



1. Please provide the following information concerning the <b>Project</b> .		
Project Name:		
Project Address:		
Parcel Number(s):		
Total Area (acres):		
2. What are the expected pollutants that will be generated <b>after project completion</b> due to business and maintenance operations that will need to be planned for and mitigated? Check all that apply.		
<input type="checkbox"/> Sediments - Erosion or soils that are not stabilized.	<input type="checkbox"/> Nutrients - Animal waste, plant debris, sediment, fertilizers, etc.	<input type="checkbox"/> Hydrocarbons- Oils, gasoline, diesel fuel, antifreeze, etc.
<input type="checkbox"/> Heavy Metals - Manufacturing, industrial wastes, vehicles, etc.	<input type="checkbox"/> Toxic Chemicals - industrial chemicals, pesticides, etc.	<input type="checkbox"/> Trash, debris, solids
<input type="checkbox"/> Pathogens - Bacteria, viruses, animal/human waste, etc.	<input type="checkbox"/> Salt - Salt piles, car washing, snow removal, etc.	<input type="checkbox"/> Temperature - Thermal pollution, industrial waste, etc.
<input type="checkbox"/> Other - Please describe:   		
<p>3. Low Impact Development (LID) is a method of storm water system design that seeks to keep stormwater onsite and mimic natural hydrological conditions where possible. Storm water is a valuable resource and not a waste product.</p> <p>A guidance document for LID can be found on the Utah Division of Water Quality website at the link provided. Pages 43-45 of the link contain flow charts to help determine appropriate LID. Non-structural controls should be utilized wherever possible before reliance on structural controls.</p> <p>In some cases, LID and the retention standards required by those projects that disturb land greater than or equal to one acre, are technically infeasible due to one or more of the following conditions: high groundwater, drinking water source protection areas, soil conditions, slopes, accessibility, excessive costs, or any other justifiable constraint.</p>		

Where this is the case, a rationale shall be provided for the use of alternative design criteria. The new or redevelopment project must document and quantify that infiltration, evapotranspiration, and rainwater harvesting have been used to the maximum extent feasible.

Rationale (if applicable):

Please also answer the following questions:

4. How were LID systems and/or Best Management Practices (BMPs) selected for this site?

5. What is the pollutant removal performance expected from each selected BMP?

6. What is the technical basis that supports the performance claims of these LID and/or BMP systems?



# Storm Water Management Plan for

*This Stormwater Management Plan will be recorded to the property at the county records office  
excepting this first page which contains private contact information.*

*This page is for City and Owner record. (Please delete all text in red before submitting the  
completed document to Community Development)*

If this contact information should change, please update the City immediately. If Stormwater system improvements are made that are not addressed in this Plan, work with the City to modify the Plan of record. The Plan can be modified as property conditions change. The Agreement portion of this Plan is binding upon the property and will not change.

	Name	Phone Number	Email
<b>Owner of Record</b> (Individual or entity who will <u>own the land</u> at project completion)			
<b>Inspection and Maintenance Team</b> (Individual, tenant, or company who will manage the system)			
<b>System installation/modification</b> (Contractor who installed or modified the stormwater system if applicable)			



[Leave area blank for recording]

## STORM WATER INSPECTION & MAINTENANCE AGREEMENT

Project Name and Address:

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

Lot No(s) (if applicable): \_\_\_\_\_

This Agreement is executed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between the CITY OF OREM...

The Storm Water Coordinator will send the full agreement to the "owner of record" listed on the first page once this document (The Stormwater System Management Plan) is finalized as part of development review (DRC). The 6 page completed agreement will then be inserted back into this Stormwater System Management Plan packet for recording. Please continue to the next section.



# Storm Water Management Plan for

## THE PLAN

If Storm water system improvements are made that are not addressed in this Plan, work with the City to modify the Plan of record. The Plan can be modified as property conditions change. The Agreement portion of this Plan is binding upon the property and will not change.

## PURPOSE AND RESPONSIBILITY

The purpose of this **Storm Water System Management Plan** (Plan) is to direct the inspection and maintenance personnel in protecting storm water quality and protecting the integrity of the storm water system. This Plan is written specifically for the site staff and service contractors. Adherence to this Plan will increase the longevity and effectiveness of storm water controls, mitigate flood risks, and improve water quality for all.

