

**When recorded, mail to:**

City of Holladay  
Planning Department  
4580 S 2300 E  
Holladay, UT 84117

Affects Parcel No(s): \_\_\_\_\_

**LONG-TERM STORMWATER MANAGEMENT AGREEMENT**

This Long-Term Stormwater Management Agreement (“Agreement”) is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_, by and between the City of Holladay, a Utah municipal corporation (“City”), and \_\_\_\_\_, a \_\_\_\_\_ (“Owner”).

**RECITALS**

WHEREAS, the City is authorized and required to regulate and control the disposition of storm and surface waters within the MS4, as set forth in the Title 17 Stormwater Management Regulations Ordinance, as amended (“Ordinance”), adopted pursuant to the Utah Water Quality Act, as set forth in *Utah Code Ann.* §§ 19-5-101, *et seq.*, as amended (“Act”); and

WHEREAS, the Owner hereby represents and acknowledges that it is the owner in fee simple of certain real property more particularly described in Exhibit “A,” attached hereto and incorporated herein by this reference (“Property”); and

WHEREAS, the Owner desires to build or develop the Property and/or to conduct certain regulated construction activities on the Property which will alter existing storm and surface water conditions on the Property and/or adjacent lands; and

WHEREAS, in order to accommodate and regulate these anticipated changes in existing storm and surface water flow conditions, the Owner is required to build and maintain at Owner’s expense a storm and surface water management facility or improvements (“Stormwater Facilities”); and

WHEREAS, the Stormwater Facilities are more particularly described and shown in the final site plan or subdivision approved for the Property and related engineering drawings, and any amendments thereto, which plans and drawings are on file with the City and are hereby incorporated herein by this reference (“Development Plan”); and

WHEREAS, summary description of all Stormwater Facilities, details and all appurtenance draining to and affecting the Stormwater Facilities and establishing the standard operation and routine maintenance procedures for the Stormwater Facilities, and control measures installed on the Property, (“Long Term Stormwater Management Plan”) more particularly shown in Exhibit “B” on file with the City Recorder and,

WHEREAS, a condition of Development Plan approval, and as required as part of the City’s Small MS4 UPDES General Permit from the State of Utah, Owner is required to enter into this Agreement establishing a means of documenting the execution of the Long Term Stormwater Management Plan and,

NOW, THEREFORE, in consideration of the benefits received and to be received by the Owner, its successors and assigns, as a result of the City’s approval of the Long Term Stormwater Management Plan, and the mutual covenants contained herein, the parties agree as follows:

**Section 1**

Construction of Stormwater Facilities. The Owner shall, at its sole cost and expense, construct the Stormwater Facilities in accordance with the Development Plans and specifications, and any amendments thereto which have been approved by the City.

**Section 2**

Maintenance of Stormwater Facilities. The Owner shall, at its sole cost and expense, adequately maintain the Stormwater Facilities. Owner’s maintenance obligations shall include all system and appurtenance built to convey stormwater, as well as all structures, improvements, and vegetation provided to control the quantity and quality of the stormwater. Adequate maintenance, for purposes of this Agreement, is defined as good working condition so that the Stormwater Facilities are performing their design functions. The Owner shall, at its sole cost and expense, perform all work necessary to keep the Stormwater Facilities in good working condition.

**Section 3**

Annual Maintenance Report of Stormwater Facilities. The Owner shall, at its sole cost and expense, inspect the Stormwater Facilities and submit an inspection report and certification to the MS4 annually. The purpose of the inspection and certification is to assure safe and proper functioning of the Stormwater Facilities. The annual inspection shall cover all aspects of the Stormwater Facilities, including, but not limited to, the parking lots, structural improvements, berms, channels, outlet structure, pond areas, access roads, vegetation, landscaping, etc. Deficiencies shall be noted in the inspection report. The report shall also contain a certification as to whether adequate

maintenance has been performed and whether the structural controls are operating as designed to protect water quality. The annual inspection report and certification shall be due by June 30<sup>th</sup> of each year and shall be on forms acceptable to the City.

#### **Section 4**

City Oversight Inspection Authority. The Owner hereby grants permission to the City, its authorized agents and employees, to enter upon the Property and to inspect the Stormwater Facilities upon reasonable notice not less than three business days to the Owner. Such inspections shall be conducted in a reasonable manner and at reasonable times, as determined appropriate by the City. The purpose of the inspection shall be to determine and ensure that the Stormwater Facilities are being adequately maintained, are continuing to perform in an adequate manner, and are in compliance with the Act, the Ordinance, and the Stormwater Facilities Maintenance Plan.

#### **Section 5**

Notice of Deficiencies. If the City finds that the Stormwater Facilities contain any defects or are not being maintained adequately, the City shall send Owner written notice of the defects or deficiencies and provide Owner with a reasonable time, but not less than sixty (60) days, to cure such defects or deficiencies. Such notice shall be confirmed delivery to the Owner or sent certified mail to the Owner at the address listed on the County Tax Assessor.

#### **Section 6**

Owner to Make Repairs. The Owner shall, at its sole cost and expense, make such repairs, changes or modifications to the Stormwater Facilities as may be determined as reasonably necessary by the City within the required cure period to ensure that the Stormwater Facilities are adequately maintained and continue to operate as designed and approved.

