

3.3 Rain Gardens

Rain gardens are excavated depressions lined with amended soil and planted with vegetation capable of thriving in wet soil in the winter and dry conditions in the summer. Raingardens provide bioretention, a process in which storm runoff partially infiltrated, partially absorbed by the plants and filtered by the vegetation and soil. Depending on the size and project site soils, it should be expected that ponding or overflows occur in larger precipitation events or when there are periods of sustained rainfall. Rain gardens, however, can be among the simplest and easiest to maintain stormwater BMPs.

The surface area of a Raingarden, as measured just below the overflow/outlet elevation, shall be at least 5% of the surface area draining to it.

Rain gardens have a minimum ponding depth of 6-inches.

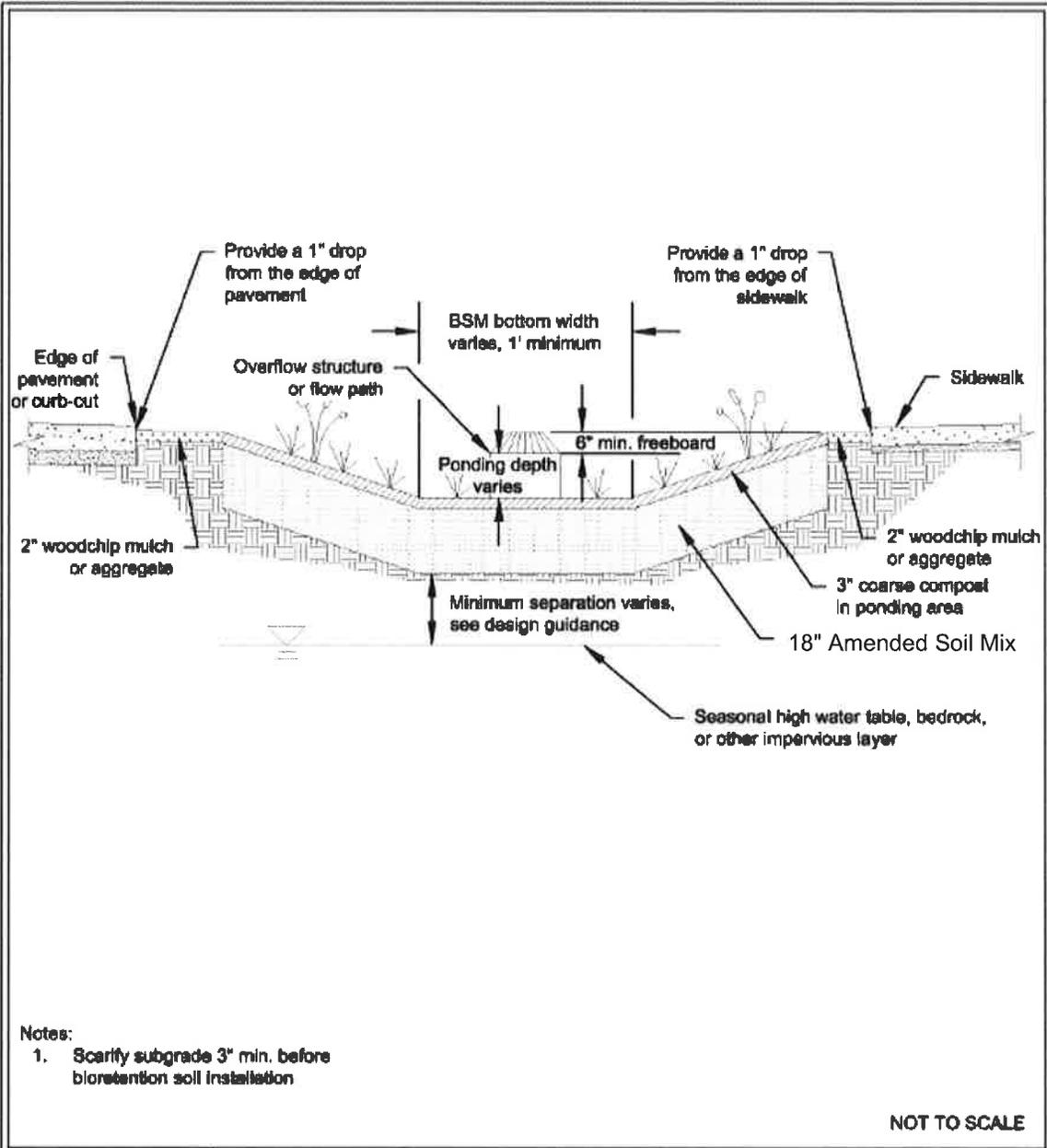
Pro Tip:

- Bioretention soils are very sensitive to over compaction. Construction must take place during good weather. Care must be taken to not compact during the installation of the plans.
- Raingardens will have ponding water in them during, and after, precipitation events.
- Refer to the Raingarden Handbook for Western Washington, Curtis Hinman - June 2013 (<https://apps.ecology.wa.gov/publications/documents/1310027.pdf>)
- Amended soils shall consist of 65% of the excavated soils + 35% compost. Amended soil shall be placed in the bottom of the raingard and lightly compacted. It is recommended that 6-inches of the amended soils be placed at a time and lightly tamped. Keep foot and vehicles off of the placed soil.
- Refer to the sample planting plans in the Raingarden Handbook link above.

Example: A 3,000 square foot house would require a rain garden with a surface area of 150 square feet.

If you utilize a rain garden to control stormwater runoff, you will need to follow the guidelines below:

- Rain gardens should be located on level to gently sloped ground. Use caution in locating rain gardens on slopes greater than 10%.
- Rain gardens shall be built to the required size as shown in the sizing table above.
- Rain gardens shall have a minimum ponding depth and at least 18-inches of amended soils.
- Side slopes shall be 3 horizontal to 1 vertical or less.
- Be sure to provide an overflow drain path for the rain garden. Outlets may consist of small spill ways or consisting of a 4" pipe. Overflow path shall be inspected and confirmed that overflow stormwater will not have a negative downstream impact.
- The rain garden shall include an additional overflow either by surface sheet flow or stabilized rock spillway to a level spreader, ditch or other stormwater dispersal system.
- The rain garden should be planted with vegetation appropriate for moist and seasonally dry conditions. See Appendix E for a list of recommended plants.



Typical Bioretention

Revised January 2019

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