



**metro**vancouver

Greater Vancouver Regional District • Greater Vancouver Water District

Greater Vancouver Sewerage and Drainage District • Metro Vancouver Housing Corporation

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Policy & Planning Department  
Tel. 604-432-6200 Fax 604-436-6707

**WASTE DISCHARGE PERMIT**  
**No. SC-100029-FSA**  
(the "Permit")

Under the provisions of the

Greater Vancouver Sewerage & Drainage District Sewer Use Bylaw No. 299, 2007 (as amended)  
(the "Bylaw")

**Sumas Environmental Services Inc.**  
(the "Permittee")


is authorized to discharge Wastewater to Sewer from  
a hazardous waste treatment facility located at

**4623 Byrne Road, Burnaby, BC**

This Permit has been issued under the terms and conditions prescribed in the attached  
Schedules A, B, C, D and E for discharge services and works existing or planned on

**July 01, 2011**

Issued: August 11, 1992  
Amended: June 29, 2011

  
Grant McGillivray  
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 shall not exceed the following:

#### Sample Point: 1

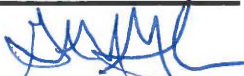
- Maximum daily discharge flow rate: **90.00 m<sup>3</sup>/day**
- Maximum instantaneous peak flow rate: **3.33 L/second**

### 2. AUTHORIZED DISCHARGE CRITERIA

- a) The Permittee shall 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            |       |
| Oil & Grease Hydrocarbon         | 15 mg/L             |       |
| Total Oil & Grease               | 150 mg/L            |       |
| Cyanide                          | 1 mg/L              |       |
| Sulphate                         | 1500 mg/L           |       |
| Sulphide                         | 1 mg/L              |       |
| Mercury - total                  | 0.05 mg/L           |       |
| Benzene                          | 0.1 mg/L            |       |
| Chlorophenols                    | 0.05 mg/L           |       |
| Phenols                          | 1 mg/L              |       |
| Polycyclic Aromatic Hydrocarbons | 0.05 mg/L           |       |
| Total BETX                       | 1 mg/L              |       |
| Aluminum - total                 | 50 mg/L             |       |
| Arsenic - total                  | 1 mg/L              |       |
| Boron - total                    | 50 mg/L             |       |
| Cadmium - total                  | 0.2 mg/L            |       |
| Chromium - total                 | 4 mg/L              |       |
| Cobalt - total                   | 5 mg/L              |       |
| Copper - total                   | 2 mg/L              |       |
| Iron - total                     | 10 mg/L             |       |
| Lead - total                     | 1 mg/L              |       |
| Manganese - total                | 5 mg/L              |       |
| Molybdenum - total               | 1 mg/L              |       |
| Nickel - total                   | 2 mg/L              |       |

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**SCHEDULE A**

| <b>Parameter</b> | <b>Authorized Limit</b> | <b>Notes</b> |
|------------------|-------------------------|--------------|
| Selenium - total | 1 mg/L                  |              |
| Silver - total   | 1 mg/L                  |              |
| Zinc - total     | 3 mg/L                  |              |

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

| <b>Parameter</b>          | <b>Authorized Limit</b> | <b>Notes</b> |
|---------------------------|-------------------------|--------------|
| Biochemical Oxygen Demand | No Limit                |              |

- c) The Permittee shall not discharge Prohibited Waste, Storm Water or Uncontaminated Water, as defined in the bylaw, with the exception of precipitation collected from the site containment pads (consolidation pad and equipment pads).
- d) The Permittee shall 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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**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:** The sampling spigot located on the discharge line downstream of the activated-carbon filter and upstream of the flow monitoring device.

