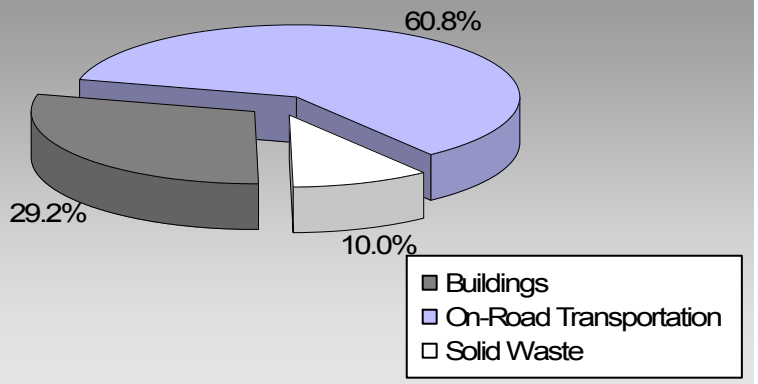
Kamloops City
Updated 2007 Community Energy and Emissions Inventory

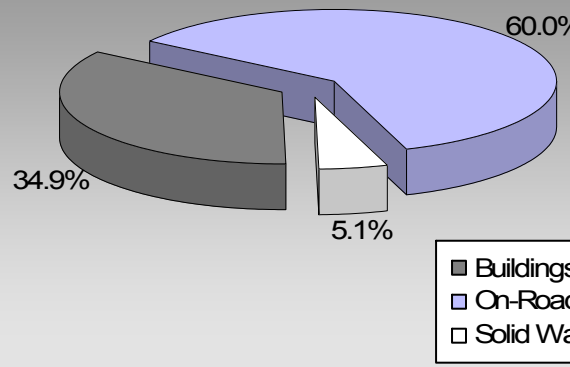
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

Where are the majority of our community's emissions coming from?

Kamloops City
2007 GHG Emissions Sources

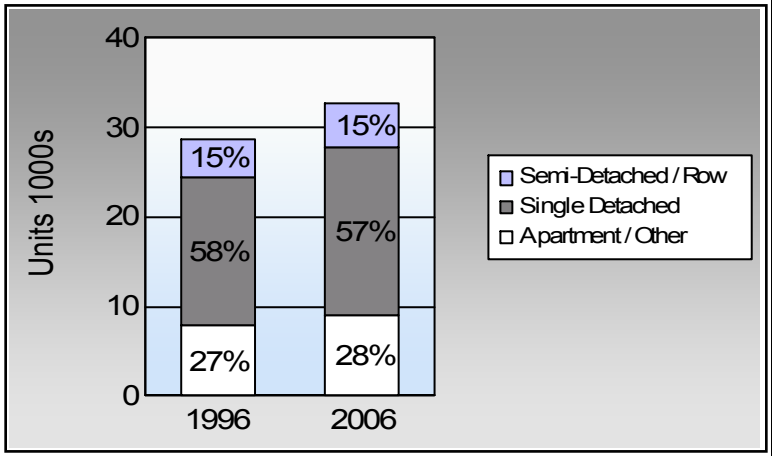


Total for BC Communities



Are we living more compactly?

Housing Type



In BC, single family detached housing made up 49% of housing in 2006.

Are we driving less?

Commute To Work

	1996	2006
	81.2%	79.5%
	7.9%	8.3%
	2.9%	4.3%
	5.5%	5.3%
	1.4%	1.3%

In BC, 10% of people took transit, 7% walked, and 2% cycled to work in 2006.

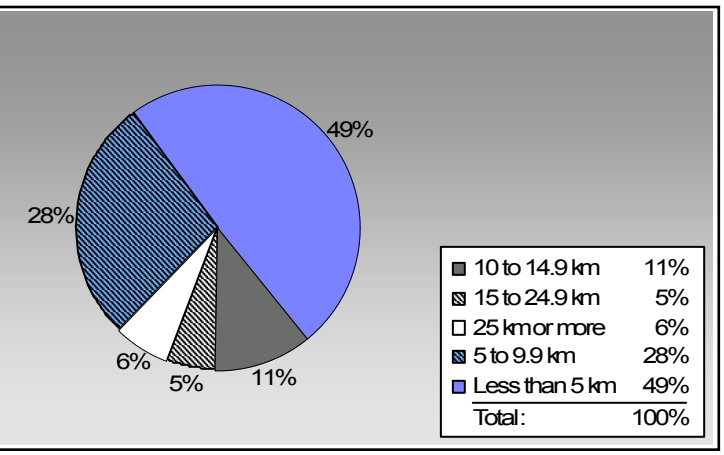
Residential Density

Kamloops City: 6.3 people per net ha

BC municipal average: 7.4 people per net ha

Are we living closer to where we work?

