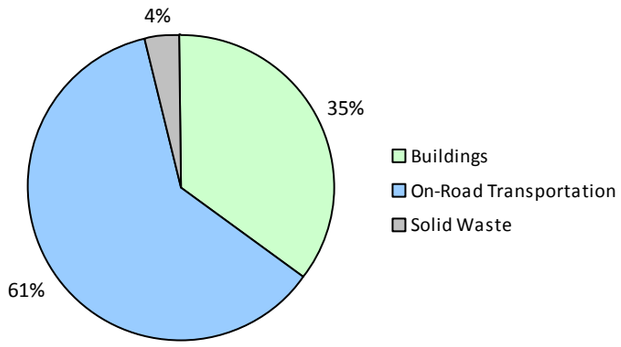
Logan Lake District Municipality

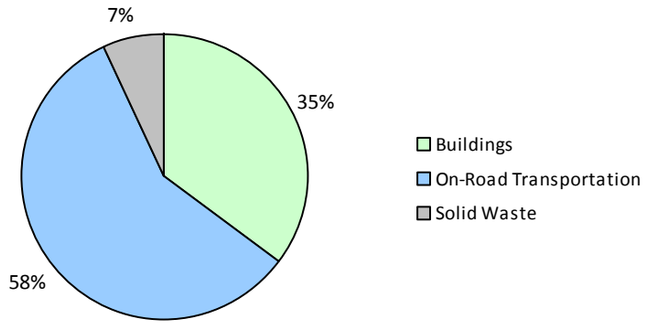
2010 Community Energy and Emissions Inventory

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

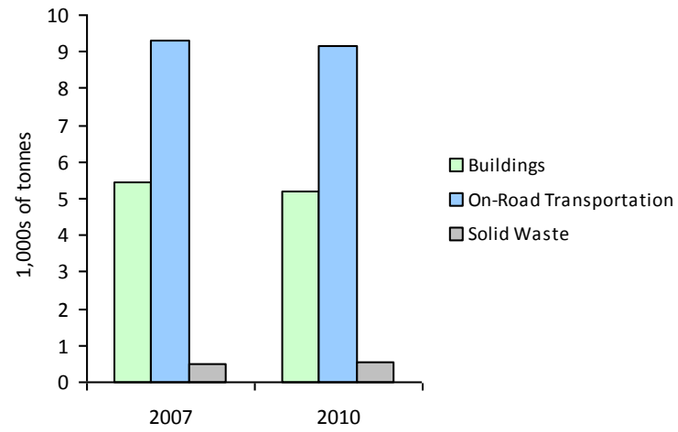
2010 GHG Emissions Sources (Total for this Community)



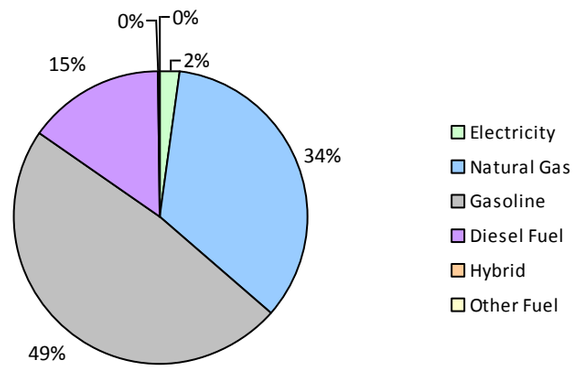
2010 GHG Emissions Sources (Total for BC)



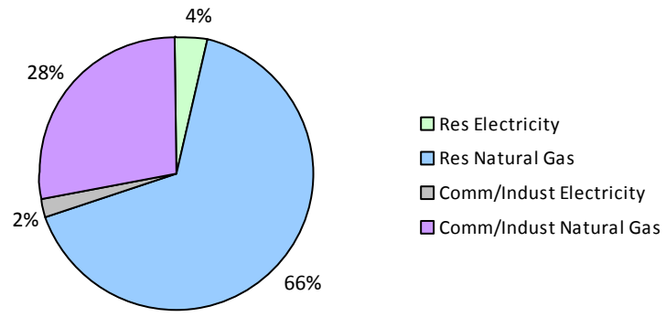
GHG Emissions Comparisons for this Community



