



# CODE OF PRACTICE FOR DRAINAGE ACTIVITIES

Revision: Sept 2021

## 1. DEFINITIONS

- (1) All definitions in the Stormwater Bylaw apply to this Code of Practice.
- (2) In this Code of Practice,
  - a) “City Inspector” means an employee of The City of Calgary to whom powers to review and approve a Site Drainage Application, issue a Drainage Permit or inspect a Site for compliance with the Stormwater Bylaw have been delegated pursuant to Section 15 of the Stormwater Bylaw;
  - b) “Code of Practice” means this Code of Practice for Drainage Activities and any amendments thereto;
  - c) “Director” means the City Manager for The City of Calgary or The City Manager’s designates under the Stormwater Bylaw;
  - d) “Drainage Activity” means Releases of Water or Foundation Drainage to the Stormwater System pursuant to Section 4(3)(e) of the Stormwater Bylaw;
  - e) “Drainage Notification” means an email approval issued by The City of Calgary to a Person Responsible that they intend to carry out a Drainage Activity at a site pursuant to Section 4(3)(e) of the Stormwater Bylaw and includes all conditions forming part thereof.
  - f) “Drainage Permit” means a written approval with additional conditions issued by The City of Calgary to commence and carry out a Drainage Activity, issued pursuant to Section 4(3)(e) of the Stormwater Bylaw and includes all conditions forming a part thereof.
  - g) “Inspection Documentation Table” means a table in the form and content attached to this Code of Practice as Schedule C, or a Table as otherwise provided with a Drainage Permit;
  - h) “Person Responsible” means a Person responsible for commencing and carrying out a Drainage Activity at a Site and includes the owner of the Site, any Person in lawful possession of the Site and any consultant, contractor or other Person responsible for supervising or performing a Drainage Activity;
  - i) “Runoff Event” means runoff caused by precipitation, snowmelt or overland drainage entering the Stormwater System;

- j) "Site" means a property that is the subject of an application for a Drainage Permit or a Drainage Notification to undertake a Drainage Activity;
- k) "Site Drainage Application" means an application in the form and content attached to this Code of Practice as Schedule A;
- l) "Surface Water" means Water which has accumulated from a precipitation event, including ice.

## **2. DRAINAGE PERMIT**

- (1) A Drainage Activity requiring a Drainage Permit must not commence until a Drainage Permit is issued by a City Inspector, and is subject to the requirements detailed below.
  - a) Prior to commencing a Drainage Activity, a Person Responsible must complete, sign and submit a Site Drainage Application to a City Inspector.
  - b) To be considered a completed Application, the Site Drainage Application must contain all the information outlined in Schedule A applicable to Drainage Permits, include all required supplemental information, and must conform with the relevant conditions specified in Schedule B,
  - c) Drainage Activities may only commence in accordance with a valid Drainage Permit issued by a City Inspector, and the applicable requirements of the Stormwater Bylaw and this Code of Practice. An application will only be considered valid when it has been submitted to the City Inspector in completed form.
  - d) A Drainage Permit is only valid for the dates specified on the Permit.

## **(2) DRAINAGE NOTIFICATION**

- (1) The Drainage Activity requiring a Drainage Notification must not commence until an approval email is sent by a City Inspector, and is subject to the requirements detailed below.
  - a) Prior to commencing a Drainage Activity, a Person Responsible must complete and submit a Site Drainage Application to a City Inspector.
  - b) To be considered a completed Application, the Site Drainage Application must contain all the information outlined in Schedule A applicable to Drainage Notifications, must conform with the relevant conditions specified in Schedule B.
  - c) Drainage Activities may only commence in accordance with a valid Drainage Notification and the applicable requirements of the Stormwater Bylaw and this Code of Practice. An application will only be considered valid when it has been submitted to the City Inspector in completed form.
  - d) A Drainage Notification is only valid for 30 calendar days from the date it is approved.

