

## WASTE DISCHARGE PERMIT NO. SC-101177-FSA

**Pursuant to:**

Greater Vancouver Sewerage & Drainage District Sewer Use Bylaw No. 299, 2007, as amended (the "Bylaw")  
and the BC Environmental Management Act, S.B.C. 2003, c.53

**Issued to:**

STEMCELL Technologies Canada Inc.  
(the "Permittee")

**To Authorize:**

the discharge of Wastewater to Sewer from  
a biotechnology facility

**Located at**


2821 Production Way, Burnaby, BC V5A 3G7

**Effective Period:**

The terms and conditions set out in the Permit apply to the existing or planned works on  
January 01, 2026

All previous versions of this Waste Discharge Permit are hereby rescinded and rendered null and void as of the  
start of the effective period stated above.

Issued: June 08, 2023  
Amended: November 10, 2025

  
Maari Hirvi Mayne, M.Eng., P.Eng.  
Deputy Sewage Control Manager

## GREATER VANCOUVER SEWERAGE & DRAINAGE DISTRICT

### **SCHEDULE A**

This Schedule sets out requirements for the quantity and quality of the discharge to Sewer.

#### **1. AUTHORIZED RATE OF DISCHARGE**

The Permittee must not exceed the following:

##### **Sample Point: 1**

- Maximum daily discharge flow rate: **10.00 m<sup>3</sup>/d**
- Maximum instantaneous peak flow rate: **5.00 L/s**

#### **2. AUTHORIZED DISCHARGE CRITERIA**

- a) The Permittee must not discharge Restricted Waste or other Waste, as defined in the Bylaw, including but not limited to the following (regardless of sample type):

Parameter	Authorized Limit	Notes
pH	5.5 - 10.5 pH Units	
Total Suspended Solids	600 mg/L	

- b) The Permittee must not discharge Restricted Waste or other Waste, as defined in the Bylaw, with the following exceptions (regardless of sample type):

Parameter	Authorized Limit	Notes
Biochemical Oxygen Demand	1200 mg/L	

- c) The Permittee must not discharge Prohibited Waste, Storm Water or Uncontaminated Water, as defined in the Bylaw.
- d) The Permittee must not discharge Hazardous Waste, or effluent from the treatment of Hazardous Waste which exceeds the Effluent Standards for Hazardous Waste Facilities, as stipulated in Schedule 1.2, Column 3, of the BC Environmental Management Act Hazardous Waste Regulation.

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## GREATER VANCOUVER SEWERAGE & DRAINAGE DISTRICT

### **SCHEDULE B**

This Schedule sets out requirements and locations for the approved sample points, waste sources, and works and procedures to treat and/or control the discharges to Sewer.

#### **1. SAMPLE POINTS, WASTE SOURCES, WORKS & PROCEDURES**

##### **SAMPLE POINT: 1**

This sample point is considered to be a point of discharge to Sewer. The approved sample point location is described and is illustrated in the photo(s) below.

**Description:** Sample point located in the south sump room near the central building exit on the south side of the facility along East Lake Drive

**Source:** All Plant Sources

- lab waste generated by process development and quality control
- spent reagents used in process development and quality control
- glassware washwater from sinks, dishwashers, and autoclaves
- backwash from distilled water system

**Type:** Continuous

<b>Works and Procedures</b>	<b>Completion Date</b>
NORTH SUMP	Completed
SOUTH SUMP	Completed
Continuous pH monitoring and recording	Completed
pH alarm - electronic	Completed
Discharge flowmeter	Completed
Continuous pH adjustment	Completed
Good operating practices	Completed

