# **Special Discharge Permit Application**

City of Saskatoon Wastewater System Sewer Use Bylaw, 2017 No. 9466



City of Saskatoon Special Discharge Permit Application

This is an application for a **Special Discharge Permit** under the City of Saskatoon Wastewater System *Sewer Use Bylaw, 2017 No. 9466.* 

For more information on The Sewer Use Bylaw visit saskatoon.ca/sewer

# **GENERAL INSTRUCTIONS**

- Provide all required information and attachments.
- If you do not have an answer for the requested information, indicate so and <u>explain</u> why.
- Indicate 'n/a' if a section does not apply to your application.
- Use additional pages, as required.
- Send the completed application form, and attachments to:

#### Email: bylaw.compliance@saskatoon.ca

If you need further information, contact: *City of Saskatoon - Bylaw Compliance Community Standards Division* 222 3<sup>rd</sup> Avenue North Saskatoon, Saskatchewan, S7K 0J5 Telephone: (306) 657-8766

It is understood that some applications will be completed in advance of actual implementation of a process and quantities requested in the permit application may be estimates. It is requested of the applicant to ensure the estimates are made to the highest possible accuracy using design engineer's specifications and on performances of comparable systems.

Applications submitted for systems already in operation and discharging to the sanitary sewer system should be based on recent sampling data and should include allowances for estimated growth over the requested duration of the permit.

A minimum of two weeks is required to review the application.

**Note:** This information is provided for the convenience only and is not in substitution of applicable City of Saskatoon bylaws or Provincial or Federal codes, laws, or permits. It is your responsibility to ensure that any existing or proposed construction or other works complies with any applicable bylaws, codes, laws or permits.

# CONTENTS

Page

SECTION A:	Business Name and Address:	1
SECTION B:	Process Description:	2
SECTION C:	Water & Wastewater Sources & Losses	3
SECTION D:	Operating Period	4
SECTION E:	Flow Information	5
SECTION F:	Wastewater Treatment	7
SECTION G:	Sample Point Locations	9
SECTION H:	Spill Prevention and Containment	9
SECTION I:	Wastewater Classification and Quality	10
SECTION J:	Requested Permit Term	13
SECTION K:	Terms & Conditions	14
SECTION L:	Declaration	.15

ATTACHMENT A:	Example of Schematic Flow Diagram	6
ATTACHMENT B:	Example of Site Layout	17

# SECTION A: BUSINESS NAME AND ADDRESS

# **Applicant Information**:

Business Name:	
Business License Number:	Expiry Date:

# Site Address:

Street:	
City/Province:	
Postal Code:	

#### Mailing Address: $\Box$ Same as Site Address

Street:	
City/Province:	
Postal Code:	

# **Contact Person Regarding this Application:**

Name:	
Title:	
Company Name:	
Telephone:	
Email:	
Address:	<ul> <li>Same as Site Address; or</li> <li>Same as Mailing Address</li> </ul>
Street:	
City/Province:	
Postal Code:	

# SECTION B: PROCESS DESCRIPTION

#### 1. Nature of Business

Briefly describe your business and the main wastewater generating activities at the applicable site (e.g. type of processing, manufacturing, service, etc.)

# 2. Raw Materials & Products/Byproduct Identification

Indicate the raw materials used, or proposed to be used, and the products/byproducts that are produced, or proposed to be produced, in your process. Include a daily volume or mass used for each material or product/byproduct.

Raw Materials:	Estimated Daily Amount (indicate units mass or volume)
	Estimated Daily Amount

Products/Byproducts	(indicate units mass or volume)

# SECTION C: WATER & WASTEWATER SOURCES & LOSSES

# 1. Water Sources

Indicate the average daily volume used, or proposed to be used, from each water source.

Water Source	Estimated Daily Volume (indicate units)
Municipal (metered)	
Private Water Company	
Surface/Storm Water	
Groundwater	
On-site well	
Other:	

#### 2. Water Losses

Is any source water lost throughout the process (e.g. evaporation, product loss, etc.)?

 $\Box$  Yes  $\Box$  No

If yes, indicate the source of the loss and estimated average daily volume lost throughout the process (i.e. not discharged to the sanitary sewer system):

Source of Water Loss	Estimated Daily Loss (indicate units)

#### 3. Wastewater Sources

Describe all sources of <u>non-domestic wastewater</u> discharged to the sanitary sewer, including process wastewater, plant wash water, cooling water, boiler blow down, contaminated storm waste, etc. Indicate whether the discharge is batch or continuous. Estimate the daily volume of wastewater generated.