#### **4. BOUND BY THIS CODE OF PRACTICE**

Any Person who proposes to commence and carry out a Drainage Activity that requires a Site Drainage Application must comply with all requirements and conditions set out in this Code of Practice.

#### **5. CONTRAVENTIONS**

- (1) A Person Responsible for commencing and carrying out a Drainage Activity must, within 24 hours of a contravention, report to The City Inspector and the Site owner, any contraventions of a Drainage Permit or Notification and this Code of Practice.
- (2) Any prohibited or restricted Releases to the Stormwater System under the Stormwater Bylaw or otherwise to the environment from a Site must be immediately reported by calling:
  - a) 1-800-222-6514 (Alberta Environment and Parks 24-hour spill line), and;
  - b) 3-1-1 (City of Calgary staff and contractors follow the Corporate Substance Release Reporting Procedure), and;
  - c) The City Inspector.
- (3) A Person Responsible for commencing and carrying out a Drainage Activity who contravenes a Drainage Permit or Notification, the Stormwater Bylaw or this Code of Practice may be subject to enforcement under the Stormwater Bylaw.

#### **6. INSPECTIONS**

- (1) Inspection of all Drainage Activities must be completed and documented in Schedule C, Inspection Documentation Table or as otherwise specified in the conditions of a Drainage Permit. Unless otherwise specified in the conditions of a Drainage Permit, Inspection of all Drainage Activities must be completed at least twice each calendar day during the Drainage Activity and additionally at critical times when prohibited or restricted Releases to the Stormwater System are occurring or could occur, including but not limited to a Runoff Event and during the period of any contraventions of a Drainage Permit or Notification, the Stormwater Bylaw or this Code of Practice.
- (2) A Person Responsible must immediately discontinue and shall not recommence a Drainage Activity until any conditions causing, contributing to or resulting from a prohibited or restricted Release have been reported pursuant to Paragraph 5(2) and corrected or rectified and documented. Inspection, correction or rectification and documentation must be completed by the Person Responsible.

#### **7. RECORD KEEPING**

- (1) The following records must be kept for all Drainage Activities conducted under a Drainage Notification. Records must be retained by the Owner or Person Responsible and always be available for inspection during Drainage Activities, and for one year following completion of the Drainage Activity:
  - a) a copy of the signed Site Drainage Application; and

- b) daily documentation (including any information, data, reports, records, logs, photos, equipment specifications, performance criteria or other documents) detailing implementation, inspection, operation and maintenance of pumping and treatment systems used to commence and carry out the Drainage Activity; and
  - c) completed and up to date Inspection Documentation Table (Schedule C).
- (2) Except as otherwise specified in the conditions on a Drainage Permit, the following records must be kept for all Drainage Activities conducted under a Drainage Permit. Records must be retained by the Owner or Person Responsible and always be available for inspection during Drainage Activities, and for one year following completion of the Drainage Activity:
- a) a copy of the signed Site Drainage Application, as well as any required supplemental information required with the Application; and
  - b) a copy of the Drainage Permit; and
  - c) daily documentation (including any information, data, reports, records, logs, photos, equipment specifications, performance criteria or other documents) detailing implementation, inspection, operation and maintenance of pumping and treatment systems used to commence and carry out the Drainage Activity; and
  - d) water quality sampling, testing and analysis results as required by the City Inspector; and
  - e) Completed and up to date Inspection Documentation Table (Schedule C), or the Inspection Documentation Table as provided with the Drainage Permit.
- (3) A Person Responsible for carrying out a Drainage Activity must, within the time specified in writing by the Director or The City Inspector, provide any requested information or records retained under subsection (1) and (2).

