

FORM #B109 (COMBINES BOTH FORMER #B109 & #B110)

City of Bainbridge Island - Development Division

Residential Surface & Stormwater Management (SSWM) Plan

For City Use Only:
Date Stamp

For City Use Only:

Project Number: _____



Applicant's Name: _____ Assessor Tax Parcel #: _____

Project Name: _____ Contact e-mail: _____

All information in this worksheet is required to be filled out for your permit application to be accepted.

Section 1 General Information

1. Size of property: _____

2. Total proposed disturbed area: _____ square feet

Disturbed area must be clearly shown on the submitted site plan. (This includes areas disturbed for installation of wells, septic drain fields, site preparation for structures, lawn and landscaped areas, and any additional clearing or logging)

3. Total (new + replaced) impervious (hard) surface area: _____ square feet.

(This includes all new or redeveloped driveways, patios, walkways, covered decks and structures.)

4. Total volume of proposed cut: _____ Total volume of proposed fill: _____

5. Does your property have any of the following features? Check all that apply:

- Waterfront lot
- Slopes greater than 15%
- Slopes greater than 40%
- Areas of property that are depressions, bogs, seeps, or that have known wetlands or seasonal standing water.
- Stream, creek, or ravine with running water at least part of the year.

6. Will any construction activity or land-disturbing activity including cutting of trees, occur on or within 200 feet of any of the features noted in Question 5?

- Yes
- No

Section 2-Thresholds for Review

Engineered Stormwater Management Plan

DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT: 280 MADISON AVENUE NORTH • BAINBRIDGE ISLAND, WA • 98110-1812
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If you are:

- Adding 5,000 square feet or more of new impervious (hard) surfaced, and/or
- Are converting $\frac{3}{4}$ acres or more of native vegetation to lawn or landscaped areas, or
- Converting 2.5 acres or more of native vegetation to pasture.

STOP HERE. You must have an Engineered Stormwater Management Plan.

*If the total new plus replaced impervious (hard) surfaces equal 5,000 square feet or more, AND the value of the proposed improvements-including interior improvements- exceed 50% of the assessed value (or replacement value) the existing site improvements, **STOP HERE.** You must have an Engineered Stormwater Management Plan.*

*If the answer to Section 1, #6 is “YES”, **STOP HERE.** You must have an Engineered Stormwater Management Plan.*

Onsite Surface & Stormwater Management

*If the project disturbs **less than 7,000 square feet** of land and create **less than 800 square feet** of new or replaced impervious surface area, then, in most cases, onsite stormwater mitigation and a stormwater pollution prevention plan (SWPPP) **are not required.** However, basic erosion and sediment control measures must still be implemented.*

EXCEPTION: Development in critical drainage areas, based on site features identified in Section 1 Question #5, may require an Engineered Stormwater Management Plan.

*If the new, replaced, or new plus replaced impervious surfaces total 800 square feet or more, or project work disturbs 7,000 square feet or more of land you must prepare a SWPPP as part of the Surface & Stormwater Management (SSWM) Plan. The SWPPP consists of both a **plan** and a **narrative**; the narrative includes a list of 12 erosion control elements that must be addressed. The SWPPP narrative in Section 3. Complete this section and it can be used as the SWPPP narrative – a copy should be at the construction site at all times.*

All developments that create or add 800 square feet or more of impervious surface shall mitigate those impervious surfaces to match the predevelopment condition groundwater recharge using one or more of the stormwater mitigation Best Management Practices (BMPs) found in Chapter 3 Volume III, and Chapter 5 of Volume V of the *Washington State Department of Ecology Stormwater Management Manual for Western Washington* ([SWMMWW](#)). The Surface & Stormwater Management Plan is described in Section 4.

All development that have land disturbing activity of 7,000 square feet or more are required to submit a Soil Management Plan. A soil management plan provides guidance to help restore soil conditions where pollution generating pervious surfaces are located.

