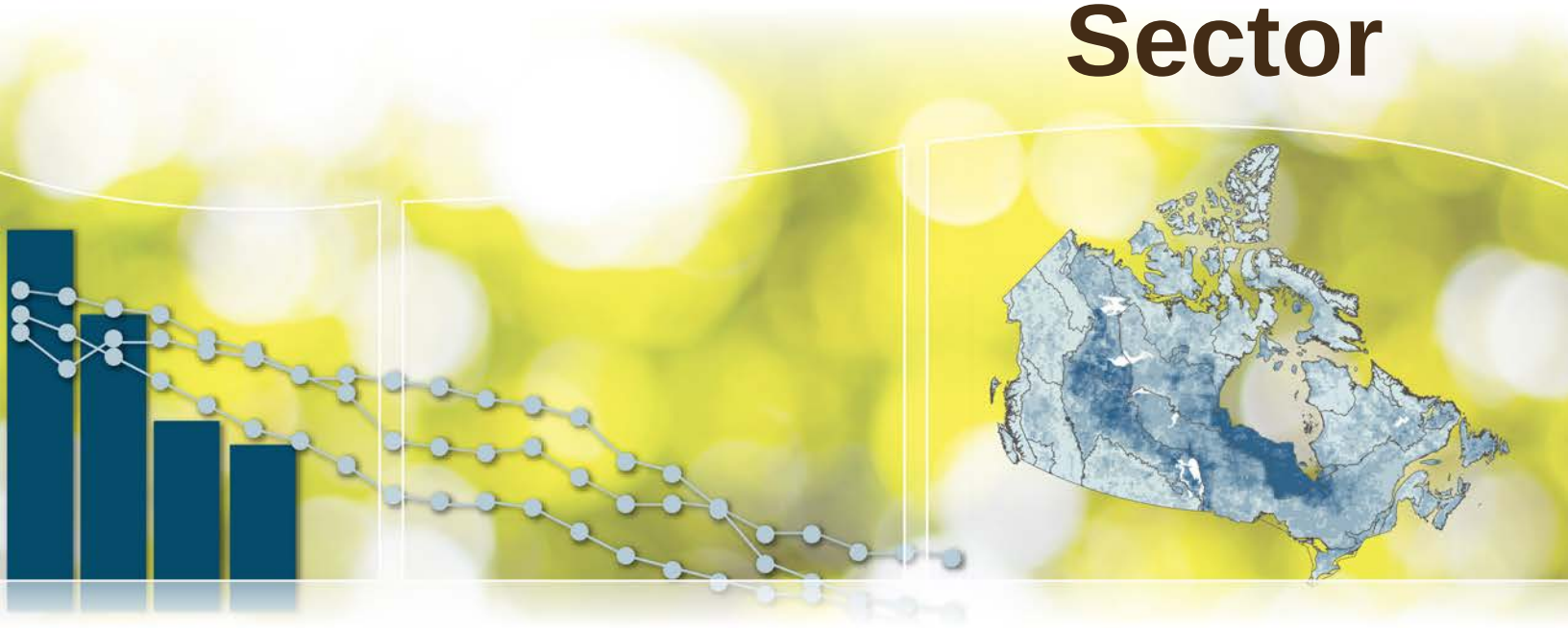
Environment and Climate Change Canada
Environnement et Changement climatique Canada

Canadian Environmental Sustainability Indicators

Water Withdrawal and Consumption by Sector



Canada

Suggested citation for this document: Environment and Climate Change Canada (2016) Canadian Environmental Sustainability Indicators: Water Withdrawal and Consumption by Sector. Consulted on *day Month, year*.
Available at: www.ec.gc.ca/indicateurs-indicators/default.asp?lang=en&n=5736C951-1.

