



# Low Impact Development (LID)

Connecticut Department of Transportation  
OFFICE OF ENVIRONMENTAL PLANNING  
[www.ct.gov/dot/](http://www.ct.gov/dot/)  
CTDOT-MS4

## TRADITIONAL DEVELOPMENT

### The Problem: Lack of Infiltration



Source: Maryland.gov

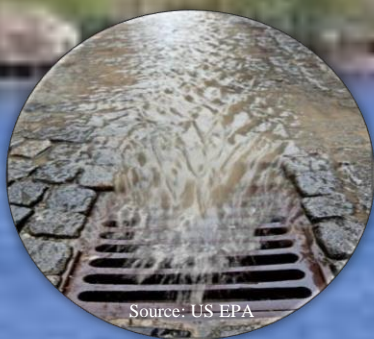
**Paved roads, buildings, and other impervious surfaces prevent rain water from absorbing into the ground as it would in nature.**

**As stormwater collects on impervious surfaces, it mixes with pollutants before reaching the storm sewer system.**

**From there, the polluted stormwater is often discharged directly into Connecticut watercourses.**

**Characteristics of traditional roadway development:**

- Large areas of impervious surfaces (i.e. asphalt, concrete)
- Stormwater is not able to infiltrate into the ground where it falls and instead is piped to other discharge points
- Polluted stormwater enters watercourses without treatment



Source: US EPA



Source: CT DOT

## LOW IMPACT DEVELOPMENT

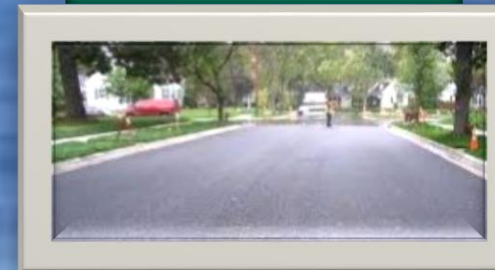
### The Solutions: Stormwater LID

#### Bioinfiltration



Source: Ohio.gov

#### Pervious Pavement



Source: Michigan.gov

#### Vegetated Swale



Source: FHWA

**LID techniques mimic natural processes to allow stormwater to be taken up by vegetation or structures. Collecting stormwater at the source prevents it from discharging into a watercourse while reducing pollutant loads.**

**Current roadway design guidelines encourage the use of LID for managing stormwater runoff on roads in Connecticut. These efforts prevent polluted stormwater from entering the rivers and streams in our state.**

**Characteristics of Low Impact Development:**

- Retains stormwater on site
- Allows infiltration of water into the ground
- Select soils, plants, and materials filter pollutants from the water