## Runoff Treatment BMPs - Swales

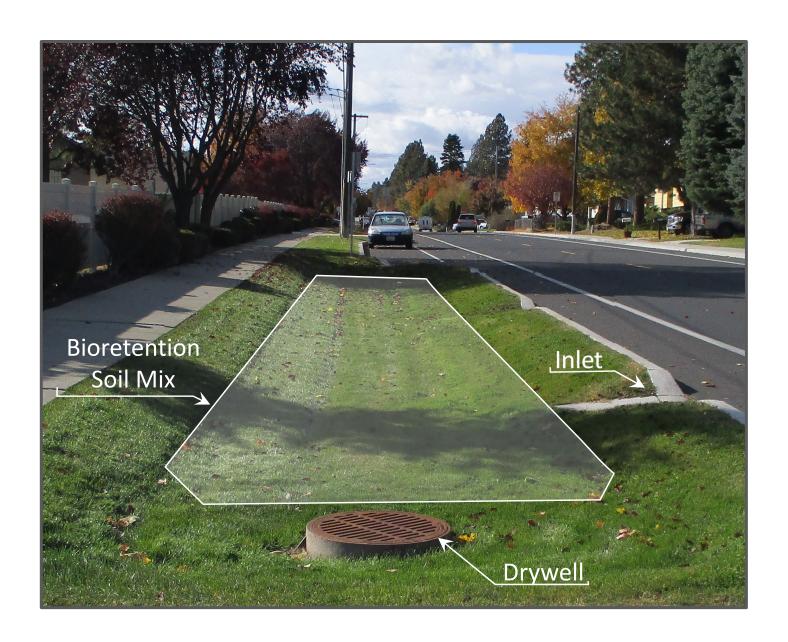
Swales provide full treatment for pollutants in stormwater runoff

- Vegetation and topsoil
  - filter out sediment and adhere oils
- Bioretention soils
  - pull out dissolved metals, toxic chemicals, and some nutrients
- Microbes in the soil
  - degrade oils and toxic chemicals, and transform heavy metals





## Typical Roadway Swale













## Anatomy of a Swale

