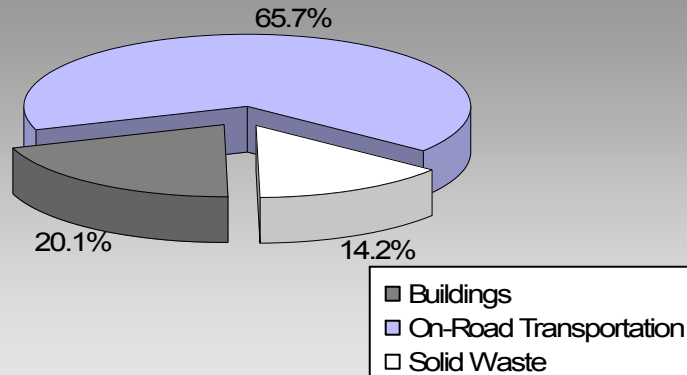


BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

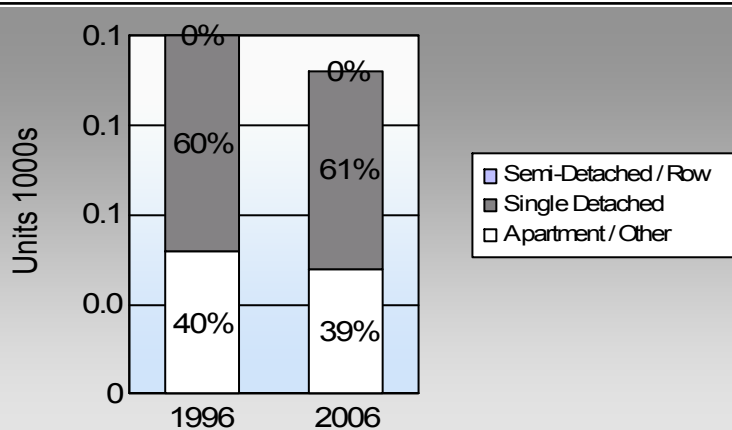
**Zeballos Village  
2007 GHG Emissions Sources**



**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
	54.2%	57.1%
	12.5%	9.5%
	0.0%	0.0%
	25.0%	33.3%
	0.0%	0.0%

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

#### Residential Density

Zeballos Village: 1.1 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	12	18,056	Litres	13,714	632	43
<b>Small Passenger Cars</b>						<b>632</b>	<b>43</b>
Large Passenger Cars	Gasoline	< 10	20,625	Litres	17,595	722	49
	Diesel Fuel	< 10	447	Litres		17	1
<b>Large Passenger Cars</b>						<b>739</b>	<b>50</b>
Light Trucks, Vans, SUVs	Gasoline	66	201,376	Litres	19,767	7,048	480
	Diesel Fuel	11	25,332	Litres	17,285	970	69
<b>Light Trucks, Vans, SUVs</b>						<b>8,018</b>	<b>549</b>
Commercial Vehicles	Gasoline	< 10	5,294	Litres	20,926	185	12
	Diesel Fuel	< 10	22,357	Litres	21,918	856	60
<b>Commercial Vehicles</b>						<b>1,041</b>	<b>72</b>
Tractor Trailer Trucks	Diesel Fuel	< 10	16,330	Litres	24,645	625	44
<b>Tractor Trailer Trucks</b>						<b>625</b>	<b>44</b>
Motorhomes	Gasoline	< 10	692	Litres	2,189	24	2
<b>Motorhomes</b>						<b>24</b>	<b>2</b>
Motorcycles, Mopeds	Gasoline	< 10	53	Litres		2	-
<b>Motorcycles, Mopeds</b>						<b>2</b>	<b>-</b>
Bus	Gasoline	< 10	1,463	Litres		51	3
<b>Bus</b>						<b>51</b>	<b>3</b>
						Gasoline:	589
						Diesel:	174
						Other Fuel:	
<b>On Road Transportation Totals</b>						<b>All Fuels:</b>	<b>763</b>

# Zeballos Village

## Updated 2007 Community Energy and Emissions Inventory

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)	
Residential	Electricity	97	1,258,386	Kilowatt Hours	4,530	31	
	Heating Oil		2,305	GigaJoules	2,305	162	
	Propane		397	GigaJoules	397	24	
	Wood		2,811	GigaJoules	2,811	1	
<b>Residential</b>					<b>10,043</b>	<b>218</b>	
Commercial/Small-Medium Industrial	Electricity	15	603,024	Kilowatt Hours	2,171	15	
<b>Commercial/Small-Medium Industrial</b>					<b>2,171</b>	<b>15</b>	
					Electricity:	6,701	46
					Natural Gas:		
					Propane:	397	24
					Wood:	2,811	1
					Heating Oil:	2,305	162
<b>Buildings Totals</b>					<b>Buildings:</b>	<b>12,214</b>	<b>233</b>

Solid Waste	Mass (t)	CO2e (t)
Community Solid Waste	124	165

Grand Total	CONSUMPTION		ENERGY (GJ)	CO2e (t)
Diesel Fuel	64,466	L	2,468	174
Electricity	1,861,410	kWh	6,701	46
Gasoline	247,559	L	8,664	589
Heating Oil	2,305	GJ	2,305	162
Propane	397	GJ	397	24
Solid Waste	124	T	0	165
Wood	2,811	GJ	2,811	1
<b>Total of Transportation / Buildings / Solid Waste:</b>			<b>23,346 GJ</b>	<b>1,161 tonnes</b>

# Zeballos 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	Electricity	0	0	Kilowatt Hours	-	-
<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	60	38	95	90	55	61
Semi-Detached House	0	0	5	5	0	0
Row House	0	0	0	0	0	0
Apartment, Duplex	0	0	5	5	0	0
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	10	6	0	0	0	0
Other Single Attached House	0	0	0	0	0	0
Movable Dwelling	30	19	0	0	35	39

#### 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	65	54	20	21	60	57
Car, Truck, Van as Passenger	15	13	0	0	10	10
Public Transit	0	0	0	0	0	0
Walked	30	25	50	53	35	33
Bicycle	0	0	10	11	0	0
Motorcycle	0	0	0	0	0	0
Taxicab	0	0	0	0	0	0
Other Method	10	8	15	16	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	161.0
Net Land Area (ha) *	153.6
Residential Density (people per net ha)	1.1

#### 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.	

# Zeballos Village

## Updated 2007 Community Energy and Emissions Inventory

### 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	1.3	0.6
Agricultural Land Reserve	0.0	0.0
Other land use	194.4	99.4
Total Land Area	195.7	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.