## **8. SUBMISSIONS, APPLICATIONS AND NOTIFICATIONS**

- (1) Any submission, application, notification or other communication to a City Inspector or The City of Calgary under this Code of Practice must be in writing, complete and in the approved form to be effective, and is effective when provided electronically through the City of Calgary's 3-1-1 System or when provided by delivery in person or courier, mail, email, fax transmission or any other means to the following address:
- a) By delivery Water Quality Services, Monitoring and Compliance, lower floor, Manchester - Building U, 677 - 25th Ave SE
  - b) Mail: P.O. Box 2100, Stn M, #413 Calgary, AB T2P 2M5
  - c) Email: ESC@calgary.ca
  - d) Fax: 403-268-4557

- (2) Any submission, application, notification or other communication given through the City of Calgary's 3-1-1 System or by email or fax transmission shall be deemed to have been received on the date it is given. Any submission, application, notification or other communication given by delivery, courier or mail shall be deemed to have been received on the date it is received by the City Inspector or The City of Calgary.



# SCHEDULE A

## Site Drainage Application

(to discharge to the Stormwater System)

Revision: Sept 2021

### General Information – Please read before you complete this form

Thank you for completing a Site Drainage Application. Use this Application to obtain approval to discharge water from your site into The City of Calgary Stormwater System. As there is little or no treatment of storm drainage before it enters the environment, The City of Calgary operates this drainage approval program to ensure the quality and quantity of water discharged from your site is acceptable.

- Before completing this form, obtain a service request (SR) number by contacting Calgary 311. Advise 311 you are applying for a Drainage Permit – they will ask you some basic questions, set up your service request in our work queue and e-mail you this Application form.
- DO NOT PUMP until an approval email is sent by a City Inspector.

#### A. 311 Service Request (provide a SR#)

SR#:		Indem Pumping:	<input type="checkbox"/> Yes	<input type="checkbox"/> No
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#### B. Contact information for the owner of the Site

Company:	Primary Contact Name:	Telephone:
Address:		Emergency Phone Number/Email Address:

#### C. Contact information for Person Responsible (if different from the owner of the Site)

Company:	Primary Contact Name:	Telephone:
Address:		Emergency Phone Number/Email Address:

#### D. Site information

Municipal Address:		Project Name:							
Start Date: Format: yyyy-mm-dd	End Date: Format: yyyy-mm-dd	Estimated Length of Drainage Activity:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20%;">Months</td> <td style="width: 20%;">Weeks</td> <td style="width: 20%;">Days</td> </tr> <tr> <td style="height: 20px;"></td> <td></td> <td></td> </tr> </table>	Months	Weeks	Days			
Months	Weeks	Days							

<p>Type of Drainage Activity (select one or more):</p> <p><input type="checkbox"/> Remove water from trench/excavation</p> <p><input type="checkbox"/> Hydrant flushing/flow testing for fire prevention</p> <p><input type="checkbox"/> Commercial snow melting machine</p> <p><input type="checkbox"/> Hydrostatic test water disposal</p> <p><input type="checkbox"/> Poned surface water disposal</p> <p><input type="checkbox"/> Stormwater detention/retention pond</p> <p><input type="checkbox"/> Other (describe):</p>	<p>Description of water (select one or more):</p> <p><input type="checkbox"/> Surface water (from rain/snowmelt)</p> <p><input type="checkbox"/> Groundwater seepage</p> <p><input type="checkbox"/> Surface water mixed with groundwater</p> <p><input type="checkbox"/> Potable (drinking) water: <b>Must be de-chlorinated</b></p> <p><input type="checkbox"/> Process water</p> <p><input type="checkbox"/> Other (describe):</p>
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<p>How will water be discharged to the Stormwater System (select one or more)?</p> <p><input type="checkbox"/> Pump(s)</p> <p><input type="checkbox"/> Gravity</p> <p><input type="checkbox"/> Other (describe):</p>	<p>What is the proposed discharge location to the Stormwater System (select one more):</p> <p><input type="checkbox"/> Storm catch basin (at curb/gutter)</p> <p><input type="checkbox"/> Storm manhole</p> <p><input type="checkbox"/> Storm pond</p> <p><input type="checkbox"/> Overland storm drainage channel</p> <p><input type="checkbox"/> Environmental Reserve or Municipal Reserve</p> <p><input type="checkbox"/> Other (describe):</p>
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Attach a **location map** and **CIRCLE** the **source of pumping and discharge location(s)**. Ensure the location is easily identifiable from the map provided (e.g. include cross streets).

