2017 Biennial Industrial Water Survey: Fossil-Fuel and Nuclear Electric Power Generating Plants

CONFIDENTIAL once completed.

Selon nos dossiers votre langue de préférence est l'anglais, si vous préférez recevoir ce document en français, veuillez nous appeler au numéro sans frais suivant : 1-866-445-4323 ou ATS 1-855-382-7745

This information is collected under the authority of the *Statistics Act*, Revised Statutes of Canada, 1985, Chapter S-19.

COMPLETION OF THIS QUESTIONNAIRE IS A LEGAL REQUIREMENT UNDER THIS ACT.

Introduction

Survey purpose

Statistics Canada conducts this survey every two years to collect detailed information on water use by manufacturing, mining, and electrical power generating industries in Canada. The survey collects information on who uses water, how much, where and at what cost. These data will be used to develop environmental accounts and indicators.

The survey will ask about the following for your plant

- the sources of water
- · the treatment of water before it's used
- · the initial uses of water
- · the recirculation and reuse of water
- · the treatment of water before it's discharged
- the ultimate points of water discharge
- the monthly breakdown of water intake and discharge
- the costs of acquiring wate, maintaining and operating the water systems, and discharging water.

Data from this survey are used by all levels of government in stablishing informed environmental policies. The private sector also uses this information in the corporate decision-making process.

Your information may also be used by Statistics Canada for other statistical and research purposes.

Security of emails and faxes

Statistics Canada advises you that there could be a risk of disclosure during facsimile or email. However upon receipt, Statistics Canada will provide the guaranteed level of protection afforded all information collected under the authority of the *Statistics Act*.

Note: Our online questionnaires are secure, there is no risk of data interception when responding to Statistics Canada online surveys.

Confidentiality

The Statistics Act protects the confidentiality of information collected by Statistics Canada.

Please return the questionnaire within 28 days.

Please mail the completed questionnaire in the enclosed envelope or fax it to Statistics Canada at 1-888-883-7999.

If you are unable to complete within 28 days **or** if you need help, call us at **1-866-445-4323** or **TTY 1-855-382-7745**.

Statistics Canada
Operations and Integration Division
150 Tunney's Pasture Driveway
Ottawa, Ontario K1A 0T6

Visit our website, www.statcan.gc.ca

5-3600-5120.1: 2018-03-19

Statistics Canada

Statistique Canada



R	Reporting instructions							
	Please provide your best estimate when exact figures are not available. Please enter "0" in the corresponding box if the water volume is zero.							
В	Business or organization and contact information							
1.	Please provide the business or organization's legal and opera	ting name.						
	Legal name	Operating name (if applicable)						
2.	Please provide the contact information of the designated bus Note: The designated contact person is the person who should receive this ques The designated contact person may not always be the one who actually contact	tionnaire.						
	First name	Last name						
	Title	Preferred language of communication English French						
	Mailing address (number and street)							
	City	Province, territory or state						
	Postal code or ZIP code Example: A9A 9A9 or 12345-1234							
	Country							
	Email address Example: user@example.gov.ca							
	Telephone number (including area code) Example: 123-123-1234 Extension (if applicable)							
	Fax number (including area code) Example: 123-123-1234							

3. Please p	provide the current operational status of the business o	r organization identified by the legal and operating name.						
B00323	Operational → Go to question 4							
2 0 1	Not currently operational e.g., temporarily or permanently closed, change of ownership							
	Why is this business or organization not currently operation	onal?						
	Seasonal operations -> Go to question 3a.							
	Ceased operations Go to question 3b.							
	Sold operations → Go to question 3c.							
	⁵ Amalgamated with other businesses or organizat	ions -> Go to question 3d.						
	Temporarily inactive but will re-open - Go to q	uestion 3e.						
	No longer operating due to other reasons -> Go	to question 3f.						
L								
3a. Season	nal operations							
When	did this business or organization close for the season?							
	YYYY MM DD	XIO						
Date	B00217	2 0'						
Date	\sim	$\boldsymbol{\mathcal{O}}$						
When	does this business or organization expect to resume oper	ations?						
	YYYY MM DD							
Data	B00218 → Go to questic	on 4						
Date	X O to question	,,, ,						
3b. Ceased	d operations							
When	did this business or organization cease operations?							
WITCH								
	YYYY MM DD							
Date								
Why di	lid this business or organization cease operations?							
1	Bankruptcy							
2	Liquidation							
3								
4	Dissolution	→ Go to question 4						
,	Other Specify the other reasons for ceased operations							
		J						

3c.	Sold operations	
	When was this business or organization sold?	
	YYYY MM DD 800212	
	Date	
	What is the legal name of the buyer?	
		→ Go to question 4
3d.	Amalgamated with other businesses or organizations	
	When did this business or organization amalgamate?	13
	YYYY MM DD 800213	
	Date	
	What is the legal name of the resulting or continuing business or organization?	0
	• 0	
	What are the legal names of the other amalgamated businesses or organizations	
		→ Go to question 4
		·
3e.	Temporarily inactive but will re-open	
	When did this business or organization become temporarily inactive?	
	YYYY MM DD	
	Date	
	When does this business or organization expect to resume operations?	
	YYYY MM DD 800215	
	Date	
	Why is this business or organization temporarily inactive?	
	B00313	
		→ Go to question 4
3f.	No longer operating due to other reasons	
	When did this business or organization cease operations?	
	Date YYYY MM DD	
	Why did this business or organization cease operations?	

