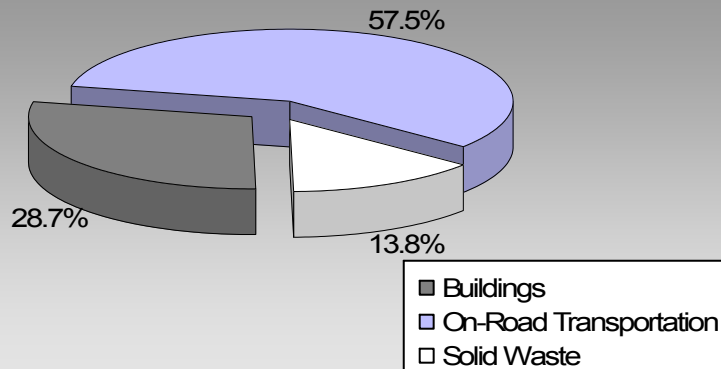


BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

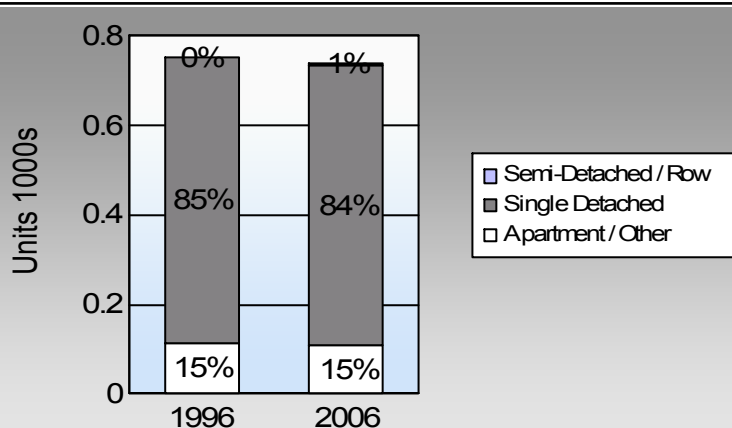
**Warfield Village  
2007 GHG Emissions Sources**



**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
	79.6%	83.0%
	7.0%	6.9%
	6.4%	1.9%
	5.7%	5.7%
	1.3%	2.5%

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

### Residential Density

Warfield Village: 9.5 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.

# Warfield Village

## Updated 2007 Community Energy and Emissions Inventory

### 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	342	482,947	Litres	14,074	16,903	1,149
	Diesel Fuel	< 10	7,162	Litres	14,234	274	20
	Other Fuel	< 10	897	Litres	8,459	34	1
<b>Small Passenger Cars</b>						<b>17,211</b>	<b>1,170</b>
Large Passenger Cars	Gasoline	203	398,529	Litres	16,351	13,949	946
	Diesel Fuel	< 10	1,588	Litres	16,247	61	4
	Other Fuel	< 10	2,299	Litres	16,783	88	4
<b>Large Passenger Cars</b>						<b>14,098</b>	<b>954</b>
Light Trucks, Vans, SUVs	Gasoline	457	1,391,444	Litres	20,263	48,701	3,326
	Diesel Fuel	24	63,823	Litres	21,222	2,444	174
	Other Fuel	< 10	5,375	Litres	12,994	206	8
<b>Light Trucks, Vans, SUVs</b>						<b>51,351</b>	<b>3,508</b>
Commercial Vehicles	Gasoline	< 10	15,864	Litres	18,052	555	37
	Diesel Fuel	< 10	36,662	Litres	24,856	1,404	99
<b>Commercial Vehicles</b>						<b>1,959</b>	<b>136</b>
Tractor Trailer Trucks	Diesel Fuel	< 10	92,264	Litres	50,427	3,534	248
<b>Tractor Trailer Trucks</b>						<b>3,534</b>	<b>248</b>
Motorhomes	Gasoline	< 10	5,676	Litres	2,189	199	13
<b>Motorhomes</b>						<b>199</b>	<b>13</b>
Motorcycles, Mopeds	Gasoline	14	8,385	Litres	4,949	293	20
<b>Motorcycles, Mopeds</b>						<b>293</b>	<b>20</b>
				Gasoline:		80,600	5,491
				Diesel:		7,717	545
				Other Fuel:		328	13
<b>On Road Transportation Totals</b>				<b>All Fuels:</b>		<b>88,645</b>	<b>6,049</b>

# Warfield Village

## Updated 2007 Community Energy and Emissions Inventory

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)	
Residential	Electricity	920	10,890,337	Kilowatt Hours	39,205	65	
	Natural Gas	622	46,493	GigaJoules	46,493	2,371	
<b>Residential</b>					<b>85,698</b>	<b>2,436</b>	
Commercial/Small-Medium Industrial	Electricity	57	2,266,145	Kilowatt Hours	8,158	13	
	Natural Gas	26	11,076	GigaJoules	11,076	565	
<b>Commercial/Small-Medium Industrial</b>					<b>19,234</b>	<b>578</b>	
					Electricity:	78	
					Natural Gas:	2,936	
					Propane:		
					Wood:		
					Heating Oil:		
<b>Buildings Totals</b>					<b>Buildings:</b>	<b>104,932</b>	<b>3,014</b>

Solid Waste	Mass (t)	CO2e (t)
Community Solid Waste	883	1,448

Grand Total	CONSUMPTION	ENERGY (GJ)	CO2e (t)
Diesel Fuel	201,499 L	7,717	545
Electricity	13,156,482 kWh	47,363	78
Gasoline	2,302,845 L	80,600	5,491
Natural Gas	57,569 GJ	57,569	2,936
Other Fuel	8,571 L	328	13
Solid Waste	883 T	0	1,448
<b>Total of Transportation / Buildings / Solid Waste:</b>		<b>193,577 GJ</b>	<b>10,511 tonnes</b>

# Warfield Village

## Updated 2007 Community Energy and Emissions Inventory

### Memo Items

<b>Buildings</b>	<u>Type</u>	<u>Connections</u>	<u>Consumption</u>	<u>Measurement</u>	<u>Energy (GJ)</u>	<u>CO2e (t)</u>
Large Industrial	Natural Gas	1	withheld	GigaJoules	-	-
<b>Large Industrial</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	635	46	635	84	625	84
Semi-Detached House	0	0	10	1	5	1
Row House	0	0	0	0	0	0
Apartment, Duplex	15	1	15	2	5	1
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	80	6	90	12	100	14
Other Single Attached House	10	1	0	0	5	1
Movable Dwelling	10	1	5	1	0	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	625	80	670	81	660	83
Car, Truck, Van as Passenger	55	7	40	5	55	7
Public Transit	50	6	0	0	15	2
Walked	45	6	75	9	45	6
Bicycle	10	1	45	5	20	3
Motorcycle	0	0	0	0	0	0
Taxicab	0	0	0	0	0	0
Other Method	0	0	0	0	0	0

#### 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	1,811.0
Net Land Area (ha) *	189.9
Residential Density (people per net ha)	9.5

#### 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	0.0	0.0
Local Parks	3.9	2.0
Agricultural Land Reserve	0.0	0.0
Other land use	190.3	98.0
<b>Total Land Area</b>	<b>194.1</b>	<b>100.0</b>

## 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.