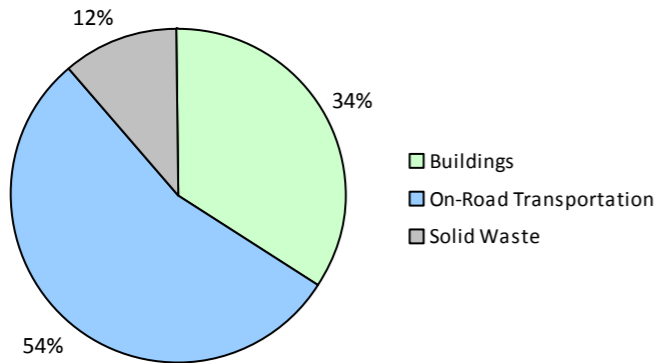
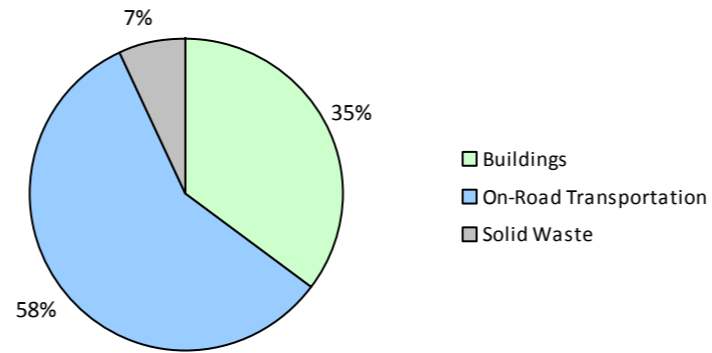


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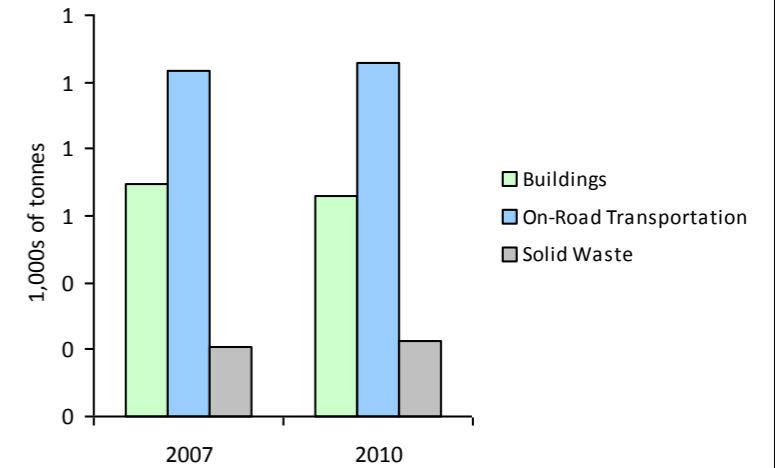
2010 GHG Emissions Sources (Total for this Community)



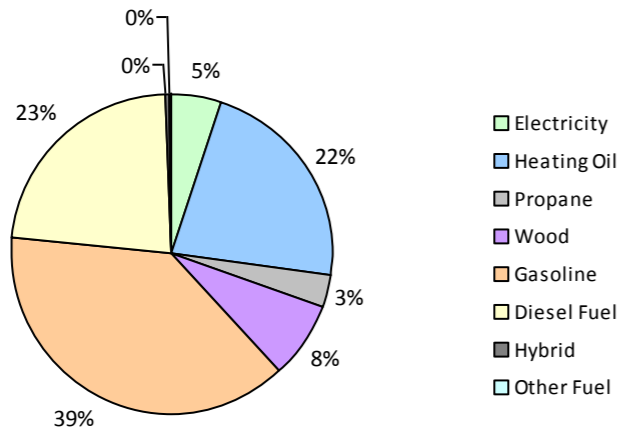
2010 GHG Emissions Sources (Total for BC)



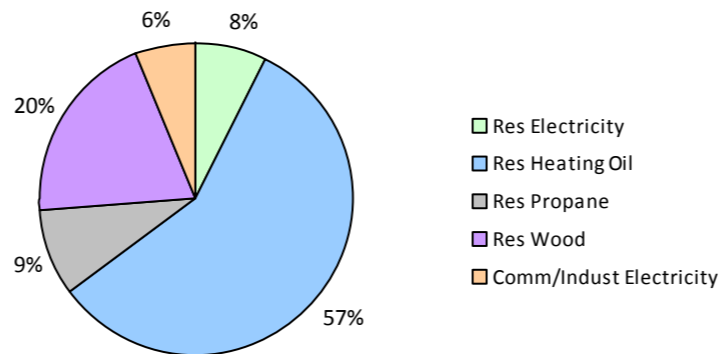
GHG Emissions Comparisons for this Community



