Controlling Runoff and Pollutants

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Use of Simple Techniques and Native Plants to Control Runoff and Pollutants

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What we'll cover:

- What is runoff and water it carries (pollutants)?
- How do we control runoff
- How do we control erosion
- How to double/triple your return
 - Control runoff, minimize erosion, reduce pollutants, improve aesthetics
- Techniques for controlling runoff
- Techniques for controlling erosion

Runoff

Point Sources of Pollution





Point Sources of Pollution



Non-Point Sources of Pollution





Runoff - Erosion





Erosion – Sedimentation



Methods for Controlling Runoff

- Establish/Maintain Wetlands
- Riparian buffer strips
- Vegetated swales
- Riparian zone preservation
- Minimization of disturbances
- Detention/retention basins
- Green roof systems
- Infiltration enhancement
- Sediment traps
- Rain gardens



Divert!

Check dams/ Buffer strips



Vegetated Swales

Reduces runoff velocities

m

 Filtration of sediment and pollutants

 Increase retention time



Vegetated Buffers

Retention and Detention



Rain Gardens and Swales (A cost effective solution)

- Protect streams and lakes from pollutants specifically erosion/sedimentation
- Recharge local and regional aquifers
- Protect properties from flooding and drainage problems
- Provide valuable habitat for birds/butterflies etc.



What is a Rain Garden?

- A rain garden, or bioretention system, is a native plant garden designed to
 - Retain
 - Absorb
 - Filter

Stormwater runoff.



Designing your Rain Garden



Figure 2.6: Infiltration/Recharge Facility (enhanced infiltration)

Rain Garden Examples



Methods for Controlling Erosion

























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