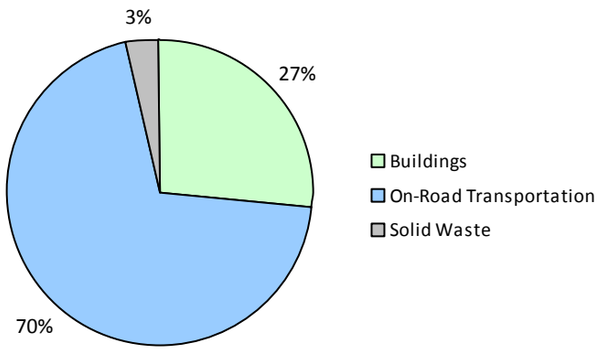
Coldstream District Municipality

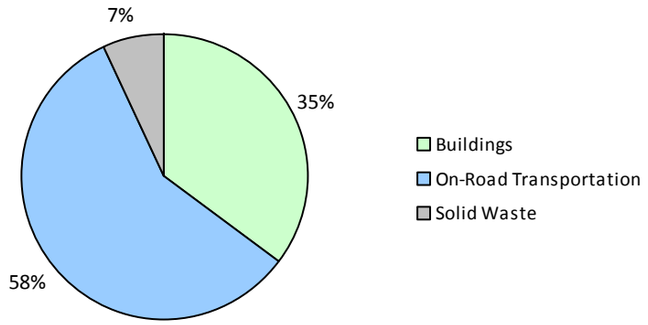
2010 Community Energy and Emissions Inventory

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

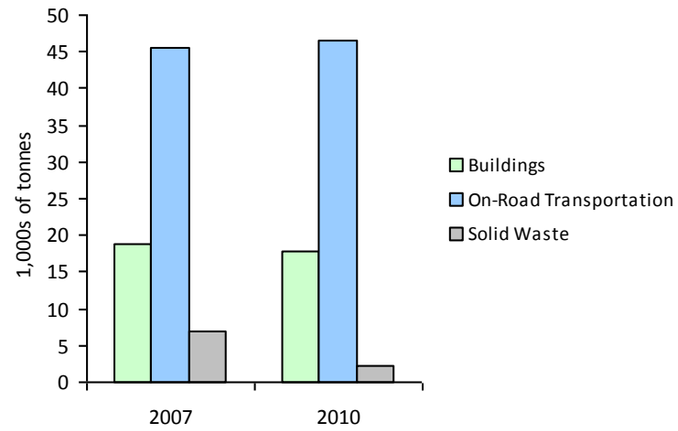
2010 GHG Emissions Sources (Total for this Community)



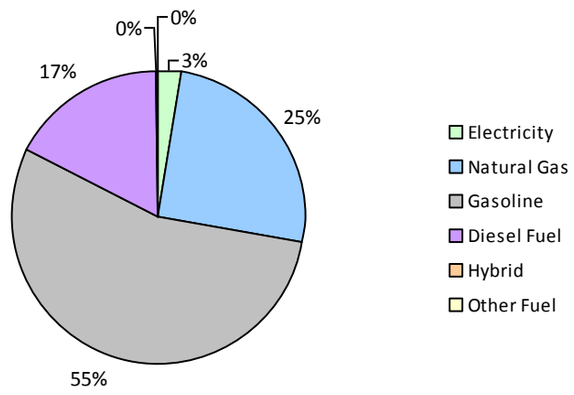
2010 GHG Emissions Sources (Total for BC)



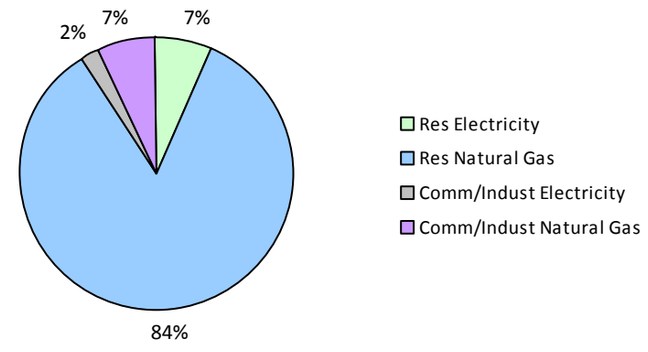
GHG Emissions Comparisons for this Community



