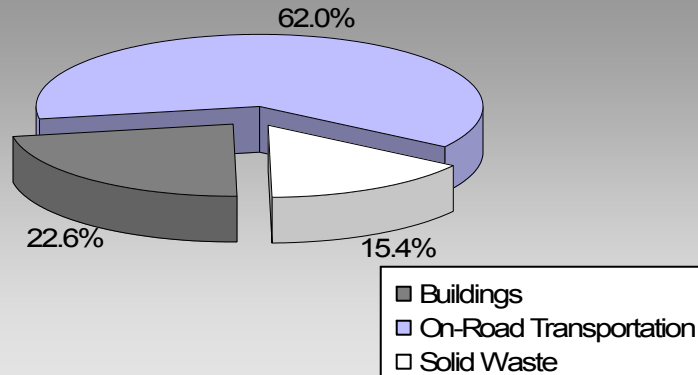


*BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities*

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

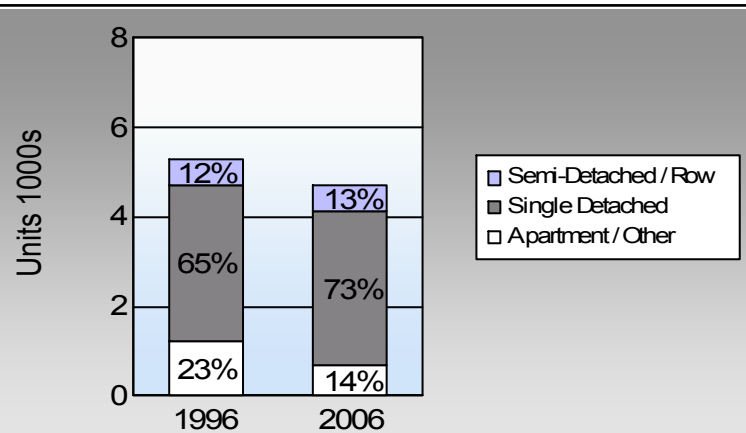
**Mount Waddington Regional District  
2007 GHG Emissions Sources**



**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
	66.9%	69.5%
	11.2%	8.8%
	0.8%	0.4%
	15.3%	14.5%
	1.0%	1.5%

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

### Residential Density

This data is only available for municipalities.  
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

<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	1,538	2,089,102	Litres	13,247	73,119	4,983
	Diesel Fuel	84	83,882	Litres	14,362	3,213	229
	Other Fuel	< 10	471	Litres		18	1
<b>Small Passenger Cars</b>						<b>76,350</b>	<b>5,213</b>
Large Passenger Cars	Gasoline	804	1,800,003	Litres	17,334	63,000	4,289
	Diesel Fuel	36	75,256	Litres	16,497	2,882	205
	Other Fuel	< 10	19,882	Litres	15,100	761	30
<b>Large Passenger Cars</b>						<b>66,643</b>	<b>4,524</b>
Light Trucks, Vans, SUVs	Gasoline	3,646	11,152,164	Litres	19,963	390,326	26,718
	Diesel Fuel	452	1,152,951	Litres	19,500	44,158	3,150
	Other Fuel	28	75,561	Litres	13,527	2,894	116
<b>Light Trucks, Vans, SUVs</b>						<b>437,378</b>	<b>29,984</b>
Commercial Vehicles	Gasoline	87	427,179	Litres	17,777	14,951	1,002
	Diesel Fuel	130	604,503	Litres	21,164	23,152	1,627
	Other Fuel	< 10	31,550	Litres	11,878	1,208	48
<b>Commercial Vehicles</b>						<b>39,311</b>	<b>2,677</b>
Tractor Trailer Trucks	Gasoline	< 10	17,150	Litres	9,299	600	40
	Diesel Fuel	113	2,696,076	Litres	59,738	103,260	7,255
	Other Fuel	< 10	4,761	Litres	7,085	182	7
<b>Tractor Trailer Trucks</b>						<b>104,042</b>	<b>7,302</b>
Motorhomes	Gasoline	53	47,763	Litres	2,624	1,672	111
	Diesel Fuel	< 10	6,132	Litres	5,558	235	17
	Other Fuel	< 10	692	Litres		27	1
<b>Motorhomes</b>						<b>1,934</b>	<b>129</b>
Motorcycles, Mopeds	Gasoline	84	33,081	Litres	4,619	1,158	77
<b>Motorcycles, Mopeds</b>						<b>1,158</b>	<b>77</b>
Bus	Gasoline	< 10	47,495	Litres	17,486	1,662	112
	Diesel Fuel	20	241,066	Litres	23,435	9,233	649
	Other Fuel	< 10	13,167	Litres	15,902	504	20
<b>Bus</b>						<b>11,399</b>	<b>781</b>