#### E. Discharge Questions

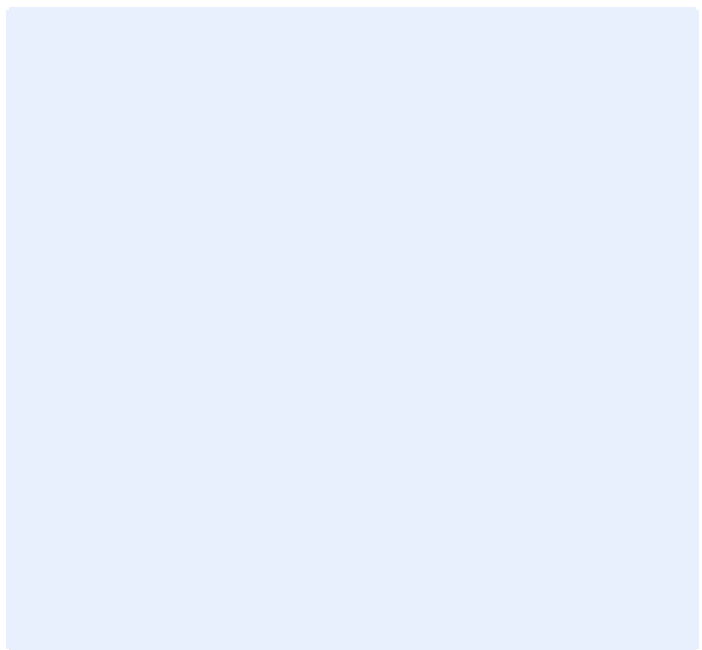
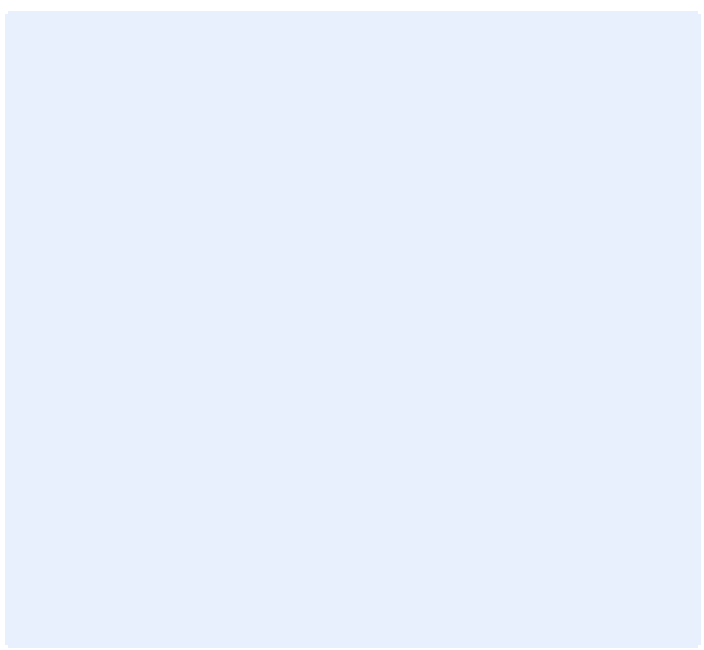
When completing this section, carefully read and answer the questions. You may need to find additional site/subject matter expertise (consultant, project manager) if you are unsure.

Ensure you provide the supplemental information required for any questions you answer **YES**.