Commute Distance



In BC, 41% of people lived within 5km of their work in 2006.

For more information and to provide feedback on your Community Energy and Emissions Inventory (CEEI) Report see back page.

Sectors

On Road Transportation		Vehicles	Consumption	Measurement	Average-VKT(km)	Energy (GJ)	CO2e (t)
Small Passenger Cars	Gasoline	17,406	23,490,016	Litres	13,516	822,151	56,009
	Diesel Fuel	559	577,374	Litres	14,285	22,113	1,577
	Other Fuel	< 10	10,553	Litres	10,452	404	16
				Small Passenger Cars		**844,668**	**57,602**
Large Passenger Cars	Gasoline	9,802	22,922,815	Litres	19,313	802,299	54,441
	Diesel Fuel	158	395,125	Litres	19,163	15,133	1,078
	Other Fuel	31	80,346	Litres	15,907	3,077	123
				Large Passenger Cars		**820,509**	**55,642**
Light Trucks, Vans, SUVs	Gasoline	24,106	73,678,820	Litres	20,183	2,578,759	176,392
	Diesel Fuel	2,503	6,524,697	Litres	20,356	249,896	17,826
	Other Fuel	218	552,424	Litres	13,622	21,158	846
				Light Trucks, Vans, SUVs		**2,849,813**	**195,064**
Commercial Vehicles	Gasoline	140	622,987	Litres	14,706	21,805	1,457
	Diesel Fuel	555	2,639,506	Litres	21,924	101,093	7,103
	Other Fuel	13	56,491	Litres	11,753	2,164	87
				Commercial Vehicles		**125,062**	**8,647**
Tractor Trailer Trucks	Gasoline	13	85,672	Litres	19,471	2,999	201
	Diesel Fuel	780	27,344,357	Litres	90,186	1,047,289	73,582
	Other Fuel	< 10	8,927	Litres	7,085	342	14
				Tractor Trailer Trucks		**1,050,630**	**73,797**
Motorhomes	Gasoline	380	533,327	Litres	2,869	18,666	1,246
	Diesel Fuel	69	75,168	Litres	4,600	2,879	202
	Other Fuel	11	11,906	Litres	2,189	456	18
				Motorhomes		**22,001**	**1,466**
Motorcycles, Mopeds	Gasoline	932	437,094	Litres	5,367	15,298	1,021
				Motorcycles, Mopeds		**15,298**	**1,021**
Bus	Gasoline	42	404,991	Litres	23,165	14,175	952
	Diesel Fuel	104	1,199,562	Litres	23,661	45,943	3,228
	Other Fuel	< 10	11,704	Litres	15,902	448	18
				Bus		**60,566**	**4,198**

	Gasoline:	4,276,152	291,719
	Diesel:	1,484,346	104,596
	Other Fuel:	28,049	1,122
On Road Transportation Totals	**All Fuels:**	**5,788,547**	**397,437**

Buildings

	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	33,941	323,155,847	Kilowatt Hours	1,163,360	7,971
	Natural Gas	26,798	2,212,827	GigaJoules	2,212,827	112,854
			Residential		**3,376,187**	**120,825**
Commercial/Small-Medium Industrial	Electricity	3,867	384,654,914	Kilowatt Hours	1,384,757	9,488
	Natural Gas	2,381	1,181,462	GigaJoules	1,181,462	60,255
			Commercial/Small-Medium Industrial		**2,566,219**	**69,743**

	Electricity:	2,548,117	17,459
	Natural Gas:	3,394,289	173,109
	Propane:		
	Wood:		
	Heating Oil:		
Buildings Totals	**Buildings:**	**5,942,406**	**190,568**