**Source: All Plant Sources**

Petroleum hydrocarbon contaminated waste (less than and greater than 3% oil content by weight)

Spent acid/alkalis

Metal contaminated waste

Type: Continuous

| <b>Works and Procedures</b>  | <b>Completion Date</b> |
|------------------------------|------------------------|
| Bulk filtration              | Completed              |
| Flow equalization            | Completed              |
| pH monitoring/recording      | Completed              |
| Oil separation               | Completed              |
| Coagulant addition system    | Completed              |
| Rapid mixer                  | Completed              |
| Flocculation tank            | Completed              |
| Dissolved air flotation tank | Completed              |
| Air saturation tank          | Completed              |
| Sand filter                  | Completed              |
| Activated carbon filter      | Completed              |
| Sludge tank                  | Completed              |
| Filter press                 | Completed              |
| Flow monitoring/recording    | Completed              |
| Ozonation tank               | Completed              |
| Good operating practices     | Completed              |

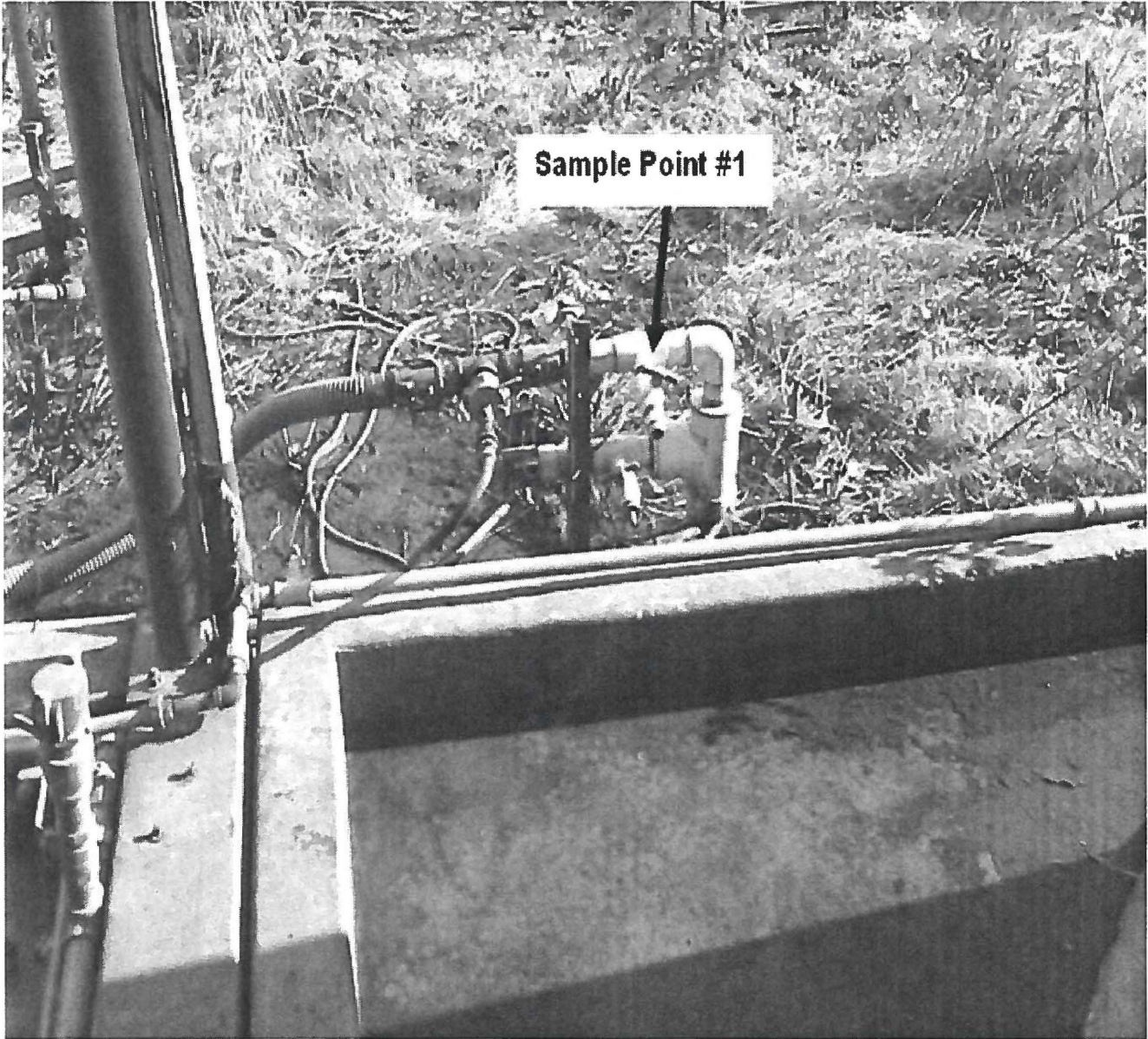
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**SCHEDULE B**