#### **Section 7**

City's Corrective Action Authority. In the event the Owner fails to adequately maintain the Stormwater Facilities in good working condition acceptable to the City, after due notice of deficiencies as provided in Section 5 and failure to cure, then, upon Owner's failure to cure or correct within thirty days following a second notice delivered to Owner, the City may issue a Citation punishable as a Misdemeanor in addition to any State or EPA fine. The City may also give written notice that the facility storm drain connection will be disconnected. Any damage resulting from the disconnection is subject to the foregoing cure periods. It is expressly understood and agreed that the City is under no obligation to maintain or repair the Stormwater Facilities, and in no event shall this Agreement be construed to impose any such obligation on the City. The actions described in this Section are in addition to and not in lieu of any and all equitable remedies available to the City as provided by law for Owner's failure to remedy deficiencies or any other failure to perform under the terms and conditions of this Agreement.

### **Section 8**

Reimbursement of Costs. In the event the City, pursuant to this Agreement, incurs any costs, or expends any funds resulting from enforcement or cost for labor, use of equipment, supplies, materials, and the like related to storm drain disconnection from the City system, the Owner shall reimburse the City upon demand, within thirty (30) days of receipt thereof for all actual costs incurred by the City. After said thirty (30) days, such amount shall be deemed delinquent and shall be subject to interest at the rate of ten percent (10%) per annum. Owner shall also be liable for any collection costs, including attorneys' fees and court costs, incurred by the City in collection of delinquent payments.

### **Section 9**

Successor and Assigns. This Agreement shall be recorded in the County Recorder's Office and the covenants and agreements contained herein shall run with the land and whenever the Property shall be held, sold, conveyed or otherwise transferred, it shall be subject to the covenants, stipulations, agreements and provisions of this Agreement which shall apply to, bind and be obligatory upon the Owner hereto, its successors and assigns, and shall bind all present and subsequent owners of the Property described herein.

### **Section 10**

Severability Clause. The provisions of this Agreement shall be severable and if any phrase, clause, sentence or provision is declared unconstitutional, or the applicability thereof to the Owner, its successors and assigns, is held invalid, the remainder of this Covenant shall not be affected thereby.

### **Section 11**

Utah Law and Venue. This Agreement shall be interpreted under the laws of the State of Utah. Any and all suits for any claims or for any and every breach or dispute arising out of this Agreement shall be maintained in the appropriate court of competent jurisdiction in Salt Lake County, Utah.

### **Section 12**

Indemnification. This Agreement imposes no liability of any kind whatsoever on the City, and the Owner agrees to hold the City harmless from any liability in the event the Stormwater Facilities fail to operate properly. The Owner shall indemnify and hold the City harmless for any and all damages, accidents, casualties, occurrences, or claims which might arise or be asserted against the City from failure of Owner to comply with its obligations under this agreement relating to the Stormwater Facilities.

### **Section 13**

Amendments. This Agreement shall not be modified except by written instrument executed by the City and the Owner of the Property at the time of modification, and no modification shall be effective until recorded in the Salt Lake County Recorder's Office.

#### **Section 14**

Subordination Requirement. If there is a lien, trust deed or other property interest recorded against the Property, the trustee, lien holder, etc., shall be required to execute a subordination agreement or other acceptable recorded document agreeing to subordinate their interest to the Agreement.

#### **Section 15**

Exhibit B. The Long-Term Stormwater Management Plan (LTSWMP) must adapt to change in good judgment when site conditions and operations change and when existing programs are ineffective. Exhibit B will not be filed with the agreement at County Recorder but is included by reference and kept on file with the City Recorder. Revision applications must be filed with the City of Holladay and amended into the LTSWMP on file with the City of Holladay City recorder.

**LONG-TERM STORMWATER MANAGEMENT PLAN AGREEMENT**

SO AGREED this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_.

**PROPERTY OWNER**

By: \_\_\_\_\_ Title: \_\_\_\_\_

By: \_\_\_\_\_ Title: \_\_\_\_\_

STATE OF UTAH )  
 :ss.  
COUNTY OF )

The above instrument was acknowledged before me by \_\_\_\_\_, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_  
Notary Public  
Residing in: \_\_\_\_\_  
My commission expires: \_\_\_\_\_

\_\_\_\_\_ **CITY**

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Gina Chamness, City Manager

Attest: \_\_\_\_\_  
City Recorder

STATE OF UTAH )  
 :ss.  
COUNTY OF )

The above instrument was acknowledged before me by \_\_\_\_\_, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_  
Notary Public  
Residing in: \_\_\_\_\_  
My commission expires: \_\_\_\_\_

LTSWMP\_\_\_\_\_

Attachments:

Exhibit A: Legal Description

Exhibit B: Long-Term Stormwater Management Plan; Filed with City of Holladay City Recorder

Date

Property Owner  
Property Name  
Property Address

**SUBJECT: STORMWATER SYSTEM OPERATIONS AND MAINTENANCE PLAN**

Provided is the recorded Stormwater System Operations and Maintenance Plan prepared by the design team of [INSERT PROPERTY NAME]. The Stormwater System Operations and Maintenance Plan is intended to help you, your staff and service contractors understand your property's flood and water quality control system and why adequate maintenance is necessary for flood control protection and to prevent pollutants in of runoff affecting the environment. We hope this plan will be an effective tool for informing your workforce how to adequately maintain and operate your property outside the building. Ultimately, maintenance helps improve the quality of life in our communities where we live and visit.