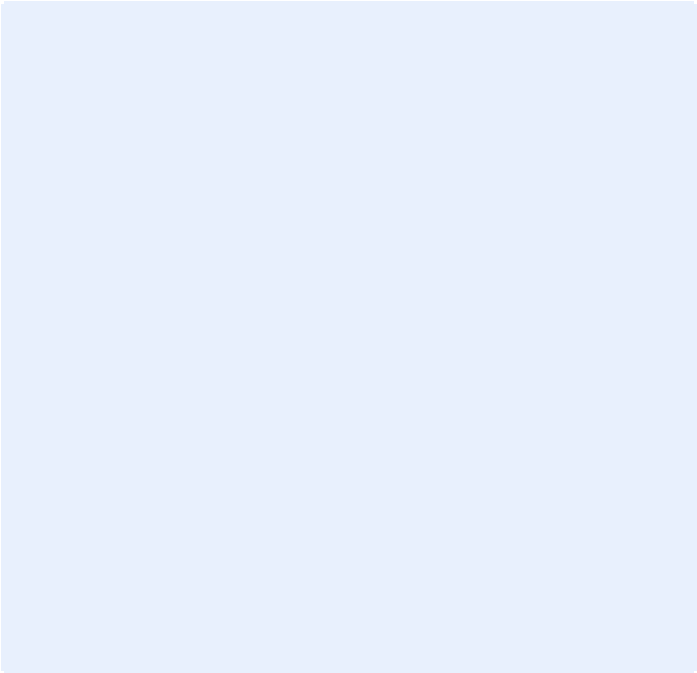
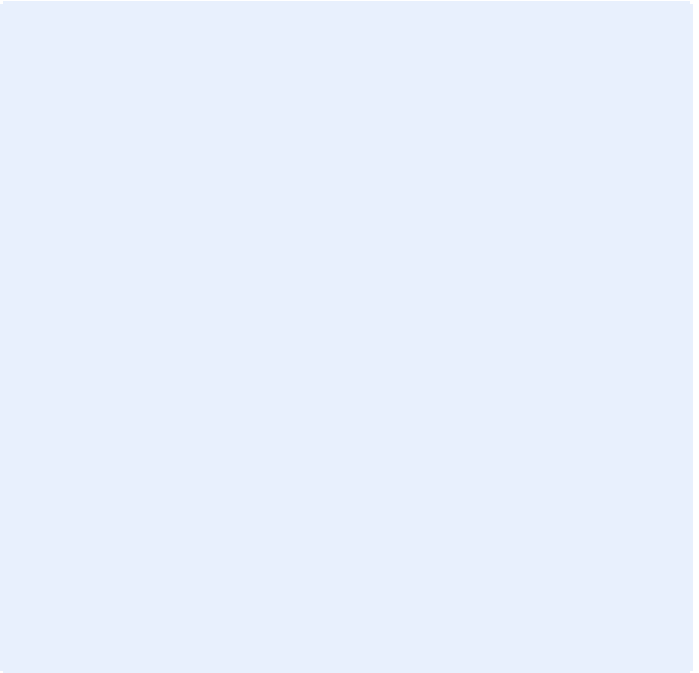
1. Provide an estimated discharge volume in m <sup>3</sup> for this pumping activity: _____m <sup>3</sup>		
2. Is a treatment system required?	<input type="checkbox"/> <b>No</b>	<input type="checkbox"/> <b>Yes</b> → <b>Attach the following supplemental information:</b> A treatment system schematic and operating and monitoring procedure.
3. Will you need to discharge at multiple locations?	<input type="checkbox"/> <b>No</b>	<input type="checkbox"/> <b>Yes</b> → <b>Attach the following supplemental information:</b> Provide all the addresses of all the discharge locations or a location map with all the sites clearly label.
4. Do <u>any</u> of the following apply? <ul style="list-style-type: none"> <li>• The site is contaminated, or is within a 100-m radius of a contaminated site;</li> <li>• There an obvious chemical or hydrocarbon odor associated with the water to be pumped;</li> <li>• There is a sheen, foam or discoloration associated with the water to be pumped.</li> </ul>	<input type="checkbox"/> <b>No</b>	<input type="checkbox"/> <b>Yes</b> → <b>Attach the following supplemental information:</b> Laboratory Water Quality Results Table and original laboratory results as required by the issuing inspector. <b>(Water Quality Results Table is at <a href="http://www.calgary.ca/esc">www.calgary.ca/esc</a> - under Permits)</b>

