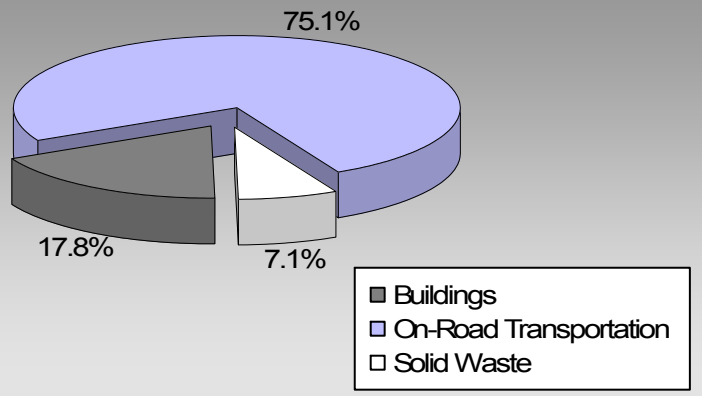
Sayward Village
Updated 2007 Community Energy and Emissions Inventory

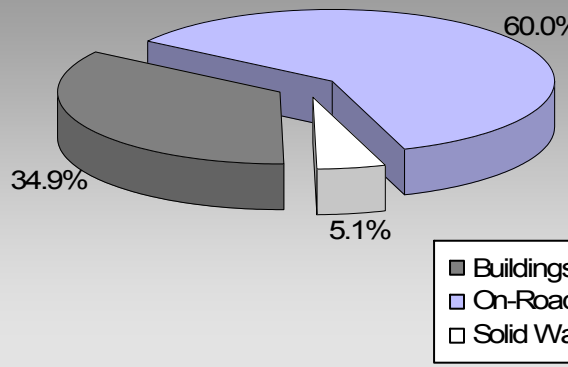
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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

Sayward Village
2007 GHG Emissions Sources

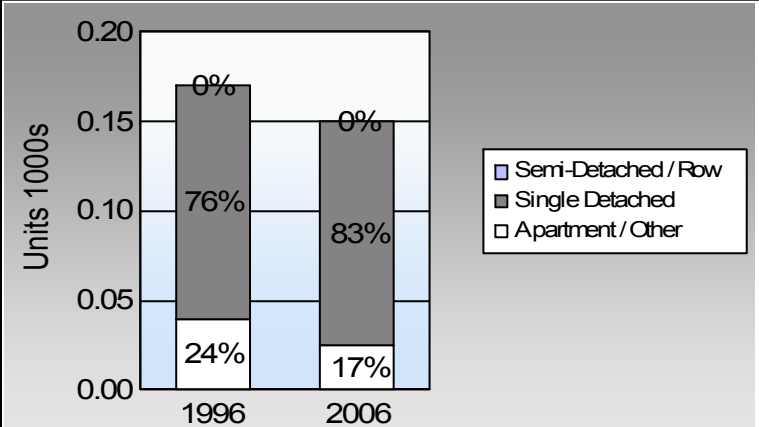


Total for BC Communities



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
	54.8%	66.7%
	19.1%	8.3%
	0.0%	0.0%
	16.7%	12.5%
	0.0%	0.0%

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

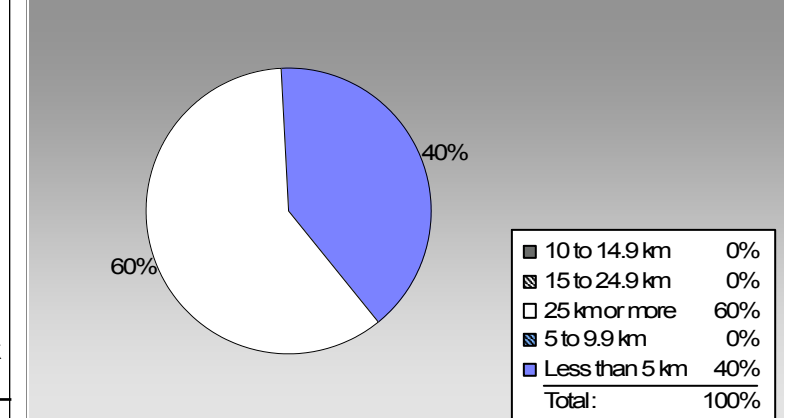
Residential Density

Sayward Village: 0.9 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.

For more information and to provide feedback on your Community Energy and Emissions Inventory (CEEI) Report see back page.