The **Owner of Record** (Owner) is legally responsible for ensuring compliance with both this Plan and the Storm Water Agreement entered into with the City. If the owner has leased out the building, hired property management, etc. then the Owner is responsible for ensuring that the **Inspection and Maintenance Team** adhere to the Plan and that contact information is kept up to date.

The summary of responsibilities for each property with an established Plan are:

- Prevent pollutants from contacting storm water runoff as much as practicable
- Train staff and service contractors on how to protect the storm water system
- Inspect the storm water system annually at minimum or as described in the Plan and keep record that adequate maintenance and inspections have been performed.
- Maintain each storm water control as described in the Plan to perform its design function
- Provide an inspection report of the property to the City biennially i.e. every other year by October 1st.

# Contents

- STORM WATER INSPECTION & MAINTENANCE AGREEMENT ..... 4**
- THE PLAN..... 7**
  - PURPOSE AND RESPONSIBILITY..... 7
- Section 1: Site Description..... 9
- Section 2: Storm Water Quality Control..... 10
  - SOPs..... 10
- Section 3: Maintenance Schedule..... 11
- Section 4: SW Facilities Map..... 12
- Section 5: Inspections & Reporting..... 14
  - Appendix A: Maintenance Inspection Report..... 15
- Instructions for Performing Your Own Storm Water Inspection..... 17
  - Appendix B: Maintenance Standards (delete if not applicable)..... 21

## Section 1: Site Description

Name of Project	Property Address	Parcel Number(s)	Total Area (ac)

Please provide a narrative below that describes how the storm drain system is intended to work:

How will the storm drain system impact downstream and upstream properties as well as the City stormwater system?

Does your site include the use of any Underground Injection Control (UIC) Class V injection wells (dry wells, underground injection chambers, sumps, etc.) to address storm drainage discharge?

☐ Yes ☐ No

If yes, you must register them with the state UIC Program at

<https://deq.utah.gov/water-quality/utah-underground-injection-control-uic-program>

UIC Facility ID#	
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Proposed business operations for this project upon completion:

If your site is industrial, apply for coverage under the General Multi-Sector Industrial Storm Water Permit at <https://deq.utah.gov/water-quality/general-multi-sector-industrial-storm-waterpermit-updes-permits>

☐ N/A

MSGP #	
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# Section 2: Storm Water Quality Control

## SOPs

To keep pollutants out of the storm water system, all personnel onsite must follow all applicable Standard Operating Procedures (SOPs) described in this Plan.

Because many storm water SOPs are the same across different businesses, [a list of SOPs is provided by the City of Orem](#). Please review these SOPs and add any site specific stormwater related SOPs required by the company, developer, engineer, etc. in the area below or as an additional appendix item:

N/A



## Section 3: Maintenance Schedule

The [Orem's SOPs](#) describe how to inspect and maintain common storm water controls such as the ones listed below. **Remove any controls listed that are not used for this site design and add any site specific controls needed.**

Control Name	Type of Control	Inspection Frequency	Indicator for Maintenance
Hydrodynamic Separator	Pretreatment Device	Biannually	Visual evidence of pollutants and refer to manufacturer's specifications (see Appendix B)
Snout or 90 degree elbow	Pretreatment Device	Quarterly	Debris from sump to flow line has reached 33% (see Appendix B)
Drain inlet	Conveyance	Annually	Debris has reached flow line (see Appendix B)
Injection well (sump)	Infiltration	Annually	Debris has decreased design infiltration rates (see Appendix B)
Chamber infiltration	Infiltration	Annually	Debris has decreased design infiltration rates
Orifice	Flow reduction	Biannually	Debris has blocked the opening
Curb Cut	LID	Quarterly	Debris has impeded flow into landscaped area
Dumpster pad drainage	Conveyance	Quarterly	Debris has blocked the opening
Bioswale	Infiltration	Biannually	Debris has decreased design infiltration rates or decreased volume capacity
Detention/retention basin	Infiltration	Annually	Debris has decreased design infiltration rates or decreased volume capacity