Cat. No.: 978-0-660-04751-5
ISBN: En4-144/53-2016E-PDF

Environment and Climate Change Canada
Public Inquiries Centre
7th floor, Fontaine Building
200 Sacré-Coeur boul.
Gatineau, QC K1A 0H3
Telephone: 819-938-3860
Toll Free: 1-800-668-6767 (in Canada only)
Fax: 819-994-1412
TTY: 819-994-0736
Email: ec.enviroinfo.ec@canada.ca

Aussi disponible en français

Canadian Environmental Sustainability Indicators

Water Withdrawal and Consumption by Sector

April 2016

Table of Contents

List of Figures

List of Tables

Part 1. Water Withdrawal and Consumption by Sector Indicator

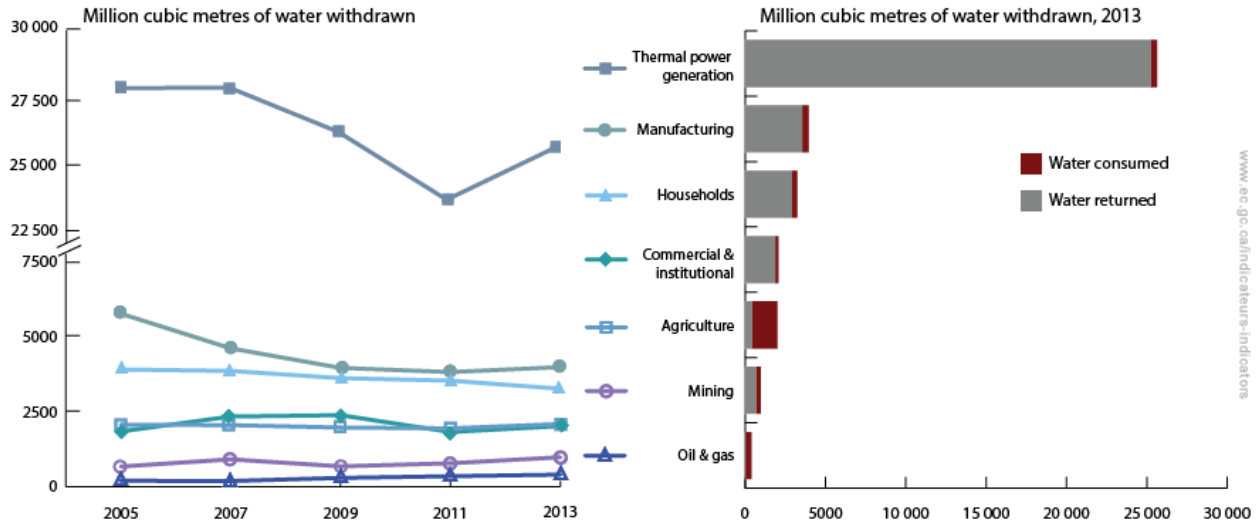
In 2013, approximately 38 300 million cubic metres of water were withdrawn from Canada's rivers, lakes, groundwater and oceans. The thermal power generation industry withdrew the most water, which was used for cooling and to produce steam to drive the turbines that generate electricity. Thermal power generation is followed by the manufacturing, households, commercial and institutional, agriculture, mining and oil and gas sectors. The majority of the water withdrawn is circulated back into the water body from which it was taken.

Total water withdrawal declined from 42 200 million cubic metres of water in 2005 to 38 300 million cubic metres in 2013. The substantial drop in water withdrawal is related, in part, to a decrease in manufacturing production between 2005 and 2013,[1] which resulted in the manufacturing sector withdrawing 31% and consuming 37% less water in 2013 than in 2005.

In 2013, approximately 3600 million cubic metres of water were consumed or were not returned to the original source. Agriculture consumed 1600 million cubic metres, or 80%, of the water withdrawn from water sources.

Between 2005 and 2013, water consumption decreased slightly from 3700 million cubic metres to 3600 million cubic metres. Households and thermal power generation experienced reductions in consumption of 16% and 45%, respectively, over the same period.

Figure 1. Water withdrawal by sector, Canada, 2005 to 2013



Data for Figure 1

Note: The indicator reports estimates of water withdrawal and consumption by each sector. Refer to the Data Sources and Methods section for more details.
Source: Statistics Canada (2012) CANSIM Table 153-0101 – Water use in Canada, by sector, every 2 years, CANSIM database. Statistics Canada (2015) CANSIM Table 153-0116 – Physical flow account for water use, every 2 years, CANSIM database. Statistics Canada (2015) Industrial Water Survey 2013.

