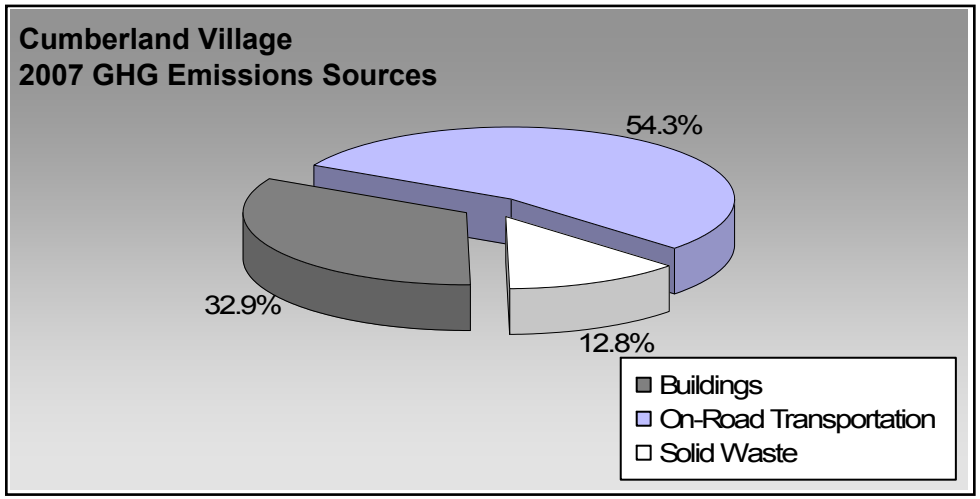
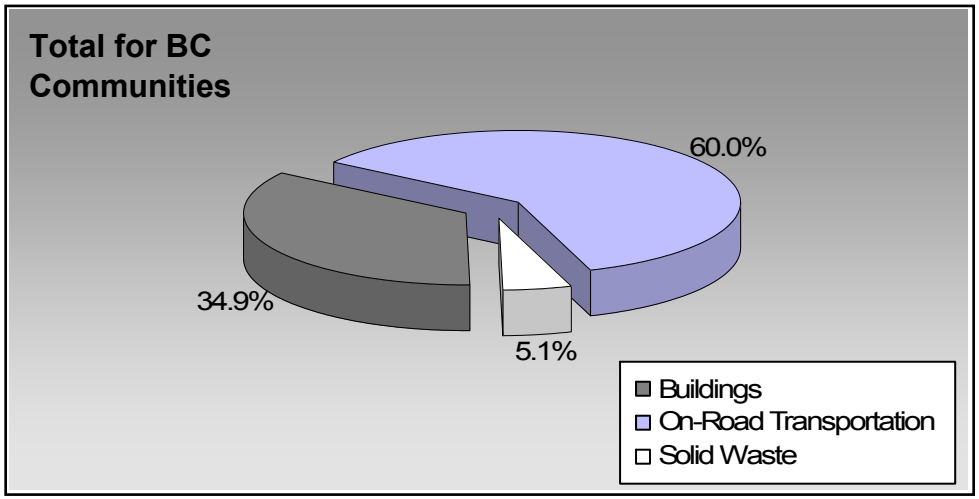
Cumberland Village
Updated 2007 Community Energy and Emissions Inventory

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

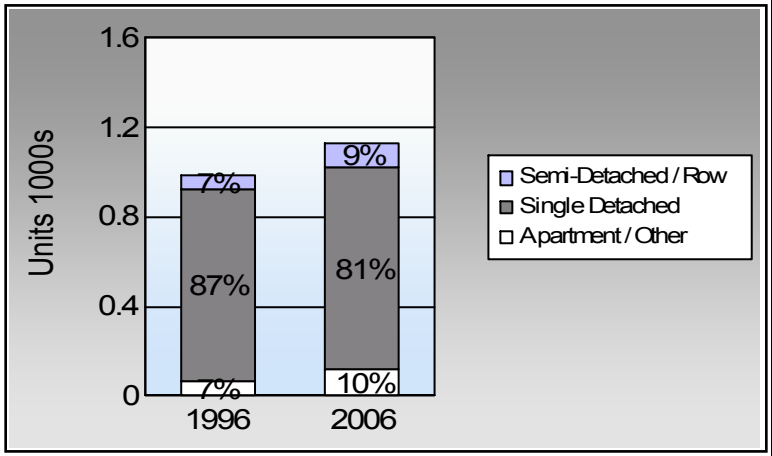
Where are the majority of our community's emissions coming from?





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
	74.4%	76.3%
	7.4%	7.6%
	2.5%	2.4%
	10.3%	8.4%
	1.5%	3.6%

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

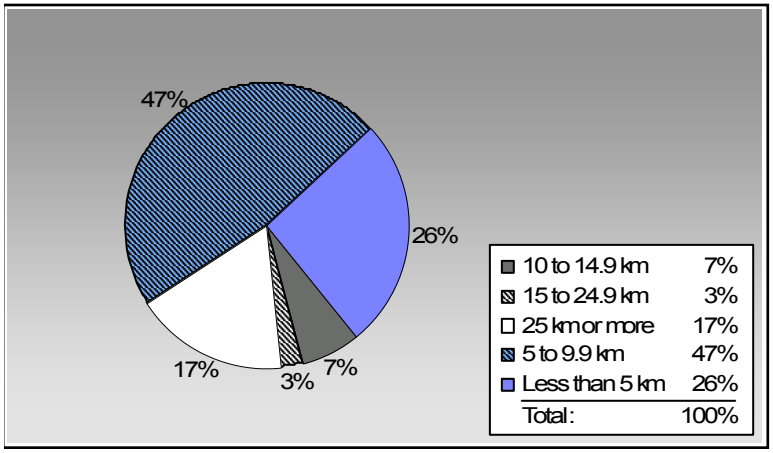
Residential Density

Cumberland Village: 1.1 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.