5. Will your discharge rate exceed 20L/s (316 Gal/min)?	<input type="checkbox"/> No	<input type="checkbox"/> Yes → Attach the following supplemental information Provide the proposed discharge rate: _____ <b>Note:</b> The issuing inspector will request an internal review of the Stormwater System capacity. <b>This process can take 2–3 weeks.</b>
6. Will your discharge need to continue during or within one hour of Runoff Event?	<input type="checkbox"/> No	<input type="checkbox"/> Yes → Attach the following supplemental information Provide reason(s): _____ _____ <u>Runoff Event</u> means runoff caused by precipitation, snowmelt or overland drainage entering the Stormwater System (Drainage Code of Practice, Part 1 – Definitions). There may be insufficient capacity in the Stormwater System to discharge during a Runoff Event, so ensure you provide a detailed rationale.
7. Will your site be left unattended during the Drainage Activity?	<input type="checkbox"/> No	<input type="checkbox"/> Yes → Attach the following supplemental information Provide reason(s): _____ _____ Unattended site - (e.g. Activity running overnight), the issuing inspector may request that you provide additional supplemental information such as a monitoring plan and contingency plan.

**F. Site Photos** (photos must be in COLOUR and clearly identifiable. They can be sent as a separate attachment)

Source of Discharge	Pump(s) and Hose(s) – if applicable
	



Discharge Hose(s) Placement – if applicable	Discharge Location - Downstream
	

**G. Acknowledgement** *(this form must be completed by an Owner or Person Responsible in its entirety to be considered valid)*

**Drainage Notification** – valid for 30 days:

- You must NOT commence the Drainage Activity until your application is reviewed and an approval email is sent.
- You must submit this document as Written Notice to the Director. You must ensure a fully completed application is submitted for your Drainage Notification to be valid.
- You must comply with all conditions set out in Schedule B of Code of Practice for Drainage Activities.
- You must complete Schedule C (Inspection Documentation Table).

**Drainage Permit** – a written approval with additional conditions:

- You must NOT commence the Drainage Activity until your application is reviewed and a written Drainage Permit has been issued.
- Supplemental information from Section E: Discharge Questions must be included with this application and will be required in full prior to your application being reviewed.
- Further information or ongoing information such as water quality analytical results may be required (water quality sampling, analysis and review may take up to 3 weeks).
- You must comply with all conditions set out in Schedule B of Code of Practice for Drainage Activities and any conditions specified in your written Drainage Permit.
- You may commence the Drainage Activity once you receive a Drainage Permit and it is only valid for the dates specified.

**Please read carefully, then print your name, sign and date the document:** The Owner or Person Responsible authorized by the Owner hereby warrants that all information provided to The City of Calgary in this application is true and accurate, agrees to all Conditions set out by the [Code of Practice for Drainage Activities](#), and agrees to abide by The City of Calgary [Stormwater Bylaw 37M2005](#), the Code of Practice and any Drainage Permit or Notification issued thereunder.

\_\_\_\_\_  
**Name**

\_\_\_\_\_  
**Signature**

\_\_\_\_\_  
**Date (YYYY/MM/DD)**

**Submission of results:**

Any submission, application, notification or other communication given by delivery, courier or mail shall be deemed to have been received on the date it is received by the City Inspector or The City of Calgary. Any submission, application, notification or other communication to a City Inspector or The City of Calgary under this Code of Practice must be in writing, complete and in the approved form to be effective, and is effective when provided electronically through The City of Calgary's 3-1-1 System or when provided by delivery in person or by courier, mail, email, or fax transmission.