The Stormwater System Operations and Maintenance Plan is a [INSERT MUNICIPALITY] program necessary for compliance with Clean Water Act(CWA). [INSERT MUNICIPALITY] adopted the Stormwater System Operations and Maintenance Program as recommended by the Utah Stormwater Advisory Committee formed to advise the Utah Department of Environmental Quality, Division of Water Quality to foster uniform and practical programs among municipalities across the state. The regulation requires property owners to show and report maintenance adequately contains and controls pollution generated on the property. The Stormwater System Operations and Maintenance Plan includes inspection and maintenance reports for your convenience. Please promptly send your annual report to the City by [INSERT DATE] every year. The report period is [INSERT DATE] to [INSERT DATE].

Mail or email the report to:



## EXHIBIT B

### Stormwater System Operations and Maintenance Plan

for:

*{All blue text temporary instruction text and needs to be deleted from the final plan}*

*{Replace the following text with}*

Insert Development Name

Address

City, State, Zip Code

Company Name on legal records

Owner of Record Name (at time of recording)

Address

City, State, Zip Code

Phone

Email

*{Stormwater System Operations and Maintenance contact for addressing regular site operations, inspections, and annual reporting regarding this property. Contacts will often require updating as property staff or ownership changes}*

Site Manager, Company Representative, Property Agent, HOA Representative, responsible for operations and maintenance etc.

Phone Number:

Email:

## PURPOSE AND RESPONSIBILITY

The Clean Water Act regulates development to protect water resources.

The resulting [INSERT CITY] Municipal Separate Storm Sewer Systems (MS4) Permit regulates development to design with water quality approaches and to show maintenance adequately contains and controls pollution generated on the property.

The Utah Stormwater Advisory Committee formed to support the Utah Department of Environmental Quality, Division of Water Quality CWA obligations, recommends the Stormwater System Operations and Maintenance Plan program to achieve the MS4 obligations and to foster uniformity across municipalities.

The Stormwater System Operations and Maintenance Plan prepared by the designers of this property is intended to help site staff and service contractors understand the property's flood and water quality control system and why adequate maintenance is necessary for sufficient flood control protection and to prevent pollutants in the runoff from affecting the environment. Ultimately, good maintenance helps improve the quality of life in our communities where we live and visit.

This Stormwater System Operations and Maintenance Plan describes the systems, operations and the minimum operating procedures necessary to manage pollutants on this property. Any activities or site operations on this property that contaminate water entering the City's stormwater system, groundwater and results in loose litter must be prohibited.

The Stormwater System Operations and Maintenance Plan is aimed at preventing the [INSERT YOUR LOCAL WATERBODY(S)] impairments.

1. [LIST YOUR LOCAL TMDL'S AND OTHER REGULATING DOCUMENTS ]
2. etc

## **CONTENTS**

SECTION 1: SITE DESCRIPTION, USE AND IMPACT

SECTION 2: TRAINING

SECTION 3: RECORDKEEPING

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## SECTION 1: SITE DESCRIPTION, USE AND IMPACT

By living in urban communities, every property has runoff that can potentially affect the quality of water that drains to waterways and the ground. To manage flooding, control water pollution and manage cost, it is vital we understand how our flood and water quality system works.

Our site infrastructure is limited at controlling and containing pollutants. If our property and operations are managed improperly, we will contaminate local water resources. This Stormwater System Operations and Maintenance Plan includes standard operations procedures intended to help us manage responsibly manage our grounds. Standard Operation Procedures are filed in appendix B.

### Parking, Sidewalk and Pavements

*[Describe the impervious infrastructure and how it and its maintenance practices can impact surface and groundwater water quality. Acknowledge how poor maintenance can increase risks to flood and water quality and increase maintenance cost. Identify the necessary SOPs and include them in Appendix B]*

*[The following text is suggested for your convenience. If used the property owner and design team are expected modify the suggested text to represent the sites unique impervious infrastructure, operations and conditions]*

Any sediment, leaves, debris, spilt fluids or other waste that collects on our parking areas, sidewalks and other pavements, will be carried by runoff to our flood and water quality control system. Any solids will fill in our system requiring removal and cleaning. Any solid material, dissolved solids and liquids mixed with runoff can contaminate surface and potentially groundwater for which we are responsible.

### Landscaping

*[Describe the landscape infrastructure and how it and its maintenance practices impact our flood and water quality system. Also include description of any LID if used to help manage the retention standard. Acknowledge poor maintenance impacts of 80<sup>th</sup> percentile infrastructure. If LID is used describe its benefit and the effects of poor maintenance practices. Identify the necessary SOPs and include them in Appendix B]*

*[The following text is suggested for your convenience. If used the property owner and design team are expected modify the suggested text to represent the sites unique landscape infrastructure and conditions]*

Our landscape operations can result in grass clippings, sticks, branches, dirt, mulch, fertilizers, herbicides, pesticides to collect on our paved areas. When left on pavements, these solids will fill in our flood and water quality system requiring removal and cleaning.

Any dissolved solids and liquids mixing with runoff can contaminate surface and potentially groundwater for which we are responsible.

