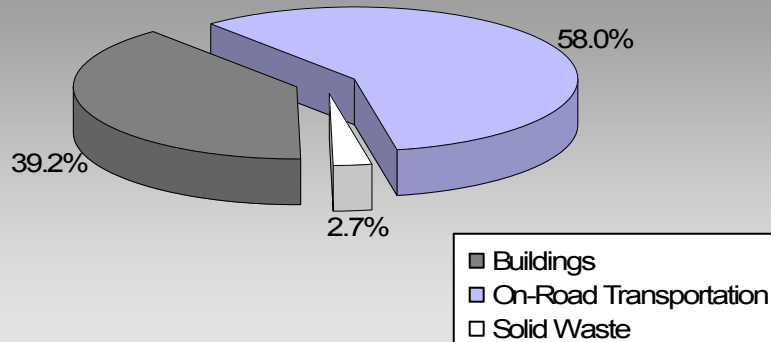


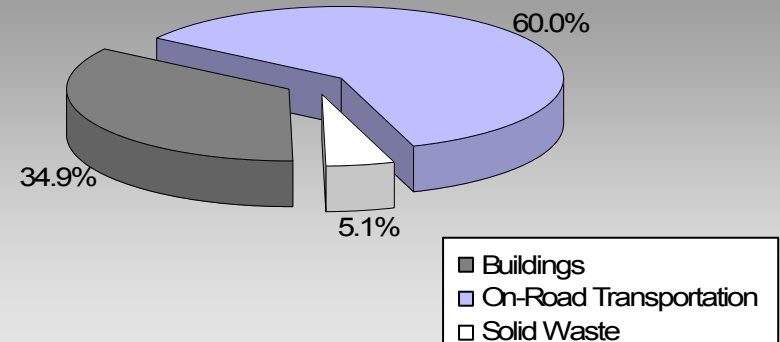
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

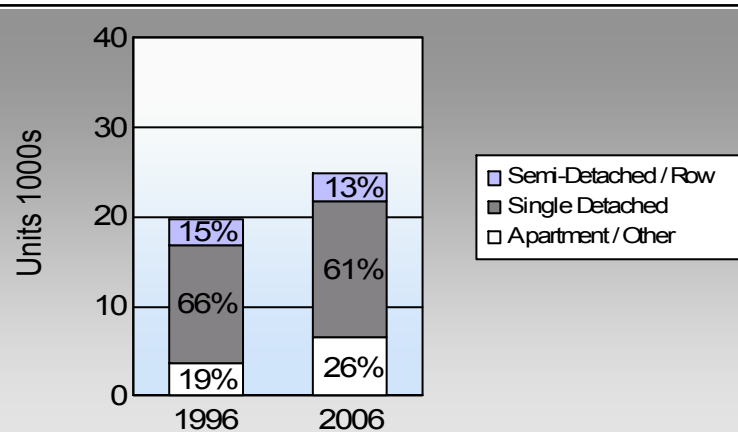
Maple Ridge District Municipality
2007 GHG Emissions Sources



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
	83.4%	79.8%
	6.6%	7.3%
	4.4%	7.4%
	3.5%	3.3%
	1.1%	0.7%

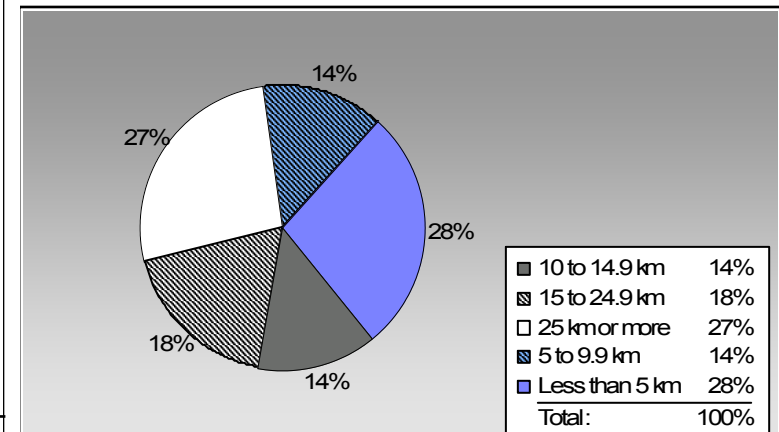
In BC, 10% of people took transit, 7% walked, and 2% cycled to work in 2006.

Residential Density

Maple Ridge District Municipality:
5.4 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.