# Mount Waddington Regional District Updated 2007 Community Energy and Emissions Inventory

<b>On Road Transportation Totals</b>	Gasoline:	546,488	37,332
	Diesel:	186,133	13,132
	Other Fuel:	5,594	223
	<b>All Fuels:</b>	<b>738,215</b>	<b>50,687</b>

<b>Buildings</b>	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	5,688	84,205,762	Kilowatt Hours	303,141	2,077
	Heating Oil		174,987	GigaJoules	174,987	12,335
	Propane		30,109	GigaJoules	30,109	1,837
	Wood		213,921	GigaJoules	213,921	79
<b>Residential</b>					<b>722,158</b>	<b>16,328</b>
Commercial/Small-Medium Industrial	Electricity	1,181	87,747,397	Kilowatt Hours	315,890	2,164
<b>Commercial/Small-Medium Industrial</b>					<b>315,890</b>	<b>2,164</b>
Electricity:					619,031	4,241
Natural Gas:						
Propane:					30,109	1,837
Wood:					213,921	79
Heating Oil:					174,987	12,335
<b>Buildings Totals</b>	<b>Buildings:</b>				<b>1,038,048</b>	<b>18,492</b>

<b>Solid Waste</b>	Mass (t)	CO2e (t)
Community Solid Waste	7,811	12,604

# Mount Waddington Regional District Updated 2007 Community Energy and Emissions Inventory

<b>Grand Total</b>	CONSUMPTION		ENERGY (GJ)	CO <sub>2</sub> e (t)
Diesel Fuel	4,859,866	L	186,133	13,132
Electricity	171,953,159	kWh	619,031	4,241
Gasoline	15,613,937	L	546,488	37,332
Heating Oil	174,987	GJ	174,987	12,335
Other Fuel	146,084	L	5,594	223
Propane	30,109	GJ	30,109	1,837
Solid Waste	7,811	T	0	12,604
Wood	213,921	GJ	213,921	79
<b>Total of Transportation / Buildings / Solid Waste:</b>			<b>1,776,263 GJ</b>	<b>81,783 tonnes</b>

## Memo Items

<b>Buildings</b>	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>

<b>Agriculture</b>	Number of Animals	Methane	CO <sub>2</sub> e (t)

<b>Land-Use Change</b>	Area (ha)	CO <sub>2</sub> e (t)
Deforestation from Agriculture	-	-
Deforestation from Settlement	162	141,692
<b>Deforestation:</b>	<b>162</b>	<b>141,692</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	3,460	40	3,160	62	3,435	73
Semi-Detached House	140	2	125	2	165	4
Row House	470	5	520	10	435	9
Apartment, Duplex	65	1	50	1	40	1
Apartment, 5 storeys or higher	65	1	40	1	20	0
Apartment, under 5 storeys	545	6	530	10	385	8
Other Single Attached House	80	1	20	0	10	0
Movable Dwelling	470	5	640	13	215	5

### 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	4,675	67	4,360	69	3,795	70
Car, Truck, Van as Passenger	780	11	660	10	480	9
Public Transit	55	1	60	1	20	0
Walked	1,070	15	920	15	790	14
Bicycle	70	1	70	1	80	1
Motorcycle	0	0	10	0	15	0
Taxicab	20	0	10	0	10	0
Other Method	315	5	200	3	270	5

### 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

This data is currently unavailable in the CEEI 2007 Reports.

### 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	192,772.8	9.3
Local Parks	44.4	0.0
Agricultural Land Reserve	2,027.1	0.1
Other land use	1,872,011.5	90.6
Total Land Area	2,066,855.7	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.