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Sectors

On Road Transportation		Vehicles	Consumption	Measurement	Average-VKT(km)	Energy (GJ)	CO2e (t)
Small Passenger Cars	Gasoline	368	533,312	Litres	14,546	18,666	1,259
	Diesel Fuel	20	20,329	Litres	15,337	779	56
	Other Fuel	< 10	1,069	Litres	12,011	41	2
				Small Passenger Cars		**19,486**	**1,317**
Large Passenger Cars	Gasoline	159	355,327	Litres	19,377	12,436	841
	Diesel Fuel	< 10	12,953	Litres	18,538	496	35
	Other Fuel	< 10	1,961	Litres	13,811	75	3
				Large Passenger Cars		**13,007**	**879**
Light Trucks, Vans, SUVs	Gasoline	502	1,531,996	Litres	20,367	53,620	3,651
	Diesel Fuel	48	101,696	Litres	18,016	3,895	278
	Other Fuel	< 10	20,629	Litres	12,448	790	32
				Light Trucks, Vans, SUVs		**58,305**	**3,961**
Commercial Vehicles	Gasoline	< 10	17,842	Litres	12,808	624	42
	Diesel Fuel	< 10	16,763	Litres	21,882	642	45
	Other Fuel	< 10	3,591	Litres		138	6
				Commercial Vehicles		**1,404**	**93**
Tractor Trailer Trucks	Diesel Fuel	< 10	372,106	Litres	103,475	14,252	1,001
				Tractor Trailer Trucks		**14,252**	**1,001**
Motorhomes	Gasoline	15	13,887	Litres	2,280	486	32
	Diesel Fuel	< 10	223	Litres		9	1
				Motorhomes		**495**	**33**
Motorcycles, Mopeds	Gasoline	24	11,172	Litres	5,972	391	26
				Motorcycles, Mopeds		**391**	**26**
Bus	Diesel Fuel	< 10	13,350	Litres		511	36
				Bus		**511**	**36**
				Gasoline:		86,223	5,851
				Diesel:		20,584	1,452
				Other Fuel:		1,044	43
On Road Transportation Totals				**All Fuels:**		**107,851**	**7,346**

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Buildings

	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	1,290	17,429,486	Kilowatt Hours	62,746	430
	Natural Gas	464	23,759	GigaJoules	23,759	1,212
	Heating Oil		21,824	GigaJoules	21,824	1,538
	Propane		3,762	GigaJoules	3,762	230
	Wood		26,624	GigaJoules	26,624	10
			Residential		**138,715**	**3,420**
Commercial/Small-Medium Industrial	Electricity	136	7,676,105	Kilowatt Hours	27,634	189
	Natural Gas	44	16,642	GigaJoules	16,642	849
			Commercial/Small-Medium Industrial		**44,276**	**1,038**
				Electricity:	90,380	619
				Natural Gas:	40,401	2,061
				Propane:	3,762	230
				Wood:	26,624	10
				Heating Oil:	21,824	1,538
Buildings Totals				**Buildings:**	**182,991**	**4,458**

Solid Waste

	Mass (t)	CO2e (t)
Community Solid Waste	1,943	1,732

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Grand Total	CONSUMPTION		ENERGY (GJ)	CO2e (t)
Diesel Fuel	537,420	L	20,584	1,452
Electricity	25,105,591	kWh	90,380	619
Gasoline	2,463,536	L	86,223	5,851
Heating Oil	21,824	GJ	21,824	1,538
Natural Gas	40,401	GJ	40,401	2,061
Other Fuel	27,250	L	1,044	43
Propane	3,762	GJ	3,762	230
Solid Waste	1,943	T	0	1,732
Wood	26,624	GJ	26,624	10
Total of Transportation / Buildings / Solid Waste:			**290,842** GJ	**13,536** tonnes

Memo Items

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	0	0	Kilowatt Hours	-	-
				Large Industrial	**-**	**-**

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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	855	46	885	84	910	81
Semi-Detached House	10	1	30	3	30	3
Row House	55	3	55	5	75	7
Apartment, Duplex	10	1	10	1	15	1
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	55	3	55	5	55	5
Other Single Attached House	0	0	15	1	5	0
Movable Dwelling	0	0	5	0	40	4

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	3,163.0
Net Land Area (ha) *	2,854.2
Residential Density (people per net ha)	1.1

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	755	74	885	81	950	76
Car, Truck,Van as Passenge	75	7	45	4	95	8
Public Transit	25	2	10	1	30	2
Walked	105	10	90	8	105	8
Bicycle	15	1	25	2	45	4
Motorcycle	15	1	0	0	0	0
Taxicab	0	0	0	0	0	0
Other Method	25	2	40	4	20	2

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	255	26
5 to 9.9 km	460	47
10 to 14.9 km	65	7
15 to 24.9 km	25	3
25 km or more	170	17

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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	0.0	0.0
Local Parks	24.7	0.8
Agricultural Land Reserve	1.7	0.1
Other land use	2,992.2	99.1
Total Land Area	3,018.5	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 CO_2e 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

Notice to the Reader: This CEEI Report uses information from a variety of sources to estimate GHG emissions. While the methodologies, assumptions and data used are intended to provide reasonable estimates of greenhouse gas emissions, the information presented in this report may not be appropriate for all purposes. The Province of BC and the data providers do not provide any warranty to the user or guarantee the accuracy or reliability of the data contained in this report. The user accepts responsibility for the ultimate use of such data. We need your help to make these reports better, where you do note inaccuracies, please contact us.