**By delivery:** Monitoring and Compliance, lower floor, Manchester - Building U, 677 - 25th Ave SE

**Mail:** P.O. Box 2100, Station M, #413 Calgary, AB T2P 2M5

**Email:** [ESC@calgary.ca](mailto:ESC@calgary.ca)

**Fax:** 403-268-4557

The personal information on this form is being collected under the authority of The City of Calgary Stormwater Bylaw Section 4(3)(e) and amendments thereto. It will be used for Drainage Notification and Drainage Permit review and inspection processes and may be communicated to relevant City Business Units. The name of the applicant and nature of the Drainage Notification or Drainage Permit will be available to the public. Please send inquiries by mail to the FOIP Program Administrator, Water Resources #413, PO Box 2100, Station M, Calgary, Alberta, T2P 2M5 or contact us by phone at 311.

ISC: Protected



## **SCHEDULE B**

### **Drainage Permit and Drainage Notification Conditions**

Except where otherwise stated in the Conditions of a Drainage Permit, these *Conditions* form part of all Drainage Permits and Drainage Notifications issued under Section 4(3) (e) of the Stormwater Bylaw.

Failure to follow these *Conditions* may result in enforcement action.

If there is an inconsistency between these *Conditions* and the Conditions on any Drainage Permit issued under Section 4(3) (e) of the Stormwater Bylaw the most stringent requirement shall apply.

#### **9. GENERAL**

A Person Responsible for commencing and carrying out a Drainage Activity will:

1. For Drainage Activities conducted by a Person Responsible who is not a City of Calgary employee, release and indemnify and hold harmless The City of Calgary and its officers, employees, agents, consultants and contractors from and against all damages, losses, claims, actions, costs, expenses (including the cost of legal and professional services), proceedings, demands and charges whether arising under statute, contract or common law which may be suffered, sustained or incurred as a result of, in respect of or arising out of any contravention, breach, act, omission or non-performance under a Drainage Permit or Notification, the Stormwater Bylaw or this Code of Practice or otherwise as a result of the Drainage Activities or a Release which causes an Adverse Effect.
2. At all times, retain a copy of the Drainage Permit or Notification at the Site and, where applicable, retain a copy in any vehicle used to transport Water in carrying out a Drainage Activity.
3. Obtain written right-of-way permission to cross all private and public lands.
4. Ensure they do not deposit any Substance into the Stormwater System that may cause an Adverse Effect except as authorized by a Drainage Permit or Notification.
5. Promptly act to prevent erosion and sedimentation and ice accumulation resulting from the diversion of Water or Foundation Drainage pursuant to a Drainage Permit or Notification.
6. Except where approved in a Drainage Permit, not divert Water or Foundation Drainage to the Stormwater System during and until one hour after a Runoff Event.

7. Promptly submit any notifications and applications for any amendments to a Notification or a Drainage Permit.
8. Be responsible for ensuring that Drainage Activities pursuant to the Drainage Permit or Notification meet all applicable federal, provincial and municipal environmental legislation and that the Drainage Activity is commenced, carried out and completed in a diligent, workmanlike and safe manner in accordance with best industry practices.

## **10. WATER QUALITY**

1. A Person Responsible for carrying out a Drainage Activity shall not dilute the Water or Foundation Drainage being discharged from the Site to meet any limits specified by a Drainage Permit, Notification, this Code of Practice and The City of Calgary.
2. Unless otherwise authorized, a Person Responsible for carrying out a Drainage Activity, will ensure that Water or Foundation Drainage leaving the Site.
3. Has a turbidity reading of less than 100 NTU (Nephelometric Turbidity Units).
4. Has a pH from 6.5 - 9.0
5. Where applicable, for potable water discharges ensure residual chlorine does not exceed 0.1 mg/L at the point of discharge to Stormwater System.
6. Record field water quality monitoring data with corresponding dates and times and keep it available for inspection at the Site and provide it to the City Inspector upon request.
7. A Person Responsible for carrying out a Drainage Activity will cease Drainage Activities immediately and will notify The City of Calgary if water quality results for a Release of Water or Foundation Drainage exceed any limits specified by a Drainage Permit, Notification, this Code of Practice and The City of Calgary.
8. A Person Responsible for carrying out a Drainage Activity will cease Drainage Activities immediately and will notify The City of Calgary and any other required regulatory agency if they become aware that the Release of Water or Foundation Drainage water quality at a site does not meet the *Environmental Quality Guidelines for Alberta Surface Waters* for freshwater aquatic life and/or *Canadian Environmental Quality Guidelines* as amended or replaced from time to time.

