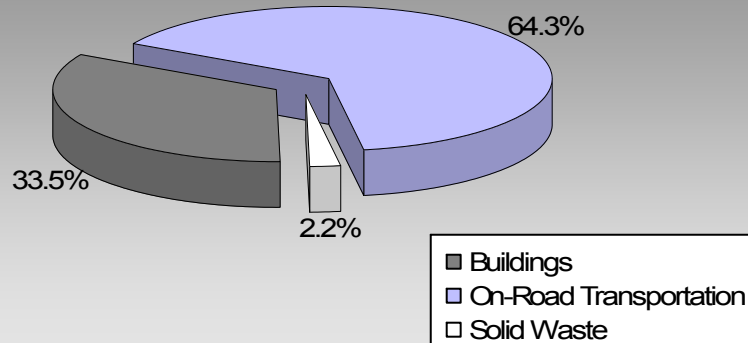


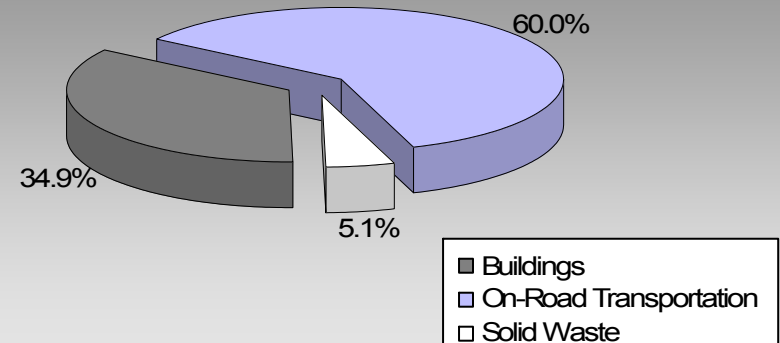
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

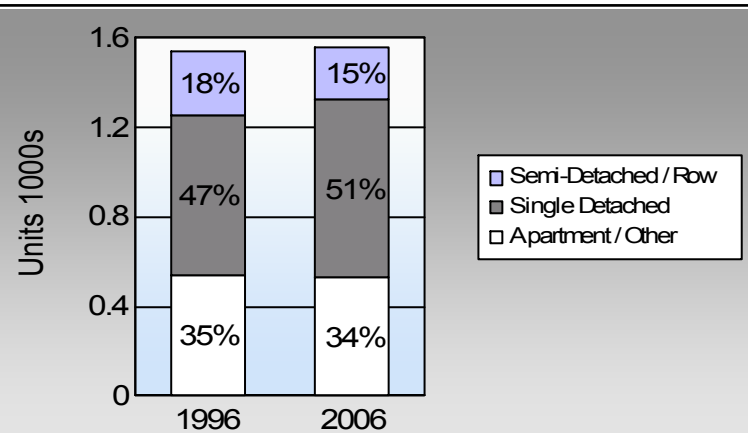
**Sparwood District Municipality
2007 GHG Emissions Sources**



**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
	70.7%	72.5%
	14.3%	17.6%
	1.6%	1.7%
	7.8%	6.8%
	0.7%	0.0%

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

Residential Density

Sparwood District Municipality: 0.2 people per net ha
BC municipal average: 7.4 people per net ha

Are we living closer to where we work? Commute Distance

This data is currently unavailable in the CEEI 2007 Reports

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

Sectors

On Road Transportation		<u>Vehicles</u>	<u>Consumption</u>	<u>Measurement</u>	<u>Average-VKT(km)</u>	<u>Energy (GJ)</u>	<u>CO2e (t)</u>
Small Passenger Cars	Gasoline	498	729,647	Litres	13,975	25,538	1,737
	Diesel Fuel	20	21,061	Litres	14,942	807	58
Small Passenger Cars						26,345	1,795
Large Passenger Cars	Gasoline	413	850,019	Litres	16,285	29,751	2,022
	Diesel Fuel	< 10	15,415	Litres	17,112	590	42
	Other Fuel	< 10	2,499	Litres		96	4
Large Passenger Cars						30,437	2,068
Light Trucks, Vans, SUVs	Gasoline	1,652	5,173,807	Litres	20,318	181,083	12,353
	Diesel Fuel	145	376,058	Litres	19,684	14,403	1,027
	Other Fuel	22	54,940	Litres	13,879	2,104	84
Light Trucks, Vans, SUVs						197,590	13,464
Commercial Vehicles	Gasoline	19	90,706	Litres	15,616	3,175	212
	Diesel Fuel	37	187,391	Litres	22,955	7,177	504
Commercial Vehicles						10,352	716
Tractor Trailer Trucks	Gasoline	< 10	8,397	Litres	10,118	294	20
	Diesel Fuel	84	2,460,511	Litres	76,795	94,238	6,621
Tractor Trailer Trucks						94,532	6,641
Motorhomes	Gasoline	15	23,241	Litres	3,003	813	54
	Diesel Fuel	< 10	1,172	Litres		45	3
	Other Fuel	< 10	277	Litres		11	-
Motorhomes						869	57
Motorcycles, Mopeds	Gasoline	22	14,968	Litres	5,502	524	35
Motorcycles, Mopeds						524	35
Bus	Gasoline	11	101,215	Litres	22,763	3,543	238
	Diesel Fuel	27	281,576	Litres	21,673	10,784	758
Bus						14,327	996