4.	Please verify or provide the current main activity of the business or organization identified by the legal and operating name. Note: The described activity was assigned using the North American Industry Classification System (NAICS).
	This is the current main activity. → Go to next section
	This is not the current main activity. Please provide a brief but precise description of this business or organization's main activity. e.g., breakfast cereal manufacturing, shoe store, software development B05003
5.	Was this business or organization's main activity ever classified as:
	1 Yes
	² No → Go to next section
6.	When did the main activity change?
	Date 800219

Ge	eneral inf	ormation						
1.	In operatio	plant in operation at least one danning in includes plants that are temporarily ial services, water use for cooling, con	closed but there was some form of	ar? f water use e.g. , water for sanitary services like to	oilets			
	4	es						
2.	Which months was this plant operational? Select all that apply. BROODSE, \$913 All months OR BROODSE, \$921 BROODSE, \$921 BROODSE, \$922 BROODSE, \$924 BROODSE, \$924							
	1 Y	es						
	² N	0						
	8 8 0	Prince Edward Island Nova Scotia	. 06	Yukon Northwest Territories Nunavut				
	0	Quebec	British Columbia	eport the province or territory for the last location bute to the correct provincial or territorial estimates. 11 Yukon 12 Northwest Territories 13 Nunavut				

3.	In 2017, what was the average number of people working on the premises of this plant in full-time equivalents (FTE)?
	Include permanent, contract and casual employees that work on the premises.
	Employment may be full-time or part-time, FTE converts part-time jobs to full-time jobs based on the hours worked. For example, if out of four employees employed at your plant one works full-time and the remaining three work the equivalent of half of a full time job, then FTE employment = $1 + \frac{1}{2} + \frac{1}{2} = 2.5$.
	When exact figures are not available, please provide your best estimate.
	Number of people -
4.	How many days did this plant operate in 2017?
	In operation includes plants that are temporarily closed but there was some form of water use e.g. , water for sanitary services like toilets and janitorial services, water use for cooling, condensing and steam or pollution control.
	Days refers to calendar days.
	When exact figures are not available, please provide your best estimate.
	Days B00338
_	
5.	How many weeks did this plant operate in 2017?
	In operation includes plants that are temporarily closed but there was some form of water use e.g. , water for sanitary services like toilets and janitorial services, water use for cooling, condensing and steam or pollution control.
	When exact figures are not available, please provide your best estimate.
	Weeks
6.	On average, how many days per week did this plant operate in 2017?
	Days refers to calendar days
	When exact figures are net available, please provide your best estimate. Days per treek
7.	On average, how many hours did this plant operate in a day in 2017? Days refers to calendar days. When exact figures are not available, please provide your best estimate.
	Hours .

Unit of measure

If you select a multiple of a unit of measure as your reporting unit, please take care to enter the correct decimal values or number of zeros when reporting water volumes in this questionnaire. **For example**, if thousands of imperial gallons is specified as the unit of measure, note that a reported quantity of 3.5 = 3,500 (3.5 thousand) imperial gallons, whereas a reported quantity of 3,500 = 3,500,000 (3.5 million) imperial gallons.

Please select only one unit of measure.

What	unit of measure will be used to report water volumes throughout this questionnaire?
B00522	Cubic metres, or a multiple of cubic metres
L	Select the multiple of cubic metres you will use to report water volumes throughout this questionnaire.
	ocidet the manapie of dable mende you will doe to report mater volumes throughout the question tallor
	a. Cubic metres (m³)
	b. Tens of cubic metres (10 m³)
	c. Hundreds of cubic metres (100 m³)
	d. Thousands of cubic metres (1,000 m³)
	e. Millions of cubic metres (1,000,000 m³)
2	Litres, or a multiple of litres
L	Select the multiple of litres you will use to report water volumes throughout this questionnaire.
	B00522_md2
	a. Litres (L)
	b. Hundreds of litres (10 L)
	c. Thousands of lifes (,000)
	d. Millions of litres (1,000,000 L)
	e. Hectolitres nL)
	f. Kilolitres (kL)
	g. Megalitres (ML)
	7.0
3	Imperial gallons, or a multiple of imperial gallons
L	Select the multiple of imperial gallons you will use to report water volumes throughout this questionnaire.
	B00522_md3
	a. Imperial gallons (imp. gal.)
	b. Hundreds of imperial gallons (100 imp. gal.)
	c. Thousands of imperial gallons (1,000 imp. gal.)

Select the	e multiple of US gallons you will use to report water volumes throughout this questionnaire.
B00522_m	104
a.	US gallons (US gal.)
b.	Hundreds of US gallons (100 US gal.)
c.	Thousands of US gallons (1,000 US gal.)
d.	Millions of US gallons (1,000,000 US gal.)
Cubic feet,	or a multiple of cubic feet
Select the	e multiple of cubic feet you will use to report water volumes throughout this questionnaire.
B00522_m	
a.	Cubic feet (cu. ft.)
b.	Tens of cubic feet (10 cu. ft.)
C.	Hundreds of cubic feet (100 cu. ft.)
<	

