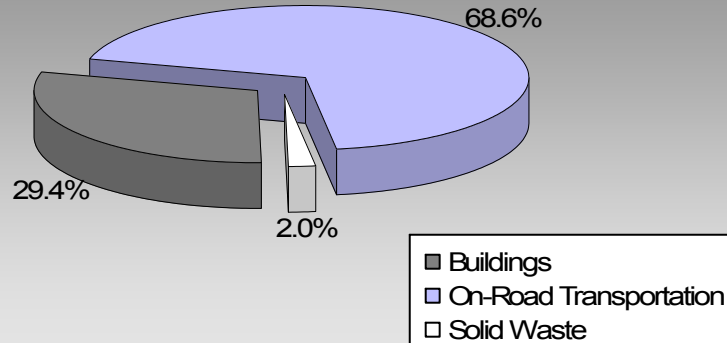


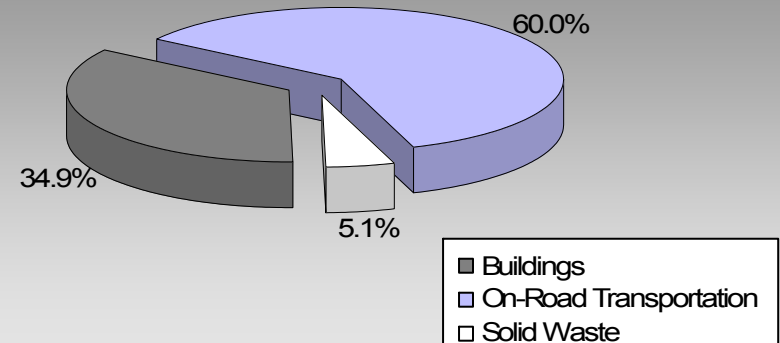
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

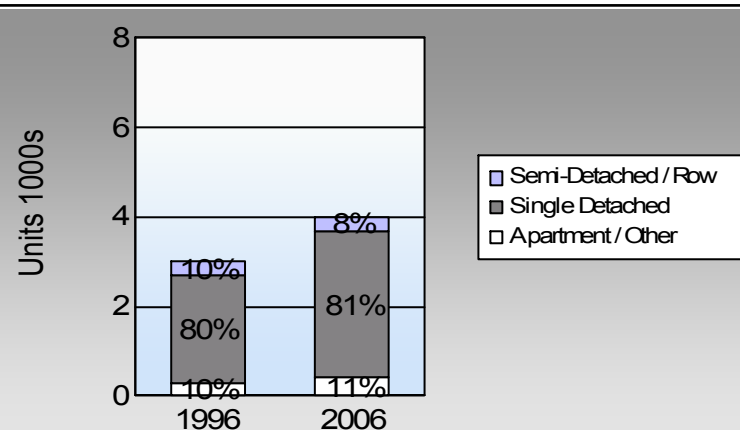
Qualicum Beach Town  
2007 GHG Emissions Sources



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
	79.5%	76.2%
	8.0%	7.0%
	0.5%	1.8%
	8.0%	9.9%
	0.5%	1.6%

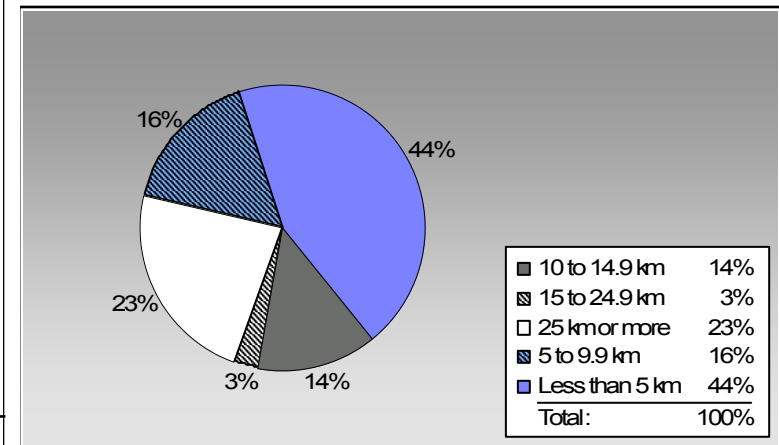
In BC, 10% of people took transit, 7% walked, and 2% cycled to work in 2006.