[1] Statistics Canada (2015) CANSIM Table 379-0031 – Gross domestic product (GDP) at basic prices, by North American Industry Classification System (NAICS), monthly, CANSIM database. Retrieved on January 13, 2016.

Water consumption refers to water withdrawn but not returned to its original source. In producing food for Canadians, the agriculture sector in British Columbia, Alberta and Saskatchewan consume the most water overall. In the British Columbia interior and the Prairies, irrigation systems are widely used to improve crop yields because the amount of water in this region is naturally low. Very little of the water used for irrigation is returned directly to its source. The oil and gas sector is also a large consumer of water. Approximately 95% of the water withdrawn is consumed; however, water is recycled and reused wherever possible, avoiding additional withdrawals from surface water and groundwater sources.[2]

[2] Government of Alberta (2013) Oil Sands: Water. (PDF; 318.8 KB) Retrieved on December 1, 2015.

Part 2. Data Sources and Methods for the Water Withdrawal and Consumption by Sector Indicator

Introduction

The Water Withdrawal and Consumption by Sector indicator is part of the Canadian Environmental Sustainability Indicators (CESI) program, which provides data and information to track Canada's performance on key environmental sustainability issues.

Description and rationale of the Water Withdrawal and Consumption by Sector indicator

Description

The Water Withdrawal and Consumption by Sector indicator provides information about the volume of water used in Canada. It reports the volume of water withdrawn, returned and consumed between 2005 and 2013 by the following economic sectors: thermal power generation, manufacturing, households, agriculture, commercial and institutional, mining, and oil and gas.

Rationale

Water is a vital resource driving Canada's economy. Many industrial processes depend on water for cooling. Water is also used for irrigation, cleaning, chemical processes, and many other purposes. Municipalities distribute water for both residential and commercial use, including drinking, cooking and cleaning.

The amount of water withdrawn and consumed by each sector is an important factor to consider when managing the water supply for wildlife and human use.

Recent changes to the indicator

In this indicator update, the municipal category has been split into two sectors: households, and commercial and institutional. Data has been added for two years: 2011 and 2013.

Data

Data source

Data for water withdrawal in 2005, 2007, 2009, 2011 and 2013 by the thermal power generation, manufacturing, households, agriculture, commercial and institutional, mining, and oil and gas sectors are taken from two Statistics Canada tables: Water use in Canada by sector and Physical flow account for water use.[3,4] These tables summarize results from the Industrial Water Survey (IWS),[5] Agricultural Water Survey (AWS),[6] Survey of Drinking Water

[3] Statistics Canada (2012) CANSIM Table 153-0101 – Water use in Canada, by sector, every 2 years, CANSIM. Retrieved on November 17, 2015.

[4] Statistics Canada (2015) CANSIM Table 153-0116 – Physical flow account for water use, every 2 years, CANSIM. Retrieved on November 17, 2015.

[5] Statistics Canada (2015) Industrial Water Survey 2013. Retrieved on November 19, 2015.

[6] Statistics Canada (2015) Agricultural Water Survey 2014. Retrieved on November 19, 2015.

Plants (SDWP)[7] and Environment Canada's Municipal Water and Wastewater Survey (MWWS).[8] Data for the seven economic sectors reported in the indicator summarize data from 91 industrial activities classified by Statistics Canada (see Annex B).

The water consumption figures for the thermal power generation, manufacturing and mining sectors are taken directly from the IWS. For the agriculture sector, the factor used to estimate water consumption for 2005, 2007, 2009 and 2011 was obtained from Agriculture and Agri-Food Canada scientists in the Prairie/Boreal Plain Ecozone region. For 2013, the consumption factor was based on a return rate from water use for irrigation in Alberta and applied across the country.[9] For the households sector, estimates of water consumption were obtained from Environment Canada's MWWS. For the oil and gas sector, estimates of consumption were based on water recycling rates from the Government of Alberta's Oil Sands – Water website.