Sparwood District Municipality

Updated 2007 Community Energy and Emissions Inventory

	Gasoline:	244,721	16,671
	Diesel:	128,044	9,013
	Other Fuel:	2,211	88
On Road Transportation Totals	All Fuels:	374,976	25,772

Buildings	<u>Type</u>	<u>Connections</u>	<u>Consumption</u>	<u>Measurement</u>	<u>Energy (GJ)</u>	<u>CO2e (t)</u>
Residential	Electricity	1,967	14,412,215	Kilowatt Hours	51,884	356
	Natural Gas	1,409	117,944	GigaJoules	117,944	6,015
	Heating Oil		7,956	GigaJoules	7,956	561
	Propane		13,992	GigaJoules	13,992	854
	Wood			16,693	GigaJoules	16,693
Residential					208,469	7,792
Commercial/Small-Medium Industrial	Electricity	295	18,851,608	Kilowatt Hours	67,866	465
	Natural Gas	192	100,847	GigaJoules	100,847	5,143
Commercial/Small-Medium Industrial					168,713	5,608
					Electricity:	821
					Natural Gas:	11,158
					Propane:	854
					Wood:	6
					Heating Oil:	561
Buildings Totals	Buildings:				377,182	13,400

Solid Waste	<u>Mass (t)</u>	<u>CO2e (t)</u>
Community Solid Waste	4,302	887

Sparwood District Municipality

Updated 2007 Community Energy and Emissions Inventory

Grand Total	CONSUMPTION		ENERGY (GJ)	CO2e (t)
Diesel Fuel	3,343,184	L	128,044	9,013
Electricity	33,263,823	kWh	119,750	821
Gasoline	6,992,000	L	244,721	16,671
Heating Oil	7,956	GJ	7,956	561
Natural Gas	218,791	GJ	218,791	11,158
Other Fuel	57,716	L	2,211	88
Propane	13,992	GJ	13,992	854
Solid Waste	4,302	T	0	887
Wood	16,693	GJ	16,693	6
Total of Transportation / Buildings / Solid Waste:			752,158 GJ	40,059 tonnes

Memo Items

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	3	withheld	Kilowatt Hours	-	-
	Natural Gas	2	withheld	GigaJoules	-	-
Large Industrial					-	-

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	720	32	825	53	790	51
Semi-Detached House	145	6	125	8	125	8
Row House	135	6	115	7	110	7
Apartment, Duplex	0	0	0	0	0	0
Apartment, 5 storeys or higher	0	0	0	0	15	1
Apartment, under 5 storeys	260	12	210	14	210	14
Other Single Attached House	0	0	5	0	0	0
Movable Dwelling	275	12	265	17	305	20

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	1,085	71	1,355	74	1,280	73
Car, Truck, Van as Passenger	220	14	245	13	310	18
Public Transit	25	2	35	2	30	2
Walked	120	8	130	7	120	7
Bicycle	10	1	10	1	0	0
Motorcycle	0	0	0	0	0	0
Taxicab	10	1	10	1	0	0
Other Method	65	4	50	3	25	1

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	3,804.0
Net Land Area (ha) *	17,520.0
Residential Density (people per net ha)	0.2

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	%
This data is currently unavailable in the CEEI 2007 Reports.	

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	45.2	0.2
Local Parks	7.4	0.0
Agricultural Land Reserve	1,430.7	7.3
Other land use	18,192.2	92.5
Total Land Area	19,675.5	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 ₂ e 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.