### Flood and Water Quality Control System

*[Describe the stormwater system including surface grading, conveyance system, runoff storage, retention and detention storage, manufactured treatment devices and when used any LIDs. For design and planning assistance visit; <https://www.epa.gov/npdes/stormwater-planning>*

*[Flood and water quality systems can usually be separated into 3 primary approaches or variations of each scenario.*

- 1. Directly connected chamber/drywell systems in combination with a manufactured treatment device (MTD). Scenario (1) appears to be the current trend. Generally, these systems concentrate runoff and pollution into a smaller space, increasing the risk for inadequate infiltration rates and groundwater contamination. Maintenance frequency is likely more frequent and spill mitigation of contaminated ground can also be significantly more expensive.*
- 2. Surface pocket retention/detention pond Low Impact Development(LID) systems. These systems are usually legacy high-back curb, inlets, pipe, detention systems with a water quality retention volume. Many times, these systems can warrant an MTD. Generally, these systems concentrate runoff and pollution into a smaller space increasing risk for inadequate infiltration resulting in long-term surface water ponding.*
- 3. LID approaches. The better LID approaches more evenly distribute runoff across the site and usually pretreat runoff with natural processes prior to discharging to retention/detention areas for managing excess flood control volume or can be combined. Better LID designs can sometimes replace the need for an MTD. Generally, these systems distribute runoff and pollution better, decreasing inadequate infiltration and groundwater contamination risk. Spill mitigation cost risk are also likely less.]*

*[Tweak the suggested language to fit your unique flood and water quality control design.]*

*[This paragraph is suggested language for the directly connected chamber/drywell approaches. Scenario 1]*

Our flood and water quality control system collects runoff directly from pavements with inlets and pipes. The pipes carry runoff and anything washed off our pavement directly to our manufactured treatment device and to our underground chamber retention/detention system designed to retain and infiltrate the first [INSERT 80<sup>TH</sup> PERCENTILE DEPTH"] of runoff. Our manufactured treatment device is a [INSERT MANUFACTURED TREATMENT DEVICE] and only captures sediments and floating material. Pollution that dissolves in water is not treated and anything else that can bypass runoff events will drain into the ground. The runoff in excess of the retention volume is released to the City system at [INSERT DISCHARGE RATE] cfs. The entire system is designed to manage the peak volume runoff for the [INSERT STORM EVENT RETURN PERIOD] storm event.

*[This paragraph is suggested for the surface pocket retention/detention pond LID approach. Scenario 2]*

Our flood and water quality control system collects runoff and anything washed off our pavements directly into our pocket retention/detention pond system. Directing runoff to surface retention/detention ponds reduces our impact by trapping solids on the surface and treating dissolved pollutants using plants and soil biology. The first [INSERT 80<sup>TH</sup> PERCENTILE DEPTH"] of runoff is retained and infiltrated into the ground. The runoff in

excess of the retention volume is released to the City system at [INSERT DISCHARGE RATE] cfs. The entire system is designed to manage the peak runoff volume for the [INSERT STORM EVENT RETURN PERIOD] storm event.

*[This paragraph is suggested for the LID approach, scenario 3]*

Our flood and water quality control system carries runoff directly into landscaping swales, rain gardens and open landscaping areas. Directing runoff to surface areas reduces our impact by trapping solids on the surface and treating dissolved pollutants using plants and soil biology. Evenly distributing runoff across our property also reduces the time runoff will pond on the surface. The first [INSERT 80<sup>TH</sup> PERCENTILE DEPTH<sup>”</sup>] of runoff is retained and infiltrated into the ground within the swales, rain gardens and landscape system and the excess treated runoff spills into our underground chamber system/above ground detention pond where it is detained and release to the City system at [INSERT DISCHARGE RATE] cfs. The entire system is designed to manage the peak runoff volume for the [INSERT STORM EVENT RETURN PERIOD] storm event.

*[The following 2 paragraphs are common for all 3 scenarios’]*

Treating and infiltrating runoff from our property is required by the Clean Water Act intended to protect streams, rivers and groundwater. It is important we regularly maintain our system and diligently follow our standard operation procedures to manage and prevent pollution with potential to dissolve and mix with runoff, damaging surface and subsurface water resources for which we are responsible.

Also, anything we allow to reach our surface low impact system, manufactured treatment device and underground chamber system will fill it with sediment and debris increasing maintenance cost. It is important to follow our standard operation procedures to help manage site maintenance cost and ensure our system is working properly.

## **Waste Management**

*[Describe the waste management system infrastructure and how it and its maintenance practices impact our system and water quality. Provide necessary trash management SOPs and include them in Appendix B]*

*[The following text is suggested for your convenience. If used the property owner and design team are expected modify the suggested text to represent the sites unique waste management infrastructure and operations]*

Good waste management systems, if managed improperly, can become the source of the very pollution it was intended to manage. Closing the lids of our dumpster and trash receptacles are necessary to prevent light weight trash carried off by wind and precipitation exposure preventing liquids that can leak to our pavement and from haul trucks. In addition, our dumpster pad slopes toward our pavement and any leaks can leach into runoff, staining our pavement, increasing odors and increasing risk to water resources.

## **Utility System**

*[Describe the utility infrastructure and how it and its maintenance practices impacts our system and water quality. Identify the necessary SOPs and include them in Appendix B]*

*[The following text is suggested for your convenience. If used the property owner and design team are expected modify the suggested text to represent the sites unique infrastructure and conditions]*

Our roof top utility system is exposed to our roof drains which drain to our pavements.

This heating and air conditioner unit contains oils and other chemicals that can harm surface and groundwater if allowed to reach our flood and water quality system.

### **Snow and Ice Removal Management**

*[Describe the snow and ice operations and how it can impact our system and water quality.*

*Identify the necessary SOPs and include them in Appendix B]*

*[The following text is suggested for your convenience. If used the property owner and design team are expected modify the suggested text to represent the sites unique infrastructure and conditions]*

Salt is a necessary pollutant and is vital to ensuring a safe parking and pedestrian walkways. However, salt and other ice management chemicals, when improperly managed will unnecessarily increase our salt impact to our own vegetation and local water resources. In addition, we need to minimize salt to maintain healthy root systems needed for optimum infiltration rates.

