

# Application For a Permit to Construct and/or

# **Operate a Sewage Works**

EPB 268A July 2013

### **Mechanical Sewage Works**

This form details the information to be submitted by any person wishing to obtain a sewage works permit for a Mechanical Sewage Works. This application form has been prepared in accordance with Section 22 of *The Environmental Management and Protection Act, 2002 (EMPA)* for the issuance of a permit under Section 23.

Information is to be submitted as part of either an application for a permit to construct a new or significantly altered mechanical sewage works, and/or for the application to operate a new or existing sewage works. Please ensure that each applicable section of the application is completed in a concise and clear manner.

Sewage works system may include sanitary and storm water collection system and extensions, sewage lift and pumping stations, wastewater treatment facilities including lagoons and effluent discharge or disposal works, lagoon seepage control works, and sludge treatment and disposal.

Please indicate the purpose of this Application: Dermit To Construct and/or

Dermit To Operate

- If you are applying for a **Permit To Operate** a sewage works, the application must be completed and forwarded to your Drinking Water and Wastewater Management Division office as noted below at least 60 days prior to the expiry date of the existing Permit for the sewage works or at least 60 days prior to the commissioning of a new or significantly altered sewage works.
  - . Drinking Water and Wastewater Management Division Offices

1. Drinking water and	1. Diniking water and wastewater management Division Onices				
Meadow Lake Office	Melville Office	Prince Albert Office	Swift Current Office		
Unit 1 – 101 Railway Place	256 2 <sup>nd</sup> Ave. W., Box 2170	PO Box 3003	350 Cheadle Street West		
Meadow Lake SK	Melville SK S0A 2P0	Prince Albert SK S6V 6G1	Swift Current SK S9H 4G3		
S9X 1E6	Phone: (306) 728-7492	Phone: (306) 953-3369	Fax: (306) 778-8271		
Fax: (306) 236-0474	Fax: (306) 728-7447	Fax: (306) 953-3939	Phone: (306) 778-8685		
Phone: (306) 236-7645					
Melfort Office	Moose Jaw Office	Regina Office	Watrous Office		
PO Box 6500	400-111 Fairford St. E	3211 Albert Street	PO Box 1128		
107 Crawford Avenue E.	Moose Jaw SK S6H 7X9	Regina SK S4S 5W6	403 Main Street		
Melfort SK S0E 1A0	Phone: (306) 694-3586	Fax: (306) 787-0780	Watrous SK S0K 4T0		
Phone: (306) 752-6129	Fax: (306) 694-3105	Phone: (306) 787-6504	Phone: (306) 946-3233		
Fax: (306) 752-6218			Fax: (306) 946-3232		
Yorkton Office	North Battleford Office	Saskatoon Office			
120 Smith Street	108-1146 102 <sup>nd</sup> St.	101-108 Research Drive			
Yorkton SK S3N 3V3	North Battleford SK	Saskatoon SK S7N 3R3			
Fax: (306) 786-1495	S9A 1E9	Phone: (306) 933-8367			
Phone: (306) 786-1424	Fax: (306) 446-7507	Fax: (306) 933-6820			
	Phone: (306) 446-7683				

2. If you are applying for a **Permit To Construct** a sewage works, this application must be completed and forwarded at least 45 days prior to the start of construction to:

Water Security Agency Drinking Water and Wastewater Management Division 420 – 2365 Albert Street REGINA SK. S4P 4K1 Telephone: (306) 787-6517 Fax: (306) 787-0780

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## I. Administrative Information

- 1.1 Name of the sewage works owner for which the Permit is being applied:
- 1.2 Names and Address of the Owner (Municipality/Commission/Company/Individual)

	Name:			
	Address:			
	Contact Person:		Position	
	Telephone:	Fax:	Email:	
3	Construction application	additional details		
	Name of Consultant/Engir	neer:		
	Postal Address/Postal Co	de:		

Estimated cost of project \$ \_\_\_\_\_ Phone Number: \_\_\_\_

General and detailed plans of the proposed works: are enclosed with this application form;

u will be forwarded by (Date) \_\_\_\_\_

### Brief description of the works to be constructed

Applications must have an Information Services Corporation of Saskatchewan (ISC) Parcel Number(s). Works will be constructed on or exist on and affect the following lands or areas. The ISC Parcel Number, full legal description (1/4 Section, Township, Range and Meridian) and the owners or occupants names must be provided for the lands or areas on which works will be constructed and/or will be affected. To contact ISC, please telephone 1-866-275-4721.