Solid Waste

		Mass (t)	CO2e (t)
	Community Solid Waste	91,319	65,277

Grand Total		CONSUMPTION		ENERGY (GJ)	CO2e (t)
	Diesel Fuel	38,755,789	L	1,484,346	104,596
	Electricity	707,810,761	kWh	2,548,117	17,459
	Gasoline	122,175,722	L	4,276,152	291,719
	Natural Gas	3,394,289	GJ	3,394,289	173,109
	Other Fuel	732,351	L	28,049	1,122
	Solid Waste	91,319	T	0	65,277
Total of Transportation / Buildings / Solid Waste:				**11,730,953** GJ	**653,282** tonnes

Memo Items

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	6	179,993,550	Kilowatt Hours	647,976	4,440
	Natural Gas	21	withheld	GigaJoules	-	-
				Large Industrial	**647,976**	**4,440**

Kamloops City
Updated 2007 Community Energy and Emissions Inventory

Supporting Indicators

Below you will find supporting indicators for which data is provided. These are the first five supporting indicators for which data is provided as a part of the updated 2007 CEEI. Columns with all zeros indicate data unavailable in these CEEI reports. Thirteen additional supporting indicators are under consideration for future reports (see next page). Local government feedback is requested on all supporting indicators. Please take the time to complete the short CEEI Survey at http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html or contact us directly at CEEIRPT@gov.bc.ca

Housing Type - Private dwellings by structural type

Housing type is important for reducing building-related GHG emissions and energy consumption. A trend toward fewer single family dwellings indicates an increase in residential density, which is known to reduce transportation-related GHG emissions.

	1996		2001		2006	
	Units	%	Units	%	Units	%
Single Detached House	16,595	37	18,280	60	18,705	57
Semi-Detached House	1,930	4	2,070	7	2,240	7
Row House	2,385	5	2,840	9	2,695	8
Apartment, Duplex	1,295	3	1,070	3	2,080	6
Apartment, 5 storeys or higher	565	1	710	2	710	2
Apartment, under 5 storeys	4,375	10	4,450	14	5,565	17
Other Single Attached House	30	0	65	0	60	0
Movable Dwelling	1,525	3	1,230	4	590	2

Residential Density

* Net of Crown land, parks, Indian Reserves, water features, airports, ALR,waste disposal sites.

Increasing residential densities is known to reduce vehicle use resulting in fewer transportation-related GHG emissions. There are many additional benefits from more compact development.

	2009
Population	87,017.0
Net Land Area (ha) *	13,918.2
Residential Density (people per net ha)	6.3

Commute to Work - Employed labour force - by mode of commute

An increase in the number of people choosing to walk, cycle and use transit reduces GHG emissions. More compact, complete, connected communities should see an increase in the use of these transportation modes.

	1996		2001		2006	
	People	%	People	%	People	%
Car, Truck, Van as Driver	28,000	81	28,600	82	31,345	79
Car, Truck,Van as Passenge	2,725	8	2,315	7	3,270	8
Public Transit	1,005	3	1,170	3	1,675	4
Walked	1,895	6	1,900	5	2,100	5
Bicycle	470	1	475	1	520	1
Motorcycle	75	0	35	0	115	0
Taxicab	40	0	30	0	60	0
Other Method	275	1	260	1	355	1

Commute Distance

Shorter commute distances generally reduce GHG emissions by increasing the likelihood of people walking, cycling or using transit. Commute distance is also indicative of the 'completeness' of a community from an employment perspective.

	2006	
	People	%
Less than 5 km	16,685	49
5 to 9.9 km	9,360	28
10 to 14.9 km	3,780	11
15 to 24.9 km	1,860	6
25 km or more	2,155	6

Parks and Protected Greenspace

* Total is net of Indian Reserves

** The quantity of parkland may be underestimated

Parks and protected greenspaces are important for the protection and enhancement of community carbon sinks.