## Section 4: SW Facilities Map

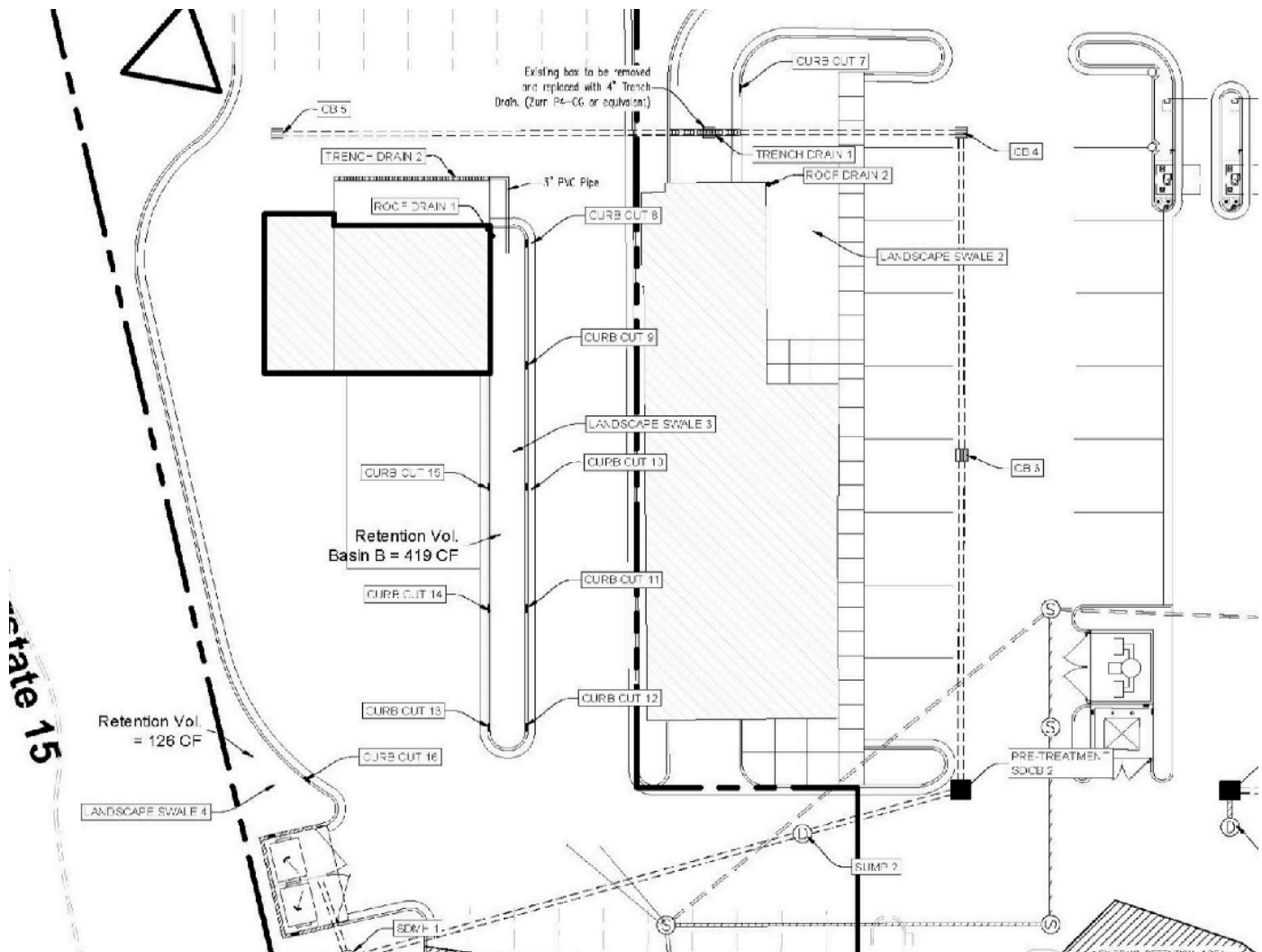
This map will need to show the storm water system with each BMP labeled with a specific name, for example: Sump #1, Pretreatment Catch Basin #1, Inlet #2, etc.