### **Equipment / Outside Storage**

*[Describe any outside storage facilities or operations and how it can impact our system and water quality. Delete when not applicable. Identify the necessary SOPs and include them in Appendix B]*

### **Add infrastructure or operations that are unique to this site**

*[Describe any other site infrastructure or operations unique to this property which impacts our system and water quality. Identify the necessary SOPs and include them in Appendix B]*

## **SECTION 2: TRAINING**

Ensure that all employees and maintenance contractors know and understand the standard operations procedure specifically written to manage and maintain the property. Maintenance contractors must use the stronger of their Company and the Stormwater System Operations and Maintenance Plan standard operations procedures. File all training records in Appendix C.

## **SECTION 3: RECORDKEEPING**

Maintain records of operation and maintenance activities in accordance with standard operations procedures.  
Mail a copy of the record to [NAME OF MUNICIPALITY] annually.



## **SECTION 4: APPENDICES**

*[modify appendix to actual Stormwater System Operation and maintenance Plan contents]*

Appendix A- Site Drawings and Details

Appendix B- Standard Operation Procedures SOPs

Appendix C- Recordkeeping Documents

Appendix D- Drainage and Geotechnical Reports, UIC Registration

## APPENDIX A – SITE DRAWINGS AND DETAILS

*[Insert Final Grading & Drainage Plan Sheets of the site Civil Drawings and Details following this page. Include, any specific notes or markers to assist with inspection and maintenance requirements.]*

## APPENDIX B – Standard Operation Procedures (SOPs)

*[Insert the sites unique SOPs following this page]*

### *Instruction for writing SOPs*

*The purpose of the SOPs is to provide site managers, staff maintenance personnel and maintenance contractor's adequate instruction necessary to maintain the property in an environmentally responsible manner.*

*Low Impact Development and 80<sup>th</sup> percentile infrastructure is not only new to many people, but it will also likely need regular maintenance to adequately provide long-term flood and environmental protection.*

*On the following pages are suggested SOPs templates for typical development. However, every site's conditions and operations are usually unique in many ways. The property owner and design team are expected to determine template applicability and modify the suggested text to the unique site infrastructure, its limitations and operations. Ultimately, it is the property owners and design teams responsibility to ensure the SOPs are adequate for managing their runoff impacts.*

*The City also encourages the use of existing company SOPs modified and geared for this sites unique system operations. The use of the suggested SOPs and equivalent caliber company SOPs can reduce review iterations.*

## **Pavement Sweeping**

### **General:**

These SOPs are not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in these SOPs.

### **1. Purpose:**

- a) One of the primary contaminates in the [INSERT CRITICAL WATER BODIES] is organic material.
- b) Any sediment, leaves, debris, spilt fluids or other waste that collects on our parking areas and sidewalks will fill in our low impact drainage system, retention/detention storage, manufactured treatment device and underground retention/detention infiltration system increasing our maintenance cost. Removing these debris after they have washed to our flood and water quality system is very expensive.

### **2. Regular Procedure:**

- a) Remain aware of minor sediment/debris and hand sweep or remove material by other means as needed. Significant deposits will likely collect in autumn with leaf fall and early spring after winter thaw. Usually sweeping machinery is the best tool for this application.
- b) Regularly manage outside activities that spread fugitive debris on our pavements. This involves outside functions including but not limited to: Yard sales, yard storage, fund raisers, etc.
- c) Do not allow car wash fund raiser or other related activities. Detergents will damage water resources and washed pollutants will fill our storm drain system and drain into the ground which we are responsible.

### **4. Disposal Procedure:**

- a) Dispose of hand collected material in dumpster
- b) Use licensed facilities when haul off is necessary

### **5. Training:**

- a) Annually and at hire
- b) Inform staff and service contractors when incorrect SOP implementation is observed.

## Landscape Maintenance

### General:

This SOP is not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in this SOP.

### 1. Purpose:

- a) One of the primary contaminates in the [INSERT CRITICAL WATER BODIES] is organic material.
- b) Grass clippings, sticks, branches, dirt, mulch, fertilizers, pesticides and other pollutants will fill our low impact drainage system, retention/detention storage, manufactured treatment device and underground retention/detention infiltration system increasing our maintenance cost. Removing these debris after they have washed to our flood and water quality system is very expensive.

### 2. Maintenance Procedure:

- a) Maintain healthy vegetation root systems. Healthy root systems will help improve permeable soils maintaining more desirable infiltration rates of our landscape areas receiving runoff from our pavements.
- b) Grooming
  - Lawn Mowing – Immediately following operation sweep or blow clippings onto vegetated ground.
  - Fertilizer Operation – Prevent overspray. Sweep or blow granular fertilizer onto vegetated ground immediately following operation.
  - Herbicide Operation – Prevent overspray. Sweep or blow granular herbicide onto vegetated ground immediately following operation.
  - Trash and Debris – Remove trash and debris collecting within landscaping.
- c) Remove or contain all erodible or loose material prior to forecast wind and precipitation events, before any non-stormwater will pass through the property and at end of work period. Light weight debris and landscape materials can require immediately attention when wind or rain is expected.
- d) Landscape project materials and waste can usually be contained or controlled by operational best management practices.
  - Operational; including but not limited to:
    - Strategic staging of materials eliminating exposure, such as not staging on pavement

- Avoiding multiple day staging of landscaping backfill and spoil on pavements
  - Haul off spoil as generated and daily
  - Scheduling work when weather forecast are clear.
- e) Cleanup:
- Use dry cleanup methods, e.g. square nose shovel and broom. Conditions are usually sufficient when no more material can be swept onto the square nosed shovel.
  - Power blowing tools

**3. Waste Disposal:**

- a) Dispose of waste according to General Waste Management SOP, unless superseded by specific SOPs for the operation.