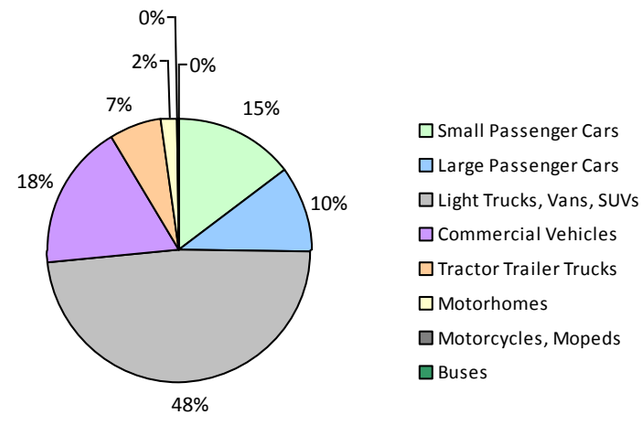
2010 Total Emissions by Fuel Type



2010 Building Emissions by Subsector



2010 On-Road Transportation Emissions by Vehicle Class



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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			17,500	30	2	10	11,555 L	21,000	404	26
	Gasoline	1,772	2,736,992 L	16,400	95,794	6,491	1,898	2,912,469 L	16,300	101,936	6,532
	Diesel Fuel	69	121,412 L	25,900	4,650	331	75	127,333 L	24,900	4,876	338
Large Passenger Cars	Hybrid	11	14,708 L	23,500	516	34	39	51,256 L	22,400	1,794	114
	Gasoline	1,191	2,297,023 L	17,000	80,397	5,436	1,103	2,075,433 L	16,700	72,640	4,653
	Diesel Fuel	16	23,201 L	15,900	889	62	16	25,326 L	18,000	970	68
Light Trucks, Vans, SUVs	Hybrid			23,500	456	31	11	24,788 L	25,700	868	55
	Gasoline	3,085	8,713,591 L	19,400	304,975	20,798	3,324	9,410,199 L	19,700	329,357	21,301
	Diesel Fuel	141	375,104 L	15,300	14,366	1,022	114	356,514 L	19,000	13,654	943
	Other Fuel	26	56,320 L	12,700	1,425	86	15	29,721 L	11,400	753	46
Commercial Vehicles	Gasoline	270	885,148 L	19,500	30,980	2,081	307	1,005,174 L	19,500	35,181	2,249
	Diesel Fuel	379	1,659,995 L	24,300	63,578	4,467	498	2,348,867 L	26,600	89,962	6,132
	Other Fuel			13,800	456	28			13,400	347	21
Tractor Trailer Trucks	Diesel Fuel	90	1,420,123 L	36,200	54,390	3,822	76	1,199,077 L	37,200	45,925	3,131
Motorhomes	Gasoline	55	156,374 L	19,700	5,473	365	61	174,390 L	19,900	6,104	387
	Diesel Fuel	40	156,975 L	19,700	6,012	422	35	146,077 L	19,900	5,595	382
Motorcycles, Mopeds	Gasoline	174	40,187 L	5,100	1,406	93	196	54,143 L	6,100	1,895	120
Buses	Gasoline			15,200	422	28			17,200	283	18
	Other Fuel			9,000	50	3					
Totals		**7,319**	**18,657,153 L**	**18,368**	**666,265**	**45,602**	**7,778**	**18,657,153 L**	**18,754**	**712,544**	**46,516**

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Residential	Natural Gas	3,455	317,445 GJ	317,445	15,923	3,581	298,296 GJ	298,296	14,963
	Electricity	3,811	48,079,890 kWh	173,087	1,202	3,972	50,328,531 kWh	181,183	1,258
Commercial/Small-Medium Industrial	Natural Gas	63	26,127 GJ	26,127	1,311	62	24,802 GJ	24,802	1,244
	Electricity	238	13,703,636 kWh	49,333	343	268	14,982,328 kWh	53,936	375
Totals		**7,567**		**565,992**	**18,779**	**7,883**		**558,217**	**17,840**

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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	8,369 t	N/A	6,812	0	2,342 t	N/A	2,285
Totals		**0**			**6,812**	**0**			**2,285**

Memo Items

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Large Industrial	Natural Gas	2		0	0	1		0	0
	Electricity	2		0	0	1		0	0
Totals		**4**			**0**	**2**			**0**

Totals for Transportation, Buildings and Solid Waste

Fuel Type	2007 (Population: 9,903)			2010 (Population: 10,289)		
	Consumption	Energy (GJ)	C02e (t)	Consumption	Energy (GJ)	C02e (t)
Hybrid	14,708 L	1,002	67	87,599 L	3,066	195
Gasoline	14,829,315 L	519,447	35,292	15,631,808 L	547,396	35,260
Diesel Fuel	3,756,810 L	143,885	10,126	4,203,194 L	160,982	10,994
Other Fuel	56,320 L	1,931	117	29,721 L	1,100	67
Natural Gas	343,572 GJ	343,572	17,234	323,098 GJ	323,098	16,207
Electricity	61,783,526 kWh	222,420	1,545	65,310,859 kWh	235,119	1,633
Solid Waste	8,369 t	0	6,812	2,342 t	0	2,285
Grand Totals		**1,232,257**	**71,193**		**1,270,761**	**66,641**

Coldstream District Municipality

2010 Community Energy and Emissions Inventory

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	2,600	46	2,830	88	2,935	86
Semi-Detached House	100	2	55	2	55	2
Row House	55	1	50	2	45	1
Apartment, Duplex	75	1	35	1	125	4
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	85	1	45	1	35	1
Other Single Attached House	10	0	5	0	5	0
Movable Dwelling	165	3	210	7	215	6

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	3,465	89	3,450	90	3,840	88
Car, Truck,Van as Passenger	215	5	200	5	285	7
Public Transit	30	1	35	1	10	0
Walked	85	2	90	2	80	2
Bicycle	110	3	25	1	90	2
Motorcycle	0	0	0	0	15	0
Taxicab	0	0	0	0	0	0
Other Method	10	0	20	1	25	1

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	3	0
Agricultural Land Reserve	3,686	54
Other land use	3,141	46
Total Parks and Protected Area	3	0
Total Land Area	6,830	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	3	0
Agricultural Land Reserve	3,686	54
Other land use	3,141	46
Total Parks and Protected Area	3	0
Total Land Area	6,830	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	1,375	36
5 to 9.9 km	1,410	37
25 km or more	380	10
15 to 24.9 km	200	5
10 to 14.9 km	440	12

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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

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