

Summary of B.C. Greenhouse Gas Emissions: 1990-2001 (kilotonnes CO₂e) (2002-2014 starts are below)
 see Government of BC, Provincial GHG Inventory

Greenhouse Gas Categories	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
TOTAL	58,252	57,416	56,327	58,725	61,142	64,950	66,820	65,616	66,582	68,049	69,084	70,772
ENERGY	42,200	41,193	40,223	42,853	45,291	49,017	50,551	49,012	49,895	51,392	52,222	54,543
Stationary Combustion Sources	19,289	18,062	16,878	19,045	19,096	21,416	21,772	19,415	19,897	21,740	22,400	24,497
Public Electricity and Heat Production	807	475	941	1,963	1,807	2,247	383	751	1,492	851	1,938	2,485
Petroleum Refining Industries	1,214	1,208	1,018	703	691	567	736	441	414	470	417	441
Mining and Upstream Oil and Gas Production	2,693	1,973	1,096	1,187	1,921	3,153	4,014	2,614	3,380	4,725	3,533	5,105
Manufacturing Industries	6,521	6,191	5,567	6,019	6,211	7,028	7,615	7,132	6,643	7,335	7,848	7,832
Construction	307	271	321	344	286	201	209	127	102	87	77	72
Commercial and Institutional	2,854	3,115	3,224	3,614	3,339	3,416	3,456	3,335	2,945	3,038	3,456	3,455
Residential	4,568	4,454	4,338	4,840	4,639	4,651	5,170	4,745	4,670	4,972	4,813	4,742
Agriculture and Forestry	323	375	373	375	203	154	189	270	252	263	319	364
Transport¹	18,797	19,122	19,380	19,912	21,067	22,200	22,872	23,510	23,993	23,894	24,092	24,118
Domestic Aviation	1,337	1,202	1,187	1,132	1,192	1,296	1,467	1,492	1,591	1,639	1,594	1,423
Road Transportation	11,052	11,033	10,999	11,429	12,051	12,206	12,233	12,727	13,359	13,401	13,672	13,604
Light-Duty Gasoline Vehicles	4,886	4,926	4,952	5,046	5,045	5,037	4,942	4,967	4,936	4,983	4,914	4,833
Light-Duty Gasoline Trucks	2,049	2,092	2,197	2,412	2,634	2,787	2,984	3,297	3,609	3,720	3,797	3,836
Heavy-Duty Gasoline Vehicles	1,057	1,034	1,044	1,090	1,143	1,137	1,153	1,202	1,257	1,271	1,273	1,300
Motorcycles	13	13	13	13	12	11	10	10	13	12	13	14
Light-Duty Diesel Vehicles	42	42	42	44	43	42	44	46	51	55	58	58
Light-Duty Diesel Trucks	17	17	17	19	23	25	28	32	41	38	36	36
Heavy-Duty Diesel Vehicles	2,201	2,137	2,150	2,314	2,527	2,593	2,664	2,770	2,969	3,009	3,250	3,207
Propane and Natural Gas Vehicles	786	772	584	491	624	573	408	403	484	313	331	320
Railways	1,439	1,396	1,602	1,630	1,647	1,648	1,584	1,436	1,370	1,391	1,269	1,050
Domestic Navigation	963	1,063	1,080	1,072	1,090	1,153	1,088	967	951	1,062	1,169	1,483
Other Transportation	4,006	4,429	4,512	4,649	5,086	5,899	6,501	6,888	6,721	6,401	6,388	6,558
Off-Road Gasoline	593	709	845	1,021	1,171	1,240	1,348	1,481	1,608	1,371	1,267	1,086
Off-Road Diesel	2,549	2,604	2,608	2,491	2,653	3,262	3,630	3,948	3,522	3,612	3,452	3,590
Pipeline Transport	863	1,116	1,058	1,137	1,262	1,397	1,523	1,458	1,591	1,419	1,669	1,881
Fugitive Sources	4,115	4,009	3,965	3,896	5,128	5,401	5,907	6,087	6,005	5,758	5,731	5,929
Coal Mining	836	834	576	752	945	914	968	998	874	811	812	881
Oil and Natural Gas	3,279	3,175	3,389	3,144	4,184	4,487	4,939	5,089	5,131	4,947	4,919	5,048

