**Bioretention Cells**

Rain Gardens that Protect Puget Sound

A bioretention cell is an engineered rain garden—a planted depression that collects, soaks up, and filters stormwater runoff from impervious surfaces. The plant roots and soil organisms soak up and filter runoff. Microorganisms in the soil/plant environment break down or absorb pollutants.

Engineers determine the size, shape and depth of the bioretention cell by accounting for the:
- Size of the drainage area flowing into the cell
- Amount of average annual rainfall
- Available space in the landscape
- Type of underlying soil and rate of infiltration

**Common Pollutants in Stormwater Runoff**
- Oil
- Fertilizer
- Pesticides
- Litter
- Animal Waste
- Metals

**The Alternative**
With no water quality treatment, runoff flows directly into our storm drains and waterways, carrying pollutants.

**Puget Sound**

**How do rain gardens work?**

1. The rain garden collects water.
2. The plants and soil in the rain garden filter the runoff.
3. Microbes break down pollutants.
4. Cleaner water flows into the soil under the rain garden and recharges groundwater for wells and streams.
5. The clean water eventually flows into Puget Sound.

**Where does the water come from?**
- Parking Lots
- Driveways
- Roofs
- Sidewalks
- Roads

**Rain Garden Benefits**
- Reduce flooding
- Remove pollutants
- Control runoff volume and flows
- Recharge groundwater
- Provide wildlife habitat

**Does bioretention work everywhere?**
Bioretention may not be suitable under the following situations:
- Close to steep or unstable slopes/bluffs
- Low soil infiltration rates
- High groundwater levels
- Adjacent to a septic system
- Near a building foundation

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