**4. Equipment:**

- a) Tools sufficient for proper containment of pollutants and removal.

**5. Training:**

- a) Annually and at hire
- b) Inform staff and service contractors when incorrect SOP implementation is observed.
- c) Landscape Service Contractors must use equal or better SOPs.

## Waste Management

### General:

This SOP is not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in this SOP.

### 1. Purpose:

- a) Trash can easily blow out of our dumpster and trash receptacles.
- b) Liquids can leak from our dumpster polluting waterways, subsurface soils, leak from haul trucks, stain pavements and increase odors.

### 2. Procedure:

- a) Remain aware of the lids and keep them closed.
- b) Remain aware of leaking and fix. Minimize allowing disposal of liquids in our receptacles and dumpster.
- c) Beware of dumpster capacity. Solve capacity issues. Leaving bags outside of dumpster is not acceptable.

### 3. Waste Disposal Restrictions for all waste Scheduled for the [INSERT LOCAL LANDFILL FACILITY]:

- a) Generally, most waste generated at this property, and waste from spill and cleanup operations can be disposed in our dumpsters under the conditions listed in this SOP. Unless specific disposal requirements are identified by the product SDS or otherwise specified in other SOPs.
- b) Know the facility disposal requirements and restrictions. It should not be assumed that all waste disposed in collection devices will be disposed at the [INSERT LOCAL LANDFILL FACILITY].
- c) Review [INSERT LOCAL LANDFILL FACILITY] regulations for additional restrictions and understand what waste is prohibited in the [INSERT LOCAL LANDFILL FACILITY]. Ensure the SDS and [INSERT LOCAL LANDFILL FACILITY] regulations are not contradictory.

Generally, the waste prohibited by the [INSERT LOCAL LANDFILL FACILITY] is: *[it is suggested to provide local landfill requirements to assist private development applicants]*

➤ List local prohibitions: ...

- 
- 
- 
-

- 
- 
- 

(provide local landfill facility contacts).

**4. Training:**

- Annually and at hire
- Inform staff and service contractors when incorrect SOP implementation is observed.



## **Flood and Water Quality System**

### **General:**

These SOPs are not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in these SOPs.

### **1. Purpose:**

- a) Our flood and water quality system will collect anything we leave in the way of runoff which will fill in our low impact drainage system, retention/detention storage, manufactured treatment device and underground retention/detention infiltration system increasing our maintenance cost. Removing these debris after they have washed to our flood and water quality system is very expensive.
- b) Any liquids or dissolved pollutants can increase the risk for contaminating groundwater for which we are responsible.
- c) During very intense storm events pollutants in excess runoff can bypass our system increasing risk of contaminating groundwater and the Jordan River.

### **2. Inspections:**

- a) Inspect Manufactured Treatment Device. Remove any floating trash at each inspection interval with rake or other means. Remove oil sheen with absorbent materials. Remove sediments with accumulations 6" and more. This will usually require hydro-vacuum machinery.
- b) Inspect Manufactured Treatment Device for mosquito larvae. Contact the [INSERT LOCAL MOSQUITO ABATMENT DISTRICT] when necessary.
- c) Inspect underground retention/detention infiltration system for liquid or solid pollutants that can pollute subsurface soils. Find sources and prevent. There is no vegetation, and less soil biology to break down harmful chemicals at these depths.
- d) Inspect underground retention/detention infiltration system for sediment and debris accumulations. Remove sediment and debris accumulation when volume capacities drop below 90%. Removal will require hydro-vacuum machinery.
- e) Inspect sediment accumulations in above ground detention/retention infrastructure. Remove sediment accumulation when volume capacities drop below 90%.
- f) Regularly remove trash and debris from landscaping areas and above ground low impact flood control systems with regular grooming operations. Inspect sediment accumulations in low impact flood control systems. Remove

accumulations when volumes within the swales, rain gardens and landscape areas drop below 90%.

- g) Inspect low impact flood control system for adequate drainage and vegetation coverage. Poor drainage can be improved by maintaining healthy plant root systems.
- h) Inspect flood design and retention system high water levels following significant storm events. The retention and detention depths should not exceed the depths shown on the plans for the respective storm event volumes. Contact an engineer when high water depths shown with plans are not consistent with the storm event.
- i) Inspect surface water ponding. Water should not remain for more than 48 hours. Contact an engineer when the system is not draining. We should reduce site irrigation overspray as this could keep our pond wet all the time.

## **2. Disposal Procedure:**

- a) Remove and dispose sediment and debris at licensed facilities. Also, dry waste can be disposed in your dumpster as permitted by the [INSERT LOCAL LANDFILL FACILITY].
- b) Disposal of hazardous waste
  - 1. Dispose of hazardous waste at regulated disposal facilities. Follow SDS Sheets. Also see Waste Management and Spill Control SOP

## **3. Training:**

- a) Annually and at hire
- b) Inform staff and service contractors when incorrect SOP implementation is observed.

Add manufactures O&M literature for proprietary flood and water quality systems behind this SOP and address any differences with minimums of this Flood and Water Quality system SOP template.

## **Pavement Washing**

### **General:**

These SOPs are not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in these SOPs.