Please report the volume of intake water for the following types and sources. If the water volume is zero, please enter "0" in the corresponding box. When exact figures are not available, please provide your best estimate. 2017 volume of intake water	ter	inta	ke by source and type					
The water volume is zero, please enter "0" in the corresponding box. When exact figures are not available, please provide your best estimate. 2017 volume of intake water For the purpose of this survey, freshwater contains an average of 900 parts per million (ppm) or less of total dissolved solids. a. Public utility i.e., a municipal or city system of drawing, treating and distributing water b. Self-supplied surface water system i.e., lake, river c. Self-supplied groundwater system i.e., well, springs d. Other freshwater sources e.g., delivery of water from a private supplier, an adjacent indultors are to the purpose of this survey, saline or trackish water contains on average of 900 parts per million (ppm) or less of total dissolved so the purpose of this survey, saline or trackish water contains on average of 900 parts per million (ppm) or less of total dissolved so the purpose of this survey, saline or trackish water contains on average of 900 parts per million (ppm) or less of total dissolved so the purpose of this survey, saline or trackish water contains on average of 900 parts per million (ppm) or less of total dissolved so the purpose of this survey, saline or trackish water contains on average of 900 parts per million (ppm) or less of total dissolved so the purpose of this survey, saline or trackish water) body i.e. sestuars, busy postin c. Outer saline or brackish water sources e.g., solvery of water from a private supplier, an adjacent industry Subtotal volume of saline or brackish water intake in 2017	Plea	ase re	port the volume of intake water for the following types and sources.					
When exact figures are not available, please provide your best estimate. 2017 volume of intake was Freshwater For the purpose of this survey, freshwater contains an average of 900 parts per million (ppm) or less of total dissolved solids. 2017 Public utility Le., a municipal or city system of drawing, treating and distributing water D. Self-supplied surface water system Le., lake, river C. Self-supplied groundwater system Le., well, springs d. Other freshwater sources e.g., delivery of water from a private supplier, an adjacent indult to fine outside from the purpose of this survey, saline or frashich water contains on average of 900 parts per million (ppm) or less of total dissolved solutions are supplied groundwater system Le., well, spring D. Self-supplied into water (salt water) body Le., satures, bay postan C. Outer saline or brackish water sources e.g., spivery of water from a private supplier, an adjacent industry PRESE 19 2008 Subtotal volume of saline or brackish water intake in 2017								
Preshwater For the purpose of this survey, freshwater contains an average of 900 parts per million (ppm) or less of total dissolved solids. a. Public utility Le., a municipal or city system of drawing, treating and distributing water b. Self-supplied surface water system Le., lake, river c. Self-supplied groundwater system i.e., well, springs d. Other freshwater sources e.g., delivery of water from a private supplier, an adjacent industry from the purpose of this survey, saline operated by the purpose of this survey of water from a private supplier, an adjacent industry Compared to the purpose of this survey, saline operated by the purpose of the purpose of this survey. Compared to the purpose of this survey, saline operated by the purpose of the purpose of the purpose of the purpose of this survey. Compared to the purpose of this survey of the purpose of this survey. Compared to the purpose of this survey of the purpose of this survey. Compared to the purpose of this survey. Compared to the purpose of this survey. Compared to the p								
Preshwater For the purpose of this survey, freshwater contains an average of 900 parts per million (ppm) or less of total dissolved solids. a. Public utility i.e., a municipal or city system of drawing, treating and distributing water b. Self-supplied surface water system i.e., lake, river c. Self-supplied groundwater system i.e., well, springs d. Other freshwater sources e.g., delivery of water from a private supplier, an adjacent induktor. Not action on the property of water from a private supplier. Subtotal volume of freshwater intake in 2017 Saline or brackish water For the purpose of this survey, saline or trackish water contains on average of 900 parts per million (ppm) or less of total dissolved so the property of the purpose of this survey, saline or trackish water sources i.e., well, spring b. Self-supplied groundwater system i.e., well, spring c. Other saline or brackish water (salt water) body i.e., sstusy, bays ocean c. Other saline or brackish water sources e.g., Nelivery of water from a private supplier, an adjacent industry Subtotal volume of saline or brackish water intake in 2017	VVIIC	on Cha	or lightes are not available, please provide your best estimate.					
Freshwater For the purpose of this survey, freshwater contains an average of 900 parts per million (ppm) or less of total dissolved solids. a. Public utility				2017				
For the purpose of this survey, freshwater contains an average of 900 parts per million (ppm) or less of total dissolved solids. a. Public utility i.e., a municipal or city system of drawing, treating and distributing water b. Self-supplied surface water system i.e., lake, river c. Self-supplied groundwater system i.e., well, springs d. Other freshwater sources e.g., delivery of water from a private supplier, an adjacent indultry, but water run-off water Exclude bottled water intended for personal consumption. Subtotal volume of freshwater intake in 2017 Saline or brackish water For the purpose of this survey, saline to thrackish water contains on average of 900 parts per million (ppm) or less of total dissolved so ### 10007_97_260 D. Self-supplied groundwater system i.e., well, spring D. Self-supplied groundwater system i.e., well, spring D. Self-supplied disc water (salt water) body i.e. setualy, bay poden C. Other saline or brackish water sources e.g., relivery of water from a private supplier, an adjacent industry Subtotal volume of saline or brackish water intake in 2017				volume of intake wa				
For the purpose of this survey, freshwater contains an average of 900 parts per million (ppm) or less of total dissolved solids. a. Public utility i.e., a municipal or city system of drawing, treating and distributing water b. Self-supplied surface water system i.e., lake, river c. Self-supplied groundwater system i.e., well, springs d. Other freshwater sources e.g., delivery of water from a private supplier, an adjacent indultry, but water run-off water Exclude bottled water intended for personal consumption. Subtotal volume of freshwater intake in 2017 Saline or brackish water For the purpose of this survey, saline to thrackish water contains on average of 900 parts per million (ppm) or less of total dissolved so ### 10007_97_260 D. Self-supplied groundwater system i.e., well, spring D. Self-supplied groundwater system i.e., well, spring D. Self-supplied disc water (salt water) body i.e. setualy, bay poden C. Other saline or brackish water sources e.g., relivery of water from a private supplier, an adjacent industry Subtotal volume of saline or brackish water intake in 2017								
a. Public utility i.e., a municipal or city system of drawing, treating and distributing water b. Self-supplied surface water system i.e., lake, river c. Self-supplied groundwater system i.e., well, springs d. Other freshwater sources e.g., delivery of water from a private supplier, an adjacent indultry, that water run-off water Exclude bottled water intended for personal consumption. Subtotal volume of freshwater intake in 2017 Saline or brackish water For the purpose of this survey, saline or grackish water contains on average of 900 parts per million (ppm) or less of total dissolved so a. Self-supplied groundwater system i.e., well, spring b. Self-supplied groundwater system i.e., well, spring Except ya zell C. Other saline or brackish water sources e.g., nativery of water from a private supplier, an adjacent industry Subtotal volume of saline or brackish water intake in 2017	>			total dissolved solids				
