern not only within the Columbia Basin-Boundary region, but across the province and country. When it comes to water and waste we see a continuation of long-standing water notices, particularly among small water systems within the region, suggesting additional efforts are needed. Similarly, waste rates per capita are typically higher than the provincial average, suggesting further efforts are needed to reduce waste generation. Lastly, related to water we continue to see an overall decrease in gross annual water supply within the region. When it comes to transportation, there was an overall increase in traffic across the region. Poll results for access to internet across the region suggest improvements to this service are needed as well. Housing values have increased, raising questions related to [availability and affordability](#). Lastly we see a slight decrease in major projects across the region, although it is important to note that this indicator does not include those projects valued at less than \$15 million.

INFRASTRUCTURE & BASIC SERVICES TRENDS ANALYSIS DETAILS

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