

# Industrial Water Survey: Manufacturing Industries, 2007

Collected under the authority of the *Statistics Act*, Revised Statutes of Canada, 1985, Chapter S19.

This document is confidential when completed.

Correct pre-printed information, if necessary,

Version française disponible

	using the corresponding bo	es t	pelow:
	Legal name		
0001			
	Business name		
0002			
	C/O		
0003			
	Last name of contact		
0028	4		
	First name of contact		
8000			
	Address	7	
0004			
	City		Province/Territory or State
0005		0006	
	Country		Postal code/Zip code
0052		0007	

# Please read before completing

#### **Survey Purpose**

This survey collects detailed information on water use in Canada by the manufacturing, mining and electrical power generating industries. The survey asks information on who uses water, how much, where and at what cost. This data will be used to track the state of stocks of water on a regional basis in Canada and will also be used in the development of environmental accounts and indicators.

#### Return of Questionnaire(s)

Please return the completed questionnaire(s) to Statistics Canada within 30 days of receipt by mail, using the enclosed environe. If you are unable to do so, call 1 866 855-8594 to into micro so of the expected completion date. You can also fax it to 1 8( 0 755-5514. Lost the return envelope, need help to complete your questionnaire(s)? Call us at 1 866 855-8594.

#### Fax or Other Electronic Transmission Disclosure

Statistics Canada advises you that the a could be a risk of disclosure during the facsimile or other electronic transmission. However, upon receipt, Statistics Canada will provide the guaranteed level of protection afforded to all informatic a collected under the authority of the Statistics Act.

#### **Authority**

This survey is conducted under the authority of the *Statistics Act*, Revised Statutes of Ca. ada, 1985, Chapter S19.

# COMPLETION OF THIS QUESTIONNAIRE IS A LEGAL REQUERENT UNDER THE STATISTICS ACT.

#### Co. fiden iality

Statist. S Canada is prohibited by law from publishing any statistics which would divulge information obtained from this survey that relates to any identifiable business. The data reported on this questionnaire will be treated in strict confidence.

#### **Data-sharing Agreements**

In an effort to reduce respondent burden, Statistics Canada has entered into an agreement with Environment Canada under **Section 12 of the** *Statistics Act* for sharing of data herein. Environment Canada has undertaken to keep the information confidential and to use it for statistical purposes only. This Section 12 agreement shall not apply if an authorized officer or person of your company objects in writing to the Chief Statistician and mails that letter to the Operations and Integration Division of Statistics Canada with the completed questionnaire.

#### **Planned Data Linkage**

In order to enhance the analytic possibilities of this survey, Statistics Canada intends to combine the information from the Industrial Water Survey with the information your company/business provided on the Annual Survey of Manufactures.

Pers	Person primarily responsible for completing this questionnaire, if different from above:																	
0000	1 0	2 ( ) M		3 ( )	4	5		_		Telepho	ne nu	mber				extens	ion	
0026	¹ ∪ Mr.	<sup>2</sup> () M	lrs.	Mis	s ·	Ms <sup>5</sup>	<u> </u>	Or.	0017	(		)	-			0027		
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4-2300-10.1: 2008-01-14 STC/ESP-291-75412

Statistics Statistique

Canada

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#### REPORTING YEAR: JANUARY 1, 2007 TO DECEMBER 31, 2007 NOTE i) Water volumes are to be reported in the units in use at this facility; please check only one box and use this unit of measure throughout the questionnaire. C0101 Line 1 cubic metres C0102 other - specify ii) Where data are not available, please estimate. SECTION 1: MONTHLY AND ANNUAL TOTAL WATER INTAKE AND DISCHARGE Volume per month **INSTRUCTIONS** Mon h Intake Discharge (i) In this section, under intake, please report by C1001 C1101 month the quantity of "new water" brought into your operation. For the purpose of this January C1002 C1102 questionnaire "new water" is defined as water introduced for the first time into this February establishment regardless of source or C1103 quality (including sanitary/domestic water March ... intake). C1104 (ii) Where you supply water to adjacent cr tenant April ...... C1005 C1105 industry(ies) or municipality(ies), please report estimated water intake for your estal ishment May ..... only. C1006 C1106 (iii) Under discharge, please report the quantity of June..... C1107 water routed to its ultima a point of discharge (including sanitary/domestic discharge). July..... C1108 (iv) Under discharge a not report the volume of water released to punds, lagoons or basins August..... C1109 and intended for recirculation or reuse until such wate is ac. '2."y discharged to a location September . . C1110 beyond the control of the establishment. (v) Under discharge do not include any water October ..... C1111 lost in production through evaporation, permanently held in open or closed storage. November ... C1112 or otherwise consumed (e.g. included in a final product). December ... C1013 C1113 ANNUAL 14 TOTAL .... If total discharge volume (C1113) is greater than total intake volume (C1013), please indicate reason:

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C1201

### **SECTION 2: WATER INTAKE BY SOURCE AND KIND**

#### **INSTRUCTIONS**

- (i) Please report your volumes of intake water by source and its usual characteristic.
- (ii) Freshwater is defined as water containing 900 parts per million, or less, of total dissolved solids.
- (iii) Saline / brackish water is defined as water containing more than 900 parts per million of total dissolved solids.

