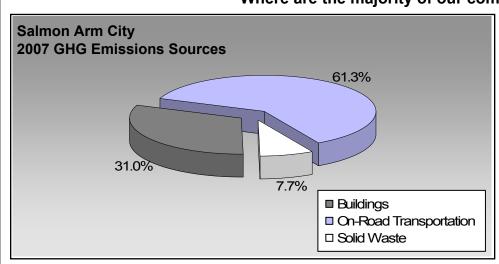
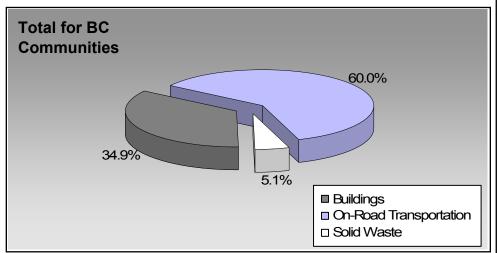


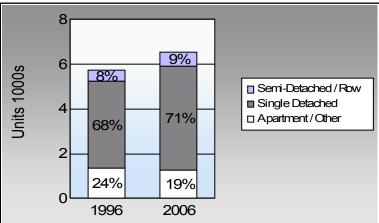
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

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





## 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
	77.6%	78.8%
	9.5%	9.2%
	0.3%	0.6%
À	8.1%	8.9%
S <sub>O</sub>	2.2%	1.7%

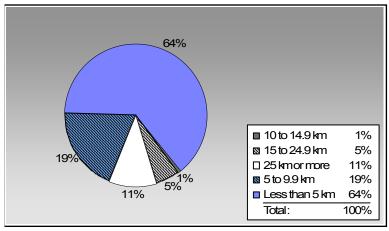
In BC, 10% of people took transit, 7% walked, and 2% cycled to work in 2006.

#### **Residential Density**

Salmon Arm City: 2.9 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 Transport	ation	<u>Vehicles</u>	Consumption	Measurement	Average-VKT(km)	Energy (GJ)	CO2e (t)
Small Passenger Cars	Gasoline	3,201	4,511,838	Litres	13,903	157,914	10,787
_	Diesel Fuel	123	126,855	Litres	14,333	4,859	346
	Other Fuel	< 10	1,131	Litres	12,031	43	2
				Small Pa	assenger Cars	162,816	11,135
Large Passenger Cars	Gasoline	2,024	4,606,637	Litres	18,368	161,232	10,947
	Diesel Fuel	34	85,215	Litres	18,462	3,264	233
	Other Fuel	10	24,082	Litres	14,563	922	37
				Large Pa	assenger Cars	165,418	11,217
Light Trucks, Vans, SUVs	Gasoline	5,096	15,666,424	Litres	19,813	548,325	37,525
-	Diesel Fuel	603	1,465,894	Litres	19,834	56,144	4,005
	Other Fuel	43	104,659	Litres	13,276	4,008	160
				Light Tru	ucks, Vans, SUVs	608,477	41,690
Commercial Vehicles	Gasoline	61	261,710	Litres	14,273	9,160	612
	Diesel Fuel	116	536,813	Litres	20,957	20,560	1,445
	Other Fuel	< 10	26,884	Litres	11,807	1,030	41
				Commer	cial Vehicles	30,750	2,098
Tractor Trailer Trucks	Gasoline	< 10	14,878	Litres	7,085	521	35
	Diesel Fuel	216	6,133,045	Litres	75,210	234,896	16,504
	Other Fuel	< 10	1,190	Litres		46	2
				Tractor <sup>-</sup>	Trailer Trucks	235,463	16,541
Motorhomes	Gasoline	109	154,767	Litres	3,194	5,417	362
	Diesel Fuel	21	26,314	Litres	4,540	1,008	71
	Other Fuel	< 10	3,977	Litres	2,472	152	6
				Motorho	mes	6,577	439
Motorcycles, Mopeds	Gasoline	146	82,236	Litres	5,145	2,878	192
				Motorcy	cles, Mopeds	2,878	192
Bus	Gasoline	< 10	62,125	Litres	23,924	2,174	146
	Diesel Fuel	45	393,078	Litres	19,481	15,055	1,058
	Other Fuel	< 10	5,852	Litres	15,902	224	9
				Bus		17,453	1,213



On Road Transportation Totals	All Fuels:	1,229,832	84,525
	Other Fuel:	6,425	257
	Diesel:	335,786	23,662
	Gasoline:	887,621	60,606