Wastewater Source	Continuous or Batch	Estimated Daily Volume (indicate units)

# **SECTION D: OEPRATING PERIOD**

#### 1. Typical Operating Period

Specify the typical operating period for your operation (when process wastewater is discharged to the sanitary sewer):

Hours/Day	Days/Week	Weeks/Year

Select the typical days of operation your business discharges to the sanitary sewer:

□ Monday through Friday		Seven (7) days a week
-------------------------	--	-----------------------

Select applicable days if different from above:

Monday	Tuesday	Wednesday	Thursday
Friday	Saturday	Sunday	

Specify the typical number of hours of discharge of process wastewater discharge to the sanitary sewer during the following shifts (as a percentage, %):

08:00 to 17:00	17:00 to 24:00	0:00 to 08:00

#### 2. Seasonal Variations

Is the typical wastewater quality generated from your operation vary on a seasonal basis?  $\Box$  Yes  $\Box$  No

If yes indicate, as a percentage (%), the estimated volume of wastewater generated from the operation per season:

Spring	Summer	Fall	Winter

How does, or how will, your operation reduce wastewater generation during non-peak periods?

- $\Box$  Reduced rate of processing  $\Box$  Reduced hours of operation
- $\Box$  Complete shutdown
- $\Box$  Not applicable

 $\Box$  Other:

# SECTION E: FLOW INFORMATION

# **1. Requested Discharge Flow Rates:**

The following process flow information is required to complete both Municipal sewer line and COSWWS trunk sewer line hydraulic loading capacity evaluations.

Total Site Area:	$\Box$ Acres $\Box$ m <sup>2</sup>
Maximum Daily Discharge Volume:	$\Box$ L $\Box$ m <sup>3</sup>
Maximum Instantaneous Peak Flow Rate:	$\Box$ L/s $\Box$ m <sup>3</sup> /day
Maximum Discharge Duration:	Hours/day
	Days/week
	Weeks/year

# 2. Discharge Flow Rate Estimation

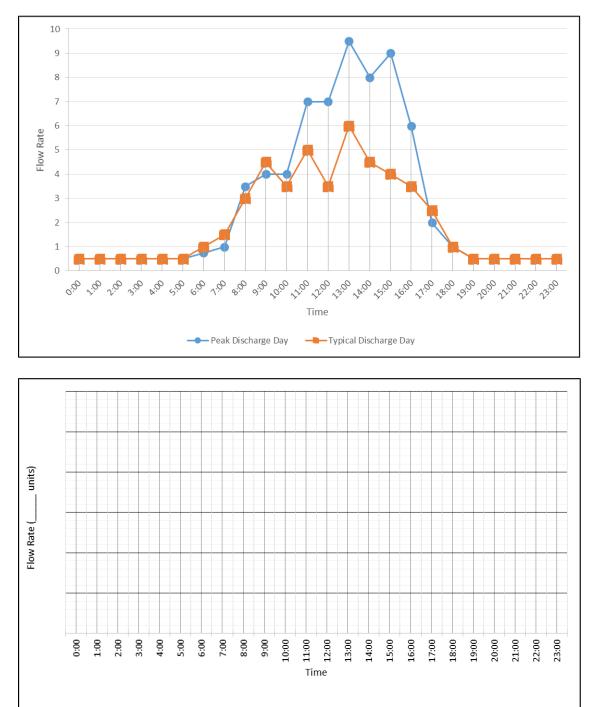
Indicate what method is used, or will be used, for measuring volumes of wastewater discharged to the Sanitary Sewer:

Water meter (i.e. usage records);
If yes, state percent (%) of consumption:
Magnetic flow meter;
Specify model:
Pump Capacity; If yes, attach supporting calculations and/or documentation.
Other, specify:

# SECTION E: FLOW INFORMATION (continued)

# 3. Discharge Flow Rate Profile

Provide a graphic representation of a 24-hour profile of the instantaneous flow rate from your operation on both average and high discharge days, as per the following example:



# SECTION F: WASTEWATER TREATMENT

Indicate the wastewater treatment works that you are currently using, or proposing to use, to treat individual or combined wastewater streams prior to discharge to the sanitary sewer. Check all boxes that apply and identify the number of each units present on site.