CO₂ Transport and Storage	-	-	-	-	-	-	-	-	-	-	-	-
INDUSTRIAL PROCESSES AND PRODUCT USE	3,213	3,229	3,302	3,350	3,578	3,727	3,838	4,262	4,484	4,518	4,620	3,990
Mineral Products	868	767	835	870	975	1,042	1,006	1,168	1,155	1,370	1,394	1,322
Cement Production	649	540	611	632	729	805	771	915	919	1,125	1,123	1,084
Lime Production	162	164	166	181	186	192	186	195	195	204	218	194
Mineral Products Use	58	64	58	57	60	45	48	58	41	41	54	44
Chemical Industry²	-	-	-	-	-	-	-	-	-	-	-	-
Nitric Acid Production	-	-	-	-	-	-	-	-	-	-	-	-
Adipic Acid Production	-	-	-	-	-	-	-	-	-	-	-	-
Petrochemical Production	-	-	-	-	-	-	-	-	-	-	-	-
Metal Production	1,665	1,822	1,821	1,825	1,802	1,877	1,949	1,999	2,303	2,082	2,026	1,412
Iron and Steel Production	-	-	-	-	-	-	-	-	-	-	-	-
Aluminum Production	1,665	1,822	1,821	1,825	1,802	1,877	1,949	1,999	2,303	2,081	2,026	1,411
SF ₆ Used in Magnesium Smelters and Casters	-	-	-	-	-	-	-	-	0	1	1	1
Production and Consumption of Halocarbons, SF₆ and NF₃	-	-	-	-	-	67	129	177	255	331	409	458
Non-Energy Products from Fuels and Solvent Use	602	563	572	579	723	658	686	841	666	629	677	671
Other Product Manufacture and Use	77	77	74	76	78	83	68	78	105	106	113	126
AGRICULTURE	2,348	2,309	2,453	2,463	2,520	2,595	2,628	2,640	2,521	2,676	2,679	2,758
Enteric Fermentation	1,402	1,443	1,512	1,503	1,559	1,636	1,656	1,630	1,598	1,686	1,707	1,727
Manure Management	424	431	441	442	459	474	479	480	474	489	497	507
Agriculture Soils	497	412	470	488	472	462	467	502	412	472	437	493
Direct Sources	394	321	366	381	367	358	362	390	315	364	333	378
Indirect Sources	102	91	104	106	106	104	104	112	96	107	104	115
Field Burning of Agricultural Residues	-	-	-	-	-	-	-	-	-	-	-	-
Liming, Urea Application and Other Carbon-containing Fertilizers	25	23	29	31	30	24	26	28	37	29	38	30
WASTE	5,123	5,380	5,432	5,383	5,443	5,534	5,838	5,893	5,850	5,799	5,914	6,025
Solid Waste Disposal	4,858	5,104	5,161	5,104	5,152	5,232	5,529	5,576	5,527	5,475	5,586	5,696
Biological Treatment of Solid Waste	88	91	81	84	91	99	103	106	111	114	116	119
Wastewater Handling	96	99	102	106	110	114	117	121	122	124	126	128
Waste Incineration	81	85	87	89	90	90	89	90	89	86	87	83
Afforestation and Deforestation	5,368	5,305	4,918	4,676	4,309	4,076	3,966	3,809	3,831	3,664	3,648	3,455
Deforestation	5,366	5,303	4,916	4,674	4,307	4,074	3,964	3,807	3,830	3,664	3,649	3,458