## **11. MONITORING**

1. Responsible for carrying out a Drainage Activity will:
  - a) Record the pumping rate (in Litres/second); hours of pumping per day, and calculate the cumulative discharge (total volume pumped over time).
  - b) Record monitoring data with corresponding dates and times and keep it available for inspection at the Site and provide it to the City Inspector upon request.

## **12. COMPLAINT INVESTIGATION**

1. A Person Responsible for carrying out a Drainage Activity will promptly investigate and resolve all complaints relating to allegations of Surface Water and/or groundwater interference because of the Drainage Activity as requested by the City Inspector or a Director.
2. Upon request from a City Inspector or a Director a Person Responsible for carrying out a Drainage Activity will provide all documentation related to any of the above complaints and the resolution thereof.

## **13. CITY INSPECTIONS**

1. The City Inspector may inspect the Site at any time to ensure compliance with a Drainage Permit or Notification, the Stormwater Bylaw and/or this Code of Practice. The City Inspector may suspend or revoke a Drainage Permit or Notification if there is reason to believe the Drainage Activity is causing, may cause or has caused an Adverse Effect.
2. The City Inspector may suspend or revoke a Drainage Permit or Notification if there is reason to believe a Person Responsible for carrying out a Drainage Activity is not complying with the conditions of a Drainage Permit or Notification, the Stormwater Bylaw or this Code of Practice.
3. A Person Responsible for carrying out a Drainage Activity will promptly co-operate with, provide all reasonable assistance and furnish all information requested by the City Inspector relating to the Drainage Activity, including without limitation:
  - a) providing samples, tests and analysis of any Substance;
  - b) producing any information, inspections, data reports, records, logs, photographs or documents;
  - c) producing records and any information or documents relating and responding to third party complaints and regulatory inquiries;
  - d) providing equipment specifications, performance criteria and operating and maintenance records.

## **4. WINTER WORK**

5. A Person Responsible for carrying out a Drainage Activity from November 15<sup>th</sup> to May 15<sup>th</sup> or during freezing conditions (temperatures below 2°C) must, without limitation:
  - a) Ensure that water is discharged directly to City owned storm infrastructure;
  - b) Monitor intakes, hoses, outlets and City owned infrastructure for freezing or ice buildup at all times while pumping;
  - c) Ensure that all de-icing and anti-icing measures are functioning properly prior to and during the Drainage Activity.



# SCHEDULE C

## Inspection Documentation Table

Table to be used in documenting inspection results

Project Name:			Project Location/Address:						
Date (YYYY/MM/DD)	Time (24h)	Name of Qualified Person completing the inspection	Discharge Rate and Volume			Water Quality			If you have multiple locations, indicate each address in this column
			Discharge Rate Liters/sec *≤ 20 L/sec	Time Period	Cumulative Volume Discharged In m <sup>3</sup>	Turbidity (NTU) Limit = 100 NTU	pH must be within 6.5 – 9.0 range	Chlorine lower than 0.1 mg/L (if applicable)	
<i>e.g.</i> 2018/12/31	<i>e.g.</i> 15:30	<i>e.g.</i> John Doe	<i>e.g.</i> 10 L/sec	<i>e.g.</i> 3 hours	<i>e.g.</i> 216 m <sup>3</sup>	<i>e.g.</i> 88	<i>e.g.</i> 7.5	<i>e.g.</i> 0.1	
* Allowable discharge is 20 Litres/second or less, except where a higher discharge rate is approved in a Drainage Permit Unless otherwise specified by The City Inspector, inspection and documentation must be completed at least twice per calendar day									