**Stormwater Site Plan (SSP) Report**

(Insert Project Name)

 **Prepared For**

(Insert City of Tacoma Permit Number(s) Associated with Stormwater Site Plan)

**Project Location**

(Insert Project Address)

(Insert Project Parcel Number(s)

**Stormwater Site Plan Prepared By**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Organization** | **Contact Telephone Number** | **Email Address** |
| (Insert Name) | (Insert Name) | (Insert Phone Number) | (Insert Email Address) |

**Date Prepared**

(Insert Date)

(Insert Professional Engineer Certification and Stamp, if necessary).

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**Notes for Preparer:**

When completing the Stormwater Site Plan Report provide all required information in the textbox forms under each section and delete any sections from the report and appendices that are not applicable to the proposed project. Further information and guidance on the information required can be found in the comment bubbles to the right of each section. Once the report has been completed delete all comment bubbles and grey highlighted instructions, select the References tab and update the Table of Contents, and input the figure/table numbers and names in List of Figures and List of Tables under the contents page above.

## Project Information

1. **Project Contacts**

See Title Page for Stormwater Site Plan Development Team

1. **Property Owner**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Organization** | **Mailing Address** | **Contact Telephone Number** | **Email Address** |
| (Insert Name) | (Insert Name) | (Insert Address)  | (Insert Phone Number) | (Insert Email Address) |

1. **Applicant (if different than Property Owner)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Organization** | **Mailing Address** | **Contact Telephone Number** | **Email Address** |
| (Insert Name) | (Insert Name) | (Insert Address) | (Insert Phone Number) | (Insert Email Address) |

1. **Associated Permits**
2. Associated City of Tacoma Permit Number(s)

(Insert Associated City of Tacoma Permit Number(s))

1. Other Federal, State, or Local Associated Permit Types and Numbers

(Insert Other Federal, State, or Local Associated Permit Types and Numbers e.g. Associated Construction Stormwater General Permit, Industrial Permit, etc)

1. **Vesting**
2. City of Tacoma Stormwater Management Manual Edition Used

(Select Manual)

1. If using a manual other than the most current version, provide vesting justification:

(Insert Description of Vesting)

## Project Overview

1. **Provide a brief description of the proposed project.**

(Insert a Short Narrative Description of Proposed Project)

## Existing Project Site Conditions

1. **Answer the following questions, provide additional description, and provide figures (if necessary) to describe the existing site conditions.**
2. Describe in one or two sentences the existing project site use:

(Insert existing project site use description)

1. Describe in words or show on a figure the stormwater runoff patterns (natural and artificial) and the points where stormwater enters and exits the project site.

(Insert description and/or state “See Figure Number(s) xx below”)

1. Answer the following questions to help describe the existing site conditions. If Answer is Yes, include an associated figure(s) that shows location. Answers must be based upon site reconnaissance and readily available mapping data. See SWMM – Volume 2, Chapter 3 for resources.

|  |  |  |
| --- | --- | --- |
| **Questions** | **Answer**  | **Data Source(s)** |
| Are groundwater protection areas located on the project site or within 500 feet of the project site? | [ ] Yes[ ] No[ ] Unknown |  |
| Are wetlands and/or their buffers located on the project site or within 500 feet of the project site? | [ ] Yes[ ] No[ ] Unknown |  |
| Are steep slopes located on the project site or within 500 feet of the project site? | [ ] Yes[ ] No[ ] Unknown |  |
| Are floodplains located on the project site or within 500 feet of the project site? | [ ] Yes[ ] No[ ] Unknown |  |
| Are streams located on the project site or within 500 feet of the project site? | [ ] Yes[ ] No[ ] Unknown |  |
| Are creeks located on the project site or within 500 feet of the project site? | [ ] Yes[ ] No[ ] Unknown |  |
| Are ravines located on the project site or within 500 feet of the project site? | [ ] Yes[ ] No[ ] Unknown |  |
| Are springs located on the project site or within 500 feet of the project site? | [ ] Yes[ ] No[ ] Unknown |  |
| Are any other sensitive areas or critical areas located on the project site or within 500 feet of the project site? | [ ] Yes[ ] No[ ] Unknown |  |
| Are any structures located on the project site? | [ ] Yes[ ] No[ ] Unknown |  |
| Are any fuel tanks or other storage tanks (above or below-ground) located on the project site? | [ ] Yes[ ] No[ ] Unknown |  |
| Are any groundwater wells located on the project site or within 100 feet of the project site? | [ ] Yes[ ] No[ ] Unknown |  |
| Are any septic systems located on the project site or within 100 feet of the project site? | [ ] Yes[ ] No[ ] Unknown |  |
| Are any Superfund sites located on the project site or within 100 feet of the project site? | [ ] Yes[ ] No[ ] Unknown |  |
| Are any Flood Hazard Areas located on the project site or within 100 feet of the project site? | [ ] Yes[ ] No[ ] Unknown |  |
| Is the project located in the South Tacoma Groundwater Protection District? | [ ] Yes[ ] No[ ] Unknown |  |
| Are any public or private easements located on the project site? | [ ] Yes[ ] No[ ] Unknown |  |