Spatial coverage

The IWS includes all Canadian thermal-electric power generating stations. It also samples mines and manufacturing locations across Canada.

The AWS samples Canadian farm operations that irrigate.

The MWWS ended in 2011, with data up to 2009, and surveyed all Canadian municipalities with a population over 1000 and a sample of those with population under 1000 (excluding federal lands and First Nations communities).

The SDWP replaces data from the MWWS and reports data for 2011 and 2013 from drinking water treatment plants across Canada that serve 300 or more people and that are licensed and regulated by provincial/territorial agencies (excluding First Nations communities).

Temporal coverage

Survey results from the IWS, AWS and MWWS since 2005 and from the SDWP since 2011 have been included in this indicator.

Data completeness

Water withdrawal and consumption estimates for the thermal power generation, manufacturing and mining sectors were taken from the IWS. The response rate for the thermal-electric component of the IWS was 88% in 2013, 90% in 2011, 84% in 2009, 92% in 2007, and 88% in 2005. For the manufacturing component of the IWS, the response rate was 64% in 2013,[10] 62% in 2011,[11] 70% in 2009,[12] 72% in 2007,[13] and 70% in 2005.[14] The

---

[7] Statistics Canada (2015) Survey of Drinking Water Plants 2013. Retrieved on November 19, 2015.

[8] Environment Canada (2011) Municipal Water and Wastewater Survey. Retrieved on November 19, 2015.

[9] Alberta Agriculture and Forestry (2014) 2013 Alberta Irrigation Information Booklet.

[10] Statistics Canada (2015) Industrial Water Survey 2013. Retrieved on November 19, 2015.

[11] Statistics Canada (2014) Industrial Water Use 2011: Data quality, concepts and methodology: Data quality. Retrieved on November 19, 2015.

[12] Statistics Canada (2012) Industrial Water Use 2009: Data quality, concepts and methodology: Data quality. Retrieved on November 19, 2015.

[13] Statistics Canada (2007) Industrial Water Use 2007: Data quality, concepts and methodology: Data quality. Retrieved on November 19, 2015.

[14] Statistics Canada (2005) Industrial Water Use 2005: Data quality, concepts and methodology: Data quality. Retrieved on November 19, 2015.

response rate for the mining component was 75% in 2013,[15] 65% in 2011,[16] 79% in 2009 and 2007, and 70% in 2005.

Statistics Canada used the AWS to calculate estimates of water withdrawal for agriculture. The response rate for the AWS was 74.3% in 2014,[17] 75.5% in 2012,[18] and 57% in 2010.[19] The 2014 AWS excludes a variety of agricultural practices, such as reserve farms, community pastures, pure hatcheries, and farms producing Christmas trees. Farms with sales of less than $10 000 are also excluded, as are those that reported owning irrigation equipment but did not report any irrigation areas. The seven northernmost drainage regions are also excluded. Imputation was used to deduce the response for a missing or inconsistent field when partial information was available. The 2014 AWS sampled 7937 Canadian farm operations that irrigate.

Water withdrawal estimates for the households and commercial and institutional sectors were based on data from the MWWS and SDWP. Response rates for the MWWS varied by survey year and question. In the 2009 MWWS, residential water service data were available for a responding population of 28 884 690 Canadians. In 2006, residential water service data were available for 28 177 339 Canadians, and, in 2004, the responding population represented 25 454 421 Canadians.[20]

The SDWP is a census of drinking water plants serving 300 or more people. Treatment plants are asked to report information on volumes of water treated, type of treatment, financial aspects of the operation, as well as the quality of the raw water used as a source for the plant. The survey excludes systems that supply water to communities with less than 300 people and other regulated systems that service schools, camp grounds, commercial establishments, provincial parks, etc. Approximately 2000 drinking water facilities were included in the 2013 SDWP.

Consumption estimates for the households, commercial and institutional, agriculture, and oil and gas sectors were calculated using factors applied to withdrawal estimates from government reports or scientific opinion. Refer to the Methods section for a complete explanation.

---

[15] Statistics Canada (2015) Industrial Water Survey 2013. Retrieved on November 19, 2015.