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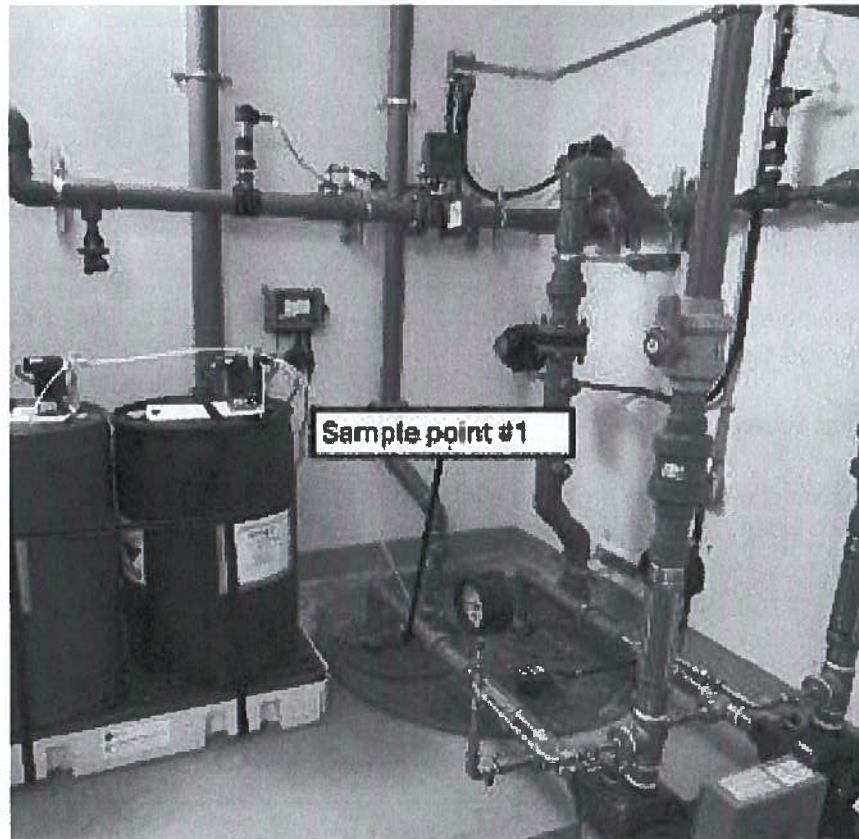
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**SCHEDULE B**