ISC Parcel	Land Description	Registered Owner	Applicant's Interest in Land
Number			

### 1.4 Operating staff and person(s) responsible for the day to day operation of the wastewater system

Name	Position	Certification		Position Certification Con	Contact
		Number	Class	Telephone #	

1.5 Existing Permit to Operate Number or Issue Date for this Facility:

Expiry Date of the Permit: \_\_\_\_\_ Permit Holder:\_\_\_\_\_

 1.6 Are you requesting any changes or alterations to the existing Permit? Yes \_\_\_\_\_ No \_\_\_\_\_

 If yes, details of the request shall be provided as per Part V, Table 1 (Section No. 6) of this application.

### 1.7 Heritage Assessment:

All rural pipeline projects, subdivisions, lagoons and projects with an areal impact will need to have an initial review called a Heritage Resource Review (HRR). This will determine if a broader Heritage Resource Impact Assessment (HRIA) is necessary. Areal impact is simply an impact over an area that potentially has heritage issues (i.e. a lagoon expansion requires a HRR but adding an extra filter inside an existing treatment plant does not require a HRR.) HRRs must be performed as early in the project as possible, often prior to submitting this application to the Drinking Water and Wastewater Management Division of the Water Security Agency. If you wish a ruling on whether your water and sewer project needs a HRR, please contact the Drinking Water and Wastewater Management Division of the Water Security Agency at (306) 787-6517 and ask to speak to an Approvals Engineer. If your project needs a HRR, please complete and forward the Heritage Resource Review Referral Form – Water and Sewer Projects Form

available on the internet (http://www.tpcs.gov.sk.ca/HeritageReviewForms) along with a single-page basic site plan to Archaeological Resource Management, Ministry of Tourism Parks, Culture and Sport, 9th Floor 1919 Saskatchewan Drive, Saskatchewan, S4P 4H2. Fax (306) 787-0069 or Telephone (306) 787-8157 / 787-5774 / 787-2848 / 787-5753.

Please select from the following;

- ) this project requires a Heritage Resource Review (HRR) (
- ) the Heritage Resource Review (HRR) is underway, results will be faxed to (306) 787-0197 (
- ) the Heritage Resource Review (HRR) results are attached (
- ) this project requires a Heritage Resource Impact Assessment (HRIA) (
- ) the Heritage Resource Impact Assessment (HRIA) results are attached (

### 1.8 First Nations and Metis Consultations:

Consultation must take place before any project or other activity that could adversely affect treaty or aboriginal rights is developed or put in place. Consultations must start as early in the project development process as possible and suitable time must be allotted if a consultation is needed. To determine whether your project needs a consultation with First Nations and Métis people, to determine the content and scope and scale of the consultation, or if you have any other questions regarding consultation please contact the Drinking Water and Waste Water Management Division of the Water Security Agency at (306) 787-6517 and ask to speak to an Approvals Engineer. Consultations are the responsibility of the Water Security Agency but proponents will typically be required to perform issue identification, information sharing, reporting to the Water Security Agency and mitigation if required. If you have had contact with a provincial ministry before you have contacted the Water Security Agency, ask that ministry to conduct any required consultation. If consultation has been or is being done with another agency please indicate below as only one consultation is typically required. Further information is available in the publication Government of Saskatchewan Interim Guide for Consultation with First Nations and Métis People, January 2008 (http://www.fnmr.gov.sk.ca/documents/policy/consultguide.pdf online).

Please select from the following;

- ) Water Security Agency indicates this project requires a First Nation and Metis Consultation (
- ) a First Nation and Metis Consultation is being considered by another agency (
- ) a First Nation and Metis Consultation has been completed by another agency (
- ) the First Nation and Metis Consultation results are attached (
- ) Water Security Agency indicates the First Nation and Metis Consultation is completed (

#### II. Wastewater System – (Technical Data)

2.1 Present population served by the mechanical wastewater treatment plant:

### 2.2

Legal land location of the mechanical wastewater treatment plant: LSD \_\_\_\_SEC\_\_TWP\_\_RG\_\_M\_\_.; Latitude\_\_\_\_\_Longitude\_\_\_\_\_ Detail description of the wastewater stabilization pond. Please complete according to as-built information. 2.3