[16] Statistics Canada (2014) Industrial Water Use 2011: Data quality, concepts and methodology: Data quality. Retrieved on November 19, 2015.

[17] Statistics Canada (2015) Agricultural Water Survey 2014: Data sources and methodology. Retrieved on November 19, 2015.

[18] Statistics Canada (2013) Agricultural Water Use in Canada 2012: Data quality, concepts and methodology. Retrieved on November 19, 2015.

[19] Statistics Canada (2011) Agricultural Water Use in Canada 2010: Data quality, concepts and methodology. Retrieved on November 19, 2015.

[20] Environment Canada (2011) Municipal Water and Wastewater Survey: Data and Publications. Retrieved on November 19, 2015.

Data timeliness

This indicator uses the most recent survey data available. The IWS is conducted every two years with the most recent results published in October 2015.[21] The AWS is also conducted every two years; the most recent results were published in September 2015.[22] The most recent results for the SDWP, conducted every two years, were published in June 2015.[23] The MWWS was conducted every two to three years from the early 1980s to 2009, with data released approximately two years after the calendar year to which the collected data applied.[24]

Methods

The Statistics Canada tables Water use in Canada by sector and Physical flow account for water use summarized results from the Industrial Water Survey (IWS), Agricultural Water Survey (AWS), Survey of Drinking Water Plants (SDWP), and Environment Canada's Municipal Water and Wastewater Survey (MWWS). Water withdrawal data for the thermal power generation, manufacturing, households, commercial and institutional, and oil and gas sectors were taken directly from these tables.

Water withdrawal estimates for the households sector prior to 2011 were based on water use by households served by municipal water supply systems from Environment Canada's Municipal Water Use Database (MUD). Estimates were also made for the portion of the population not served by municipal systems by multiplying the number of persons by a per capita water-use coefficient for self-supplied households.[25] Recent estimates for the sector for 2011 and 2013 are based on the municipal water supply from SDWP. They are combined with an estimate from the drinking water producers of the proportion of this water supply that serves households. Water use by households not served by the municipal supply is estimated based on average household consumption figures.[26]

Water withdrawal estimates for the mining sector were calculated by summing mine water estimates from Statistics Canada's IWS with mine water intake values. Mine water is water removed from mines through dewatering. The IWS reports mine water and water intake (withdrawal) separately.

Water withdrawal for the agriculture sector is calculated based on water volumes used for irrigation taken from the Statistics Canada's AWS. The amount of water used to water livestock and clean farm buildings is estimated using data from the Census of Agriculture.

For the households sector and the commercial and institutional sector, water consumption was assumed to be 10% of total water withdrawal based on consumption rates from Environment Canada's MWWS.[27]

---

[21] Statistics Canada (2015) Industrial Water Survey 2013. Retrieved on November 19, 2015.

[22] Statistics Canada (2015) Agricultural Water Survey 2014. Retrieved on November 19, 2015.

[23] Statistics Canada (2015) Survey of Drinking Water Plants 2013. Retrieved on November 19, 2015.

[24] Environment Canada (2011) Municipal Water and Wastewater Survey: Data and Publications. Retrieved on November 19, 2015.

[25] Statistics Canada (2012) CANSIM Table 153-0101 – Water use in Canada, by sector, every 2 years, CANSIM (database). Retrieved on November 17, 2015.

[26] Statistics Canada (2015) CANSIM Table 153-0116 – Physical flow account for water use, every 2 years, CANSIM (database). Retrieved on November 17, 2015.

[27] Ferguson D (2011) Environment Canada, personal communication.

Water consumption values for the thermal power, manufacturing and mining sectors were taken from the appropriate IWS tables. The estimate of water consumption for the mining sector is calculated by subtracting mining discharge volumes from the withdrawal estimate.

Water consumption values for agriculture were calculated as the difference between the volume of water withdrawn from a river for irrigation and the volume measured as return flows back to the river. Consumption was calculated as 79.7% based on 20.3% of water being returned to the river system in 2013.[28] The volume of water used for irrigation is managed to match crop water requirements; thus, water consumption by agriculture varies annually depending on the weather, with much less consumption during wet years.