### Residential Density

Qualicum Beach Town: 7.8 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

<b>On Road Transportation</b>		<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	1,935	2,501,090	Litres	13,171	87,538	5,954
	Diesel Fuel	82	78,457	Litres	13,561	3,005	214
<b>Small Passenger Cars</b>						<b>90,543</b>	<b>6,168</b>
Large Passenger Cars	Gasoline	1,672	3,010,004	Litres	15,333	105,350	7,126
	Diesel Fuel	24	48,701	Litres	15,656	1,865	133
	Other Fuel	< 10	8,912	Litres	11,806	341	14
<b>Large Passenger Cars</b>						<b>107,556</b>	<b>7,273</b>
Light Trucks, Vans, SUVs	Gasoline	2,256	6,316,884	Litres	19,384	221,091	15,114
	Diesel Fuel	173	400,653	Litres	18,345	15,345	1,094
	Other Fuel	17	36,833	Litres	13,025	1,411	56
<b>Light Trucks, Vans, SUVs</b>						<b>237,847</b>	<b>16,264</b>
Commercial Vehicles	Gasoline	11	44,088	Litres	13,706	1,543	103
	Diesel Fuel	39	182,291	Litres	20,900	6,982	491
	Other Fuel	< 10	12,041	Litres	11,790	461	18
<b>Commercial Vehicles</b>						<b>8,986</b>	<b>612</b>
Tractor Trailer Trucks	Diesel Fuel	21	555,899	Litres	71,851	21,291	1,496
<b>Tractor Trailer Trucks</b>						<b>21,291</b>	<b>1,496</b>
Motorhomes	Gasoline	84	98,262	Litres	3,385	3,439	230
	Diesel Fuel	11	7,619	Litres	3,257	292	21
	Other Fuel	< 10	2,051	Litres	2,520	79	3
<b>Motorhomes</b>						<b>3,810</b>	<b>254</b>
Motorcycles, Mopeds	Gasoline	91	37,652	Litres	5,498	1,318	88
<b>Motorcycles, Mopeds</b>						<b>1,318</b>	<b>88</b>
Bus	Gasoline	< 10	5,852	Litres	15,902	205	14
	Diesel Fuel	< 10	115,657	Litres	60,633	4,430	311
	Other Fuel	< 10	4,389	Litres		168	7
<b>Bus</b>						<b>4,803</b>	<b>332</b>

# Qualicum Beach Town Updated 2007 Community Energy and Emissions Inventory

	Gasoline:	420,484	28,629
	Diesel:	53,210	3,760
	Other Fuel:	2,460	98
<b>On Road Transportation Totals</b>	<b>All Fuels:</b>	<b>476,154</b>	<b>32,487</b>

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	4,458	65,047,221	Kilowatt Hours	234,170	1,605
	Natural Gas	2,276	137,270	GigaJoules	137,270	7,001
	Heating Oil		24,699	GigaJoules	24,699	1,741
	Propane		4,258	GigaJoules	4,258	260
	Wood		30,127	GigaJoules	30,127	11
<b>Residential</b>					<b>430,524</b>	<b>10,618</b>
Commercial/Small-Medium Industrial	Electricity	498	21,977,006	Kilowatt Hours	79,117	542
	Natural Gas	109	53,854	GigaJoules	53,854	2,747
<b>Commercial/Small-Medium Industrial</b>					<b>132,971</b>	<b>3,289</b>
					Electricity:	2,147
					Natural Gas:	9,748
					Propane:	260
					Wood:	11
					Heating Oil:	1,741
<b>Buildings Totals</b>	<b>Buildings:</b>				<b>563,495</b>	<b>13,907</b>

Solid Waste	Mass (t)	CO2e (t)
	4,582	940
	Community Solid Waste	940

# Qualicum Beach Town

## Updated 2007 Community Energy and Emissions Inventory

Grand Total	CONSUMPTION		ENERGY (GJ)	CO <sub>2</sub> e (t)
Diesel Fuel	1,389,277	L	53,210	3,760
Electricity	87,024,227	kWh	313,287	2,147
Gasoline	12,013,832	L	420,484	28,629
Heating Oil	24,699	GJ	24,699	1,741
Natural Gas	191,124	GJ	191,124	9,748
Other Fuel	64,226	L	2,460	98
Propane	4,258	GJ	4,258	260
Solid Waste	4,582	T	0	940
Wood	30,127	GJ	30,127	11
<b>Total of Transportation / Buildings / Solid Waste:</b>			<b>1,039,649 GJ</b>	<b>47,334 tonnes</b>

### Memo Items

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO <sub>2</sub> e (t)
Large Industrial	Electricity	0	0	Kilowatt Hours	-	-
<b>Large Industrial</b>					<b>-</b>	<b>-</b>

## 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](mailto: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	2,405	45	2,590	78	3,240	81
Semi-Detached House	100	2	175	5	125	3
Row House	195	4	180	5	215	5
Apartment, Duplex	0	0	10	0	45	1
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	270	5	325	10	370	9
Other Single Attached House	15	0	5	0	5	0
Movable Dwelling	10	0	30	1	5	0

### 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	1,490	79	1,525	83	1,685	76
Car, Truck, Van as Passenger	150	8	85	5	155	7
Public Transit	10	1	20	1	40	2
Walked	150	8	160	9	220	10
Bicycle	10	1	30	2	35	2
Motorcycle	10	1	0	0	10	0
Taxicab	0	0	0	0	0	0
Other Method	55	3	20	1	65	3

### 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	8,766.0
Net Land Area (ha) *	1,130.3
Residential Density (people per net ha)	7.8

### 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	770 44
5 to 9.9 km	285 16
10 to 14.9 km	235 14
15 to 24.9 km	50 3
25 km or more	400 23

## 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	0.2	0.0
Local Parks	5.4	0.3
Agricultural Land Reserve	502.8	30.6
Other land use	1,136.5	69.1
Total Land Area	1,645.0	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](mailto:CEEIRPT@gov.bc.ca) (see survey on CEEI website).

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### 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

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### Buildings

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

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### Solid Waste (and Water)

Waste Diversion	Tonnes of waste diverted
Avoided Waste Emissions	Tonnes of CO <sub>2</sub> e of avoided future emissions due to reduced waste since 2007
Water Use	Per capita residential water use

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### Land-Use Change

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

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### 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)

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# 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](mailto: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.