**Photograph of Sample Point 1:**



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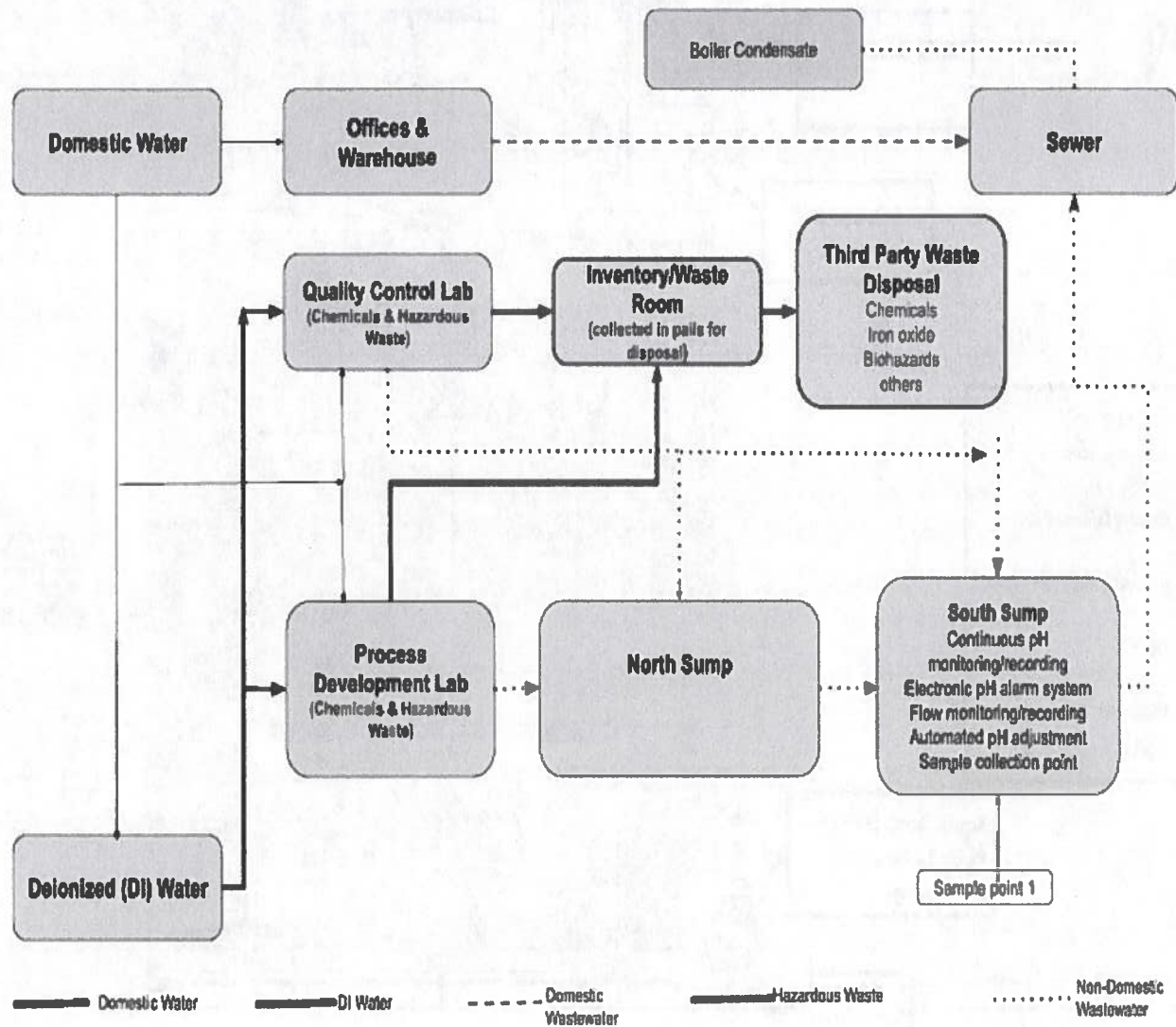
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**GREATER VANCOUVER SEWERAGE & DRAINAGE DISTRICT**