Pre-treatment Facility	# Units	Pre-treatment Facility	# Units
□ Grease Trap		□ Reverse Osmosis	
□ Grit/Sand Interceptor		□ Screening	
□ Oil/Water Separator		□ Sedimentation	
□ Air Floatation		□ Ion Exchange	
□ Ozonation		□ Settling	
□ Chemical Precipitation		□ Precipitation	
D pH Adjustment		□ Biological Treatment	
□ Filtration		□ No Pre-treatment	
□ Other:			

Briefly describe the wastewater treatment process including type and quantity of treatment chemicals used, maintenance procedures and frequency, collection and disposal of any treatment byproducts, etc. Attach additional pages if necessary.

# SECTION F: WASTEWATER TREATMENT (continued)

# **Required Attachments:**

Identify each indicated treatment process on the Schematic Flow Diagram and Site Layout (See Attachments A and B for examples).

# **Attachment A: Schematic Flow Diagram**

The schematic flow diagram should be a simple line drawing illustrating production/process steps at your facility, with particular emphasis on the processes that generate wastewater and their associated pretreatment systems; including:

- Each plant process that generates wastewater (number each waste source);
- Additional schematics of each wastewater pretreatment process;
- Process water flow lines;
- Wastewater flow lines;
- Sewer discharge points for each waste stream;

#### **Attachment B: Site Layout**

The site layout locates each activity and process in a geographical setting. The site layout, at minimum, should include:

- Building outlines;
- Property lines;
- North arrow;
- Wastewater drainage/collection/pretreatment systems;
- Locations of any continuous monitoring equipment (pH, flow meters, etc.);
- Monitoring point location(s); and
- Sewer discharge point(s).

Both of the attachments should be no smaller than 8.5 x 11 inches and no larger than 11 x 17 inches. For examples of Attachments A & B, please refer to Pages 11 and 12 of this application.

# SECTION G: SAMPLE POINT LOCATION

A sampling point must be designated for each process wastewater connection to the sanitary sewer system. It is essential that the sampling location does not include any domestic waste. The sampling point must be downstream of the final treatment process and complete mixing must have occurred. Identify the sample point location(s) in the Site Layout (Attachment B).

Please describe the proposed sampling point(s) below. Include an explanation of how samples collected at these locations will be representative of the wastewater discharged to sanitary sewer. Also indicate the method of collection (grab, composite, or integrated).

# SECTION H: SPILL PREVENTION AND CONTAINMENT

Summarize the provisions taken to prevent spills from entering the sanitary sewer system:

# SECTION I: WASTEWATER CLASSIFICATION AND QUALITY

# **Prohibited Wastes:**

Use the check boxes to indicate whether any of the following types of wastes, as presented in Schedule A of The Sewer Use Bylaw, are discharged to sanitary sewer.

A. Prohibited Wastes	Yes	No
Unpurchased Water		
Storm Water		
Cooling Water		
Groundwater		
Flammable or Explosive Waste		
Waste Capable of Causing Interference or Obstruction		
Odorous Waste		
High Temperature Waste (>65 <sup>0</sup> C)		
Corrosive Waste		
Biomedical Waste		
Pathogenic Waste		
Solid matter larger than 12.5mm in any direction		
Polychlorinated Biphenyls (PCBs)		
Radioactive substances or materials		
Pesticides, insecticides, herbicides, and/or fungicides.		

# **Restricted Wastes:**

Use the check boxes to indicate whether any of the following types of wastes, as presented in Schedule B of The Sewer Use Bylaw, are discharged to sanitary sewer. When present, please provide estimates of the concentration of each contaminant before and after treatment. Provide actual data wherever possible. All analytical data collected through wastewater sampling must analyzed by a certified laboratory. Attach all laboratory certificates of analysis (COA) to the application when applicable.

All concentrations should be expressed as mg/L unless otherwise stated.

Conventional Substances	Yes	No	Unknown	Before pretreatment (concentration or range)	After pretreatment (concentration or range)
Wastewater pH (pH units)					
Biochemical Oxygen Demand (BOD)					
Chemical Oxygen Demand (COD)					

# SECTION I: WASTEWATER CLASSIFICATION AND QUALITY (continued)

Conventional Substances	Yes	No	Unknown	Before pretreatment (concentration or range)	After pretreatment (concentration or range)
Nitrogen, Total Kjeldahl (TKN)					
Oil and Grease – animal and vegetable					
Oil and Grease – (derived from petroleum)					
Phosphorous, Total					
Total Suspended Solids (TSS)					