Buildings	<u>Type</u>	Connections	Consumption	<u>Measurement</u>	Energy (GJ)	CO2e (t)
Residential	Electricity	7,347	72,340,586	Kilowatt Hours	260,426	1,784
	Natural Gas	5,658	451,196	GigaJoules	451,196	23,011
	Heating Oil		8,118	GigaJoules	8,118	572
	Propane		14,298	GigaJoules	14,298	872
	Wood		71,598	GigaJoules	71,598	26
			Residential		805,636	26,265
Commercial/Small-Medium Industrial	Electricity	1,191	72,669,101	Kilowatt Hours	261,609	1,793
	Natural Gas	729	287,585	GigaJoules	287,585	14,667
			Commercial/Sma	III-Medium Industrial	549,194	16,460
			Electri	city:	522,035	3,577
			Natura	al Gas:	738,781	37,678
			Propa	ne:	14,298	872
			Wood		71,598	26
			Heatir	ng Oil:	8,118	572
Buildings Totals			Buildi	ngs:	1,354,830	42,725

Solid Waste		Mass (t)	CO2e (t)
	Community Solid Waste	14,124	10,682



Grand Total		CONSUMPTION		ENERGY (GJ)	CO2e (t)
	Diesel Fuel	8,767,214	L	335,786	23,662
	Electricity	145,009,687	kWh	522,035	3,577
	Gasoline	25,360,615	L	887,621	60,606
	Heating Oil	8,118	GJ	8,118	572
	Natural Gas	738,781	GJ	738,781	37,678
	Other Fuel	167,775	L	6,425	257
	Propane	14,298	GJ	14,298	872
	Solid Waste	14,124	Т	0	10,682
	Wood	71,598	GJ	71,598	26
Total of Transportation / E	Buildings / Solid Waste:			<b>2,584,662</b> GJ	137,932 tonnes

### **Memo Items**

Buildings	<u>Type</u>	Connections	Consumption	Measurement	Energy (GJ)	<u>CO2e (t)</u>
Large Industrial	Electricity	1	withheld	Kilowatt Hours	-	-
	Natural Gas	3	withheld	GigaJoules	-	-
			Lar	ge 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 <a href="http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html">http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html</a> or contact us directly at <a href="https://ceei/index.html">CEEIRPT@gov.bc.ca</a>

#### 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.

	199	6	200	1	2006	i	
	Units	%	Units	%	Units	%	
Single Detached House	3,885	40	4,240	68	4,655	71	
Semi-Detached House	125	1	95	2	125	2	
Row House	360	4	460	7	490	8	
Apartment, Duplex	250	3	270	4	295	5	
Apartment, 5 storeys or higher	0	0	5	0	0	0	
Apartment, under 5 storeys	570	6	685	11	830	13	
Other Single Attached House	0	0	15	0	10	0	
Movable Dwelling	525	5	480	8	130	2	

#### 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	7,220.0
Net Land Area (ha) *	5,897.8
Residential Density (people per net ha)	2.9

#### 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.

	199	6	20	01	200	16	
	People	%	People	%	People	%	
Car, Truck, Van as Driver	4,530	78	4,865	81	5,190	79	
Car, Truck, Van as Passenge	555	10	440	7	605	9	
Public Transit	15	0	55	1	40	1	
Walked	475	8	480	8	585	9	
Bicycle	130	2	100	2	110	2	
Motorcycle	15	0	15	0	15	0	
Taxicab	10	0	0	0	0	0	
Other Method	105	2	60	1	45	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.

	200	)6	
	People	%	
Less than 5 km	3,560	64	
5 to 9.9 km	1,085	19	
10 to 14.9 km	50	1	
15 to 24.9 km	290	5	
25 km or more	615	11	



#### 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.

National Parks	2009				
	Area (ha)	%			
National Parks	0.0	0.0			
Provincial Parks / Protected Areas	0.0	0.0			
Local Parks	61.7	0.4			
Agricultural Land Reserve	6,147.8	34.8			
Other land use	11,481.1	64.9			
Total Land Area	17,690.5	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** 

Floor Space

Average energy use per person per square metre of 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)



Page 8 of 8 June 30, 2010

# 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 (<a href="http://www.toolkit.bc.ca">http://www.toolkit.bc.ca</a>), 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.

#### 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: <a href="http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html">http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html</a>.

- For guidance on target setting and community actions, go to <a href="http://www.toolkit.bc.ca">http://www.cd.gov.bc.ca/lgd/greencommunities/targets.htm</a>.

#### 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 <a href="http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html">http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html</a> or contact us directly at <a href="mailto:CEEIRPT@gov.bc.ca">CEEIRPT@gov.bc.ca</a>

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.