Where data are not available, please estimate.

	Source	Volume per year				
	Source	Freshwater	Saline / Brackish			
16	Public water utility system	C2401	XXXX			
17	Self-supplied surface water system (lake, river, etc.)	C2402	XXXX			
18	Self-supplied groundwater system (well, spring, etc.)	C2403	C2203			
19	Self-supplied tide water (salt water) body (estuary, bay, ocean, etc.)	XXXX	C2204			
20	Other sources (specify)	C2405	C2205			
	C2000					
		C2406	C2206			
21	TOTAL					

NOTE: The sum of C2406 and C2206 (line 21, above) should equal C1013 at line 14 on previous page.

#### Estimated annual cost of water acquisition: C2301 \$ .00 22 Payment to public utility..... Millions 23 Estimated annual operating and maintenance costs of intake water acquisition (excluding water treatment costs which are covered on the next page). C2302 Operating and maintenance costs should only include your material, labour and energy costs \$ .00 incurred to operate and maintain your systems that Millions Thousands Hundreds bring water into your facility..... C2303 (If applicable) \$ .00 Cost of your annual intake licence Thousands (estimate if permit not purchased annually).....

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5 Did this establishme	ent treat any <b>intake</b> water? C3001 1 3	Yes No → If no, go to Section 4
NSTRUCTIONS		
(i) Indicate the volume o treatment of water for	intake <b>water treated</b> within your establishme re-use.	nt prior to initial use. Do not include
Where data are not a	vailable, please estimate.	
	Category of treatment	Volume per year
Coverning		G3 <u>C</u> 01
_		C3202
7 Filtration		G3203
Chlorination - disinfecti	on (includes for process and for biological ୧୦୭୯/୦	C3204
Corrosion and slime co	ntrol	C3205
Alkalinity control	23/	C3206
Hardness (or water sof	tening)	
Coagulation / flocculati	or	C3210
3 Other (specify)	<u> </u>	G3211
Other (spe ~i/y)		G3212
Other (specify)		
of your intake water tre maintenance costs sho	ating and maintenance cost atment. Operating and uld only include your material,	
	s incurred to operate and eat water brought into your	Thousands Hundreds

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#### **SECTION 4: WATER INTAKE BY PURPOSE**

#### **INSTRUCTIONS**

- (i) Report the amount of water within your establishment by **initial** use. This section should not include recirculated water except as stated in Line 35 (for a definition of "recirculated water", see section 5).
- (ii) In Line 38 "Other uses" should not include water pumped by the establishment, and intended for initial use outside the establishment.

Where data are not available, please estimate.

	Purpose	Volume per year
35	Process water - This is water that serves in any level of the manufacturing process. It includes all water <b>which comes in direct contact</b> with products and/or materials. It also includes water which is used in the sanitation of process equipment, water which is consumed in milling and special processes, water which is included in final output or water which has been used for another purpose, and is undergoing its final use as process water	C4101
36	Cooling, condensing and steam - This is water which does not come in direct contact with the products, materials or by-products of the processing operation. It includes pass-through water used in the operation of cooling or process equipment (including air conditioning) and water introduced into boilers for the production of steam for either process operations or electric power.	C4103
37	Sanitary service/Domestic use - This is water used for toilets, janitorial services, lawn watering, washing of vehicles, etc.	C4104
38	Other uses (specify)	
39	Total (Lines 35 to 38 should equal sum of figures reputed in Line 14, C1013)	C4105

# SECTION 5: WATER RECIRCULATED OR REUSED BY PURPOSE

Recirculated water refers to water used at least twice in an industrial establishment. It is water that **leaves** a particular subsystem and **re-enters** it or is **used in another** subsystem. It does not refer to water that circulates many times within the same subsystem (i.e. it excludes closed-loop systems).

40	Did this establishment	recirc	vate or	reuse water?	C5001	1

<sup>3</sup> No → If no, go to Section 6

#### **INSTRUCTIONS**

(i) Please report the olume of water recirculated or reused.