**Photograph of Sample Point 1:**



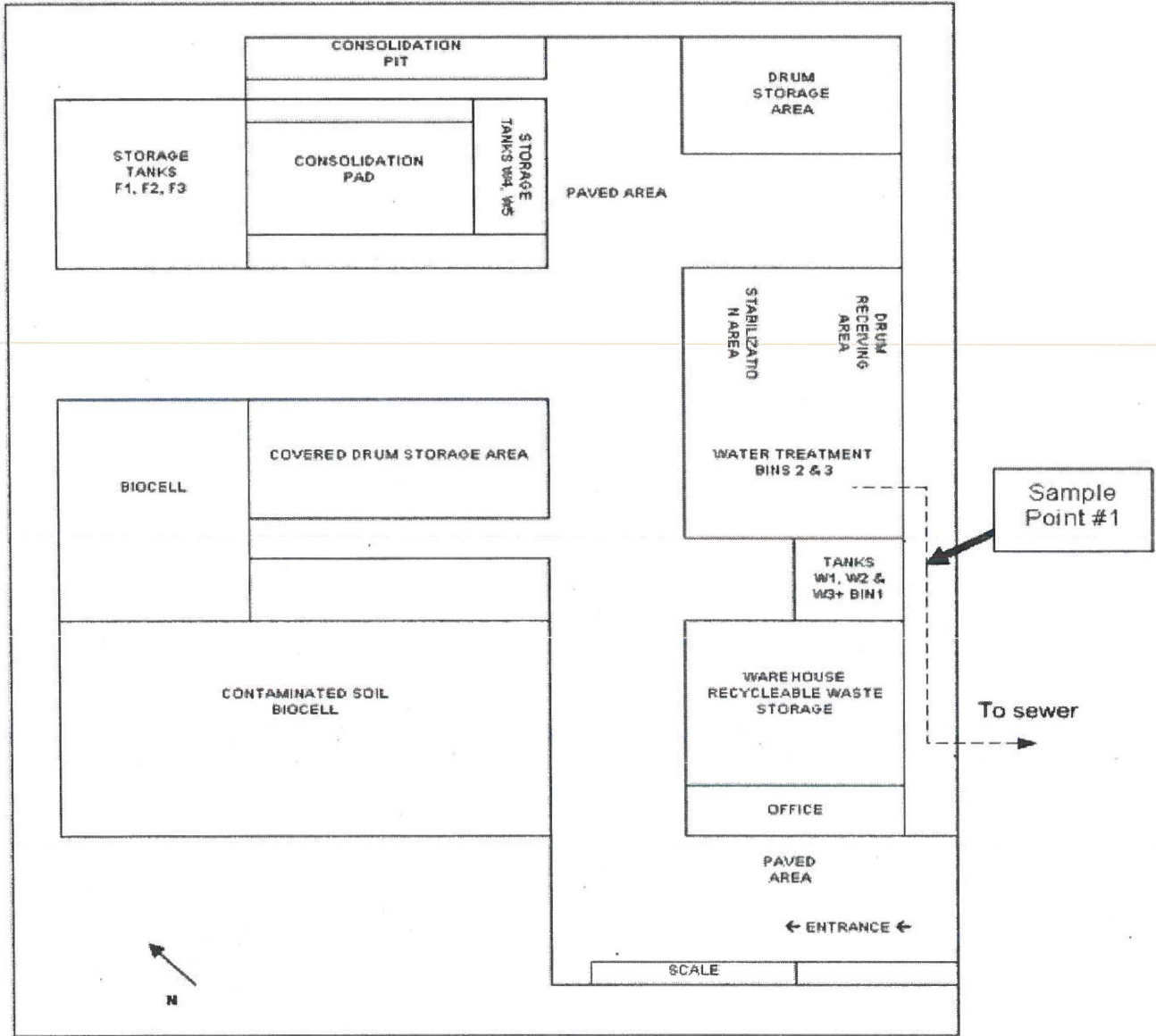
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**SCHEDULE B**