1. Additional Information

(Insert any additional description/information necessary to fully describe existing project site conditions)

(Insert associated figure(s) (if applicable) below)

1. **Existing Project Site Condition Basin Map**
2. Provide an existing conditions basin map

Provide an existing conditions basin map that shows the following areas where applicable. The map shall include a table that provides the square footage of each area described below which corresponds to the map. More than one map may be required to clearly delineate all required information.

Outline and square footage of hard surface areas.

Outline and square footage of vegetation areas.

Outline and square footage of native vegetation areas.

Outline and square footage of pasture areas.

Outline and square footage of lawn/landscaped areas.

Outline of Threshold Discharge Areas.

\*Each area should have a separate color or shading to clearly distinguish one area from another. Map, tables, and coloring/shading shall appropriately correspond.

(Insert figure number and name here and the existing conditions basin map below)

1. **Downstream Flowpath – Existing Condition**

Provide a map showing the downstream flowpath from the project site to the Puget Sound – including all receiving waterbodies along the flowpath. Assume that stormwater does not infiltrate along the flowpath and will ultimately reach the Puget Sound. Include a separate map for each TDA or if each flowpath can be clearly distinguished, one map will suffice. Clearly show the ¼ mile point for determining TDA.

(Insert figure name and number here and the Downstream Flowpath map below)

## Proposed Project Site Conditions

**A. Describe in words and provide figure(s) to describe the proposed project site conditions.**

1. Describe in one or two sentences the proposed project site use:

(Insert existing project site use description)

1. Describe in words or show on a figure the stormwater runoff patterns (natural and artificial) and the points where stormwater enters and exits the project site.

(Insert description and/or state “See Figure Number(s) xx below”)

1. Provide a figure showing:
* the proposed improvements (buildings, sidewalks, parking lots, utilities, etc.),
* fuel tanks (above and below ground) that are proposed or will remain in place, proposed groundwater wells on the project site
* proposed septic systems
* proposed public and private easements

(Insert figure name and number here and figure below)

1. Additional Information

(Insert any additional description/information necessary to fully describe existing project site conditions)

(Insert associated Proposed Project Site Conditions Figure(s) below)

1. **Proposed Project Site Condition Basin Map**

Provide a proposed project site conditions basin map that shows the following areas where applicable. The map shall include a table that provides the square footage of each area described below which corresponds to the map. More than one map may be required to clearly delineate all required information.

Outline and square footage of new hard surface areas.

Outline and square footage of replaced hard surface areas.

Outline and square footage of new pollution generating hard surface areas.

Outline and square footage of replaced pollution generating hard surface areas.

Outline and square footage of hard surface areas to remain unaltered. Include grind/overlay areas, as applicable.

Outline and square footage of areas converted from vegetation to lawn/landscaped areas.

Outline and square footage of areas converted from native vegetation to pasture.

Outline and square footage of pollution generating pervious surfaces.

Outline and square footage of vegetation areas to remain unaltered.

Outline and square footage of native vegetation areas to remain unaltered.

Outline and square footage of pasture areas to remain unaltered.

Outline and square footage of lawn/landscaped areas to remain unaltered.

Outline of Threshold Discharge Areas.

\*Each area should have a separate color or shading to clearly distinguish one area from another. Map, tables, and coloring/shading shall appropriately correspond.

