



low impact development technical workshop series

Bioretention Plants

Topics

Selection

Siting

Soil structure and bioretention Performance

Mulch





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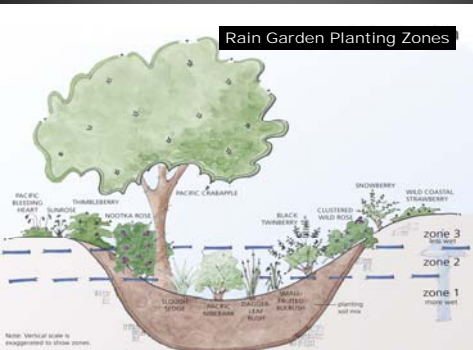
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The PNW (west of the Cascades) has a large plant palette that performs well in rain gardens

Rain Garden Planting Zones



Note: Vertical scale is exaggerated to show zones.

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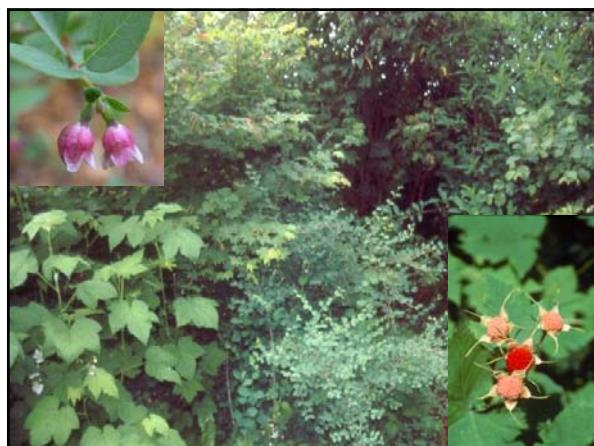
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Primary design considerations for plant selection



- Soil moisture conditions.
- Sun exposure.
- Above and below ground infrastructure.
- Site distances and setbacks along roadways.
- Pedestrian use.
- Adjacent plant communities and potential invasive species control.
- Visual buffering.
- Aesthetics.

bioretention plants

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Bioretention areas rely on a plant-soil system to process pollutants and reduce stormwater volume

- Agricultural literature documents well the role of plants for building soil structure (Buckman and Brady 1969, Angers and Caron 1998).



- City of Portland OR documents increasing infiltration rates in 12-year old commercial parking bioretention areas. 1995-8"/hr, 2005-13"/hr (BES 2006).
- Lucas observes increased phosphate removal in vegetated vs non-vegetated bioretention... removal more than plant uptake.

bioretention plants

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