For the oil and gas sector, consumption was estimated using the upper limit of an 80% to 95% range of the total water withdrawn by the oil sands industry being recycled and so not returned to groundwater and surface water sources.[29]

Caveats and limitations

While water is withdrawn for human use from both surface water and groundwater sources, most water is returned to surface water. The Water Withdrawal and Consumption by Sector indicator considers water to be consumed if it is not returned directly to its source. The possible depletion of groundwater resources due to economic practices, such as mine dewatering or municipalities using groundwater for drinking, has been captured in the indicator. According to the System of Environmental-Economic Accounting (SEEA) for water,[30] water removed from a groundwater source and returned to surface water is not considered to be consumed because, although it is not returned to its original source under the ground, the water returned to a surface water body is still available for other economic uses.

Although efforts were made by Statistics Canada to reduce errors in the Industrial Water Survey (IWS), Agricultural Water Survey (AWS) and Survey of Drinking Water Plants (SDWP) through data validation, errors are unavoidable and are likely present in the data. Imputation was used by the IWS and AWS on partial-response records.

In the cases of the households, commercial and institutional, and oil and gas sectors, the estimates of the proportion of water withdrawn that is consumed could not be corroborated with recent studies or monitoring results.

[28] Department of Agriculture and Forestry (2014) 2013 Alberta Irrigation Information Booklet.

[29] Government of Alberta (2015) Oil Sands: Alberta's Clean Energy Future – Water. Retrieved on December 1, 2015.

[30] United Nations Department of Economic and Social Affairs (2012) System of Environmental-Economic Accounting for Water (SEEA–Water). Retrieved on November 19, 2015.

Part 3. Annexes

Annex A. Data tables for the figures presented in this document

Table A.1. Data for Figure 1. Water withdrawal by sector, Canada, 2005 to 2013

Sector	Year	Volume of water withdrawn (million cubic metres)	Volume of water consumed (million cubic metres)	Volume of water returned (million cubic metres)
Thermal power generation	2005	27 825	716	27 109
Thermal power generation	2007	27 834	522	27 313
Thermal power generation	2009	26 214	484	25 729
Thermal power generation	2011	23 716	412	23 304
Thermal power generation	2013	25 635	397	25 239
Manufacturing	2005	5719	650	5069
Manufacturing	2007	4573	452	4122
Manufacturing	2009	3927	367	3561
Manufacturing	2011	3790	448	3342
Manufacturing	2013	3954	411	3543
Households	2005	3875	388	3488
Households	2007	3827	383	3445
Households	2009	3589	359	3230
Households	2011	3506	351	3156
Households	2013	3239	324	2915
Commercial and institutional	2005	2053	205	1847
Commercial and institutional	2007	2036	204	1832
Commercial and institutional	2009	1957	196	1762
Commercial and institutional	2011	1930	193	1737
Commercial and institutional	2013	2074	207	1867
Agriculture	2005	1829	1536	293
Agriculture	2007	2322	1950	371
Agriculture	2009	2366	1988	379
Agriculture	2011	1809	1519	289
Agriculture	2013	2007	1600	407
Mining	2005	669	44	624
Mining	2007	906	151	755
Mining	2009	675	98	578

Sector	Year	Volume of water withdrawn (million cubic metres)	Volume of water consumed (million cubic metres)	Volume of water returned (million cubic metres)
Mining	2011	776	144	632
Mining	2013	976	300	675
Oil and gas	2005	198	188	10
Oil and gas	2007	190	181	10
Oil and gas	2009	293	278	15
Oil and gas	2011	349	332	17
Oil and gas	2013	402	382	20

Note: The indicator reports estimates of water withdrawal and consumption by sector. Totals may not add up due to rounding. Refer to the Data Sources and Methods section for more details.
Source: Statistics Canada (2012) CANSIM Table 153-0101 – Water use in Canada, by sector, every 2 years, CANSIM database. Statistics Canada (2015) CANSIM Table 153-0116 – Physical flow account for water use, every 2 years, CANSIM database. Statistics Canada (2015) Industrial Water Survey 2013.