i.e., a municipal or city system of drawing, treating and distributing water D. Self-supplied surface water system i.e., lake, river C. Self-supplied groundwater system i.e., well, springs d. Other freshwater sources e.g., delivery of water from a private supplier, an adjacent indultry. Not water run-off water Exclude bottled water intended for personal consumption. Subtotal volume of freshwater intake in 2017 Saline or brackish water For the purpose of this survey, saline or brackish water contains on average of 900 parts per million (ppm) or less of total dissolved so the contains on average of 900 parts per million (ppm) or less of total dissolved so the contains on average of 900 parts per million (ppm) or less of total dissolved so the contains on average of 900 parts per million (ppm) or less of total dissolved so the contains on average of 900 parts per million (ppm) or less of total dissolved so the contains on average of 900 parts per million (ppm) or less of total dissolved so the contains on average of 900 parts per million (ppm) or less of total dissolved so the contains on average of 900 parts per million (ppm) or less of total dissolved so the contains on average of 900 parts per million (ppm) or less of total dissolved so the contains on average of 900 parts per million (ppm) or less of total dissolved so total dissolve		. 0		<u> </u>				
i.e., a municipal or city system of drawing, treating and distributing water D. Self-supplied surface water system i.e., lake, river C. Self-supplied groundwater system i.e., well, springs d. Other freshwater sources e.g., delivery of water from a private supplier, an adjacent indultry. You water from a private supplier provided for personal consumption. Subtotal volume of freshwater intake in 2017 Saline or brackish water For the purpose of this survey, saline of grackish water contains on average of 900 parts per million (ppm) or less of total dissolved so the purpose of this survey, saline of grackish water contains on average of 900 parts per million (ppm) or less of total dissolved so the purpose of this survey, saline of grackish water contains on average of 900 parts per million (ppm) or less of total dissolved so the purpose of this survey, saline of grackish water contains on average of 900 parts per million (ppm) or less of total dissolved so the purpose of this survey, saline of grackish water intake in 2017 D. Self-supplied groundwater (salt water) body i.e. pestuary, bay process e.g., splittery of water from a private supplier, an adjacent industry FINOT, ye wills Subtotal volume of saline or brackish water intake in 2017			B.18	E79007_y1_ex1				
b. Self-supplied surface water system i.e., lake, river C. Self-supplied groundwater system i.e., well, springs d. Other freshwater sources e.g., delivery of water from a private supplier, an adjacent industry, into water run-off water Exclude bottled water intended for personal consumption. Subtotal volume of freshwater intake in 2017 Saline or brackish water For the purpose of this survey, saline or trackish water contains on average of 900 parts per million (ppm) or less of total dissolved so i.e., well, spring b. Self-supplied groundwater system i.e., well, spring D. Self-supplied tion water (salt water) body i.e. sestualy, bay specian C. Other saline or brackish water sources e.g., belivery of water from a private supplier, an adjacent industry		a.						
i.e., lake, river C. Self-supplied groundwater system i.e., well, springs d. Other freshwater sources e.g., delivery of water from a private supplier, an adjacent industry, into water run-off water Exclude bottled water intended for personal consumption. Subtotal volume of freshwater intake in 2017 Saline or brackish water For the purpose of this survey, saline or grast ish water contains on average of 900 parts per million (ppm) or less of total dissolved so a. Self-supplied groundwater system i.e., well, spring b. Self-suppliar trot water (salt water) body i.e. sstualy, bay poean C. Other saline or brackish water sources e.g., valivery of water from a private supplier, an adjacent industry Energy 2-34 Subtotal volume of saline or brackish water intake in 2017			i.e., a municipal or city system of drawing, treating and distributing water					
i.e., lake, river C. Self-supplied groundwater system i.e., well, springs d. Other freshwater sources e.g., delivery of water from a private supplier, an adjacent industry, into water run-off water Exclude bottled water intended for personal consumption. Subtotal volume of freshwater intake in 2017 Saline or brackish water For the purpose of this survey, saline or grass is however contains on average of 900 parts per million (ppm) or less of total dissolved so a. Self-supplied groundwater system i.e., well, spring b. Self-suppliar trot, water (salt water) body i.e. sstualy, bay poedia C. Other saline or brackish water sources e.g., valivery of water from a private supplier, an adjacent industry Except yells settled Subtotal volume of saline or brackish water intake in 2017				79007_V sc2				
C. Self-supplied groundwater system i.e., well, springs d. Other freshwater sources e.g., delivery of water from a private supplier, an adjacent industry. Into water run-off water Exclude bottled water intended for personal consumption. Subtotal volume of freshwater intake in 2017 Saline or brackish water For the purpose of this survey, saline or brackish water contains on average of 900 parts per million (ppm) or less of total dissolved so a. Self-supplied groundwater system i.e., well, spring b. Self-supplierLitio water (salt water) body i.e. stuay, bay postan C. Other saline or brackish water sources e.g., belivery of water from a private supplier, an adjacent industry Subtotal volume of saline or brackish water intake in 2017		b.	Self-supplied surface water system					
C. Self-supplied groundwater system i.e., well, springs d. Other freshwater sources e.g., delivery of water from a private supplier, an adjacent industry. No water run-off water Exclude bottled water intended for personal consumption. Subtotal volume of freshwater intake in 2017 Saline or brackish water For the purpose of this survey, saline or brackish water contains on average of 900 parts per million (ppm) or less of total dissolved so a. Self-supplied groundwater system i.e., well, spring b. Self-supplied thos water (salt water) body i.e. sestually, baly ocean C. Other saline or brackish water sources e.g., helivery of water from a private supplier, an adjacent industry Subtotal volume of saline or brackish water intake in 2017			i.e., lake, river					
C. Self-supplied groundwater system i.e., well, springs d. Other freshwater sources e.g., delivery of water from a private supplier, an adjacent industry. No water-run-off water Exclude bottled water intended for personal consumption. Subtotal volume of freshwater intake in 2017 Saline or brackish water For the purpose of this survey, saline or brackish water contains on average of 900 parts per million (ppm) or less of total dissolved so a. Self-supplied groundwater system i.e., well, spring b. Self-supplied those water (salt water) body i.e. estually, baly ocean C. Other saline or brackish water sources e.g., relivery of water from a private supplier, an adjacent industry Subtotal volume of saline or brackish water intake in 2017				F79007 v1 sc3				