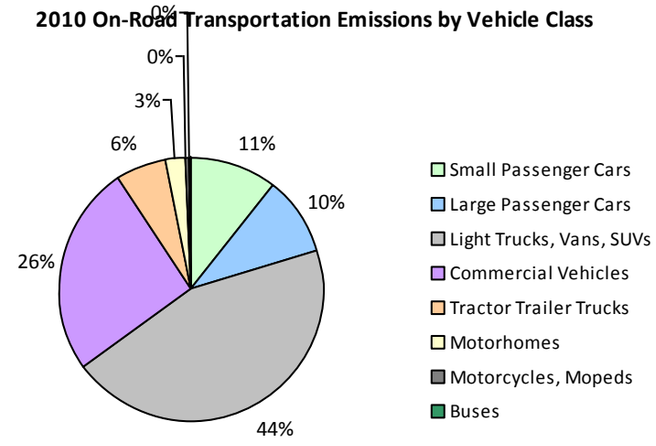
2010 Total Emissions by Fuel Type



2010 Building Emissions by Subsector



2010 On-Road Transportation Emissions by Vehicle Class



Logan Lake District Municipality

2010 Community Energy and Emissions Inventory

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

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								21,300	41	3
	Gasoline	315	462,891 L	15,600	16,202	1,094	290	427,807 L	15,700	14,974	957
	Diesel Fuel	13	22,320 L	25,100	854	61	10	15,247 L	22,100	584	40
Large Passenger Cars	Hybrid								33,800	137	8
	Gasoline	234	433,986 L	16,500	15,190	1,026	220	388,487 L	15,700	13,597	871
	Diesel Fuel			11,900	95	7					
Light Trucks, Vans, SUVs	Gasoline	628	1,630,658 L	17,900	57,073	3,893	655	1,671,012 L	17,600	58,485	3,790
	Diesel Fuel	48	114,188 L	13,500	4,374	311	33	84,388 L	14,600	3,232	223
	Other Fuel			12,400	406	25			10,900	192	12
Commercial Vehicles	Gasoline	108	425,228 L	23,800	14,883	1,000	136	523,431 L	22,900	18,319	1,171
	Diesel Fuel	100	391,664 L	22,500	15,001	1,053	115	462,881 L	23,100	17,729	1,209
	Other Fuel			9,500	91	5			6,400	27	2
Tractor Trailer Trucks	Gasoline			23,200	185	12					
	Diesel Fuel	11	185,260 L	39,800	7,096	500	16	217,194 L	32,300	8,319	566
Motorhomes	Gasoline	19	54,171 L	19,400	1,897	127	18	51,958 L	19,800	1,819	116
	Diesel Fuel	17	64,359 L	20,300	2,465	173	12	44,629 L	19,700	1,710	116
Motorcycles, Mopeds	Gasoline	20	4,846 L	5,200	170	12	30	8,632 L	6,200	302	19
Buses	Gasoline			22,800	389	27			23,800	263	16
	Diesel Fuel								24,700	210	15
Totals		**1,513**	**3,789,571 L**	**17,889**	**136,371**	**9,326**	**1,535**	**3,789,571 L**	**17,788**	**139,940**	**9,134**

Buildings		2007				2010			
		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Residential	Natural Gas	817	71,302 GJ	71,302	3,577	819	67,973 GJ	67,973	3,410
	Electricity	1,104	8,023,947 kWh	28,886	201	1,115	8,245,940 kWh	29,685	206
Commercial/Small-Medium Industrial	Natural Gas	49	30,571 GJ	30,571	1,533	46	29,478 GJ	29,478	1,479
	Electricity	85	5,153,588 kWh	18,553	129	79	4,852,265 kWh	17,468	121
Totals		**2,055**		**149,312**	**5,440**	**2,059**		**144,604**	**5,216**

Logan Lake District Municipality

2010 Community Energy and Emissions Inventory

Monitoring and reporting on progress towards greenhouse gas emissions reduction targets

Solid Waste		2007				2010			
		Connections	Consumption	Energy (GJ)	C02e (t)	Connections	Consumption	Energy (GJ)	C02e (t)
Community Solid Waste	Solid Waste	0	2,341 t	N/A	496	0	1,833 t	N/A	540
Totals		**0**			**496**	**0**			**540**

Memo Items

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

Totals for Transportation, Buildings and Solid Waste

Fuel Type	2007 (Population: 2,194)			2010 (Population: 2,208)		
	Consumption	Energy (GJ)	C02e (t)	Consumption	Energy (GJ)	C02e (t)
Hybrid	0 L	0		0 L	178	11
Gasoline	3,011,780 L	105,989	7,191	3,071,327 L	107,759	6,940
Diesel Fuel	777,791 L	29,885	2,105	824,339 L	31,784	2,169
Other Fuel	0 L	497	30	0 L	219	14
Natural Gas	101,873 GJ	101,873	5,110	97,451 GJ	97,451	4,889
Electricity	13,177,535 kWh	47,439	330	13,098,205 kWh	47,153	327
Solid Waste	2,341 t	0	496	1,833 t	0	540
Grand Totals		**285,683**	**15,262**		**284,544**	**14,890**

Logan Lake 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	610	39	605	64	660	66
Semi-Detached House	0	0	10	1	5	1
Row House	35	2	40	4	40	4
Apartment, Duplex	0	0	5	1	0	0
Apartment, 5 storeys or higher	0	0	0	0	0	0
Apartment, under 5 storeys	235	15	165	17	215	21
Other Single Attached House	0	0	0	0	0	0
Movable Dwelling	85	5	125	13	85	8

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	575	64	650	68	635	75
Car, Truck,Van as Passenger	190	21	170	18	125	15
Public Transit	10	1	0	0	0	0
Walked	70	8	100	11	50	6
Bicycle	10	1	10	1	0	0
Motorcycle	0	0	0	0	0	0
Taxicab	0	0	0	0	0	0
Other Method	40	4	20	2	40	5

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	29	0
Agricultural Land Reserve	230	1
Other land use	32,473	99
Total Parks and Protected Area	29	0
Total Land Area	32,732	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	29	0
Agricultural Land Reserve	230	1
Other land use	32,473	99
Total Parks and Protected Area	29	0
Total Land Area	32,732	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	185	25
5 to 9.9 km	270	36
25 km or more	300	40
15 to 24.9 km	0	0
10 to 14.9 km	0	0

This page intentionally left blank

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,