	2009	
	Area (ha)	%
National Parks	0.0	0.0
Provincial Parks / Protected Areas	2,962.4	9.4
Local Parks	1,520.5	4.8
Agricultural Land Reserve	12,822.2	40.7
Other land use	14,180.5	45.0
Total Land Area	31,485.6	100.0

Supporting Indicators Under Consideration

The following supporting indicators are under consideration for inclusion in future CEEI reports. The 2007 CEEI reports provide these 'placeholder' indicators to give indication of data that may be provided in the future by the Province on an ongoing basis to assist in monitoring actions to reduce GHG emissions and energy consumption. Please submit feedback to CEEIRPT@gov.bc.ca (see survey on CEEI website).

On-Road Transportation (and Land Use)

Proximity to Transit	Persons, dwelling units (du) and employment within 400m of a quality transit stop/line
Proximity to Services	Persons and dwelling units (du) within 400m of services (e.g. grocery store, school, other retail etc.)
Transit Ridership	Annual per capita transit ridership

Buildings

Residential; Public Building Energy Intensity	Average energy use per person per square metre of floor space
Floor Space	Average residential dwelling unit size

Solid Waste (and Water)

Waste Diversion	Tonnes of waste diverted
Avoided Waste Emissions	Tonnes of CO2e of avoided future emissions due to reduced waste since 2007
Water Use	Per capita residential water use

Land-Use Change

Impervious Surface Cover	% change in impervious surface cover
Tree Canopy Cover	% change in tree canopy cover

Community and Renewable Energy Supply

District Energy	# and energy output (e.g. buildings connected, energy consumed in GJ or kWh) of district energy systems by energy type (e.g. renewable or non-renewable)
On-Site Renewable Energy	# and energy output (in GJ or kWh) from households producing and/or consuming on-site renewable heat (e.g. biomass, solar thermal, geo-exchange) and/or electrical (e.g. solar photovoltaic, small wind, small scale hydro) energy
Energy Recovery From Waste	Energy (GJ or kWh) recovered from waste (e.g. from landfill gas, sewage treatment, industrial operations, farm)

This is your local government's Updated 2007 Community Energy and Emissions Inventory (CEEI) Report

What is a CEEI Report?
CEEI Reports are a result of a multi-agency effort to provide a province-wide solution to assist local governments in BC to track and report on community-wide energy consumption and greenhouse gas (GHG) emissions every two years. CEEI Reports are one of the many resources available through the Climate Action Toolkit (<http://www.toolkit.bc.ca>), a web-based service provided through the ongoing collaboration between UBCM and the Province.

Why does my local government need a CEEI Report?
A community energy and GHG emissions inventory can be a valuable tool that helps local governments plan and implement GHG and energy management strategies, while at the same time strengthening broader sustainability planning at the local level. CEEI reports fulfill local governments' Climate Action Charter commitment to measure and report their community's GHG emissions profile, establish a base year inventory for local governments to consider as they develop targets, policies, and actions related to BC's *Local Government Act* requirements, and fulfill Milestone One requirements for those local government members of the Federation of Canadian Municipalities' (FCM's) Partners in Climate Protection (PCP) program.

A first in North America!
CEEI is a first in North America and a first step for BC communities. The 2007 CEEI Reports are based on best available province-wide data. The accuracy and detail of CEEI reports will continue to improve to meet increasing local and provincial government information needs. Improvements have been made from the original draft 2007 CEEI Reports posted in Spring 2009. These include estimates for residential heating oil, propane and wood use, breaking out small and medium from large industrial buildings, including updated land-use change and new agricultural sectors as 'memo items', and the first of a suite of 'supporting indicators'. Following the 2010 CEEI Reports, inventories will be generated every two years, and will continue to improve as government information needs, international protocols and new data sources emerge.

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For More Information:

- The full list of all BC local government Updated 2007 CEEI Reports, CEEI Data Summary Report, Technical Methods and Guidance Document, and additional information on the Secondary Indicators are available at: <http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html>.

- For guidance on target setting and community actions, go to <http://www.toolkit.bc.ca> and <http://www.cd.gov.bc.ca/lgd/greencommunities/targets.htm>.

We Need Your Feedback:

- To continue to guide us on CEEI, particularly now with the new Indicators. Please take the time to complete the short CEEI Survey at <http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html> or contact us directly at CEEIRPT@gov.bc.ca