**2. SITE PLAN(S)**



Not to scale

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**GREATER VANCOUVER SEWERAGE & DRAINAGE DISTRICT**

**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 shall 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 shall be kept available for a minimum period of one year.

**2. WORKS AND PROCEDURES**

- a) All authorized works, procedures and requirements shall be employed at all times during any discharge to sewer. As applicable, all such works shall 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 must authorize new works or alterations to existing works. The Manager must authorize new waste sources.

**3. NOTIFICATION PROCEDURES**

The Permittee shall immediately report to Metro Vancouver at 604-643-8488 (24 hours):

- 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 is not in accordance with procedures designated by the Permit is prohibited, unless prior authorization of the Manager is obtained.

**5. DISCHARGE MONITORING**

- a) All sampling, measurements, tests and analyses of waste discharges shall be carried out in accordance with the latest edition of "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, or an alternate method authorized by the Manager. With the exception of pH measurements, all samples shall be analyzed by an independent laboratory unless otherwise authorized by the Manager.
- b) Laboratories used by the Permittee must be accredited by the Canadian Association for Laboratory Accreditation.
- c) Any changes in method or location of monitoring must be authorized by the Manager.
- d) Additional monitoring and/or reporting shall be undertaken by the Permittee when required by the Manager.

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**SCHEDULE D**

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

**DISCHARGE SAMPLING AND ANALYSES: Effective July 01, 2011**

**1. FLOW MEASUREMENTS**

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

- Total discharge volume (m<sup>3</sup>) 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<sup>3</sup>/day) during the month for sample point(s) 1

**2. CONTINUOUS MEASUREMENTS**

The Permittee shall 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 shall 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<sup>3</sup>) on the date of sampling


**SAMPLE POINT: 1**

**Continuous Discharges:**

On one normal operating day once per month collect 1 set of grab samples (polychlorinated biphenyl analysis only required when treating PCB contaminated waste) and analyze for:

- pH
- Oil & Grease Hydrocarbon
- Total Oil & Grease

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**SCHEDULE D**

- Sulphate
- Sulphide
- Benzene
- Chlorophenols
- Phenols
- Polycyclic Aromatic Hydrocarbons
- Total BETX
- Polychlorinated biphenyls - total
- Total Organic Halogens (as Cl)

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

- Biochemical Oxygen Demand
- Total Suspended Solids
- Total Metals by ICP Scan including:  
Aluminum, Arsenic, Boron, Cadmium, Chromium, Cobalt, Copper, Iron, Lead, Manganese, Molybdenum, Nickel, Selenium, Silver, Zinc

Grab sample pH analysis must be conducted immediately upon sampling.


Unless otherwise specified, composite samples shall 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 shall 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 October 31, 2011 and quarterly thereafter for the term of this permit:**

The Permittee shall submit a report detailing the results of the discharge sampling and analyses program, as specified, for the previous calendar quarter including lab reports.

Should a violation of any term or condition of the Permit be noted, the report shall 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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