(Insert figure number and name here. Insert figure(s) below)

**C. Downstream Flowpath – Proposed Condition**

\*\*Only needed for proposed condition if TDAs change from existing to proposed condition.\*\*\* Provide a map showing the downstream flowpath from the project site to the Puget Sound – including all receiving waterbodies along the flowpath. Assume that stormwater does not infiltrate along the flowpath and will ultimately reach the Puget Sound. Include a separate map for each TDA or if each flowpath can be clearly distinguished, one map will suffice. Clearly show the ¼ mile point for determining TDA.

(Insert figure number and name here and the downstream flowpath – proposed conditions map below)

## Minimum Requirement Determination

1. **Table (Insert Table Number) - Project Thresholds**

(Complete and Insert Project Threshold Table Specific to Project Type and Number of Threshold Discharge Areas)

1. **Table (Insert Table Number)- Receiving Waterbody Table**

(Complete and Insert Receiving Waterbody Table Specific to Project and Number of Threshold Discharge Areas)

1. **Table (Insert Table Number) – Minimum Requirements Required**

(Complete and Insert Minimum Requirements Required Table Specific to Project and Number of Threshold Discharge Areas)

1. **Cumulative Impacts**
	1. Table (Insert Table Number)- Cumulative Impacts

(Complete and Insert Cumulative Impacts Table)

* 1. Cumulative Impacts Discussion

(Provide a discussion of Cumulative Impacts)

1. **Flowcharts**

(Insert all applicable flowcharts as figures for determining minimum requirements)

## Discussion of Minimum Requirements

### Minimum Requirement #1 – Preparation of a Stormwater Site Plan

This Stormwater Site Plan Report and the (Insert name of associated Civil Plan Set or drawings) are being used to meet Minimum Requirement #1.

Description of Site Appropriate Development Principles

Where practicable, projects shall use the following site appropriate development principles. Put a checkmark next to the principles that will be used for the project. Project design is not required to be changed in order to accommodate site appropriate development principles, but where feasible, these principles must be used. If none of the site development principles are feasible, place a checkmark next to that box below.

[ ]  Minimization of land disturbance by fitting development to the natural terrain.

[ ]  Minimization of land disturbance by confining construction to the smallest area feasible and away from critical areas.

[ ]  Preservation of natural vegetation.

[ ]  Locating impervious surfaces over less permeable soils.

[ ]  Clustering buildings.

[ ]  Minimizing impervious surfaces.

[ ]  Site appropriate development principles are not practicable because of project design.

### Minimum Requirement #2 – Construction Stormwater Pollution Prevention Plan

The Construction Stormwater Pollution Prevention Plan is available as a stand-alone document as part of the Permit submittal.

### Minimum Requirement #3 – Source Control

1. Description of Final Site Use

(Briefly describe the final project site use)

1. Source Control BMPs

Insert Source Control Selection Worksheet which describes the types of activities and potential pollutants that are likely to occur on the site and includes the BMPs from the SWMM that will be used on the site.

(Insert Table Name and Number for Source Control Selection Worksheet. Insert associated sections from Source Control Worksheet below.)

### Minimum Requirement #4 – Preserving Drainage Patterns and Outfalls

1. Description of Drainage Patterns and Outfalls

(Describe how the natural or existing drainage patterns are maintained)

1. Description of Concentrated and/or Increased Volume or Flowrate and Mitigation

If stormwater will be concentrated and/or increased in volume or flowrate. Provide the following. Include modeling outputs, proof of consultation, and calculations as appendices.

* Include modeling assumptions and outputs to determine increases in the 100-year return period flowrate.
* Provide proof of consultation to allow discharge onto private property.
* Describe mitigation measures as necessary
	+ Include all calculations and assumptions.

(If applicable insert description of concentrated and/or increased volume or flowrate and mitigation)

### Minimum Requirement #5 – Onsite Stormwater Management

This project will utilize: (Choose an item)

If using the List Approach:

* State the BMPs being used for each surface type. Provide the BMP name(s) and number(s) from the SWMM.
* Include the infeasibility checklist for any BMPs deemed infeasible.
* Include a reference to associated documents used for determining infeasibility such as Soils Report, survey showing project site topography, maps showing distance to property lines, etc.
* Provide sizing calculations for all BMPs proposed.