Identify each cell in order of flow	Maximum Water Depth (m)	Volume of the Cell (m3)	Surface area of the cell @ F.S.L. <sup>1</sup> (ha)	Design Retention Time (days)	Indicate Existing or New

#### Full Supply Level 1.

2.4 Type of mechanical wastewater plant:

Conventional activated sludge

- Rotating Biological Contactors (RBC)
- Extended aeration
- Aerated lagoon
- Other (specify)
- 2.5 Design capacity of the mechanical wastewater treatment plant \_\_\_\_
- 2.6 Method of treated wastewater disposal (Check all applicable)
  - □ Surface discharge: Number of discharges/year \_\_\_\_\_ When \_\_\_\_\_
  - Exfiltration
  - Gravity line and outfall
  - Pumped to the outfall location
  - Continuous discharge, or
  - Storage and periodic discharge (if so how often in a year and when)
    - Number and volume of Storage cells \_\_\_\_\_
    - Legal land description of the outfall
    - Discharge route: immediate \_\_\_\_\_ ultimate \_\_\_

Have easement(s) been obtained for the discharge route? Yes\_\_\_ No\_\_\_ N/A \_\_

Evaporation (no discharge)

Irrigation

0		
Legal land description _	Land use:	
Legal land description _	Land use:	
Legal land description _	Land use:	
Total area irrigated		

Discharge to wetland area (constructed or natural). Provide a description and land location

Other methods of discharge (provide details) \_\_\_\_\_

2.7 Provide (attach) a process schematic (flow diagram) of the mechanical wastewater treatment plant, which displays existing and proposed works (if applicable) in such a manner to ensure that new construction is easily identified.

2.8 Provide the detail/information of each mechanical process in the following table

Identify each process/component	Design information in metric Flow/Volume/Design Rates	Notes (indicate new or existing for construction approval application)

2.9 Are there any flow measurement devices? Yes No
inflow to the plant: device type how often is it recorded outflow from the plant: device type how often is it recorded \_\_\_\_\_\_

- 2.10 Are there ground water monitoring wells (piezometer) installed on the lagoon/plant site? Yes \_\_\_\_ No \_\_\_ Number of wells \_\_\_\_ Location \_\_\_\_\_ Attach labelled diagram of site
- 2.11 Is the wastewater stabilization pond fenced? Yes \_\_\_\_ No\_\_\_
- 2.12 Is the wastewater treatment plant equipped with an alarm system for high flows, process failures or other alarm situations? Yes\_\_\_ No\_\_\_ If yes, provide some details

### 2.13 Sludge treatment and disposal

- a. Identify the method of sludge treatment/disposal):
- b. Design information on sludge treatment/ digesters:

c. Method of sludge disposal

□ landfill: legal land description LSD\_\_\_QTR\_\_\_SEC\_\_\_TWP\_\_\_RG\_\_\_

- □ storage/drying cell: legal land description LSD\_\_QTR\_\_SEC\_\_TWP\_\_RG\_\_M\_
- sludge applied to land: legal land description LSD\_\_\_QTR\_\_\_SEC\_\_\_TWP\_\_\_RG\_\_\_M\_

Μ

□ Others. Please specify

### III. Wastewater and Storm Drainage Collection System

3.1 Are there any other Municipalities, Development(s) or Companies outside municipal boundaries discharging or hauling to the wastewater collection system or wastewater treatment system? Yes\_\_\_\_ No\_\_\_\_ If yes, please provide a complete list and address with name and contact person and the approximate annual flows or population. (If multiple, please attach list)

Name/Address:		
Contact Person:	Phone Number:	
Annual Flows or Population:		

3.2 Provide a general description of the method of storm water collection within the community (this will include surface water runoff from any industrial sites located within the community).

- 3.3 Does the storm water system interconnect with the wastewater collection system? Yes No. If Yes, please provide details
- 3.4 Are there any sewage pumping station (s) on the wastewater collection system? Yes No\_ If yes, provide a complete listing and location of the lift stations in the following table:

Sewage Pumping Station Location	Does it have emergency overflow? If yes, provide some details of discharge route and emergency practices	Design Capacity L/min	Notes (indicate new or existing for construction approval application)

#### IV. Laboratory and Monitoring

4.1 Do you have laboratory facilities and carry out some or all of the day to day analysis? \_ No\_\_\_\_ If some of the analysis are carried out by others, please specify by who: Yes

4.2 Type of sample collected: Please check the appropriate area.

	Grab Sample	Composite Sample
Influent (Raw wastewater)		
Effluent (Treated Disposal)		
Others (Specify)		

Testing Frequency: Please identify the type and frequency of tests that are performed per week on the raw 4.3 wastewater and treated wastewater.