Where data are not available, please estimate.

	Purpose	Volume per year
		C5101
41	Process	C5102
42	Cooling, condensing and steam	
	C5000	C5103
43	Other uses (specify)	C5104
44	Total (Lines 41 to 43)	

45 Estimated annual operating and maintenance cost of water recirculation. Operating and maintenance costs should only include your material, labour and energy costs incurred to operate and maintain systems to recirculate water in your facility

C5201				
\$[		_		.00
	Millions	Thousands	Hundreds	

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# **SECTION 6: TREATMENT AND DISCHARGE OF WATER**

## **INSTRUCTIONS**

(i) Please report the volume of all water routed by this facility to its ultimate point of discharge by the most advanced treatment process used.

	Do not report the volume of water released a location beyond the control of the facility.	nd intended for	r re-use or reci	rculation until it	is actually disc	charged to a
(iii)	Do not include the volume of water lost in pro or otherwise consumed and not brought to th				eld in open or o	closed storage
46	Is discharge volume metered or other	wise measure	ed? C6001	¹ 🔲 Yes		
					no, please pro ur best estima	
INS	TRUCTIONS					ate below)
	sum of all amounts entered below should			Point of discharge	9	
equ	al C1113 from Section 1 (page 2).	Public utilities	Surface Freshwater bodie	Tide water es (Ocean)	Great water	Other
	Type of treatment			Annual volume		
		C6101	C6102	C6106	C6) 3	C6104
47	Water not treated at this facility before discharge					
48	Primary or mechanical	C6201	C6202	G6206	C6203	C6204
	(the physical removal of large solids					
	using grates, screens and settling tanks)	C6301	C6302	Ct.306	C6303	C6304
49	Secondary or biological (the promotion of bacterial growth and other microbes that break down the organic wastes)					
50	Tertiary or advanced (the reduction of	C6401	C6402	C6406	C6403	C6404
30	concentrations of phosphorus or nitrogen through biological or chemical processes)					
51	Estimated annual operating and maintenance	e cost for				
01	treatment of water discharge. Operating and	a ntenance	C6501			
	costs should only include your material, land costs incurred to operate and maintain s 'ste	rand energy	\$   _			00.
	water discharged by your facility			Millions T	housands	Hundreds
52	Please indicate if your facility's final efficent discharged) is monitored for:	(industrial was	te			Frequency
	Biochemical Oxygen Demand		C6601	<sup>1</sup> Yes <sup>3</sup>	No C67	01
	Chemical Oxygen Den and		C6602	<sup>1</sup> Yes <sup>3</sup>	No C67	02
	Suspended Solic ?		C6603	<sup>1</sup> Yes <sup>3</sup>	No C67	03
	Phenols		C6604	<sup>1</sup> Yes <sup>3</sup>	No C67	
	Toxicity		C6605	<sup>1</sup> Yes <sup>3</sup>	No C67	
	рН		C6606	<sup>1</sup> Yes <sup>3</sup>	No C67	
	Oil & Grease		C6607	<sup>1</sup> Yes <sup>3</sup>	No C67	
	Temperature		C6608	<sup>1</sup> Yes <sup>3</sup>	No C67	
	Colour		C6609	<sup>1</sup> Yes <sup>3</sup>	No C67	
	Acute lethality		C6610	<sup>1</sup> Yes <sup>3</sup>	No C67	
	Other (specify) C6801		C6611	<sup>1</sup> Yes <sup>3</sup>	No C67	
	Other (specify) C6802		C6612	<sup>1</sup> Yes <sup>3</sup>	No C67	
	Other (specify) C6803		C6613	<sup>1</sup> 🔲 Yes <sup>3</sup> [	☐ No	13

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SECTION 7: OTHER DETAILS
Capital expenditures on water intake, discharge or treatment facilities made at this establishment for 2007. Include all relevant outlays for machinery and equipment purchases, and their installation, as well as for construction related to water intake, discharge and treatment
Comments
Approximately how long did it take to collect the data and complete this survey?  C9910  Hour(s)  Minutes
We invite your comments or suggestions on the following or any other topic related to the <i>Industrial Water Survey</i> . We appreciate your assistance.  > Questionnaire content > New questions of interest to your industry > Clarity of questions > Order and flow of questions > Timing of receipt of questionnaire and the period given for response > Alternative sources of information to further reduce response burden
C9920
C9913
C9914
If you have questions, please contact us. Telephone (toll free): 1 866 855-8594 Fax: 1 800 755-5514 (within Canada)
Please return this questionnaire in the envelope provided. THANK YOU FOR YOUR PARTICIPATION IN THIS SURVEY!

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