Submittals

The following SSWM items be submitted in order to begin processing your application:

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- SWPPP narrative** in Section 3.
- SWPPP drawings** (2 copies on minimum 11" x 17" paper; drawn to scale. See [SWPPP plan](#).)
- Onsite Surface & Stormwater Management** method, identified in Section 4, and shown on the SWPPP drawings.
- Soil Management Plan** (Required for projects that disturb 7,000 square feet or more of area.) The default pre-approved rates are:
 - In planting beds, place 3 inches of compost and till in to an 8 inch depth;
 - In turf areas, place 1.75 inches of compost and till in to an 8 inch depth.

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Section 3 - Stormwater Pollution Prevention Plan (SWPPP) Narrative

Every Construction Stormwater Pollution Prevention Plan (SWPPP) must address the 12 required elements from the Washington State Department of Ecology [SWMMWW](#).

Check the suggested BMP you will use to satisfy the required element and identify location on the stormwater site plan. If an element does not apply to your proposal, provide a written justification identifying the reason an element is not applicable to the proposal.

1. **Mark the Area Disturbed by Construction Activity.** Describe the total disturbed area (grading, building pad, driveway, septic installation, etc.) and reference how you will clearly mark the area of disturbance.

- BMP C101 – Preserving Natural Vegetation
 - BMP C102 - Buffer Zones
 - BMP C103 – High Visibility Plastic or Metal Fence
 - BMP C104 – Stake and Wire Fence
-
-

2. **Establish Construct Access.** Describe construction access.

- BMP C105 – Stabilized Construction Entrance
 - BMP C106 – Wheel Wash
 - BMP C107 – Construction Road/Parking Area Stabilization
 - Not applicable – Existing access will prevent tracking of sediment onto public right-of-way
-
-

3. **Control Flow Rates.** If there is substantial grading and/or the potential for stormwater runoff to flow off site during construction then one of the two BMPs must be identified and shown on the site plan.

- BMP C240 – Sediment Trap
 - BMP C241 – Temporary Sediment Pond
 - Not applicable – Very little grading and/or site does not experience site runoff during storm events
-

4. **Install Sediment Controls.** When there is grading on a site and the site is sloped, there is a potential for sediment to leave the site during storm events. Please identify a BMP below if your site has any slope to it.

- BMP C231 – Brush Barrier
- BMP C232 – Gravel Filter Berm
- BMP C233 – Silt Fence
- BMP C234 – Vegetated Strip

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- BMP C235 – Straw Wattles
 - Site is flat and no potential for sediment to leave the site exists
-
-
-

5. **Stabilize Soils.** All exposed soil must be protected from rainfall and wind erosion. From October 1 through April 30, no soil shall remain exposed and unworked for more than 2 days. From May 1 to September 30, no soils shall remain exposed and unworked for more than 7 days.

- BMP C120 – Temporary and Permanent Seeding
 - BMP C121 – Mulching
 - BMP C122 – Nets and Blankets
 - BMP C123 – Plastic Covering
-
-
-

6. **Project Slopes.** If the property has slopes, they must be protected from erosion if work is done on or near them.

- BMP C120- Temporary and Permanent Seeding
 - BMP C130 – Surface Roughening
 - BMP C131 Gradient Terraces
 - Not Applicable – The property does not have any slopes nor are there any slopes within 100 Feet of the project boundaries
-
-
-

7. **Protect Drain Inlets.** Storm drains shall be protected from sediment entering them.

- C220 – Storm Drain Inlet Protection
- Not Applicable – There are no storm drains on the property or within 100 feet of the stabilized construction access.

8. **Stabilize Channels and Outlets.** If temporary on-site conveyance channels are used, they must be stabilized to protect against erosion.

- BMP C202 – Channel Lining
- BMP C209 – Outlet Protection
- Not Applicable – Temporary on-site conveyance channels are not used for this project.

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9. **Control Pollutants.** All pollutants shall be handled and disposed of in a manner that does not cause contamination of stormwater. Please identify any BMP used for the project.