### **1. Purpose:**

- a) Pavement washing involving detergents can potentially contaminate groundwater with phosphates and with whatever we are washing from pavements.
- b) Pavement washing can fill our low impact drainage system, retention/detention storage, manufactured treatment device and underground retention/detention infiltration system increasing our maintenance cost. Removing these debris after they have washed to our flood and water quality system is very expensive.

### **2. Procedure:**

- a) Prevent waste fluids and any detergents if used from entering storm drain system. The following methods are acceptable for this operation.
  - Dam the inlet using a boom material that seals itself to the pavement and pick up the wastewater with shop-vacuum or absorbent materials.
  - Collect wastewater with shop-vacuum simultaneous with the washing operation.
  - Collect wastewater with vacuum truck or trailer simultaneous with the washing operation.
- b) This procedure must not be used to clean the initial spills. First apply the Spill Containment and cleanup SOP following by pavement washing when desired or necessary.

### **3. Disposal Procedure:**

- a) Small volumes of diluted washing waste can usually be drained to the local sanitary sewer. Contact the [INSERT NAME OF LOCAL SEWER DISTRICT].
- b) Large volumes must be disposed at regulated facilities.

### **4. Pavement Cleaning Frequency:**

- a) There is no regular pavement washing regimen. Pavement washing is determined by conditions that warrant it, including but not limited to: prevention of slick or other hazardous conditions or restore acceptable appearance of pavements.

### **5. Training:**

- a) Annually and at hire

- b) Inform staff and service contractors when incorrect SOP implementation is observed.

## **Snow and Ice Removal Management**

### **General:**

This SOP is not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in this SOP.

### **1. Purpose:**

- a) Salt and other ice management chemicals if improperly managed will unnecessarily increase our salt impact to our own vegetation and local water resources.
- b) We need to maintain healthy root systems to help maintain optimum infiltration rates.

### **2. De-Icing Procedure:**

- a) Do not store or allow salt or equivalent to be stored on outside paved surfaces.
- b) Minimize salt use by varying salt amounts relative to hazard potential.
- c) Sweep excessive piles left by the spreader.
- d) Watch forecast and adjust salt amounts when temperatures are expected to increase the risk is low, the same day.

### **3. Training:**

- a) Annually and at hire.
- b) Require snow and ice service contractors to follow the stronger this SOP and their company SOPs.

## General Construction Maintenance

### General:

This SOP is not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in this SOP.

### 1. Purpose:

- a) Any sediment, debris, or construction waste will fill our low impact drainage system, retention/detention storage, manufactured treatment device and underground retention/detention infiltration system increasing our maintenance cost. Removing these debris after they have washed to our flood and water quality system is very expensive.

### 2. Construction Procedure:

- a) Remove or contain all erodible or loose material prior forecast wind and precipitation events or before non-stormwater will pass through the project site. For light weight debris maintenance can require immediately attention for wind and runoff events. Many times, daily maintenance is necessary or as needed per random, precipitation or non-stormwater events.
- b) Project materials and waste can be contained or controlled by operational or structural best management practices.
  - Operational; including but not limited to:
    - Strategic staging of materials eliminating exposure, such as not staging on pavement
    - Avoiding multiple day staging of backfill and spoil
    - Haul off spoil as generated or daily
    - Schedule work during clear forecast
  - Structural; including but not limited to:
    - Inlet protection, e.g. wattles, filter fabric, drop inlet bags, temporary covers
    - Gutter dams, e.g. wattles, sandbags, dirt dams
    - Boundary containment, e.g. wattles, silt fence
    - Dust control, e.g. water hose,
    - Waste control, e.g. construction solid or liquid waste containment, dumpster, receptacles
- c) Inspection often to insure the structural best management practices are in good operating condition and at least prior to the workday end. Promptly repair damaged best management practices achieving effective containment.
- d) Cleanup:

- Use dry cleanup methods, e.g. square nose shovel and broom.
  - Wet methods are allowed if wastewater is prevented from entering the stormwater system, e.g. wet/dry vacuum, disposal to our landscaped areas.
- e) Cleanup Standard:
- When a broom and a square nosed shovel cannot pick any appreciable amount of material.

**3. Waste Disposal:**

- a) Dispose of waste according to General Waste Management SOP, unless superseded by specific SOPs for the operation.
- b) Never discharge waste material to storm drains

**4. Equipment:**

- a) Tools sufficient for proper containment of pollutants and cleanup.
- b) Push broom and square blade shovel should be a minimum.

**5. Training:**

- a) Annually and at hire.
- b) Require snow and ice service contractors to follow the stronger this SOP and their company SOPs.

## Spill Control

General:

This SOP is not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in this SOP.

### 1. Purpose:

- a) Spilt liquids and solids will reach our, retention/detention storage system potentially contaminating groundwater which we are responsible.
- b) It is vital we contain all spills on the surface. Spills reaching waterways and permeable surfaces can result in expensive spill mitigation, including waterway restoration and potential tear out and replacement permeable drainage systems.