Inorganic Substances	Yes	No	Unknown	Before pretreatment (concentration or range)	After pretreatment (concentration or range)
Aluminum, Total					
Antimony, Total					
Arsenic, Total					
Boron, Total					
Cadmium, Total					
Chromium, Total					
Cobalt, Total					
Copper, Total					
Iron, Total					
Lead, Total					
Manganese, Total					
Mercury, Total					
Molybdenum, Total					
Nickel, Total					
Selenium, Total					
Silver, Total					
Sulphate					
Sulphide					
Tin, Total					
Titanium, Total					
Thallium, Total					
Vanadium, Total					
Zinc, Total					

City of Saskatoon Waste Discharge Permit Application

# SECTION I: WASTEWATER CLASSIFICATION AND QUALITY (continued)

Organic Substances	Yes	No	Unknown	Before pretreatment (concentration or range)	After pretreatment (concentration or range)
Benzene					
Chloroform					
1,2-Dichlorobenzene					
1,4-Dichlorobenzene					
Ethylbenzene					
Methylene Chloride (dichloromethane)					
Nonylphenols					
Nonylphenol Ethoxylates					
Phenols, Total					
Polycyclic Aromatic Hydrocarbons (PAHs)					
1,1,2,2-Tetrachloroethane					
Tetrachloroethylene (PERC)					
Toluene					
Trichloroethylene					
Xylenes, Total					

Hazardous Wastes	Yes	No
Does your wastewater discharge contain Special Waste, <u>prior to</u> treatment?		
Does your wastewater discharge contain Special Waste, <u>following</u> treatment?		

A hazardous waste designated under *The Hazardous Substance and Waste Dangerous Goods Regulations*.

If Yes to either of the above, please provide supporting information and analytical data. Include MSDS (Material Safety Data Sheets) where applicable.

# SECTION J: REQUESTED PERMIT TERM

Indicate in the appropriate box below the length of time that you will require a Waste Discharge Permit. Please note that review of the application requires a minimum of two weeks from the date of official submission.

Consult Schedule C of The Sewer Use Bylaw No. 9466 for the permit fee schedule. Special-Use permit fees are prorated on a monthly basis with a maximum duration of 12 months and can be renewed annually. Permit fees are non-refundable.

Expected date of initial discharge:	
Expected date of final discharge:	

Number of months requested (1-12): \_\_\_\_\_ months

# **Expansion Plans**

Are any process changes or expansions planned for your				
operation during the requested permit duration which may alter	$\Box$ Yes $\Box$ No			
any of information provided in the preceding sections?				
If yes, briefly describe these changes and the anticipated effects on wastewater quality,				
flow, and volume:				

# **SECTION K: Terms and Conditions**

# Terms and Conditions Related to the Application

- 1. The applicant agrees to provide such additional information the City may require to consider this permit application.
- 2. The applicant must obtain written right-of-way permission to cross all private land and access private infrastructure.
- 3. The applicant must obtain site specific traffic control authorization to cross any City owned street with hoses or to temporarily block traffic.
- 4. Without limiting any other right, remedy or enforcement power under Sewer Use Bylaw No. 9466, if the applicant makes any false, misleading or inaccurate representations in this application, as determined by the General Manager, the General Manager may reject this application or cancel or terminate any Permit or Agreement arising from this application. It is an offence to make any false, misleading or inaccurate representations in this application.

# **Conditions Which Attach to All Permits**

- 5. The applicant must agree to accept and abide by the Terms and Conditions identified in the permit and the permit approval letter;
- 6. The applicant must agree to assume all responsibility and liability whatsoever in respect to any fees, interest, costs, expenses, damage or loss, arising directly or indirectly from the issuance of this permit.
- 7. The applicant must at all times, retain a copy of the permit at the location specified in the addresss indicated in this application.
- 8. Issuance of a permit is specific to the conditions listed and shall in no way be construed or be deemed to be a broad approval, authorization or acceptance of any discharge to the City's sanitary sewage system.
- 9. The applicant understands authorization to discharge to the City's sanitary sewer system shall occur and take effect only to the extent stated in a fully and validly executed permit.
- 10. The applicant is responsible for ensuring discharge into the sanitary sewer system will not cause an adverse effect.
- 11. The applicant must notify the City immediately of any spill, breach of condition, or expansion or alteration to process which may impact the conditions stated within the permit.
- 12. The applicant must not add, cause or permit the addition of any matter to sewage for the purpose of dilution to achieve compliance with any limits specified by the City.
- 13. The applicant is responsible for ensuring the discharge pursuant to issuance of a permit meets all applicable legislation and the operation is conducted in a safe manner. Issuance of a permit does not relieve duties to comply with any other law, including public health legislation, environmental protection legislation, and any other bylaw of the City.
- 14. An Environmental Protection Officer or other personnel authorized under the Sanitary Sewer Bylaw No. 9466 may inspect any property for the purpose of ensuring compliance with the Conditions associated with an issued permit.