Afforestation			0	0	1	1	1	0	-1	-2	-3	-4
Grassland converted to Cropland												
Other Land converted to Wetlands												
OTHER LAND USE (Not included in total B.C. emissions)												
Forest Management	-58,638	-58,616	-52,677	-54,596	-50,266	-45,254	-52,773	-58,557	-47,318	-55,179	-54,209	-59,226
Forest growth minus decay	-106,214	-107,019	-107,155	-107,500	-107,415	-107,149	-107,860	-109,182	-109,772	-109,735	-109,709	-109,631
Slash pile burning	5,850	10,063	9,236	9,261	7,956	7,993	7,588	7,007	6,745	7,527	7,782	7,012
Wildfires	12,645	4,565	4,890	800	5,338	8,271	3,310	440	15,891	3,077	917	2,296
Emissions from Decomposition of Harvested Wood Products	29,081	33,775	40,352	42,843	43,855	45,631	44,189	43,178	39,818	43,952	46,801	41,097
Cropland Management	11	-2	46	46	52	52	55	62	63	64	67	72
Wetland Management	110	112	113	116	119	111	104	97	91	85	80	75
Grassland Management			6				2		6		1	6
Settlement Management	-566	-563	-561	-559	-557	-555	-553	-551	-548	-546	-544	-542

Summary of B.C. Greenhouse Gas Emissions: 2002-2014 (kilotonnes CO₂e)

Greenhouse Gas Categories	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
TOTAL	68,034	69,094	70,801	68,444	66,364	66,335	66,821	63,085	62,699	62,750	63,748	64,705	64,464
ENERGY	51,644	52,368	53,466	51,777	50,579	50,233	50,862	47,510	47,405	47,813	48,798	49,864	50,184
Stationary Combustion Sources	22,360	21,748	22,194	21,464	21,041	20,187	19,963	19,276	18,710	20,039	19,748	19,792	19,977
Public Electricity and Heat Production	952	1,023	1,256	1,338	1,523	1,145	1,486	1,336	1,233	780	685	837	791
Petroleum Refining Industries	515	491	859	498	632	638	486	582	634	528	567	500	592
Mining and Upstream Oil and Gas Production	5,343	5,617	5,979	5,407	6,217	5,930	6,056	5,867	6,054	6,727	6,625	6,896	7,170
Manufacturing Industries	6,771	6,860	6,530	6,358	4,736	4,662	4,067	4,041	4,063	4,182	4,278	4,272	4,136
Construction	76	84	104	112	119	125	105	63	82	101	98	67	65
Commercial and Institutional	4,059	3,309	3,185	3,030	2,996	2,921	3,105	2,756	2,511	2,832	2,818	2,593	2,632
Residential	4,513	4,279	4,209	4,648	4,744	4,694	4,598	4,584	3,826	4,611	4,292	4,244	4,204
Agriculture and Forestry	131	85	73	73	74	72	60	47	307	278	385	383	387
Transport¹	23,878	25,358	26,121	24,963	24,483	24,997	25,431	23,307	23,833	22,361	23,815	24,668	24,754
Domestic Aviation	1,389	1,392	1,521	1,565	1,525	1,490	1,405	1,250	1,195	1,119	1,295	1,330	1,329
Road Transportation	13,673	13,930	14,590	14,371	14,787	15,424	15,769	15,922	15,815	15,533	14,916	16,117	15,828
Light-Duty Gasoline Vehicles	4,789	4,801	4,927	4,593	4,615	4,630	4,655	4,688	4,387	3,936	3,851	4,069	3,950
Light-Duty Gasoline Trucks	3,867	3,966	4,151	4,043	4,175	4,328	4,474	4,663	4,589	4,330	4,381	4,771	4,891
Heavy-Duty Gasoline Vehicles	1,290	1,296	1,359	1,215	1,227	1,315	1,396	1,403	1,343	1,232	1,221	1,290	1,253
Motorcycles	15	16	18	13	14	14	15	16	16	15	15	16	16