**SCHEDULE B**

**2. SITE PLAN(S)**



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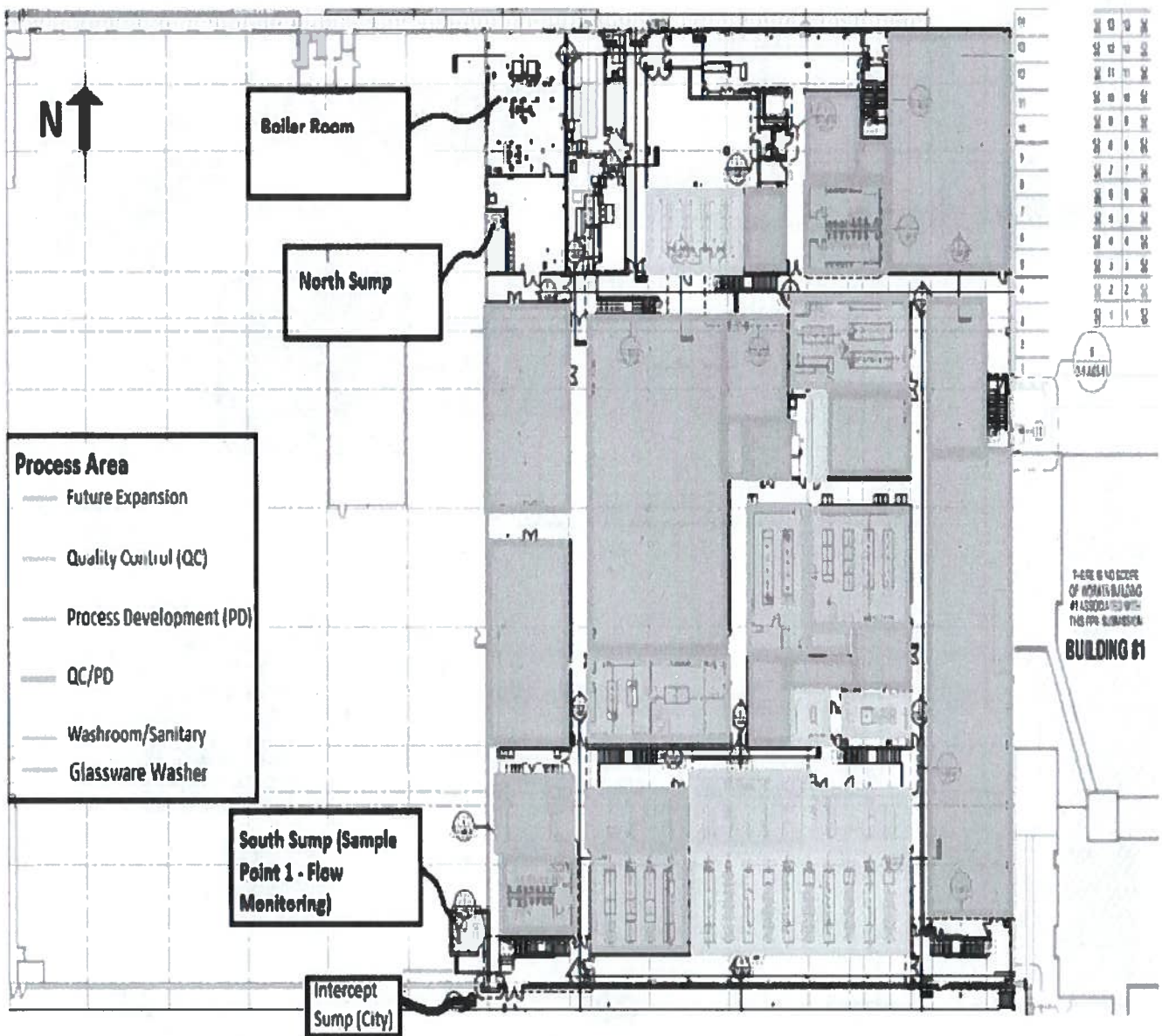
*[Signature]*

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**GREATER VANCOUVER SEWERAGE & DRAINAGE DISTRICT**

**SCHEDULE B**



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*[Signature]*  
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**SCHEDULE C**

This Schedule sets out standard conditions and requirements for emergency procedures.

**1. STANDARD CONDITIONS**

- a) Except as otherwise provided in this Permit, all terms, conditions and definitions stipulated in the Bylaw also apply to this Permit.
- b) Pursuant to the Bylaw, the Sewage Control Manager (the Manager) may amend the terms and conditions of this Permit.
- c) All records required by this permit must be kept available for inspection for a minimum period of three years.

**2. WORKS AND PROCEDURES**

- a) All authorized works, procedures and requirements must be employed at all times during any discharge to sewer. As applicable, all such works must be inspected and calibrated regularly and maintained in good working condition.
- b) The Manager may require that additional works be installed if the existing works do not provide an acceptable level of treatment. The Manager may authorize new works or alterations to existing works. The Manager may authorize new waste sources.

**3. NOTIFICATION PROCEDURES**

The Permittee must immediately report to Metro Vancouver by phone: 8:00 AM -11:30 PM at 604-436-6777, 11:30 PM – 8:00 AM at 604-643-8488 and by email: [EREnotifications@metrovancouver.org](mailto:EREnotifications@metrovancouver.org):

- a) Spills with the potential to be discharged to the Sanitary Sewer.
- b) Failure of authorized works or conditions and/or failure to carry out authorized procedures that will or have the potential to result in a Permit limit being exceeded.
- c) Discharge pH less than 2 or greater than 12.5.