# **SECTION L: DECLARATION**

This application form must be signed by duly authorized representative of the company listed as the applicant in Section A, who will be responsible for complying with all terms and conditions of the Special Discharge Permit.

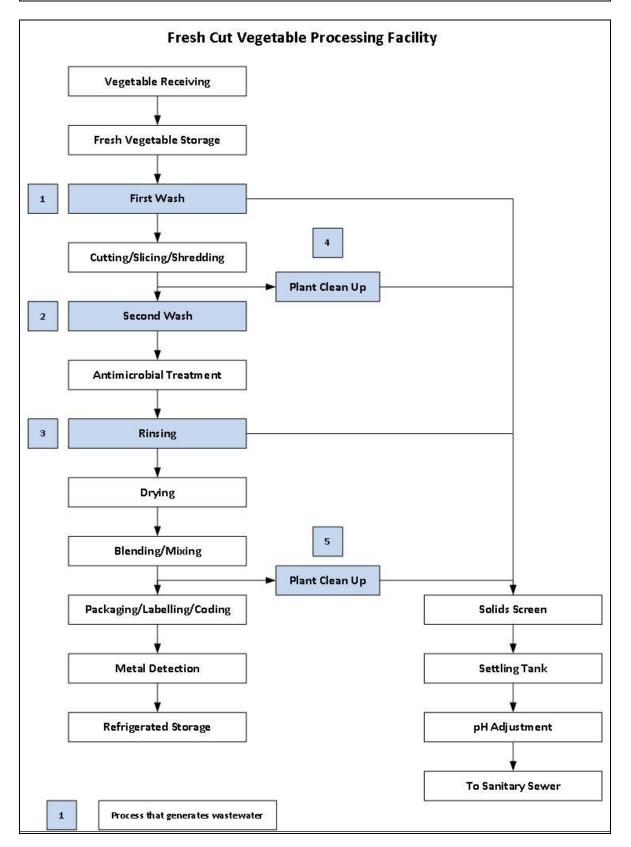
I declare that I have carefully read the entire document, understand its significance, and the information given on this form is true and accurate in all respects.

(maligant Name (maint)	<b>T</b> : 1
Applicant Name (print)	Title
Signature	Date

If you elect to appoint a representative, please complete the following:

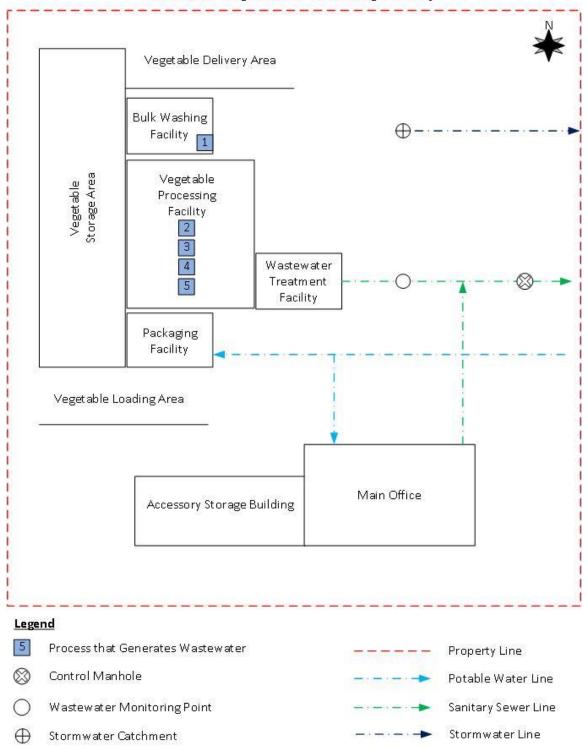
I hereby authorize the following represen subject application.	tative to deal with all aspects of the
Designate Name (print)	Title
Affiliation	Telephone Number

# ATTACHMENT A: EXAMPLE OF SCHEMATIC FLOW DIAGRAM



City of Saskatoon Waste Discharge Permit Application

# ATTACHMENT B: EXAMPLE OF SITE LAYOUT



# Fresh Cut Vegetable Processing Facility