Annex B. Industrial sectors used in the Water Withdrawal and Consumption by Sector indicator

The Statistics Canada tables Water use in Canada by sector and Physical flow account for water use report sectors according to the Input-Output Industry Codes (IOIC) from Canada's System of macroeconomic accounts: input-output accounts. The following table outlines the IOIC codes assigned to each Canadian Environmental Sustainability Indicators (CESI) sector.

Table B.1. Alignment of sectors reported in CESI and IOIC

CESI Sector	Input-Output Industry Code
Thermal power generation	Electric power generation, transmission and distribution [BS22110]
Manufacturing	Food manufacturing [BS311]
	Beverage and tobacco product manufacturing [BS312]
	Textile and textile product mills [BS31A]
	Clothing and leather and allied product manufacturing [BS31B]
	Wood product manufacturing [BS321]
	Paper manufacturing [BS322]
	Printing and related support activities [BS323]
	Petroleum and coal product manufacturing [BS324]
	Chemical manufacturing [BS325]
	Plastic and rubber products manufacturing [BS326]
	Non-metallic mineral product manufacturing [BS327]
	Primary metal manufacturing [BS331]
	Fabricated metal product manufacturing [BS332]
	Machinery manufacturing [BS333]
	Computer and electronic product manufacturing [BS334]
	Electrical equipment and component manufacturing [BS335]
	Transportation equipment manufacturing [BS336]
	Furniture and related product manufacturing [BS337]
	Miscellaneous manufacturing [BS339]
Households	Households
Agriculture	Crop production [BS111]
	Animal production [BS112]
Commercial and institutional	Natural gas distribution, water, sewage and other systems [BS221A0]
	Forestry and logging [BS11300]
	Fishing, hunting and trapping [BS11400]
	Support activities for agriculture and forestry [BS11500]
	Support activities for mining and oil and gas extraction [BS21300]

CESI Sector	Input-Output Industry Code
	Residential building construction [BS23A00]
	Non-residential building construction [BS23B00]
	Transportation engineering construction [BS23C10]
	Oil and gas engineering construction [BS23C20]
	Electric power engineering construction [BS23C30]
	Communication engineering construction [BS23C40]
	Other engineering construction [BS23C50]
	Repair construction [BS23D00]
	Other activities of the construction industry [BS23E00]
	Wholesale trade [BS41000]
	Retail trade [BS4A000]
	Air transportation [BS48100]
	Rail transportation [BS48200]
	Water transportation [BS48300]
	Truck transportation [BS48400]
	Transit, ground passenger and scenic and sightseeing transportation, taxi and limousine service and support activities for transportation [BS48B00]
	Pipeline transportation [BS48600]
	Postal service and couriers and messengers [BS49A00]
	Warehousing and storage [BS49300]
	Motion picture and sound recording industries [BS51200]
	Radio and television broadcasting [BS51510]
	Publishing, pay and specialty services, telecommunications and other information services [BS51B00]
	Depository credit intermediation and monetary authorities [BS52B00]
	Insurance carriers [BS52410]
	Lessors of real estate [BS53110]
	Owner-occupied dwellings [BS5311A]
	Rental and leasing services and lessors of non-financial intangible assets (except copyrighted works) [BS53B00]
	Other finance, insurance and real estate services and management of companies and enterprises [BS5A000]
	Legal, accounting and architectural, engineering and related services [BS541C0]
	Computer systems design and other professional, scientific and technical services [BS541D0]
	Advertising, public relations and related services [BS54180]
	Administrative and support services [BS56100]
	Waste management and remediation services [BS56200]