(Insert information as prescribed above)

1. If using the LID Performance Standard
* State the BMPs being used for compliance. Provide the BMP name(s) and number(s).
* State that BMP L613: Post-Construction Soil Quality and Depth is being used.
* Provide sizing calculations for all BMPs proposed.
* Provide the modeling report showing that with the use of BMPs, the LID Performance Standard is met. Include modeling report as appendix to this document.

(Insert information as prescribed above)

### Minimum Requirement #6 – Stormwater Treatment

1. Description of Compliance Need

(Describe the reason the project must comply (or is not required to comply) with Minimum Requirement #6 - Stormwater Treatment)

(Describe the requirements for each Threshold Discharge Area)

1. Compliance Mechanism(s)
2. Treatment type required

If applicable, describe treatment type required.

* If any areas are not being treated that would require treatment provide an explanation as to why. Provide Exception/Adjustment justification as required by SWMM.

(Describe treatment type required as outlined above)

1. Stormwater treatment basin map

Provide a stormwater treatment basin map clearly showing surfaces requiring treatment and surfaces receiving treatment as follows. The map shall include a table that provides the square footage of each area described below which corresponds to the map. More than one map may be required to clearly delineate all required information. Map shall also show the amount treated by each proposed facility.

* Outline and square footage of areas requiring treatment.
* Outline and square footage of areas receiving treatment. Clearly show areas discharging to each facility.
* Outline and square footage of areas receiving treatment that is pollution generating. Clearly show areas discharging to each facility.
* Outline and square footage of areas bypassing treatment.
* Outline and square footage of areas bypassing treatment that are pollution generating.

(Insert figure number and name here and the stormwater treatment basin map below)

1. State the BMP(s) being used.
	* Provide BMP name(s) and number(s).
	* Provide sizing calculations (including model report used for calculation) for all BMPs proposed. Provide calculations in appendix.
	* If an Emerging Technology is proposed, include the most current Use Level Designation as an attachment/appendix to the SSP Report.

(Provide BMP name(s) and number(s) here)

### Minimum Requirement #7 – Flow Control

1. Description of Compliance Need

(Describe the reason the project must comply (or is not required to comply) with Minimum Requirement #7 – Flow Control)

(Describe the requirements for each Threshold Discharge Area)

1. Compliance Mechanism(s)
2. Describe flow control type required (ex. Forested, existing).
* If any areas are not being mitigated for flow control that would require flow control provide an explanation as to why. Provide Exception/Adjustment justification as required by SWMM.

(Describe flow control type required as outlined above)

1. Provide a flow basin map clearly showing surfaces requiring flow control and surfaces receiving flow control (facility contributing areas).

Provide a flow basin map clearly showing surfaces requiring flow control and surfaces receiving flow control (facility contributing areas) as follows. The map shall include a table that provides the square footage of each area described below which corresponds to the map. More than one map may be required to clearly delineate all required information.

* Outline and square footage of areas requiring flow control.
* Outline and square footage of areas receiving flow control.
* Outline and square footage of areas bypassing flow control.

(Insert figure number and name here and the flow basin map below)

1. State the BMP(s) being used.
* Provide BMP name(s) and number(s).
* Provide sizing calculations for all BMPs proposed. Provide calculations in appendix.
* Provide modeling report showing the Performance Standards have been met. Provide in appendix.

(Provide BMP name(s) and number(s) here)

### Minimum Requirement #8 – Wetlands Protection

1. Description of Compliance Need

(Describe the reason the project must comply (or is not required to comply) with Minimum Requirement #8 – Wetlands Protection)

(Describe the requirements for each Threshold Discharge Area)

1. Compliance Mechanism(s)
2. Describe Level of Protection Required.
	* Include wetland delineation report as attachment/appendix.
	* Include all wetland hydrology calculations. Provide calculations (and associated modeling report) as appendix.
		+ Provide existing and proposed basin maps that clearly show land use conditions and acreages (or square feet) used in the analysis.

(Describe level of protection required)

1. State the BMP(s) being used for mitigation.
* Provide sizing calculations for all BMPs proposed. Provide calculations (and associated modeling report) as appendix.
* If an Emerging Technology is proposed, include the most current Use Level Designation as an attachment/appendix to the SSP Report.
* Provide a stormwater treatment or flow control basin map or both.

(Provide BMP name(s) and number(s) here)

### **Minimum Requirement #9 – Operation and Maintenance**

When an Operation and Maintenance Manual is not required include the following language: This project does not propose to install any permanent stormwater facilities. An Operation and Maintenance Manual is not required.