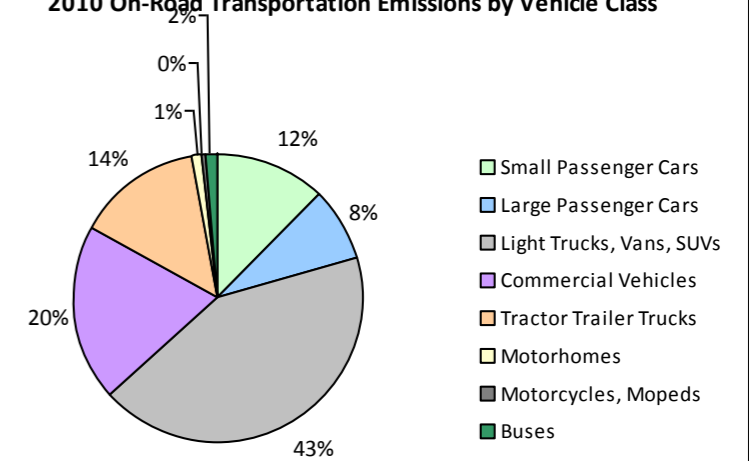
2010 Total Emissions by Fuel Type



2010 Building Emissions by Subsector



2010 On-Road Transportation Emissions by Vehicle Class



Sayward Village 2010 Community Energy and Emissions Inventory

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Core Items

On-Road Transportation		2007					2010				
		Connections	Consumption	Avg VKT (km)	Energy (GJ)	C02e (t)	Connections	Consumption	Avg VKT (km)	Energy (GJ)	C02e (t)
Small Passenger Cars	Hybrid							16,100	31	2	
	Gasoline	48	51,744 L	11,200	1,812	129	43	44,856 L	10,800	1,569	104
	Diesel Fuel			26,300	491	35		23,800	373	26	
Large Passenger Cars	Hybrid							15,200	25	0	
	Gasoline	25	32,229 L	10,900	1,128	80	24	34,627 L	12,200	1,211	81
	Diesel Fuel							32,200	103	8	
Light Trucks, Vans, SUVs	Gasoline	104	173,648 L	11,400	6,078	430	104	178,585 L	11,700	6,251	416
	Diesel Fuel			10,500	649	46		11,400	376	26	
	Other Fuel			9,400	82	4		9,100	38	4	
Commercial Vehicles	Gasoline	19	35,517 L	11,200	1,243	83	11	19,272 L	10,500	675	43
	Diesel Fuel	19	60,370 L	17,100	2,312	162	20	63,547 L	17,100	2,434	167
	Other Fuel			11,700	105	7		9,100	39	2	
Tractor Trailer Trucks	Diesel Fuel			30,800	472	33		71,500	2,194	150	
Motorhomes	Gasoline			16,300	236	16		18,200	175	12	
	Diesel Fuel			20,100	137	9					
Motorcycles, Mopeds	Gasoline			2,300	24	1		3,100	27	2	
Buses	Diesel Fuel							24,300	253	16	
Totals		215	353,508 L	11,783	14,769	1,035	202	353,508 L	12,037	15,774	1,059

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Residential	Wood	N/A	6,872 GJ	6,872	139	N/A	6,652 GJ	6,652	135
	Heating Oil	N/A	5,726 GJ	5,726	404	N/A	5,543 GJ	5,543	379
	Propane	N/A	986 GJ	986	60	N/A	955 GJ	955	58
	Electricity	180	2,204,420 kWh	7,936	55	180	1,996,246 kWh	7,186	50
Commercial/Small-Medium Industrial	Electricity	44	1,561,290 kWh	5,621	39	44	1,602,509 kWh	5,769	40
Totals		224		27,141	697	224		26,105	662

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Solid Waste	2007				2010			
	Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Community Solid Waste Solid Waste	0	218 t	N/A	208	0	205 t	N/A	224
Totals	0			208	0			224