i.e., well, springs d. Other freshwater sources e.g., delivery of water from a private supplier, an adjacent industry. Nin Nature run-off water Exclude bottled water intended for personal consumption. Subtotal volume of freshwater intake in 2017 Saline or brackish water For the purpose of this survey, saline of crashish water contains on average of 900 parts per million (ppm) or less of total dissolved so seed the survey, saline of crashish water contains on average of 900 parts per million (ppm) or less of total dissolved so seed the survey, saline of crashish water contains on average of 900 parts per million (ppm) or less of total dissolved so seed the survey, self-supplied groundwater system i.e., well, spring D. Self-supplied this water (salt water) body i.e. ustually, bay ocean C. Other saline or brackish water sources e.g., valivery of water from a private supplier, an adjacent industry Subtotal volume of saline or brackish water intake in 2017		С	Self-cumplied groundwater system	E1 3001_y1_000				
d. Other freshwater sources e.g., delivery of water from a private supplier, an adjacent indultry. This water run-off water Exclude bottled water intended for personal consumption. Subtotal volume of freshwater intake in 2017 Saline or brackish water For the purpose of this survey, saline or brackish water contains on average of 900 parts per million (ppm) or less of total dissolved so a. Self-supplied groundwater system i.e., well, spring b. Self-supplied titos water (salt water) body i.e. pstuary, bay poean C. Other saline or brackish water sources e.g., self-very of water from a private supplier, an adjacent industry Subtotal volume of saline or brackish water intake in 2017 E79007_y2_sc00 E79007_y2_sc00 E79007_y2_sc00 E79007_y2_sc00 E79007_y2_sc00 E79007_y2_sc00		0.						
e.g., delivery of water from a private supplier, an adjacent inductor. Iniq water run-off water Exclude bottled water intended for personal consumption. E78007_y1_xc100 Subtotal volume of freshwater intake in 2017 Saline or brackish water For the purpose of this survey, saline or brackish water contains on average of 900 parts per million (ppm) or less of total dissolved so a Self-supplied groundwater system i.e., well, spring E78007_y2_xc3 E78007_y2_xc4 b. Self-supplied the water (salt water) body i.e., testually, bay, tocean C. Other saline or brackish water sources e.g., belivery of water from a private supplier, an adjacent industry Subtotal volume of saline or brackish water intake in 2017			i.e., well, springs					
e.g., delivery of water from a private supplier, an adjacent inductor. Iniq water run-off water Exclude bottled water intended for personal consumption. E19007_97_x=100 Subtotal volume of freshwater intake in 2017 Saline or brackish water For the purpose of this survey, saline or brackish water contains on average of 900 parts per million (ppm) or less of total dissolved so as Self-supplied groundwater system i.e., well, spring E19007_97_x=3 E19007_97_x=3 C. Other saline or brackish water sources e.g., belivery of water from a private supplier, an adjacent industry Subtotal volume of saline or brackish water intake in 2017		اء		E79007 v1 sc90				
Subtotal volume of freshwater intake in 2017 Saline or brackish water For the purpose of this survey, saline or brackish water contains on average of 900 parts per million (ppm) or less of total dissolved so i.e., well, spring 579007_32_964 b. Self-supplied groundwater system i.e., well, spring 579007_32_964 b. Self-supplied tite water (salt water) body i.e., estuary, bay specian C. Other saline or brackish water sources e.g., relivery of water from a private supplier, an adjacent industry Subtotal volume of saline or brackish water intake in 2017		a.						
Subtotal volume of freshwater intake in 2017 Saline or brackish water For the purpose of this survey, saline of brackish water contains on average of 900 parts per million (ppm) or less of total dissolved so i.e., well, spring 579007_92_964 b. Self-supplied trick water (salt water) body i.e. restually, bay poean C. Other saline or brackish water sources e.g., Telivery of water from a private supplier, an adjacent industry Subtotal volume of saline or brackish water intake in 2017			e.g., delivery of water from a private supplier, an adjacent industry, rain water run-off water Exclude bottled water intended for personal consumption					
Saline or brackish water For the purpose of this survey, saline or brackish water contains on average of 900 parts per million (ppm) or less of total dissolved so it.e., well, spring a. Self-supplied groundwater system i.e., well, spring b. Self-supplied tide water (salt water) body i.e., estuary, bay ocean C. Other saline or brackish water sources e.g., halivery of water from a private supplier, an adjacent industry Subtotal volume of saline or brackish water intake in 2017								
a. Self-supplied groundwater system i.e., well, spring E79007_y2_sc3 E79007_y2_sc3 E79007_y2_sc3 E79007_y2_sc3 E79007_y2_sc4 b. Self-supplied tion water (salt water) body i.e. estuary, bay, poean E79007_y2_sc90 C. Other saline or brackish water sources e.g., telivery of water from a private supplier, an adjacent industry E79007_y2_sc100 E79007_y2_sc100								
a. Self-supplied groundwater system i.e., well, spring E79007_y2_sc4 b. Self-supplied tide water (salt water) body i.e. restuarly, bay ocean E79007_y2_sc90 C. Other saline or brackish water sources e.g., relivery of water from a private supplier, an adjacent industry E79007_y2_sc100 Subtotal volume of saline or brackish water intake in 2017	>	Salir	ne or brackish water					
a. Self-supplied groundwater system i.e., well, spring E7907_y2_se4 b. Self-supplied tide water (salt water) body i.e., estuary, bay ocean C. Other saline or brackish water sources e.g., visivery of water from a private supplier, an adjacent industry E7907_y2_se30 Subtotal volume of saline or brackish water intake in 2017		For th	ne purpose of this survey, saline or prackish water contains on average of 900 parts per million (pp	m) or less of total dissolved se				
i.e., well, spring E7907_y2_sc4 b. Self-supplied tide water (salt water) body i.e. testuary, bays pcean E7907_y2_sc90 C. Other saline or brackish water sources e.g., relivery of water from a private supplier, an adjacent industry E7907_y2_sc100 Subtotal volume of saline or brackish water intake in 2017				E79007_y2_sc3				
b. Self-supplied tide water (salt water) body i.e. testuary, bay ocean E79007_y2_sc90 C. Other saline or brackish water sources e.g., belivery of water from a private supplier, an adjacent industry E79007_y2_sc100 Subtotal volume of saline or brackish water intake in 2017		a.	Self-supplied groundwater system					
b. Self-supplied tide water (salt water) body i.e. restuary, bay pcean F79007_y2_sc90 C. Other saline or brackish water sources e.g., delivery of water from a private supplier, an adjacent industry F79007_y2_sc100 E79007_y2_sc100			i.e., well, spring					
b. Self-supplied tide water (salt water) body i.e. restuary, bay pcean E79007_y2_sc90 C. Other saline or brackish water sources e.g., delivery of water from a private supplier, an adjacent industry E79007_y2_sc100 E79007_y2_sc100				E79007_y2_sc4				
i.e. restuary, bay poean C. Other saline or brackish water sources e.g., Nelivery of water from a private supplier, an adjacent industry E79007_y2_sc100 Subtotal volume of saline or brackish water intake in 2017		b.	Self-supplied tide water (salt water) body					
C. Other saline or brackish water sources e.g., thelivery of water from a private supplier, an adjacent industry E79007_y2_sc100 Subtotal volume of saline or brackish water intake in 2017 E79007_y100_sc100								
C. Other saline or brackish water sources e.g., relivery of water from a private supplier, an adjacent industry E79007_y2_sc100 E79007_y100_sc100				F70007 . 0 00				
e.g., delivery of water from a private supplier, an adjacent industry E79007_y2_sc100 Subtotal volume of saline or brackish water intake in 2017 E79007_y100_sc100		_	All as line as breakish water a sure s	E/9007_y2_sc90				
Subtotal volume of saline or brackish water intake in 2017 E79007_y100_sc100		C.						
Subtotal volume of saline or brackish water intake in 2017 E79007_y100_sc100			e.g., regivery of water from a private supplier, an adjacent industry					
E79007_y100_sc100				E79007_y2_sc100				
E79007_y100_sc100								
		Sub	otal volume of saline or brackish water intake in 2017					
Total volume of intake water in 2017				E79007_y100_sc100				
	To	otal v	olume of intake water in 2017					

