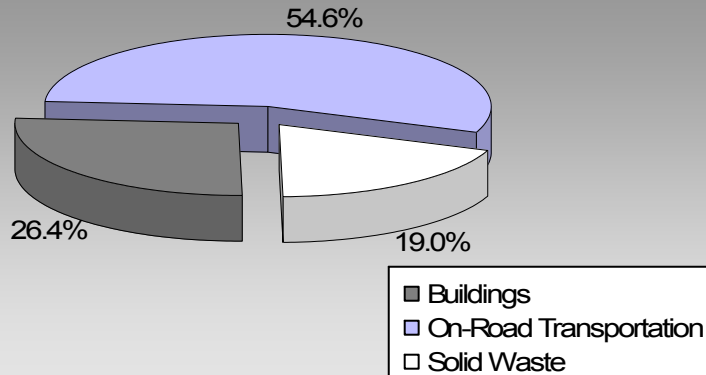


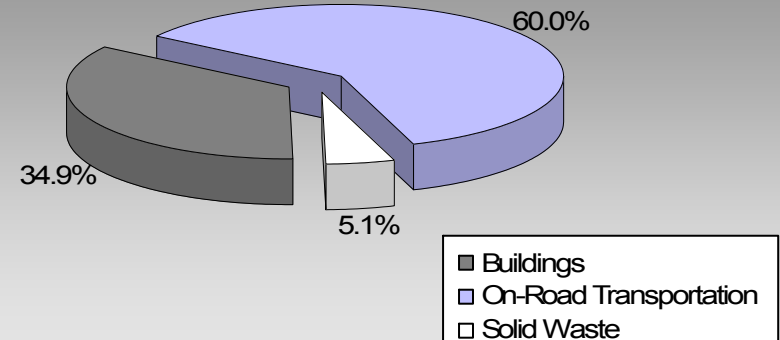
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

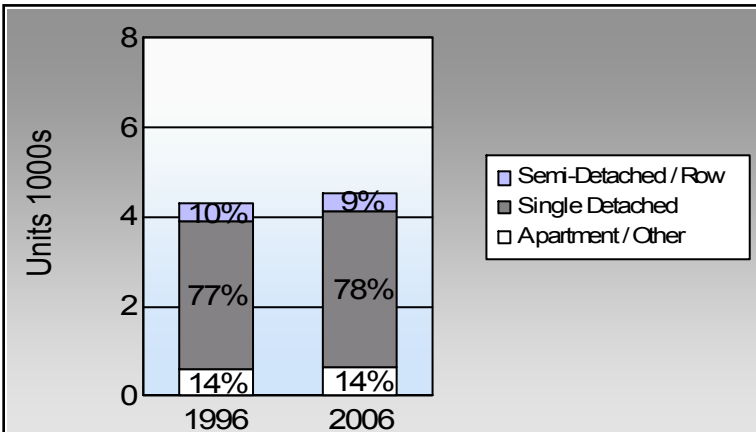
**Summerland District Municipality  
2007 GHG Emissions Sources**



**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
	85.5%	82.0%
	4.7%	9.0%
	0.4%	0.7%
	7.4%	6.1%
	0.7%	1.1%

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

#### Residential Density

Summerland District Municipality:  
3.1 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

<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	2,191	2,647,035	Litres	11,762	92,646	6,331
	Diesel Fuel	133	126,229	Litres	12,394	4,835	345
	Other Fuel	< 10	642	Litres	7,554	25	1
<b>Small Passenger Cars</b>						<b>97,506</b>	<b>6,677</b>
Large Passenger Cars	Gasoline	1,292	2,819,226	Litres	17,553	98,673	6,703
	Diesel Fuel	18	36,637	Litres	16,716	1,403	100
	Other Fuel	< 10	4,727	Litres	16,019	181	7
<b>Large Passenger Cars</b>						<b>100,257</b>	<b>6,810</b>
Light Trucks, Vans, SUVs	Gasoline	3,197	9,220,176	Litres	19,306	322,706	22,099
	Diesel Fuel	340	848,390	Litres	19,328	32,493	2,318
	Other Fuel	40	99,495	Litres	13,649	3,811	152
<b>Light Trucks, Vans, SUVs</b>						<b>359,010</b>	<b>24,569</b>
Commercial Vehicles	Gasoline	26	110,199	Litres	12,637	3,857	257
	Diesel Fuel	49	227,836	Litres	20,571	8,726	613
	Other Fuel	< 10	15,784	Litres	11,898	605	24
<b>Commercial Vehicles</b>						<b>13,188</b>	<b>894</b>
Tractor Trailer Trucks	Gasoline	< 10	2,380	Litres		83	6
	Diesel Fuel	49	950,784	Litres	51,979	36,415	2,558
	Other Fuel	< 10	2,380	Litres	7,085	91	4
<b>Tractor Trailer Trucks</b>						<b>36,589</b>	<b>2,568</b>
Motorhomes	Gasoline	108	131,414	Litres	2,933	4,599	307
	Diesel Fuel	16	18,205	Litres	3,852	697	49
	Other Fuel	< 10	1,661	Litres	2,189	64	3
<b>Motorhomes</b>						<b>5,360</b>	<b>359</b>
Motorcycles, Mopeds	Gasoline	165	70,113	Litres	5,236	2,454	164
	<b>Motorcycles, Mopeds</b>						<b>2,454</b>
Bus	Gasoline	< 10	5,852	Litres	15,902	205	14
	Diesel Fuel	< 10	62,527	Litres	25,947	2,395	168
	Other Fuel	< 10	1,463	Litres		56	2
<b>Bus</b>						<b>2,656</b>	<b>184</b>