Abbreviations may be used to name each BMP, for example: SMP #1, PCB #1, PCB #2, etc. If abbreviations are used in naming the BMPs, a key will need to be provided on the sheet.

All storm water related BMPs must be called out: Curb Cuts, Detention Ponds, Inlets, Pipes, Pretreatment Catch Basins, Rain Gardens, Retention Ponds, Roof Drains, Standard Catch Basins, Sumps, Swales, Underground Storage, etc.

Any other layers unnecessary to a long-term maintenance inspection such as contours should be removed so an average individual could easily navigate and utilize the facilities map.

Example SW Facilities Map (delete and replace with site specific facilities map:



Storm Water Facilities Map ([attach second page or larger map here](#))

## Section 5: Inspections & Reports

Maintain records of:

- Inspections
- Maintenance activities
- Storm water training

Inspections and maintenance may be performed by the Owner, Inspection and Maintenance Team, or qualified third parties. This site will receive oversight inspections from the City at least once every five years to ensure the storm water controls are operating as designed to protect water quality.

Provided in Appendix B is a *Maintenance Inspection Report* for use by any personnel, though third parties often utilize their own inspection report.

Send a copy of the storm water system inspection biennially (once every two years) to either:

City of Orem:

Storm Water Coordinator

1450 W 550 N

Orem, UT 84057

Or

[swmp@orem.gov](mailto:swmp@orem.gov)

Call 801-229-7574 with any questions.

Appendix A: Maintenance Inspection Report *(a fillable version can also be found [online](#))*



## Storm Water Management Maintenance Inspection Report

Property Information			
Property Address:			Inspection Date:
Facility Name:		Original Project Name:	
Current Owner:		Site Contact Name:	
Email Address:		Phone Number:	
Inspector Information			
Inspector Name:		Inspector Employer:	
Email Address:		Phone Number:	
Inspection Type: <small>(Check One)</small>	<input type="checkbox"/> Biennial <input type="checkbox"/> 5 Year (City use only)		
Inspection Report:			
Items Inspected	Answer	Is maintenance required?	Notes:
	Yes / No	Yes / No	
1.) Has the property been altered from the approved site plan?			
2.) Have the property operations/business uses been changed since the last inspection?			
3.) Have all inlet structures been inspected?			
4.) Have all outlet structures been inspected?			
5.) Have all the detention ponds, retention ponds and swales been inspected?			
6.) Have all catch basins, pre-treatment catch basins, sumps and manholes been inspected?			
7.) Have all Low Impact Development (LID) systems been inspected?			
8.) Has the landscaping been inspected to check on the quality of vegetation and soils?			
9.) Do SOPs seem to be doing an adequate job at reducing and preventing pollution?			
Additional Comments:			

<div>Insert photos in these boxes</div>		
Observations/Remarks:	Observations/Remarks:	
Observations/Remarks:	Observations/Remarks:	
Observations/Remarks:	Observations/Remarks:	
<div>I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information provided is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.</div>		
Inspector ( <i>Print Name</i> )		Date:
Signature		
:		

Attach any maintenance receipts and related documents to this inspection report.

# Instructions for Performing Your Own Storm Water Inspection

1. You will need two physical items:

- A manhole cover lifter- basically a rod with a handle on one end and a hook on the other.
- Measuring tape.



2. Briefly review the Storm Water Management Plan (SWMP) for the site.

- This document is available through contacting the City or through a property records search.