### 2. Containment Procedure:

- a) Priority is to dam and contain flowing spills.
- b) Use spill kits booms if available or any material available to stop flowing liquids; including but not limited to, nearby sand, dirt, landscaping materials, etc.
- c) Hazardous or unknown waste material spills
  1. Critical Emergency constitutes large quantities of flowing uncontained liquid that people at risk or reach storm drain systems. Generally, burst or tipped tanks and containment is still critical. Call HAZMAT, DWQ, [INSERT LOCAL HEALTH DEPARTMENT], City.  
Also report spills to DWQ of quantities of 25 gallons and more and when the spill of lesser quantity causes a sheen on downstream water bodies
  2. Minor Emergency constitutes a spill that is no longer flowing but has reached a storm drain and adequate cleanup is still critical. Call [INSERT LOCAL HEALTH DEPARTMENT], City
  3. Spills that are contained on the surface, typically do not meet the criteria for Critical and Minor Emergencies and may be managed by the responsible implementation of this SOP.
  4. Contact Numbers:  
NATIONAL RESPONSE CENTER (NRC) 800-424-8802  
HAZMAT - 911  
DWQ HOTLINE –801-536-4123, 801-231-1769, 801-536-4300  
[INSERT LOCAL HEALTH DEPARTMENT AND # – XXX-XXX-XXXX]  
City – [INSERT CITY #]

### 3. Cleanup Procedure:

- a) NEVER WASH SPILLS TO THE STORM DRAIN SYSTEMS.



- b) Clean per SDS requirements but generally most spills can be cleaned up according to the following:
- Absorb liquid spills with spill kit absorbent material, sand or dirt until liquid is sufficiently converted to solid material.
  - Remove immediately using dry cleanup methods, e.g. broom and shovel, or vacuum operations.
  - Cleanup with water and detergents may also be necessary depending on the spilled material. However, the waste from this operation must be vacuumed or effectively picked up by dry methods or vacuum machinery. See Pavement Washing SOP.
  - Repeat process when residue material remains.

**4. DISPOSAL:**

- a) Follow SDS requirements but usually most spills can be disposed per the following b. & c.
- b) Generally, most spills absorbed into solid forms can be disposed to the dumpster and receptacles. Follow Waste Management SOP.
- c) Generally, liquid waste from surface cleansing processes may be disposed to the sanitary sewer system after the following conditions have been met:
- Dry cleanup methods have been used to remove the bulk of the spill and disposed per the Waste Management SOP.
  - The liquid waste amounts are small and diluted with water. This is intended for spill cleanup waste only and never for the disposal of unused or spent liquids.

**5. Documentation:**

- a) Document all spills in Appendix C.

**6. SDS sheets:**

- a) SDS Manual is filed in break room.

**7. Materials:**

- a) Generally, sand or dirt will work for most cleanup operations and for containment. However, it is the responsibility of the owner to select the absorbent materials and cleanup methods required by the SDS Manuals for chemicals used by the company.

**8. Training:**

- a) Annually and at hire.
- b) Require snow and ice service contractors to follow the stronger this SOP and their company SOPs.

## APPENDIX C – PLAN RECORDKEEPING DOCUMENTS

**MAINTENANCE/INSPECTION SCHEDULE**

Frequency	Site Infrastructure.
	Replace text with the infrastructure / system that must be maintained; repeat

Inspection Frequency Key: A=annual, Q=Quarterly, M=monthly, W=weekly,  
S=following appreciable storm event, U=Unique infrastructure specific (specify)

**RECORD INSPECTIONS IN THE MAINTENANCE LOG**

Inspection Means: Either; Traditional walk through, Awareness/Observation, and during regular maintenance operations while noting efficiencies/inefficiencies/concerns found, etc.

**MAINTENANCE LOG**

Date	Maintenance Performed/Spill Events. Perform Maintenance per SOPs	Observation Notes, including but not limited to; Inspection results, Observations, System Performance (effectiveness/inefficiencies), SOP Usefulness, Concerns, Necessary Changes...	Initials

Annual Summary of operations and maintenance effectiveness, inefficiencies, problems, necessary changes etc.

\*You may create your own form that provides this same information or request a word copy of this document.

## Annual SOP Training Log per Section 2

SOP	Trainer	Employee Name / Maintenance Contractor Co	Date

\*You may create your own form that provides this same information or request a word copy of this document.

## APPENDIX D – Support Design Reports and Documents

*[Insert Drainage Report, Geotechnical Reports, LID feasibility analysis, UIC registration extra.]*

Replace  
with logo

## UPDES STORM WATER EVALUATION FORM FOR STORMWATER SYSTEM OPERATIONS AND MAINTENANCE COMPLIANCE

Site Name:		Inspection Date:		Stormwater System #	
Site Address:					
Facility/Owner Contact Information					
	NAME		PHONE #		E-MAIL
CONTACT:					
CONTACT:					
BUSINESS TYPE:      INSTITUTION <input type="checkbox"/> COMMERCIAL <input type="checkbox"/> INDUSTRIAL <input type="checkbox"/> HOA <input type="checkbox"/>					
Items Inspected	Checked		Maintenance		Write Observations and Remarks on maintenance issues to be corrected by the property owner.
	Yes	No	Required	Not Required	
1. SITE DRAWINGS current w/Plan					
2. Operator O&M Plan Awareness					
3. REPORT, DOCUMENTATION (General compliance/maintenance)					
4. DUMPING EVIDENCE (Piles, stains, smells near inlets)					
5. SPILL EVIDENCE (Soiled areas, history of spill kit uses)					
6. GENERAL SITE EXPOSURE (Long term stockpiles, uncovered unmaintained equipment/storage)					
7. OTHER POLLUTION SOURCES					
8. GENERAL MAINTENANCE STATUS			Measure sediment/debris/volume, Maintenance records/ Soil Conditions		
Inlet/Outlet					
Water Conveyance Systems					
Manholes					
Manufactured Treatment Devices					
Regulation Retention Systems					
Surface LID Systems (Low Impact Development)					
Flood Control Systems					
Parking/Pavements					
Waste Collection					
Landscaping					
9. OTHER SITE SOP ITEMS					
Notes:					
Inspector:					
Print Name	Title		Signature		Date