reatı	eatment of intake water					
	Please report the volume of intake water treated within this plant prior to initial use for the following methods of treatment.					
	clude the treatment of used water, waste water or effluent. If a given volume of water undergoes more than ase report the volume of water for each type of treatment.	one treatment,				
	ne water volume is zero, please enter "0" in the corresponding box. en exact figures are not available, please provide your best estimate.					
***	on oxage rigares are not available, prease provide your best estimate.					
		2017 volume of intake water treated				
а	. Screening	E79008_m1				
	The removal of larger pieces of solid matter from water using a screen barrier. Includes the bulk screening of intake water at the source.					
		E73103_m2				
b	Filtration The removal of smaller pieces of solid matter from water using a filter barrier.					
	The followards shaller pieces of solid matter from water using a litter barrier.	E79008_m3				
С	. Chlorination — disinfection	£/3000_III3				
	The addition of chlorine or other disinfectants to water.					
		E79008_m4				
d						
	Includes the control of scale, corrosion, biological growth and sludge.					
	All religible as a trial	E79008_m5				
е	Alkalinity control The chemical treatment of water to attain required pH level.					
		E79008_m6				
f	Hardness or water softening					
	The removal of calcium and magnesium from water to reduce hardness.					
		E79008_m7				
9						
h	Other category of treatment - Item 1					
	Other treatments include electrolysis, de-salination, etc.	E79008_m91				
i						
	Other reatments include electrolysis, de-salination, etc.	E79008_m92				
j	Other category of treatment — Item 3					
	Other treatments include electrolysis, de-salination, etc.	E79008_m93				

