

53%

2010 GHG Emissions Sources (Total for this Community)

47% 🗖 Buildings

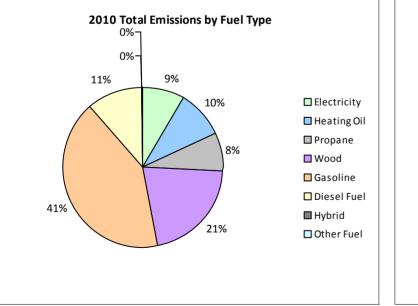
On-Road Transportation

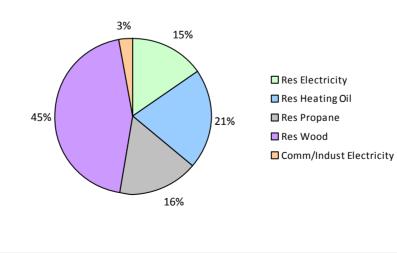
Mayne Island Trust Area

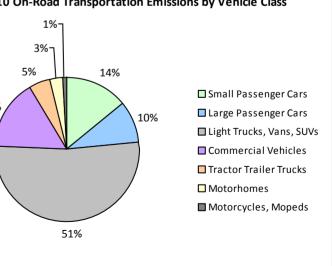
2010 Community Energy and Emissions Inventory

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

2010 GHG Emissions Sources (Total for BC) **GHG Emissions Comparisons for this Community** 2 · 2 7% 2 2 1,000s of tonnes 35% 2 Buildings Buildings 2 On-Road Transportation On-Road Transportation Solid Waste 2 2 58% 2 2 2007 2010 2010 Building Emissions by Subsector 2010 On-Road Transportation Emissions by Vehicle Class 1%-3%-3% 15% 5% 14% Small Passenger Cars 16% Res Electricity Large Passenger Cars 10%









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Core Items

				2007					2010		
On-Road Transportation		Connections	Consumption	Avg VKT (km)	Energy (GJ)	C02e (t)	Connections	Consumption	Avg VKT (km)	Energy (GJ)	C02e (t)
Small Passenger Cars	Hybrid			17,000	29	1			11,900	21	0
	Gasoline	149	135,010 L	9,500	4,725	323	150	139,068 L	9,700	4,866	314
	Diesel Fuel			15,200	197	14			11,100	216	16
	Other Fuel								8,800	19	0
Large Passenger Cars	Hybrid								11,400	24	0
	Gasoline	88	110,106 L	10,900	3,854	263	79	96,950 L	10,700	3,393	218
	Diesel Fuel			10,400	153	11			8,500	96	6
Light Trucks, Vans, SUVs	Hybrid								11,600	36	3
	Gasoline	268	448,495 L	12,000	15,697	1,076	307	498,238 L	11,700	17,438	1,136
	Diesel Fuel	28	54,812 L	11,200	2,099	150	15	30,908 L	11,800	1,183	81
	Other Fuel			8,200	104	7			8,700	95	4
Commercial Vehicles	Gasoline	20	41,238 L	12,200	1,444	97	24	49,352 L	12,300	1,727	110
	Diesel Fuel	30	88,001 L	15,900	3,371	236	33	99,136 L	16,400	3,796	259
	Other Fuel			7,500	106	7			7,500	70	4
Tractor Trailer Trucks	Diesel Fuel			20,900	1,331	94			17,000	1,612	109
Motorhomes	Gasoline	11	23,120 L	15,400	810	53			16,700	718	45
	Diesel Fuel			14,900	492	35			13,900	370	26
Motorcycles, Mopeds	Gasoline	32	9,001 L	6,700	314	20	31	9,213 L	7,100	323	20
Totals		626	909,783 L	11,197	34,726	2,387	639	909,783 L	11,151	36,003	2,351

			20	07				2010	
Buildings		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Residential	Wood	N/A	47,356 GJ	47,356	959	N/A	45,935 GJ	45,935	931
	Heating Oil	N/A	6,281 GJ	6,281	443	N/A	6,093 GJ	6,093	429
	Propane	N/A	5,675 GJ	5,675	346	N/A	5,504 GJ	5,504	336
	Electricity	1,294	13,465,255 kWh	48,475	337	1,313	12,843,836 kWh	46,238	321
Commercial/Small-Medium Industrial	Electricity	126	2,175,821 kWh	7,833	54	132	2,277,607 kWh	8,199	57
Totals		1,420		115,620	2,139	1,445		111,969	2,074



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Totals for Transportation, Buildings and Solid Waste

	2007 (Po	pulation: 1,104)	2010 (Population: 1,079)			
Fuel Type	Consumption	Energy (GJ)	C02e (t)	Consumption	Energy (GJ)	C02e (t)
Hybrid	0 L	29	1	0 L	81	3
Gasoline	766,970 L	26,844	1,832	792,821 L	28,465	1,843
Diesel Fuel	142,813 L	7,643	540	130,044 L	7,273	497
Other Fuel	0 L	210	14	0 L	184	8
Wood	47,356 GJ	47,356	959	45,935 GJ	45,935	931
Heating Oil	6,281 GJ	6,281	443	6,093 GJ	6,093	429
Propane	5,675 GJ	5,675	346	5,504 GJ	5,504	336
Electricity	15,641,076 kWh	56,308	391	15,121,443 kWh	54,437	378
Grand Totals		150,346	4,526		147,972	4,425



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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		200	1	2006		
	Units	%	Units	%	Units	%	
Single Detached House	410	95	445	98	565	97	
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	10	2	5	1	0	0	
Other Single Attached House	0	0	0	0	0	0	
Movable Dwelling	10	2	5	1	15	3	

Parks and Protected Greenspace

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

	2009		
	Units	%	
National Parks	8	0	
Provincial Parks / Protected Areas	10	0	
Local Parks	61	3	
Agricultural Land Reserve	328	15	
Other land use	1,825	82	
Total Parks and Protected Area	78	4	
Total Land Area	2,231	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	8	0
Provincial Parks / Protected Areas	10	0
Local Parks	61	3
Agricultural Land Reserve	328	15
Other land use	1,825	82
Total Parks and Protected Area	78	4
Total Land Area	2,231	100

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

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	180	69	195	68	225	68
Car, Truck, Van as Passenger	30	12	10	4	40	12
Public Transit	10	4	10	4	20	6
Walked	30	12	70	25	35	11
Bicycle	10	4	0	0	10	3
Motorcycle	0	0	0	0	0	0
Taxicab	0	0	0	0	0	0
Other Method	0	0	0	0	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) <u>http://www.cscd.gov.bc.ca/lgd/greencommunities/carip.htm</u>, and on the <u>http://toolkit.bc.ca</u> 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.



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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 (<u>http://www.toolkit.bc.ca</u>), 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

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,