- BMP C151 – Concrete Handling
- CMP C152 – Sawcutting and Surfacing Pollution Prevention
- Above BMP not expected to be necessary, however all necessary precautions will be taken to ensure pollutants are handled and disposed of in a safe manner

10. **Control De-Watering.** If the site is expected to experience ponding and/or foundation is left in a manner that encourages water ponding, then the applicant shall make necessary plans to discharge the water in a manner that ensures it is safely cleaned before being discharged. Describe the plan for dewatering below.

- Not applicable. Site does not experience ponding and foundation will be kept dry such that water accumulation does not occur.

11. **Maintain BMPs.** All temporary and permanent erosion and sediment control BMPs shall be maintained and repaired as needed to assure continued performance of their intended function.

- BMPs will be checked weekly and immediately after storm events.
- Other: _____

12. **Managing the Project.** Phasing of the project is encouraged to prevent soils from being exposed for extended periods of time. Please describe how you will be planning your project to ensure that construction impact and soil exposure is limited.

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Section 4 – Identify Onsite Surface & Stormwater Management

Typical methods of providing stormwater control include the following practices: infiltration trench/pit, raingardens, and dispersion. For more options, please refer to the [Kitsap County Low Impact Design \(LID\) Manual](#). Please check which option(s) you are choosing below and provide the supplemental information listed.

- Infiltration Trench/Pit (Note: water quality treatment is required for impervious surfaces subject to vehicular traffic.)**
 - Location of infiltration trench/pit shown to scale on SWPPP drawings.
 - A soil analysis of the soil in the immediate area where the infiltration trench/pit is proposed. Sample must be obtained at a depth between 3.5 to 4 feet below the ground surface. This analysis will determine the percent of soil retained by a #200 sieve and provides the information necessary to determine the trench/pit size for your project.
 - Distance from existing grade to hardpan (or seasonal high water table) is: _____ feet. (Note: you must have a minimum 12” to hardpan or seasonal high water from the trench bottom in order to use this option.)
 - All infiltration systems shall be located at least 10 feet from any structure, property line, or sensitive area.
 - All infiltration systems must be at least 200 feet from the top or bottom of any sensitive area steep slopes. This setback may be reduced based on a geotechnical evaluation, but in no instances may it be less than the required buffer width.
 - For sites with septic systems, infiltration systems must be down-gradient of the drainfield unless the site topography clearly prohibits subsurface flows from intersecting the drainfield. Down-gradient individual home infiltration systems must be at least 10 feet from any primary or reserve drainfield. See Kitsap County Health District Regulations for more details on setbacks to on-site sewage systems and wells.

- Raingarden**
 - Documentation of design and sizing using the [Rain Garden Handbook for Western Washington](#) and our [Rain Garden Sizing and Design Worksheet](#) or another approved guide.
 - Location of raingarden shown to scale on the SWPPP drawings.
 - Distance from existing grade to hardpan (or seasonal high water table) is: _____ feet. (Note: you must have a minimum 12” to hardpan or seasonal high water from the raingarden bottom in order to use this option.)
 - All raingardens shall be located at least 10 feet from any structure, property line or sensitive area.
 - All raingardens must be at least 200 feet from the top or bottom of any sensitive area steep slopes. This setback may be reduced based on a geotechnical evaluation, but in no instances may it be less than the required buffer width.
 - For sites with septic systems, rain gardens must be located at least 30 feet away from both the primary and reserve drainfield.

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Dispersion Trench

- Location of dispersion trench (For every 700 square feet of rooftop area; 10 lineal feet of trench length is required) shown on SWPPP drawings.
- Dispersion trenches require that up to 65% of your property be left in a natural vegetative state. (See the [Kitsap County LID Manual](#) Table 5.1 for guidance.)
- A site plan is required which clearly shows the area preserved in a natural vegetative state. This site plan will accompany a covenant (prepared by the city) which states you are preserving this area for stormwater mitigation. This covenant must be recorded prior to final inspection.
- Distance from existing grade to hardpan (or seasonal high water table) is: _____ feet. (Note: you must have a minimum 12" to hardpan or seasonal high water in order to use this option.)

