





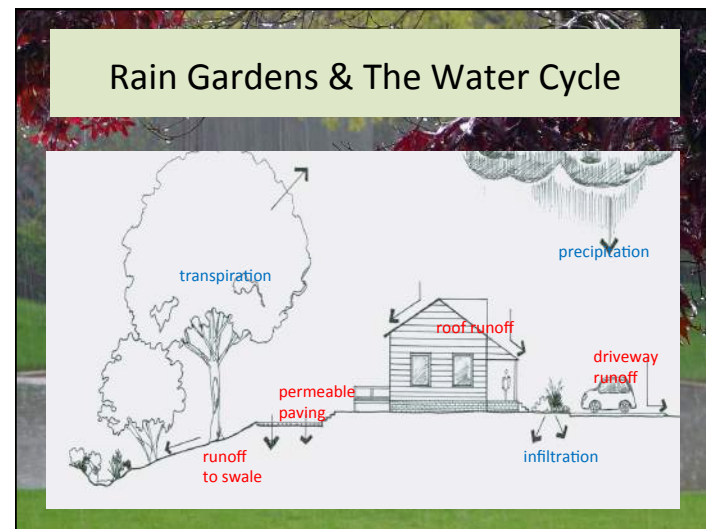
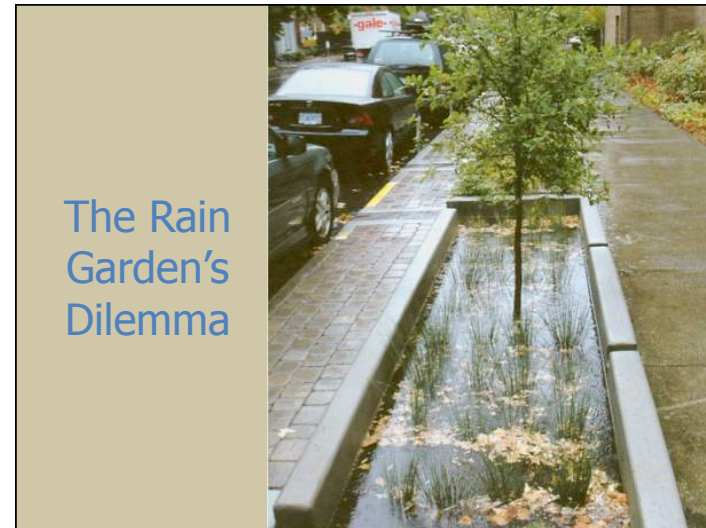
Rain Gardens – Not about Rain

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- Stormwater pollution is the #1 source of water pollution in the U.S.
- More than 1/3 of water pollution comes from urban runoff

Stormwater Issues

Volume	Pollutants
	



Pollutants Filtered by a Rain Garden		
Pollutant	Source	Removal
Metals	Roof shingles, oil, grease, soil	43-97%
Phosphorus	Detergents, fertilizers, pet wastes	65-87%
Nitrogen	Fertilizer, pet waste, organic matter	15-92%

Research: HS + BAE = Power!

- Plants
 - Remediation
 - Garden performance
- Substrates
 - Characteristics
 - Remediation
 - Composition



Filter Bed Substrates

Sand

80% washed sand, 15% clay and silt fines and 5% pine bark (v/v)