Light-Duty Diesel Vehicles	61	61	68	70	80	81	74	82	93	97	109	122	124
Light-Duty Diesel Trucks	37	36	43	45	45	47	50	55	60	58	62	77	84
Heavy-Duty Diesel Vehicles	3,324	3,492	3,763	4,197	4,439	4,782	4,852	4,807	5,109	5,650	5,072	5,591	5,354
Propane and Natural Gas Vehicles	289	263	261	194	192	227	254	208	218	214	205	181	156
Railways	864	571	400	432	422	423	657	443	514	675	689	536	679
Domestic Navigation	1,775	2,894	2,533	2,407	2,418	2,548	2,498	2,607	2,641	2,197	2,608	2,126	1,848
Other Transportation	6,177	6,570	7,077	6,189	5,331	5,110	5,100	3,086	3,667	2,836	4,307	4,559	5,069
Off-Road Gasoline	1,139	1,157	1,488	1,385	1,029	759	356	259	363	426	727	394	611
Off-Road Diesel	3,666	4,341	4,448	3,806	3,521	3,410	3,842	1,951	2,461	1,597	2,774	3,146	3,421
Pipeline Transport	1,371	1,071	1,141	998	781	941	903	876	843	813	806	1,019	1,037
Fugitive Sources	5,407	5,263	5,151	5,350	5,054	5,049	5,469	4,927	4,862	5,413	5,235	5,404	5,453
Coal Mining	809	748	865	953	790	883	850	755	924	928	1,019	1,095	1,030
Oil and Natural Gas	4,597	4,514	4,286	4,396	4,264	4,166	4,619	4,172	3,938	4,485	4,216	4,309	4,423
CO ₂ Transport and Storage	-	-	-	-	-	-	-	-	-	-	-	-	-
INDUSTRIAL PROCESSES AND PRODUCT USE	4,150	4,502	4,988	4,554	3,910	4,183	4,186	3,992	3,779	3,563	3,746	3,639	3,454
Mineral Products	1,375	1,353	1,483	1,490	1,439	1,462	1,321	1,070	1,173	1,184	1,269	1,162	1,166
Cement Production	1,129	1,135	1,245	1,259	1,220	1,255	1,128	905	988	991	1,074	979	975
Lime Production	201	177	191	181	166	162	157	137	165	172	174	164	172
Mineral Products Use	45	41	48	51	53	45	36	27	20	21	21	20	19
Chemical Industry²	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitric Acid Production	-	-	-	-	-	-	-	-	-	-	-	-	-
Adipic Acid Production	-	-	-	-	-	-	-	-	-	-	-	-	-
Petrochemical Production	-	-	-	-	-	-	-	-	-	-	-	-	-
Metal Production	1,175	1,358	1,502	1,225	1,090	1,192	1,252	1,253	848	848	886	759	547
Iron and Steel Production	-	-	-	-	-	-	-	-	-	-	-	-	-
Aluminum Production	1,173	1,356	1,499	1,223	1,088	1,190	1,250	1,252	847	847	885	758	546
SF ₆ Used in Magnesium Smelters and Casters	2	2	3	1	1	1	2	1	1	1	1	1	1
Production and Consumption of Halocarbons, SF₆ and NF₃	522	579	639	682	710	770	787	866	959	1,021	1,059	1,104	1,168
Non-Energy Products from Fuels and Solvent Use	992	1,097	1,261	1,062	582	672	719	712	708	448	446	533	507
Other Product Manufacture and Use	87	115	102	95	90	88	106	91	91	62	86	81	65
AGRICULTURE	2,752	2,840	2,890	2,859	2,610	2,575	2,485	2,318	2,268	2,257	2,242	2,334	2,289
Enteric Fermentation	1,764	1,819	1,868	1,844	1,706	1,617	1,544	1,420	1,355	1,336	1,348	1,353	1,375
Manure Management	515	523	530	520	496	484	477	462	456	457	455	459	462