**4. BY-PASSES**


The discharge of Wastes that by-pass any authorized works or that is not in accordance with procedures designated by the Permit is prohibited, unless prior authorization has been obtained and confirmed in writing from the Manager.

**5. DISCHARGE MONITORING**

- a) All sampling and sample handling of wastewater discharges, including sample containers, storage, preservation and hold time requirements must be carried out in accordance with all prescribed requirements stated within the latest edition of the "British Columbia Environmental Laboratory Manual" published by the Ministry of Environment and Climate Change Strategy, Province of British

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**SCHEDULE C**

Columbia or "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, or an alternate standard authorized by the Manager.

- b) With the exception of pH measurements, all samples must be analyzed by an independent laboratory accredited through the latest version of ISO/IEC 17025 unless otherwise authorized by the Manager.
- c) Laboratories used by the Permittee must also be accredited by the Canadian Association for Laboratory Accreditation and/or the Standards Council of Canada for all parameters analyzed and must participate in relevant proficiency testing programs for each parameter.
- d) Any changes in method or location of monitoring must be authorized by the Manager.
- e) Additional monitoring and/or reporting must be undertaken by the Permittee when required by the Manager.

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## **GREATER VANCOUVER SEWERAGE & DRAINAGE DISTRICT**

### **SCHEDULE D**

This Schedule sets out the requirements for the monitoring of the discharge to Sewer.

#### **DISCHARGE SAMPLING AND ANALYSES:**

##### **1. FLOW MEASUREMENTS**

The Permittee must measure or estimate the discharge flow to sanitary sewer during each month of operation using the method(s) authorized in Schedule B and record for reporting purposes the following:

- Total discharge volume ( $m^3$ ) for the month for sample point(s) 1
- Number of days of discharge to sewer during the month for sample point(s) 1
- Maximum daily discharge flow rate ( $m^3/d$ ) during the month for sample point(s) 1

##### **2. CONTINUOUS MEASUREMENTS**

The Permittee must continuously measure the discharge pH during the period of discharge to sewer for sample point(s) 1 and record for reporting purposes the following:

- The total number of hours of discharge below the authorized pH range and the total number of hours of discharge above the authorized pH range during each month of operation.
- Total number of hours of discharge during the month.

##### **3. SAMPLING PROGRAM**

###### **Continuous Discharge Sampling:**

The Permittee must record for reporting purposes for each sample the following:

- Sample date
- Sample collection time or sample collection start and stop time(s) if applicable
- Total daily discharge volume ( $m^3$ ) on the date of sampling

###### **SAMPLE POINT: 1**

###### **Continuous Discharges:**

On one normal operating day once per month collect 1 set of grab samples and analyze for:

- pH

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**SCHEDULE D**

On one normal operating day once per month collect 1 set of composite samples and analyze for:

- Biochemical Oxygen Demand
- Total Suspended Solids

Grab sample pH analysis must be conducted immediately upon sampling.

Unless otherwise specified, composite samples must consist of equal portions of grab samples, collected at a frequency of at least one per hour during discharge to sewer.

If composite sampling is specified, grab samples must be taken during the period of composite sampling unless noted otherwise in this Schedule.

Unless otherwise specified, all samples should be taken during normal operations.

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**SCHEDULE E**

This Schedule sets out reporting requirements for this Permit.

**1. REPORTING REQUIREMENTS**

**By April 30, 2026 and quarterly thereafter for the term of this permit:**

The Permittee must submit a report detailing the results of the discharge sampling and analyses program, as specified, for the previous calendar quarter including lab reports. This information must be submitted electronically using the supplied password-enabled web based application.

Should a violation of any term or condition of the Permit be noted, the report must include a summary of the investigation into the cause of the violation and the corrective actions taken or proposed to prevent future violations. This does not preclude the immediate notification requirements specified in Schedule C.

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