Totals for Transportation, Buildings and Solid Waste

Fuel Type	2007 (Population: 326)			2010 (Population: 334)		
	Consumption	Energy (GJ)	C02e (t)	Consumption	Energy (GJ)	C02e (t)
Hybrid	0 L	0		0 L	56	2
Gasoline	293,138 L	10,521	739	277,340 L	9,908	658
Diesel Fuel	60,370 L	4,061	285	63,547 L	5,733	393
Other Fuel	0 L	187	11	0 L	77	6
Wood	6,872 GJ	6,872	139	6,652 GJ	6,652	135
Heating Oil	5,726 GJ	5,726	404	5,543 GJ	5,543	379
Propane	986 GJ	986	60	955 GJ	955	58
Electricity	3,765,710 kWh	13,557	94	3,598,755 kWh	12,955	90
Solid Waste	218 t	0	208	205 t	0	224
Grand Totals		41,910	1,940		41,879	1,945

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

Supporting Indicators

No new supporting indicator data have been provided in the 2010 reports. Work is currently underway to produce a complete second round of data for the indicators below in the 2012 reports (available in 2014). In the interim, we are including the same supporting indicator data that was provided in the 2007 reports. Feedback is requested on all supporting indicators; please contact us directly at

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

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	
	Units	%	Units	%	Units	%
Car, Truck, Van as Driver	115	55	75	58	80	67
Car, Truck, Van as Passenger	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

Parks and Protected Greenspace

Parks and protected greenspaces are important for the protection and enhancement of community carbon sinks.

	2009	
	Units	%
National Parks	0	0
Provincial Parks / Protected Areas	0	0
Local Parks	4	1
Agricultural Land Reserve	33	6
Other land use	466	93
Total Parks and Protected Area	4	1
Total Land Area	502	100

* Total is net of Indian Reserves
** Quantity of parkland may be underestimated

Residential Density

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	
	Units	%
National Parks	0	0
Provincial Parks / Protected Areas	0	0
Local Parks	4	1
Agricultural Land Reserve	33	6
Other land use	466	93
Total Parks and Protected Area	4	1
Total Land Area	502	100

* Net of Crown land, parks, Indian Reserves, water features, airports, ALR, waste disposal site

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

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Supporting Indicators Under Consideration

Work is currently underway to produce a complete second round of supporting indicators for the 2012 reports (available in 2014). These reports will new data for the five supporting indicators included in the 2007 and 2010 Reports:

- **Housing Type:** Private dwellings by structural type
- **Commute to Work:** Employed labour force - by mode of commute
- **Commute Distance**
- **Residential Density**
- **Parks and Protected Greenspace**

And in addition, the 2012 reports we are working to be able to include:

- **Proximity to Transit**
- **Building Energy Intensity**
- **Building Floor Space**
- **Waste Diversion**

We are continuing to work towards reporting on even more supporting indicators in the future including:

- **Proximity to Services** (e.g. destinations such as grocery store, school, other retail etc.)
- **Transit Ridership**
- **Water Use**
- **Impervious Surface Cover:** % change in impervious surface cover
- **Tree Canopy Cover:** % change in tree canopy cover
- **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)

Please give us feedback by contacting us directly at CEEIRPT@gov.bc.ca

Many local governments have been undertaking a significant amount of climate action in both the corporate and community-wide spheres, as demonstrated in both the public reports from the Climate Action Revenue Incentive Program (CARIP) <http://www.cscd.gov.bc.ca/lgd/greencommunities/carip.htm>, and on the <http://toolkit.bc.ca> website. These two resources may be helpful to those who are interested in learning from other BC local governments. The toolkit also contains additional information and resources including decision-support/planning frameworks and tools for undertaking actions to reduce GHG emissions and energy consumption.

This is your local government's 2010 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 as well as supporting indicators 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, fulfill Milestone One requirements for those local government members of the Federation of Canadian Municipalities' (FCM's) Partners in Climate Protection (PCP) program, as well as supporting local government efforts to monitor progress towards Regional Growth Strategy objectives.

A first in North America!

CEEI is a first in North America and a first step for BC communities. The 2010 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 from large industrial buildings, including updated land-use change and new agricultural sectors as 'memo items'. 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 2010 CEEI Reports, User Guide, Technical Methods and Guidance Document, and additional information on the Supporting 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, please take the time to contact us directly at 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,