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	14,708	19,551,585	Litres	13,307	684,305	46,501
	Diesel Fuel	434	442,304	Litres	13,691	16,940	1,208
	Other Fuel	< 10	7,443	Litres	9,552	285	11
Small Passenger Cars						701,530	47,720
Large Passenger Cars	Gasoline	6,963	12,173,156	Litres	14,463	426,060	28,853
	Diesel Fuel	99	164,790	Litres	12,946	6,311	450
	Other Fuel	30	54,521	Litres	12,065	2,088	84
Large Passenger Cars						434,459	29,387
Light Trucks, Vans, SUVs	Gasoline	18,463	35,349,355	Litres	13,379	1,237,227	84,500
	Diesel Fuel	1,393	2,895,266	Litres	16,048	110,889	7,909
	Other Fuel	149	310,865	Litres	11,446	11,906	476
Light Trucks, Vans, SUVs						1,360,022	92,885
Commercial Vehicles	Gasoline	102	433,290	Litres	14,297	15,165	1,013
	Diesel Fuel	357	1,717,622	Litres	21,925	65,785	4,622
	Other Fuel	16	60,270	Litres	11,624	2,308	92
Commercial Vehicles						83,258	5,727
Tractor Trailer Trucks	Gasoline	< 10	13,579	Litres	10,204	475	32
	Diesel Fuel	310	8,877,376	Litres	72,023	340,003	23,889
	Other Fuel	< 10	7,525	Litres	7,465	288	12
Tractor Trailer Trucks						340,766	23,933
Motorhomes	Gasoline	329	367,237	Litres	3,055	12,853	859
	Diesel Fuel	41	40,642	Litres	4,466	1,557	109
	Other Fuel	< 10	6,091	Litres	2,189	233	9
Motorhomes						14,643	977
Motorcycles, Mopeds	Gasoline	991	414,622	Litres	5,638	14,512	968
Motorcycles, Mopeds						14,512	968
Bus	Gasoline	23	207,371	Litres	19,768	7,258	488
	Diesel Fuel	24	198,139	Litres	18,911	7,589	533
	Other Fuel	< 10	1,463	Litres		56	2
Bus						14,903	1,023

Maple Ridge District Municipality Updated 2007 Community Energy and Emissions Inventory

On Road Transportation Totals	Gasoline:	2,397,855	163,214
	Diesel:	549,074	38,720
	Other Fuel:	17,164	686
	All Fuels:	2,964,093	202,620

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	25,958	307,165,739	Kilowatt Hours	1,105,796	7,577
	Natural Gas	19,972	1,865,654	GigaJoules	1,865,654	95,148
Residential					2,971,450	102,725
Commercial/Small-Medium Industrial	Electricity	2,550	187,204,290	Kilowatt Hours	673,935	4,618
	Natural Gas	1,280	581,629	GigaJoules	581,629	29,663
Commercial/Small-Medium Industrial					1,255,564	34,281
Buildings Totals	Electricity:				1,779,731	12,195
	Natural Gas:				2,447,283	124,811
	Propane:					
	Wood:					
	Heating Oil:					
Buildings:					4,227,014	137,006

Solid Waste	Mass (t)	CO2e (t)
Community Solid Waste	26,013	9,465

Maple Ridge District Municipality Updated 2007 Community Energy and Emissions Inventory

Grand Total	CONSUMPTION		ENERGY (GJ)	CO2e (t)
Diesel Fuel	14,336,139	L	549,074	38,720
Electricity	494,370,029	kWh	1,779,731	12,195
Gasoline	68,510,195	L	2,397,855	163,214
Natural Gas	2,447,283	GJ	2,447,283	124,811
Other Fuel	448,178	L	17,164	686
Solid Waste	26,013	T	0	9,465
Total of Transportation / Buildings / Solid Waste:			7,191,107 GJ	349,091 tonnes

Memo Items

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	2	withheld	Kilowatt Hours	-	-
	Natural Gas	17	287,948	GigaJoules	287,948	14,685
Large Industrial					287,948	14,685

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	13,110	40	14,650	65	15,250	61
Semi-Detached House	570	2	465	2	545	2
Row House	2,380	7	2,680	12	2,650	11
Apartment, Duplex	825	3	1,050	5	2,385	10
Apartment, 5 storeys or higher	375	1	625	3	685	3
Apartment, under 5 storeys	2,220	7	2,930	13	3,155	13
Other Single Attached House	70	0	20	0	25	0
Movable Dwelling	235	1	165	1	230	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	20,495	83	24,065	83	26,555	80
Car, Truck, Van as Passenger	1,615	7	1,900	7	2,440	7
Public Transit	1,090	4	1,350	5	2,475	7
Walked	860	4	1,120	4	1,090	3
Bicycle	270	1	275	1	225	1
Motorcycle	45	0	90	0	205	1
Taxicab	20	0	30	0	25	0
Other Method	185	1	155	1	265	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	75,051.0
Net Land Area (ha) *	13,817.8
Residential Density (people per net ha)	5.4

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	7,730 28
5 to 9.9 km	3,885 14
10 to 14.9 km	3,805 14
15 to 24.9 km	5,185 18
25 km or more	7,500 27

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	5,322.9	18.7
Local Parks	651.5	2.3
Agricultural Land Reserve	3,789.8	13.3
Other land use	18,748.6	65.8
Total Land Area	28,512.8	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.