

# Storm Water Infiltration Workshop

## Rain Garden Considerations

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A stylized silhouette of a mountain range in shades of teal, located in the bottom right corner of the slide.

# Rain Garden Considerations

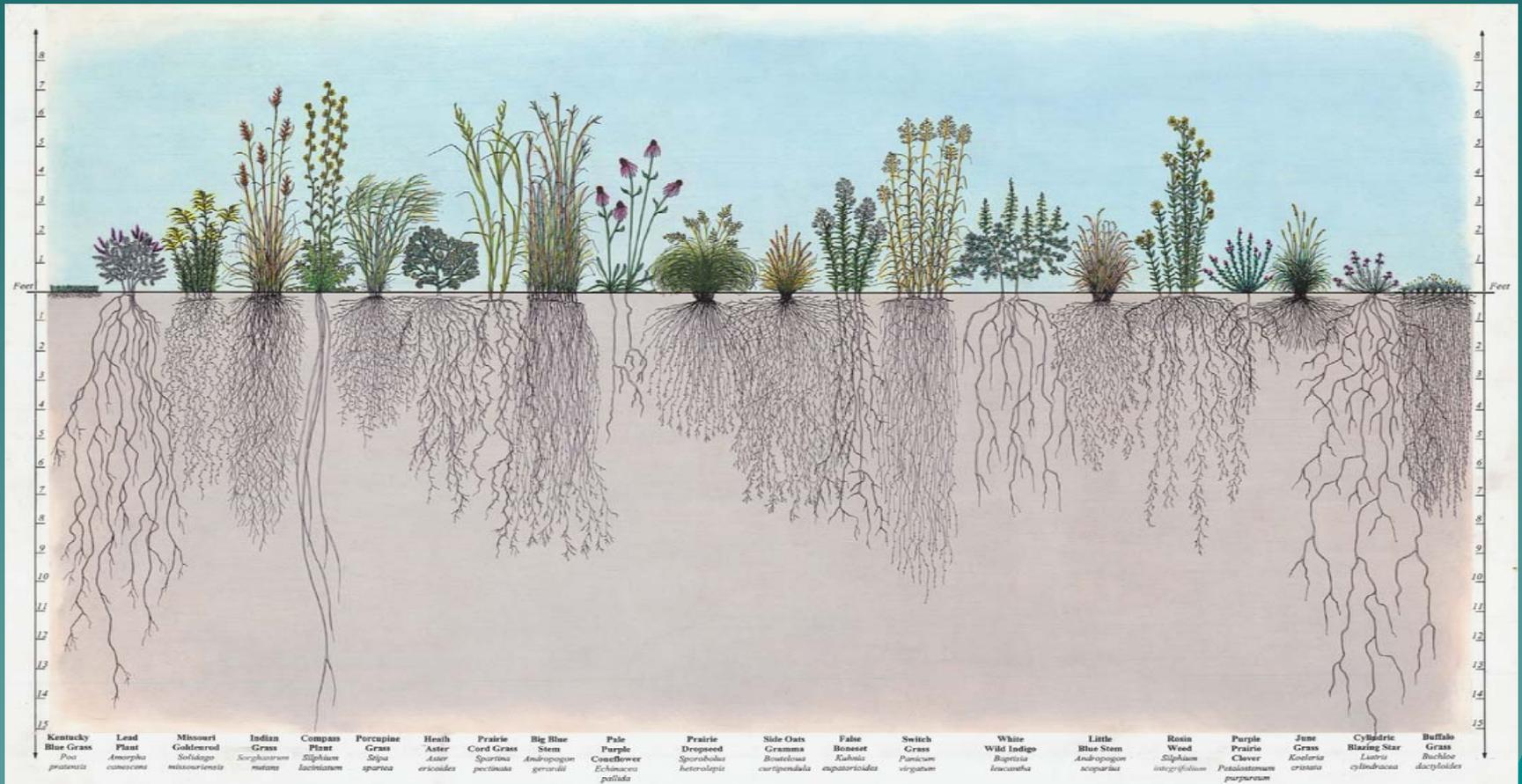
- ◆ 1. Nature's Rain Gardens
- ◆ 2. Man's water movement methods
- ◆ 3. What makes a rain garden valuable?
- ◆ 4. Why does that happen?
- ◆ 5. What can stop it?
- ◆ 6. How do we correct it?
- ◆ 7. Right Plant in the Right Place.

# Rain Gardens

The process of creating shallow depressions using permeable soils and plants capable of tolerating the swings from flooded to dry soils.

Other names: Infiltration Basins,  
Detention Basins, Sedge Meadow,  
Ephemeral Pond.

# Deep Roots Help Water Infiltrate



Root Systems of Prairie Plants

# What prevents a rain garden from functioning?

- ◆ Compaction
- ◆ Sedimentation
- ◆ Poor soil structure
- ◆ Lack of vegetation
- ◆ Poor construction methods

# Compacted soils



# Impervious sub-soils



Hard pan created from Earth-moving activities

# SEDIMENTATION



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# Sedimentation and Soil Structure



# Downspout



# Compaction and Soil Structure



# New Solution: PAM - Polyacrylamide



# Rototilling and Compost



# Sub-soil Preparation



Parabolic Ripper increases soil porosity

# Leveled and Shaped



# Mitigation Rain Garden



# Rainwater Garden



# Swale Fed



# FAQ's

1. Does the garden form a pond? No, it should be sized and designed so that the water is absorbed within days.
2. Are they breeding grounds for mosquitoes? No, they should drain dry before the eggs hatch.
3. Do they have to be level? No, but the more area available for the water to soak in the better.
4. Do they have to use native plants? No, but the plants do have to be able to tolerate the fluctuation of the rain events.

# FAQ's

5. Do they have to be 10' from a basement? Ideally yes so that you do not cause hydrologic pressure (leaks) into your basement.
6. Can I use seed instead of live plants? Yes, especially in larger gardens (acres). Generally seed can not establish in the fluctuating water levels.
7. Do they require a lot of maintenance? Yes and no. The first year you have to weed them like any other garden. After the plants mature it is best to let it naturalize.
8. Do I need fertilizer and insecticides/fungicides? NO. These additions could lead to groundwater pollution. Select plants that do not need these additions (native plants).
9. Can Shrubs be used too? Yes, just take care that you do not shade the garden too much resulting in lots of bare soil.

Made to order any size or shape



# Backyard



# Front Yard



# Side Slope



# Car Wash – Roof and Parking