CESI Sector	Input-Output Industry Code
	Educational services [BS61000]
	Health care and social assistance [BS62000]
	Arts, entertainment and recreation [BS71000]
	Accommodation and food services [BS72000]
	Repair and maintenance [BS81100]
	Personal services and private households [BS81A00]
	Professional and similar organisations [BS81300]
	Repair and maintenance [FC11000]
	Operating supplies [FC12000]
	Office supplies [FC13000]
	Advertising, promotion, meals, entertainment, and travel [FC20000]
	Transportation margins [FC30000]
	Non-profit education services [NP61000]
	Non-profit social assistance [NP62400]
	Non-profit arts, entertainment and recreation [NP71000]
	Religious organizations [NP81310]
	Miscellaneous non-profit institutions serving households [NPA0000]
	Educational services (except universities) [GS611B0]
	Universities [GS61130]
	Hospitals [GS62200]
	Nursing and residential care facilities [GS62300]
	Other federal government services [GS91100]
	Other provincial and territorial government services [GS91200]
	Other municipal government services [GS91300]
	Other aboriginal government services [GS91400]
Mining	Coal mining [BS21210]
	Metal ore mining [BS21220]
	Non-metallic mineral mining and quarrying [BS21230]
	Mine water[A]
Oil and gas	Oil and gas extraction [BS21100]

[A] Data from Statistics Canada's Industrial Water Survey for the Mining and quarrying (except oil and gas) subsector under the North American Industry Classification System (NAICS).

Annex C. References and additional information

References and further reading

Department of Agriculture and Forestry (2014) 2013 Alberta Irrigation Information Booklet.

Environment Canada (2011) Municipal Water and Wastewater Survey. Retrieved on November 19, 2015.

Environment Canada (2011) Municipal Water and Wastewater Survey: Data and Publications. Retrieved on November 19, 2015.

Ferguson D (2011) Environment Canada, personal communication.

Government of Alberta (2015) Oil Sands: Alberta's Clean Energy Future – Water. Retrieved on December 1, 2015.

Statistics Canada (2005) Industrial Water Use 2005: Data quality, concepts and methodology: Data quality Retrieved on November 19, 2015.

Statistics Canada (2007) Industrial Water Use 2007: Data quality, concepts and methodology: Data quality. Retrieved on November 19, 2015.

Statistics Canada (2011) Agricultural Water Use in Canada 2010: Data quality, concepts and methodology. Retrieved on November 19, 2015.

Statistics Canada (2012) CANSIM Table 153-0101 – Water use in Canada, by sector, every 2 years, CANSIM. Retrieved on November 17, 2015.

Statistics Canada (2012) Industrial Water Use 2009: Data quality, concepts and methodology: Data quality. Retrieved on November 19, 2015.

Statistics Canada (2013) Agricultural Water Use in Canada 2012: Data quality, concepts and methodology. Retrieved on November 19, 2015.

Statistics Canada (2014) Industrial Water Use 2011: Data quality, concepts and methodology: Data quality. Retrieved on November 19, 2015.

Statistics Canada (2015) Agricultural Water Survey 2014. Retrieved on November 19, 2015.

Statistics Canada (2015) Canadian System of Environmental-Economic Accounts – Physical Flow Accounts: Water Account. Retrieved on November 19, 2015.

Statistics Canada (2015) CANSIM Table 153-0116 – Physical flow account for water use, every 2 years, CANSIM. Retrieved on November 17, 2015.

Statistics Canada (2015) Industrial Water Survey 2013. Retrieved on November 19, 2015.

Statistics Canada (2015) Survey of Drinking Water Plants 2013. Retrieved on November 19, 2015.

United Nations Department of Economic and Social Affairs (2012) System of Environmental-Economic Accounting for Water (SEA–Water). Retrieved on November 19, 2015.

Related information

Canada's Water Use in a Global Context
Environment and Climate Change Canada – Water Use
Residential Water Use in Canada
Statistics Canada – Physical flow accounts: Water use, 2013
Water Availability in Canada
Water Quantity in Canadian Rivers

www.ec.gc.ca

Additional information can be obtained at:

Environment and Climate Change Canada
Public Inquiries Centre
7th Floor, Fontaine Building
200 Sacré-Coeur boul.
Gatineau, QC K1A 0H3
Telephone: 1-800-668-6767 (in Canada only) or 819-938-3860
Fax: 819-994-1412
TTY: 819-994-0736
Email: ec.enviroinfo.ec@canada.ca