Water intake by initial use 11. Please report the volumes of intake water by initial use. Exclude recirculated or reused water, i.e., water that leaves a particular sub-system and re-enters it or is used in another sub-system. If the water volume is zero, please enter "0" in the corresponding box. When exact figures are not available, please provide your best estimate. 2017 volume of intake water by use a. Cooling, condensing and steam i.e., water which does not come in direct contact with the products, materials or by-products of the processing operation · pass-through water used in the operation of cooling or process equipment (including air conditioning) water introduced into boilers for the production of steam for either process operations or electric power. b. Pollution control i.e., any process that inhibits or reduces the production of pollutants during the course of power generation e.g., wet flu gas de-sulphurization E79009_dt4 Sanitary service or domestic use i.e., water used for toilets, janitorial services, lawn watering, w E79009_dt91 d. Other purpose or use - Item 1 Exclude water pumped by the plant and intended to outside the plant. E79009_dt92 Other purpose or use — Item 2 Exclude water pumped by the plant a d for initial use outside the plant.

d intended for initial use outside the plant.

Total volume of intake water by initial use in 2017
The sum of the intake water should equal the amount reported at question 9.

Other purpose or use — Item **Exclude** water pumped by the p

E79009_dt93

E79009_dt100

٧a	iter reci	culation or reuse by purpose	
2.		port the volumes of water recirculated or reused by purpose. Every time a volume of w ated or reused it should be counted.	ater
	Recirculate and is there many time	system to water that circulates	
	If the wate	r volume is zero, please enter "0" in the corresponding box.	
		et figures are not available, please provide your best estimate.	
	Then shadting as all a flot attainable, pleads provide your boot commute.		2017 volume of water recirculated or reused
	a.	Cooling, condensing and steam i.e., water which does not come in direct contact with the products, materials or by-products of the processing operation Include: • pass-through water used in the operation of cooling or process equipment (including air conditioning) • water introduced into boilers for the production of steam for either process operations or electric power.	E79011_dt2
	b.	Pollution control i.e., any process that inhibits or reduces the production of pollutants during the course of power generation e.g., wet flu gas de-sulphurization	E79011_dt3
	c.	Other purpose or use	E79011_dt90
	Total ve	plume of water recirculated or reused in 2017	E79011_dt100

Treatment of discharge water

13. Please report the volumes of water according to their **final point of discharge** and **most advanced treatment** process used at this plant.

For water that is subjected to more than one type (primary, secondary or tertiary) of treatment in preparation for discharge, please report those volumes only at the most advanced treatment process that is applied; in other words, please do not double-report treated water volumes.

Treatment type:

- no treatment: the water that is discharged without treatment after use
- primary / mechanical treatment: the physical removal of large suspended, floating and precipitated solids from untreated wastewater using grates, screens and/or settling tanks
- secondary / biological treatment: the removal or reduction of effluent contaminants from primary wastewater treatment through the promotion of bacterial growth and other microbes that break down organic waste
- tertiary / advanced treatment: advanced cleaning of wastewater that goes beyond the secondary or biological stage, removing nutrients such as phosphorus, nitrogen, and most BOD and suspended solids through biological or chemical processes.

If the water volume is zero, please enter "0" in the corresponding box.

When exact figures are not available, please provide your best estimate.

		No treatment	Primary or mechanical	Secondary or biological	Tertiary or advanced
		E79012_m8_sc1	E79012_m9_sc1	EXQ012_m10_sc1	E79012_m11_sc1
a.	Public sewage system				
b.	Surface freshwater bodies	E79012_m8_sc5	E79012_maxe5	E79012_m10_sc5	E79012_m11_sc5
C.	Tide water (ocean)	E79012_m8_sc4	E75012 (9_sc)	E79012_m10_sc4	E79012_m11_sc4
d.	Groundwater	E79012_m8_sc3	E79012_m9_sc3	E79012_m10_sc3	E79012_m11_sc3
e.	Other point of discharge	E79472_01_co90	E79012_m9_sc90	E79012_m10_sc90	E79012_m11_sc90
	total volume of harge water	E79012_m8_sc100	E79012_m9_sc100	E79012_m10_sc100	E79012_m11_sc100
Total ve	olume of discharge water	r in 2017			E79012_m100_sc100

Monthly w	vater intake and discharge		
If the water	what was the monthly water intake and discharge for this plant? er volume is zero, please enter "0" in the corresponding box. act figures are not available, please provide your best estimate.		
		Volume of water intake	Volume of water discharge
a.	January	E79007_tp1	E79012_tp1
b.		E79007_tp2	E79012_tp2
с.	March	Е79007_tp3	E799-CNp3
	April	E79007_tp4	E79012_tp4
	May	N07_tp5	E79012_tp5
e.		E79007_tp6	E79012_tp6
f.	June	E79007_tp7	E79012_tp7
g.	July	E79007_tp8	E79012_tp8
h.	August	E79007_tp9	E79012_tp9
l.	September	E79007_tp10	E79012_tp10
j.	October	E79007_tp11	E79012_tp11
k.	November	E79007_tp12	E79012tp12
i.	December	E79007_tp100	E79012_tp100
Total v	rolume in 2017		
15. If the tot	al discharge volume is greater than the total intake volume, please indic	ate the reasons .	
	B00343		
Reason			

Wa	iter	acquisition costs		
16	Dlor	ase report this plant's 2017 water acquisition costs.		
10.		en exact figures are not available, please provide your best estimate.		
	VVIIC	in exact figures are not available, please provide your best estimate.	2017	
			cost in CAN\$	
	a.	Payment to public utility	F62551_sr1	
		Report cost for water volume reported at question 11.	\$.00
		If possible include only the portion paid for water and exclude sewer charges.	Ψ	.00
	b.	Annual intake licences, permits and royalties	F62551_sr2	
		Please report the annual cost of intake licences, permits and royalties.	\$.00
		If not purchased annually, please provide the pro-rated cost.		.00
	_	Payment for purchase of water from another operator and/or	F62551_sy	
	C.	industrial supplier	\$.00
17.	Doe	es the payment to a public utility reported at question 16 include a sewer surcharge		
	If no	o sewer surcharge was reported please select "Not applicable".		
		ver surcharge refers to the payment to a public utility for the ongoing maintenance and operation treatment and discharge of water to a public sewage system.	n of sewer infrastructure and	
	B00523			
	1	Yes		
	2	No		
	3	Not applicable		
Wa	ter	operating and maintenance costs		
18.		ase report the total 2017 operating and maintenance cost for this plant's water system		
	Incl	ude the material, labour and energy costs incurred to operate and maintain your water systems		
	Con	sider the systems at your plant which:		
		bring in water treat intake water		
	•	recirculate and reuse water		
		treat discharge water en exact figures are not available, please provide your best estimate.		
		and a second a second and a second a second and a second a second and a second and a second and a second and		
			F61083_v100	
	Τ.	And an adding CANIC	\$.00
	Ic	otal cost in CAN\$	Ψ	.00