For facilities that will be maintained by a private property owner include the following language: The Operation and Maintenance Manual is available as a stand-alone document as part of the Permit submittal.

For facilities that will be maintained by the City of Tacoma include the following language: The City of Tacoma is responsible for creating and keeping an Operation and Maintenance Manual for all facilities that will be maintained by the City of Tacoma.

## Additional Protective Measure – Infrastructure Protection

1. **Description of Compliance Need**

(Describe the reason the project must comply (or is not required to comply) with Additional Protective Measure – Infrastructure Protection)

1. **Compliance Mechanism(s)**
	1. If required, include the complete Single Segment Capacity Analysis, Inlet and Gutter Capacity Analysis, or Full Backwater Analysis.

Include:

* All model assumptions including tailwater assumptions.
* All model outputs as an attachment/appendix to the SSP Report.
* Include a diagram or map showing the pipe segments, inlets, and gutter sections analyzed. Include:
* Pipe type
* Slope
* Inlet type
* Downstream survey if required by Environmental Services/Site Development Group.
* Provide existing and proposed basin maps that clearly show land use conditions and acreages (or square feet) used in the analysis.
* Provide analysis results including:
	+ Hydraulic gradeline
	+ Locations where stormwater overtops the conveyance system.

(Include a narrative that discusses the results of the analyses here)

* 1. Proposed mitigation measures.

(Describe proposed mitigation measures. Include design calculations (as appendix) used for sizing the proposed mitigation measures)

## Conveyance System Design

1. **Include all information necessary to show how the conveyance system was designed.**

Include the following as applicable:

* A narrative that discusses all results and clearly describes compliance with design criteria.
* All model assumptions including tailwater assumptions.
* A diagram or map showing the pipe segments, inlets, and gutter sections analyzed. Include:
* Pipe type
* Slope
* Inlet type
* Downstream survey if required by Environmental Services/Site Development Group.
* Existing and proposed basin maps that clearly show land use conditions and acreages (or square feet) used in the analysis.
	+ Show subbasin for each inlet to the system.
	+ Provide contours/elevations used to determine flow paths at a basin level.
* Provide analysis results including:
	+ Hydraulic gradeline
	+ Inlet and Rim Elevations relevant to hydraulic gradeline for all necessary design events.
* All model outputs as an attachment/appendix to the SSP Report.

(Insert conveyance system design information)

# Appendices

## Soils Report

The Soils Report is available as a stand-alone document as part of the Permit submittal. It is titled: (Insert Title and Document Date)

## Wetland Delineation Report

The Wetland Delineation Report is available as a stand-alone document as part of the Permit submittal. It is titled: (Insert Title and Document Date)

## Stormwater Treatment Calculations

Include all the design calculations and the complete continuous simulation model and/or single event model reports here.

Clearly label every sheet of the modeling outputs to correspond with the narrative conclusions and analysis. Provide labels or notes within the output report to clearly correlate input/output numbers used in calculations.

## Flow Control Calculations

Include all the design calculations and the complete continuous simulation model and/or single event model reports here.

Clearly label every sheet of the modeling outputs to correspond with the narrative conclusions and analysis. Provide labels or notes within the output report to clearly correlate input/output numbers used in calculations.

## Wetlands Protection Calculations

Include all the design calculations and the complete continuous simulation model and/or single event model reports here.

Clearly label every sheet of the modeling outputs to correspond with the narrative conclusions and analysis. Provide labels or notes within the output report to clearly correlate input/output numbers used in calculations.

## Infrastructure Protection Calculations

Include all the design calculations and the complete continuous simulation model and/or single event model reports here.

Clearly label every sheet of the modeling outputs to correspond with the narrative conclusions and analysis. Provide labels or notes within the output report to clearly correlate input/output numbers used in calculations.

## Infrastructure Protection Calculations

Include all the design calculations and the complete continuous simulation model and/or single event model reports here.

Clearly label every sheet of the modeling outputs to correspond with the narrative conclusions and analysis. Provide labels or notes within the output report to clearly correlate input/output numbers used in calculations.

## Emerging Technology Use Level Designations

(Include the Use Level Designation(s))

## Relevant Historical Reports

(Include relevant historical reports)