Sectors

On Road Transportation		Vehicles	Consumption	Measurement	Average-VKT(km)	Energy (GJ)	CO2e (t)
Small Passenger Cars	Gasoline	77	111,680	Litres	15,027	3,909	263
	Diesel Fuel	< 10	9,730	Litres	15,645	373	27
				Small Passenger Cars		**4,282**	**290**
Large Passenger Cars	Gasoline	43	95,010	Litres	18,083	3,325	226
	Diesel Fuel	< 10	9,959	Litres	18,870	381	27
				Large Passenger Cars		**3,706**	**253**
Light Trucks, Vans, SUVs	Gasoline	170	512,348	Litres	20,258	17,932	1,217
	Diesel Fuel	30	72,889	Litres	20,744	2,792	199
	Other Fuel	< 10	3,713	Litres	14,115	142	6
				Light Trucks, Vans, SUVs		**20,866**	**1,422**
Commercial Vehicles	Gasoline	< 10	25,085	Litres	19,342	878	59
	Diesel Fuel	< 10	7,250	Litres	20,931	278	20
				Commercial Vehicles		**1,156**	**79**
Tractor Trailer Trucks	Diesel Fuel	< 10	64,216	Litres	89,388	2,459	173
				Tractor Trailer Trucks		**2,459**	**173**
Motorhomes	Gasoline	< 10	2,309	Litres	2,375	81	5
	Diesel Fuel	< 10	1,648	Litres	6,351	63	4
	Other Fuel	< 10	138	Litres		5	-
				Motorhomes		**149**	**9**
Motorcycles, Mopeds	Gasoline	< 10	3,055	Litres	5,762	107	7
				Motorcycles, Mopeds		**107**	**7**
Bus	Diesel Fuel	< 10	1,527	Litres		58	4
				Bus		**58**	**4**
				Gasoline:		26,232	1,777
				Diesel:		6,404	454
				Other Fuel:		147	6
On Road Transportation Totals				**All Fuels:**		**32,783**	**2,237**

Sayward Village
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Buildings

	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	180	2,204,420	Kilowatt Hours	7,936	54
	Heating Oil		5,367	GigaJoules	5,367	378
	Propane		924	GigaJoules	924	56
	Wood		6,554	GigaJoules	6,554	2
			Residential		**20,781**	**490**
Commercial/Small-Medium Industrial	Electricity	44	1,561,290	Kilowatt Hours	5,621	39
			Commercial/Small-Medium Industrial		**5,621**	**39**

	Electricity:	13,557	93
	Natural Gas:		
	Propane:	924	56
	Wood:	6,554	2
	Heating Oil:	5,367	378
Buildings Totals	**Buildings:**	**26,402**	**529**

Solid Waste

	Mass (t)	CO2e (t)
Community Solid Waste	222	211

Grand Total

	CONSUMPTION		ENERGY (GJ)	CO2e (t)
Diesel Fuel	167,219	L	6,404	454
Electricity	3,765,710	kWh	13,557	93
Gasoline	749,487	L	26,232	1,777
Heating Oil	5,367	GJ	5,367	378
Other Fuel	3,851	L	147	6
Propane	924	GJ	924	56
Solid Waste	222	T	0	211
Wood	6,554	GJ	6,554	2

Total of Transportation / Buildings / Solid Waste: **59,185** GJ **2,977** tonnes

Memo Items

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	0	0	Kilowatt Hours	-	-
				Large Industrial	**-**	**-**

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

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	130	43	130	84	125	83
Semi-Detached House	0	0	0	0	0	0
Row House	0	0	0	0	0	0
Apartment, Duplex	0	0	0	0	0	0
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	30	10	10	6	25	17
Other Single Attached House	0	0	0	0	0	0
Movable Dwelling	10	3	15	10	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	331.0
Net Land Area (ha) *	385.9
Residential Density (people per net ha)	0.9

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	115	55	75	58	80	67
Car, Truck,Van as Passenge	40	19	0	0	10	8
Public Transit	0	0	0	0	0	0
Walked	35	17	20	15	15	13
Bicycle	0	0	10	8	0	0
Motorcycle	0	0	0	0	0	0
Taxicab	0	0	0	0	0	0
Other Method	20	10	25	19	15	13

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	20	40
5 to 9.9 km	0	0
10 to 14.9 km	0	0
15 to 24.9 km	0	0
25 km or more	30	60

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	3.7	0.7
Agricultural Land Reserve	32.6	6.5
Other land use	465.8	92.8
Total Land Area	502.1	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 (see survey on CEEI website).

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

Buildings

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

Solid Waste (and Water)

Waste Diversion	Tonnes of waste diverted
Avoided Waste Emissions	Tonnes of CO2e of avoided future emissions due to reduced waste since 2007
Water Use	Per capita residential water use

Land-Use Change

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

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)

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