19.	Of t	he reported costs at question 18, what were the 2017 operating and maintenance	СО	sts for the following water sys	stems?
	Whe	n exact figures are not available, please provide your best estimate.			
				2017 cost in CAN\$	
	a.	Intake water acquisition		F61083_v1	
		Include the material, labour and energy costs incurred to operate and maintain the systems that bring water into your plant.	\$.00
	b.	Intake water treatment		F61083_v2	
		Include the material, labour and energy costs incurred to operate and maintain the systems to treat water brought into your plant.	\$.00
	c.	Water recirculation and reuse		F61083_v3	
		Include the material, labour and energy costs incurred to operate and maintain the systems to recirculate and reuse water in your plant.	\$	4/1)	.00
	d.	Discharge water treatment		F61083-04	
		Include the material, labour and energy costs incurred to operate and maintain the systems to treat water discharge by your plant.	\$	J	.00
			>	F61083_v100PF1	
	To	tal operating and maintenance costs in 2017	\$.00
Oth	ner (details			
20.	In 2	017, what were this plant's capital expenditures on water intake discharge or treat	me	ent facilities?	
	Incl	ude all relevant outlays for machinery and equipment purchases, and their installation, as well a narge and treatment i.e., called capital outlay or capital expense.			ntake,
	Excl	ude operating and maintenance costs.			
	•	purchase and/or installation of new equipment purchase of new machinery or transportation equipment creation of new water installation.			
	Whe	n exact figures are not available, please provide your best estimate.		F80134	
	Ca	pital expenditures in SAN\$	\$	COU.04	.00
21.	In 2	017, please report the amount of electricity produced at this plant for the following			
		, produced at the plant of the conting			
				2017 amount of electricity prod (MWh)	uced
				E42093	
	a.	Net generation i.e., gross power generation minus station service			
				E64014	
	b.	Station service i.e., the amount of generated power that is used by the generating facility (facility use)			

22.	In 2017, what was the gross electrical generation capacity of this plant?
	i.e., the maximum power capability of the generating system or system capacity.
	B11003
	MW
Ch	anges or events
23.	Please provide a brief, precise description of any changes or events that affected the reported water or cost values for this plant, compared with the last reporting period.
	e.g., expansion, temporary shutdown, closures, changes to water monitoring or the production process
	Describe these changes or events
	/.0

Co	ntact person
24.	Statistics Canada may need to contact the person who completed this questionnaire for further information.
	If the contact person is the same as on cover page, please check → Go to "Feedback"
	Otherwise, who is the best person to contact about this questionnaire?
	First name
	Last name
	Title
	Email address (example: user@example.gov.ca)
	Telephone number (including area code) Example: 123-123-1234 Extension number Fax number (including area code) Example: 123-123-1234 Fax number (including area code) Example: 123-123-1234
Fe	edback
	Hours Minutes How long did it take to complete this questionnaire? Include the time spent gathering the necessary information
25.	How long did it take to complete this questionnaire
25.	How long did it take to complete this questionnaire? Include the time spent gathering the necessary information
25.	How long did it take to complete this questionnaire? Include the time spent gathering the necessary information
25.	How long did it take to complete this questionnaire? Include the time spent gathering the necessary information
25.	How long did it take to complete this questionnaire? Include the time spent gathering the necessary information
25.	How long did it take to complete this questionnaire? Include the time spent gathering the necessary information
25.	How long did it take to complete this questionnaire? Include the time spent gathering the necessary information
25.	How long did it take to complete this questionnaire? Include the time spent gathering the necessary information
25.	How long did it take to complete this questionnaire? Include the time spent gathering the necessary information
25.	How long did it take to complete this questionnaire? Include the time spent gathering the necessary information
25.	How long did it take to complete this questionnaire? Include the time spent gathering the necessary information
25.	How long did it take to complete this questionnaire? Include the time spent gathering the necessary information
25.	How long did it take to complete this questionnaire? Include the time spent gathering the necessary information
25.	How long did it take to complete this questionnaire? Include the time spent gathering the necessary information

General Information

Confidentiality

Your answers are confidential.

Statistics Canada is prohibited by law from releasing any information it collects which could identify any person, business, or organization, unless consent has been given by the respondent or as permitted by the *Statistics Act*. Statistics Canada will use the information from this survey for statistical purposes.

Data-sharing agreements

To reduce respondent burden, Statistics Canada has entered into data sharing agreements with provincial and territorial statistical agencies and other government organizations, which have agreed to keep the data confidential and use them only for statistical purposes. Statistics Canada will only share data from this survey with those organizations that have demonstrated a requirement to use the data.

Section 11 of the *Statistics Act* provides for the sharing of information with provincial and territorial statistical agencies that meet certain conditions. These agencies must have the legislative authority to collect the same information, on a mandatory basis, and the legislation must provide substantially the same provisions for confidentiality and penalties for disclosure of confidential information as the *Statistics Act*. Because these agencies have the legal authority to compel businesses to provide the same information, consent is not requested and businesses may not object to the sharing of the data.

For this survey, there are **Section 11** agreements with the provincial and territorial statistical agencies of Newfound and and Labrador, Nova Scotia, New Brunswick, Chebsec, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia and the Yukon. The shared data will be limited to information pertaining to business establishments ocated within the jurisdiction of the respective province or territory.

Section 12 of the *Statistics Act* provides for the sharing of information with federal, provincial or territorial government organizations.

Under **Section 12**, you may refuse to share your information with any of these organizations by writing a letter of objection to the Chief Statistician, specifying the organizations with which you do not want Statistics Canada to share your data and mailing it to the following address:

Chief Statistician of Canada
Statistics Canada
Attention of Director, Enterprise Statistics Division
150 Tunney's Pasture Driveway
Ottawa, Ontario
K1A 0T6.

You may also contact us by email at statcan.esd-helpdesk-dse-bureaudedepannage.statcan@canada.ca or by fax at 613-951-6583

For this survey, there are **Section 12** agreements with the statistical gencies of Prince Edward Island, the Northwest Territories and Nonavut as well as with Environment Canada.

For agreements with provincial and territorial government organizations, the shared data will be limited to information partaining to business establishments located within the jurisdiction of the respective province or territory.

Record linkages

To enhance the data from this survey and to minimize the reporting burden, Statistics Canada may combine it with information from other surveys or from administrative sources.

Thank you for completing this questionnaire.

Please retain a copy for your records.

Visit our website, www.statcan.qc.ca