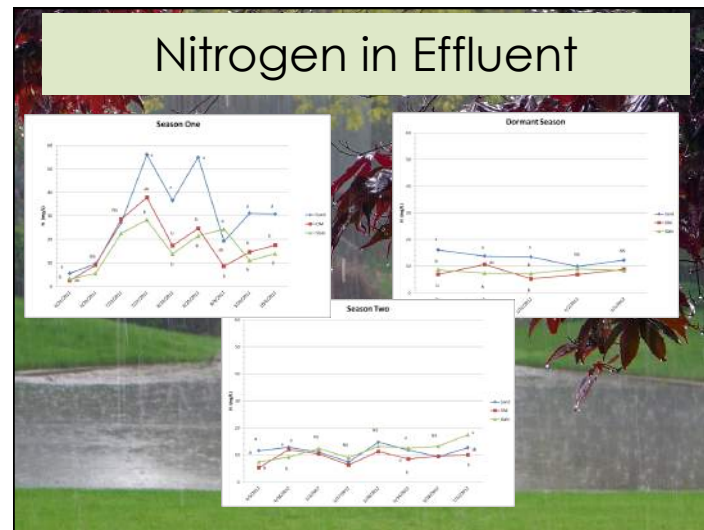
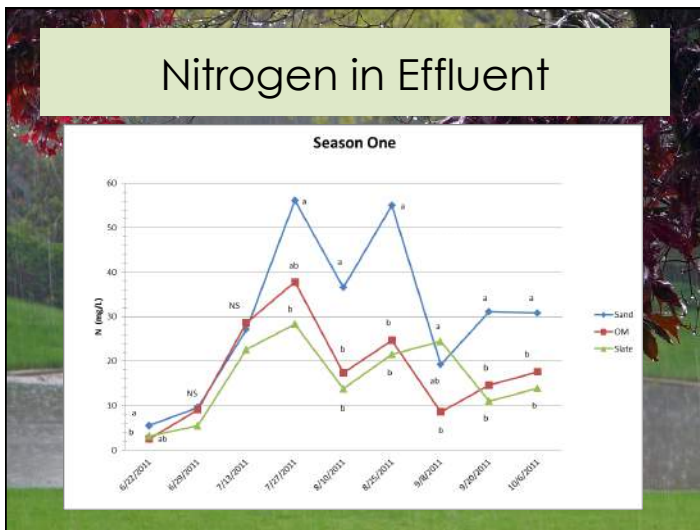
Slate

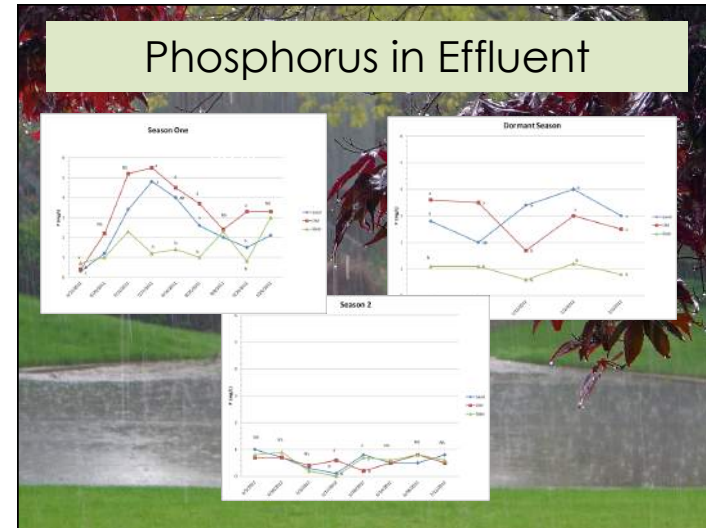
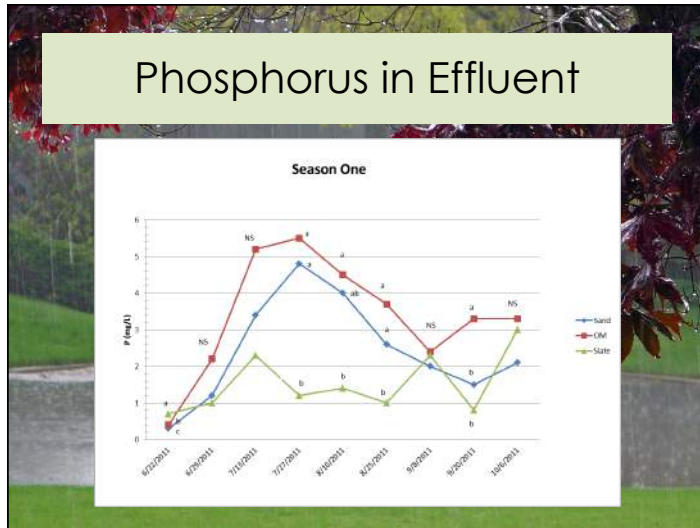
80% MS-16 expanded slate and 20% pine bark fines (v/v)

Soil

50% sandy loam soil with a P index of <30 and 50% pine bark







- ### Summary: Filter Bed Substrate Removal
- Sand
 - Good - except N
 - Soil
 - Good - except P
 - Slate
 - Good both N and P