Agriculture Soils	445	472	466	471	392	458	449	423	444	438	416	499	433
Direct Sources	339	359	353	359	295	352	345	327	345	343	323	393	337
Indirect Sources	107	113	113	112	96	106	103	96	99	96	93	106	96
Field Burning of Agricultural Residues	-	-	-	-	-	-	-	-	-	-	-	-	-
Liming, Urea Application and Other Carbon-containing Fertilizers	28	27	26	24	16	16	15	13	14	25	23	23	19
WASTE	6,049	6,063	6,015	5,972	6,097	6,143	6,154	6,205	6,106	6,070	5,806	5,625	5,567
Solid Waste Disposal	5,716	5,731	5,682	5,637	5,758	5,807	5,823	5,880	5,786	5,756	5,494	5,317	5,261
Biological Treatment of Solid Waste	121	122	124	127	131	128	126	122	117	112	110	108	107
Wastewater Handling	128	128	129	130	131	133	133	134	137	137	138	139	140
Waste Incineration	83	82	80	78	76	74	72	69	66	65	63	61	59
Afforestation and Deforestation	3,439	3,321	3,442	3,281	3,169	3,201	3,134	3,060	3,141	3,047	3,156	3,243	2,970
Deforestation	3,443	3,325	3,448	3,288	3,178	3,212	3,146	3,074	3,158	3,066	3,176	3,262	2,984
Afforestation	-5	-6	-7	-9	-11	-13	-14	-16	-18	-21	-22	-21	-15
Grassland converted to Cropland	2	2	2	2	2	2	2	2	2	2	2	1	1
Other Land converted to Wetlands	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER LAND USE (Not included in total B.C. emissions)													
Forest Management	-53,520	290	6,414	-12,901	15,036	1,860	-1,915	31,602	65,376	3,049	15,094	-430	62,255
Forest growth minus decay	-105,420	-99,059	-86,615	-75,709	-60,643	-52,550	-54,961	-56,214	-53,569	-55,964	-58,532	-61,954	-60,465
Slash pile burning	7,008	6,647	7,735	7,871	7,148	7,154	7,025	6,672	6,787	6,954	6,901	7,032	7,196
Wildfires	793	54,607	36,154	5,905	23,851	3,896	2,864	40,427	66,226	3,640	18,683	5,437	68,332
Emissions from Decomposition of Harvested Wood Products	44,099	38,095	49,140	49,032	44,680	43,360	43,157	40,717	45,932	48,419	48,042	49,055	47,192
Cropland Management	77	77	78	80	80	117	117	123	130	144	157	170	192
Wetland Management	71	67	63	60	56	53	51	48	46	44	42	40	38
Grassland Management	5	49	27	138	4	0	66		6	11	3	17	17
Settlement Management	-540	-538	-536	-534	-531	-529	-527	-525	-523	-521	-519	-519	-519

Notes:

1. Emissions from ethanol and biodiesel are included in the Transport categories using gasoline and diesel respectively.
2. Emissions from the Ammonia Production, Nitric Acid Production and Petrochemical Production categories are included in Non-Energy Pro
3. Emission estimates from consumption of PFCs and NF₃, as well as emissions of SF₆ from semi-conductor manufacturing, are only available
 - Indicates no emissions
 - 0.0 Indicates emissions truncated due to rounding
 - x Indicates data has been suppressed to respect confidentiality

Note that the 2014 estimates are based on preliminary energy data; these data, though the best available information at the time of publication

Source: Greenhouse Gas Division of Environment and Climate Change Canada, BC Ministry of Forests, Lands and Natural Resource Opera

Note: "Kilotonnes" means one thousand tonnes

Totals may not sum due to rounding

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ducts from Fuels and Solvent Use within the provincial/territorial tables as CO₂ eq values.

ble at the national level. HFC and PFC consumption began in 1995; HFC emissions occurring as a by-product of HCFC production (

n, are subject to revision in the next submission year.

(HCFC-22 exclusively) only occurred in Canada from 1990–1992 and PFC emissions prior to 1995 are the result of by-product CF_4

emissions from the use of NF_3 .