# Summerland District Municipality Updated 2007 Community Energy and Emissions Inventory

<b>On Road Transportation Totals</b>	Gasoline:	525,223	35,881
	Diesel:	86,964	6,151
	Other Fuel:	4,833	193
	<b>All Fuels:</b>	<b>617,020</b>	<b>42,225</b>

<b>Buildings</b>	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	201	3,675,902	Kilowatt Hours	13,233	91
	Natural Gas	3,326	241,881	GigaJoules	241,881	12,336
	Heating Oil		4,029	GigaJoules	4,029	284
	Propane		7,107	GigaJoules	7,107	434
	Wood		35,467	GigaJoules	35,467	13
<b>Residential</b>					<b>301,717</b>	<b>13,158</b>
Commercial/Small-Medium Industrial	Electricity	22	188,357	Kilowatt Hours	678	5
	Natural Gas	283	131,634	GigaJoules	131,634	6,713
<b>Commercial/Small-Medium Industrial</b>					<b>132,312</b>	<b>6,718</b>
Wholesale	Electricity	1	97,699,200	Kilowatt Hours	351,717	586
<b>Wholesale</b>					<b>351,717</b>	<b>586</b>
<b>Buildings Totals</b>					<b>785,746</b>	<b>20,462</b>

<b>Solid Waste</b>	Mass (t)	CO2e (t)
Community Solid Waste	15,623	14,678

# Summerland District Municipality

## Updated 2007 Community Energy and Emissions Inventory

Grand Total	CONSUMPTION		ENERGY (GJ)	CO2e (t)
Diesel Fuel	2,270,608	L	86,964	6,151
Electricity	101,563,459	kWh	365,628	682
Gasoline	15,006,395	L	525,223	35,881
Heating Oil	4,029	GJ	4,029	284
Natural Gas	373,515	GJ	373,515	19,049
Other Fuel	126,152	L	4,833	193
Propane	7,107	GJ	7,107	434
Solid Waste	15,623	T	0	14,678
Wood	35,467	GJ	35,467	13
<b>Total of Transportation / Buildings / Solid Waste:</b>			<b>1,402,766 GJ</b>	<b>77,365 tonnes</b>

### Memo Items

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	1	withheld	Kilowatt Hours	-	-
	Natural Gas	2	withheld	GigaJoules	-	-
<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	3,290	43	3,385	76	3,520	78
Semi-Detached House	150	2	160	4	85	2
Row House	265	3	220	5	300	7
Apartment, Duplex	95	1	80	2	60	1
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	355	5	530	12	510	11
Other Single Attached House	10	0	10	0	25	1
Movable Dwelling	135	2	95	2	25	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	2,940	85	3,300	82	3,375	82
Car, Truck, Van as Passenger	160	5	305	8	370	9
Public Transit	15	0	10	0	30	1
Walked	255	7	285	7	250	6
Bicycle	25	1	75	2	45	1
Motorcycle	0	0	0	0	10	0
Taxicab	10	0	10	0	0	0
Other Method	35	1	35	1	35	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	11,243.0
Net Land Area (ha) *	3,609.8
Residential Density (people per net ha)	3.1

### 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	103.8	1.4
Local Parks	81.0	1.1
Agricultural Land Reserve	2,794.2	36.3
Other land use	4,711.1	61.3
Total Land Area	7,690.0	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.