Test	Influent	Effluent
$BOD_5$ or $CBOD_5$		
TSS		
рН		
Chorine Residual		
Others (Specify)		

4.4 If treated wastewater disposal is by irrigation, describe the monitoring and testing that is carried out.

V. <u>Overall Review of the Wastewater System</u> The information required on Table 1 must be submitted as part of any application to construct a new or significantly altered sewage works and for the application to operate a sewage works in accordance with Section 22 (e) The Environmental Management Protection Act, 2002.

It should be noted that the extent of information required would depend on the applicant's circumstance to ensure that they have adequately addressed each issue. However, it is important that it be as clear and concise as possible. Therefore, the suggested format for submission of the required information should be followed.

### Table 1: Permit Application Information Requirements

Information Requirement	Comments And Suggest Format
<ol> <li>A general description of the wastewater/storm drainage works should be provided.</li> </ol>	<ul> <li>It is suggested that a map of the area showing the location of the following landmarks be provided:</li> <li>the wastewater treatment plant;</li> <li>any wastewater lift stations;</li> <li>treated wastewater discharge route and/or irrigation sites;</li> <li>storm sewers and outfalls.</li> </ul>
<ol> <li>A brief description of how the system is operated and maintained.</li> </ol>	Physical works must be properly operated and maintained if they are to function effectively. The applicant should provide an outline of its operating and maintenance procedures and practices. This should include the number of staff involved in operation and in maintenance and the number and classification level of certified operators.
<ol> <li>A description of the quantity and quality of wastewater being discharged to the environment, and a description of the receiving environment (watercourse) and their current uses.</li> </ol>	The potential impact of the applicant's wastewater discharges on the receiving environment needs to be determined. The applicant should therefore provide information on the actual or estimated quantity/quality of the system discharges and provide an assessment/comments on the impact of these discharges.
<ol> <li>A copy of the Permit for which a renewal is being requested and a summary of the past performance of the system in relation to that Permit.</li> </ol>	The purpose of this requirement is to provide information on how well the system has been performing in relation to Permit requirements. It is suggested that a table be prepared that lists each Permit requirement, actual performance/compliance related to that requirement and any comments that are relevant.
<ol> <li>Any problems or complaints regarding the system during the previous Permit period and how these problems/complaints have been handled.</li> </ol>	Problems or complaints with the existing system may be a factor in determining if the Permit renewal should be granted without additional conditions. In general, it is expected that every effort will be made to correct and prevent system performance problems and that complaints will be followed-up and addressed in a timely and appropriate manner.
<ol> <li>Any changes or alterations to the Permit that are being requested.</li> </ol>	It is suggested that all requested changes or alterations to the existing Permit be presented in tabular form. The table would list the current requirement, the requested change and the reason for the requested change.
<ol> <li>Any changes/modifications to the system that are planned or anticipated in the next 8 years.</li> </ol>	The types of possible changes/modifications that are of interest include wastewater treatment plant expansions/modifications, possible new lift stations, and changes in the method of sludge or effluent disposal.
8. A brief description of the sewage works system to meet future demands.	The applicant should address the following: Capability of the sewage works to meet the regulatory requirements for sewage works outlined in <i>The Water Regulations, 2002</i> .
9. A summary of any wastewater treatment plant or process bypasses or any lift station overflows, the reasons for these bypasses/overflows and the measures being taken to reduce or eliminate these occurrences in the future.	It is suggested that this information be presented in a tabular form with information such as date(s), location, duration and volumes of overflow/bypass, the circumstances surrounding the overflow/bypass and the measures being taken to reduce/eliminate these bypasses/overflows.

### VI. Signature Page

The sections of *The Environmental Management and Protection Act, 2002* and *The Water Regulations, 2002* that are of particular relevance to waterworks system are:

i) The Environmental Management and Protection Act, 2002 Part 4, Division 1 (Regulation of Water Quality);

ii) The Environmental Management and Protection Act, 2002 Part 4 Division 2 (Drinking Water and Waste Water); iii) The Water Regulations, 2002 Part IV (Water Pollution Control).

I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief, this information is true, complete and accurate.

Printed Name of Person Signing	Title
Address	Postal Code
Telephone Number	Fax Number
Date of Application	Signature