Other (describe the options you wish to use. Refer to the [Kitsap County LID Manual](#) for guidance and requirements. Attach additional information for sizing.

Section 5 – Soil Management Plan

PROJECT INFORMATION

Page # ____ of ____ pages

Complete all information on this page; only site address and permit number on additional pages.

Site Address / Lot No.: _____	
Permit Type: _____	Permit Number: _____
Permit Holder: _____	Phone: _____
Mailing Address: _____	
Contact Person: _____	Phone: _____
Plan Prepared By: _____	

ATTACHMENTS REQUIRED (Check off required items that are attached to this plan)

<input type="checkbox"/> Site Plan showing, to scale:	<input type="checkbox"/> Areas of undisturbed native vegetation (no amendment required)
	<input type="checkbox"/> New planting beds and turf areas (amendment required)
	<input type="checkbox"/> Type of soil improvement proposed for each area
<input type="checkbox"/> Soil test results (required if proposing custom amendment rates)	
<input type="checkbox"/> Product test results for proposed amendments	

AREA # _____ (should match Area # on Site Plan)

PLANTING TYPE <input type="checkbox"/> Turf <input type="checkbox"/> Undisturbed native vegetation <input type="checkbox"/> Planting Beds <input type="checkbox"/> Other: _____		
SQUARE FOOTAGE OF THIS AREA: _____ square feet		
SCARIFICATION		
<input type="checkbox"/> Subsoil will be scarified	_____ inches (depth) of scarification needed to achieve finished total 12" loosened depth.	
PRE-APPROVED AMENDMENT METHOD:	_____ inches of compost or imported topsoil applied	PRODUCT: _____
<input checked="" type="checkbox"/> Topsoil import	X <u>3.1</u> (conversion factor, inches to cubic yards)	_____
<input type="checkbox"/> Amend with compost	_____ = cu. yards per 1,000 sq. ft.	QUANTITY: _____ CU. YDS.
<input type="checkbox"/> Stockpile and amend	X _____,000s sq.ft. in this area	
(_____ cu. yds. stockpiled)	_____ = cubic yards of amendment → → → → →	
	(needed to cover this area to designated depth)	
CUSTOM AMENDMENT	Attach test results and calculations.	PRODUCT: _____
<input type="checkbox"/> Topsoil import	_____ inches organic matter or topsoil import	_____
<input type="checkbox"/> Topsoil & compost lift	X <u>3.1</u>	QUANTITY: _____ CU. YDS.
<input type="checkbox"/> Amend	_____ = cu. yards / 1,000 sq. ft.	
<input type="checkbox"/> Stockpile and amend	X _____,000s sq.ft. in this area	
(_____ cu. yds. stockpiled)	_____ = cubic yards of amendment → → → → →	
MULCH	_____ ,000 sq.ft.	PRODUCT: _____
	X <u>6.2</u> (conversion, to give 2 inch mulch depth)	QUANTITY: _____ CU. YDS.
	_____ = cubic yards of mulch → → → → →	

TOTAL AMENDMENT/TOPSOIL/MULCH FOR ALL AREAS (complete on page 1 only, totaling all areas/pages in this Plan)

<input type="checkbox"/> Product #1: _____	<input type="checkbox"/> Quantity: _____ cu. yds.
<input type="checkbox"/> Test Results: _____ % organic matter _____ C:N ratio <25:1 (except mulch, or <35:1 for native plants)	_____ "stable" (yes/no)
<input type="checkbox"/> Product #2: _____	<input type="checkbox"/> Quantity: _____ cu. yds.
<input type="checkbox"/> Test Results: _____ % organic matter _____ C:N ratio <25:1 (except mulch, or <35:1 for native plants)	_____ "stable" (yes/no)
<input type="checkbox"/> Product #3: _____	<input type="checkbox"/> Quantity: _____ cu. yds.
<input type="checkbox"/> Test Results: _____ % organic matter _____ C:N ratio <25:1 (except mulch, or <35:1 for native plants)	_____ "stable" (yes/no)

COMMENTS: _____