

## Checklist LID.02

### Soil Preservation and Amendment BMP

This checklist reflects most, but not necessarily all of the items that will be reviewed by the Development Review. It is intended to be used as an aid by us to provide a consistent review of development work in Thurston County. All items may not be applicable in the review of each project and all items of concern to this office may not be covered on this checklist.

Y	N	
		<b>MODELING AND SIZING</b>
		Lawn and landscape areas that meet the requirements of this BMP are modeled as “pasture” rather than “lawn” surface over the underlying soil (till or outwash).
		<b>DESIGN CRITERIA</b>
		<b>Retain and Protect Undisturbed Soils</b>
		Existing vegetation and soils are left undisturbed and are protected from compaction during construction.
		No materials or equipment are stored on existing vegetation and soils during construction.
		<b>Soil Amendment</b>
		Topsoil layer is a minimum of 8 inches in depth
		Topsoil pH is 6.0 to 8.0, or matches the pH of the original undisturbed soil.
		Topsoil layer in turf areas achieves a minimum organic matter content of 4 percent (target of 5 percent).
		Topsoil layer in planting beds achieves a minimum organic matter content of 8 percent (target of 10 percent).
		Subsoils are scarified below the topsoil layer at least 4 inches for a finished minimum depth of 12 inches of uncompacted soil.
		For turf installations, soil is compacted to 85 percent of maximum dry density.
		For turf installations, surface is level and no woody debris or rocks over 1 inch diameter remain.
		For planting beds, 2 to 4 inches of organic material such as arborist wood chips, bark, shredded leaves, or compost is provided.
		Compost meets organic content requirements either by using “pre-approved” amendment rates or calculated amendment rates.
		<b>Stockpile Soil</b>
		Areas requiring cuts have removed the upper native topsoil and stockpiled for replacement onsite.
		Soil organic matter is determined using the most current version of ASTM D2974 “Test Methods for Moisture, Ash, and Organic Matter of Peat and Other Organic Soils” and TMECC 05.07A “Loss-On-Ignition Organic Matter Method. Results of soil analysis are submitted to the County along with proposed soil mix to meet soil requirements.
		The depth of upper native soils that is stockpiled is the entire depth of the native topsoil horizon, but no more than 3 feet.

Y	N	
		Stockpiled soils are amended as needed and applied as described in Soil Amendment above.
		Underlying cemented layers are ripped and scarified to a depth of 6 inches, and stockpiled soils are thoroughly mixed into the ripped till layer.
		Stockpiled soils are reapplied in layers no greater than 1 foot.
		<b>Importing Soil</b>
		For turf installations, an imported topsoil mix that contains 20 percent compost and 80 percent mineral soil (by volume) is used.
		For planting beds, an imported mix that contains 35 percent compost and 65 percent mineral soil (by volume) is used.
		Imported topsoil is applied as described in Soil Amendment above.
		<b>CONSTRUCTION CRITERIA INCLUDED IN THE SWPPP</b> (SWM Volume II, Section 3.3)
		Root zones where tree roots limit the depth of incorporation of amendments are exempted from soil preservation and amendment requirements. Root zones are fenced and protected from stripping of soil, grading, or compaction to the maximum extent practical.
		Topsoil or other materials are not relocated to areas where they can cover critical root zones, suffocate vegetation, or erode into adjacent streams.
		Small stockpiles are covered with weed barrier material that sheds moisture yet allows air transmission. Large stockpiles are seeded and/or mulched.
		Materials are stockpiled in areas designated for clearing and grading (such as parking areas and future impervious roadways) and away from infiltration and other stormwater facilities.
		The soil preservation area is clearly identified (e.g., using flagging or high visibility fencing) and protected prior to construction.
		A soil and vegetation management plan is provided showing areas to be protected and restoration methods for disturbed areas.
		Construction SWPPP sheets outline construction sequencing that will protect the soil preservation area during construction.
		Construction SWPPP BMPs and protection techniques are implemented as applicable. The upslope of construction areas are stabilized and overland flow distances are minimized.
		Operate machinery outside of soil preservation area during construction.
		No placement of topsoils during wet or saturated conditions.
		<b>INSPECTION CRITERIA</b>
		The soil preservation and amendment BMP meets applicable design and construction criteria (see * in Design and Construction Criteria above).

Table 2.2. Soil Management Plan for BMP LID.02

## PROJECT INFORMATION

Page # \_\_\_\_ of \_\_\_\_ pages

Complete all information on page 1; 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)

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

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

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

Date: _____	Inspector: _____	Accepted: _____	Revisions Required: _____
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