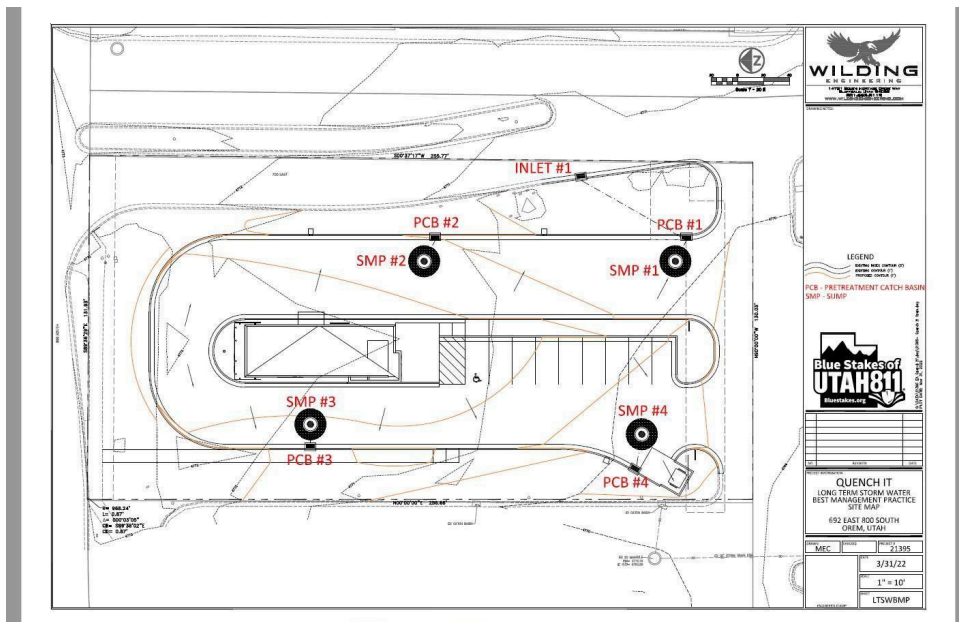


or

- Look for items that clarify when to maintain a catch basin, the schedule for maintenance, and other helpful information

3. Locate the SW Facilities Map or BMP Map within the SWMP.

- This is an area map that shows all of your storm water structures (catch basins, swales, sumps, etc.)



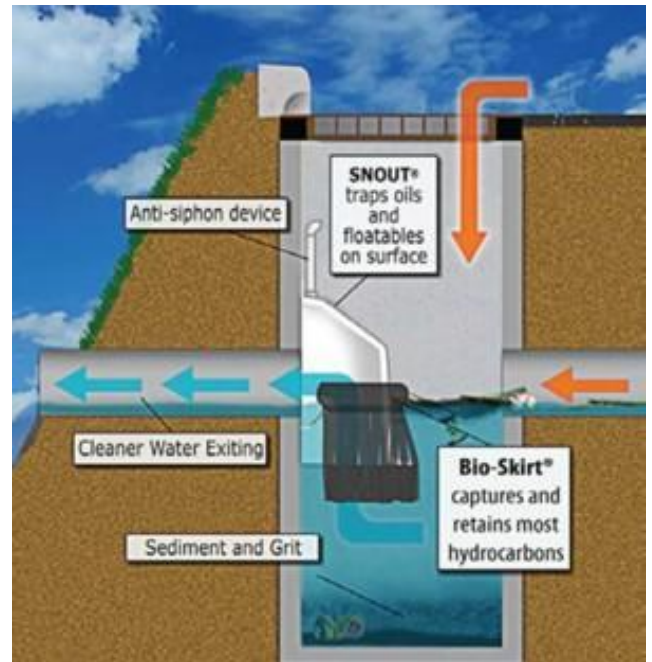
4. Perform the inspection. Be sure to check:

a. Pretreatment catch basins

- i. Using the measuring tape, see how much sediment is in the bottom of the basin 'by feel'. Note amount in the Debris Accumulation log attached to this document.

b. Sump manholes

- i. If you see gravel or rocks in the bottom, excellent.
- ii. If you see sediment/debris build up in the bottom, note the accumulation in the Debris Accumulation log.



c. Overall site cleanliness

d. Evidence of poor storm

water system function

e. Evidence of illicit spills or

dumping. Ex: grease, paints, soaps around storm drains

f. Health of vegetation/landscaping

5. If needed, contact the City with any questions on how or what to inspect at 801-229-7574 or [swmp@orem.gov](mailto:swmp@orem.gov)

- a. The City will typically also be willing to walk the inspection with you. We believe in educating the property owners/managers.

Alternatively, you can hire out the inspection and have a company perform your inspection for you and have it submitted to [swmp@orem.gov](mailto:swmp@orem.gov). We ask that you use the form provided by the City for uniformity across inspections. Thank you!



<p align="center"><b>DEBRIS ACCUMULATION LOG</b>  <b>(for owner's reference and record)</b></p>	
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[illegible]

## Appendix B: Maintenance Standards (delete if not applicable)