

APPENDIX G: BMP SUITABILITY MATRIX

BMP SUITABILITY MATRIX																											
Effectiveness level *** H Very Effective M Moderately Effective L Supports Function Not Applicable	Water Quality		Water Quantity			Site Conditions					Drainage Area				Land Use						Land Ownership		Development Type				
	On-site	Downstream	Flow Control	Evaporation	Aquifer Recharge	Steep Slopes	High Groundwater	Shallow Bedrock	Slow Draining Soils	Expansive Clay Soils	Contaminated Soils	Rooftops	Roadways	Sidewalks	Landscapes	Single-family Residential Lot	Subdivisions & Campuses of any land use	Commercial	Institutional	Roads and Public Right-of-Way	Industrial	Private	Public	Retrofit	Redevelopment	New Development	
<b>Prevent Runoff: Minimize Impervious Area BMPs</b>																											
Share Parking Spaces BMP	M	H	L	M	L	3	3	3	3	3	3		3				2	3	2		1	2	2	2	2	3	
Minimize Front Setbacks BMP	M	H	L	M	L	3	3	3	3	3	3		3	3		3	2		2			3	2		1	3	
<b>Prevent Runoff: Limit Disturbance BMPs</b>																											
Construction Sequencing BMP	H	H	L	L	L	3	3	3	3	3	3					3	3	3	3	3	3	3	3	3	3	3	
Conserve Fast(er) Draining Soils	M	H	L	M	L	3	3	3	3	3	3			3		3	3	3	3	1	3	3	3	3	3	3	
Cluster Development BMP	H	H	L	H	L	3	3	3	3	3	3	3	3	3		3	2	2		2	3	3		1	2		
Tree Protection BMP	H	H	L	M	L	3	3	3	3	3	3	2	3	3		3	2	2	3	2	3	3	3	2	2		
Minimal Foundation BMP	L	M	H		L	3	3	3	3	3	3				3	2	3	3		3	3	3		1	3		
<b>Prevent Runoff from Landscape and Hardscape Areas</b>																											
Restored Soils BMP	H	H	L	M	M	3	3	3	3	3				3	3	3	3	3	3	2	3	3	3	3	3	3	
Tree Planting BMP	M	H	M	M	M	3	3	3	3	3	3	1	2	2	3	2	3	1	2	2	2	3	3	3	3	3	
Depave Existing Pavement BMP	M	H	M	M	M	3	3	3	3	3	3		2	2		2	3	2	3	2	2	3	3	3	2		
Contained Planter(s) BMP	M	M	L	H		3	3	3	3	3	3	2	3	3		3	3	3	2	2	3	3	3	3	2		
Vegetated Roofs (Green Roofs) BMP	M	M	M	H		3	3	3	3	3	3				2	2	3	2		3	2	3	1	2	3		
Porous Pavement (Rainfall) BMP	H	H	H		H		1	1	3			3	3		2	2	3	3	2	2	2	3	1	1	3		
<b>Reduce Runoff from Landscape and Hardscape Areas</b>																											
Porous Pavement (Runoff) BMP	H	H	H		H		1	1	3			3	2	2		2	3	3	3	3	3	2	3	1	1	3	
Infiltration Rain Garden, LID Swale, or Stormwater Planter BMP	H	H	H	M	H				2	3		3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	
Soakage Trench BMP*	H	H	H		H		1	1	2			3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
Drywell BMP**	H	H	H		H		1	3		2		3	2	2	1	3	3	3	3	3	3	3	3	3	3	3	
WQ Conveyance Swale BMP	M	L	L	L	L	3	3	3	3	3		3	3	3	3	1	3	3	3	3	3	3	3	3	3	3	
Dispersion: Vegetated Filter Strips BMP	M	L	L	L	L		1	1	3	3		1	3	3	3	3	3	2	3	3	2	3	3	3	3	3	
Dispersion: Downspout Disconnection BMP	M	L	L	L	L		1	1	3	3		3				3	3	2	3		2	3	3	3	3		
<b>Provide Minimal Water Quality Treatment of Runoff from Landscape &amp; Hardscape Areas:</b>																											
Lined Rain Garden, LID Swale, or Stormwater Planter BMP	H	L	L	M		3	3	3	3	3	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	
<b>Wet, Extended Wet, and Dry Detention Ponds</b>																											
Wet Pond	L	L	H	M	L	1	3	3	3	3		2	3	3	3		3	3	3	2	3	3	3	3	3	3	
Extended Wet Pond	M	M	H	M	L	1	3	3	3	3		2	3	3	3		3	3	3	2	3	3	3	3	3	3	
Dry Detention Pond*****	L	L	H	L	L	3	3	3	3	3		2	3	3	3		3	3	3	2	3	3	3	3	3	3	

Use the LID Implementation Form to apply BMPs in the preferred order (i.e. stormwater hierarchy). Brief descriptions of column headings are as follows (see Chapter 4 for additional information):

- Water Quality.** Indicates which BMPs address water quality on-site and which substantially reduce runoff volume to protect against erosion and subsequent re-pollution of downstream waterways.
- Drainage Area.** Indicates which BMPs can be applied to which surfaces.
- Challenging Sites.** Indicates which BMPs are feasible at sites where infiltration of runoff is not recommended.
- Flow Control.** Indicates which BMPs serve as a substitute for a detention basin (i.e. are effective for flood control).
- Land Use.** Indicates the land uses/zoning classifications where LID can and has been implemented in Oregon.
- Ownership.** Indicates which BMPs may be used in private development or public development.
- Development Type.** Indicates which BMPs may be used in a retrofit, redevelopment or new development.

\*Soakage trenches under pavement are not suitable for expansive soils, but are well suited under landscape areas with expansive soils.  
 \*\* With adaptations, drywells may sometimes be used below contaminated soils. See Chapter 4 "Drywells BMP".  
 \*\*\* Effectiveness level assumes the BMP is acting as a stand alone BMP under average conditions. When BMPs are used in a conjunction with others (e.g. any "Minimize Impervious Area BMPs" are combined with "Restored Soils BMP") their effectiveness tends to increase.  
 \*\*\*\*Suitability level accounts for general difficulty in implementing or use by stakeholders under average conditions.  
 \*\*\*\*\*Water quality can be addressed when modified to have a vegetated swale.

Table G-1. Use the BMP Suitability Matrix to identify potential BMPs in early planning. Consider printing this table out for easy reference when planning projects, and revisit it as the site plan changes.