

# LOW IMPACT DEVELOPMENT (LID)

## What is Low Impact Development (LID)?

Low impact development (LID) refers to practices that minimize the effects of urban development on the natural hydrology of an area by integrating and/or mimicking natural processes that allow for water to evaporate and infiltrate the soil.



## What are the benefits of LID?

Low impact development restores or maintains the ability for water to cycle freely throughout the ecosystem. Traditional urban development prevents water from infiltrating the soil and being taken up by plants thanks to impervious surfaces such as roads and parking lots. With frequent or heavy storm events, water cannot evaporate quickly enough, so it begins to flow off these surfaces as runoff. Runoff can lead to flooding; additionally, if it picks up pollutants or nutrients as it flows along the topography of the area, runoff can degrade the quality of the water bodies it flows into. By allowing water to flow into the soil, low impact development reduces runoff from storm events significantly.

# Local Spotlight

In 2019, the Parking Authority decided to repair the Fairfield Center Train Station parking lot. It had permeable pavement installed around the station house and into the first few spaces in the rows. It also had new drains installed and re-paved the rest of the lot. Prior to this installation, the area around the Station House flooded when a heavy rainstorm occurred. Now rain is absorbed immediately into the permeable pavement! The entire lot repair & installation was paid for by the Parking Authority (vs. the town), therefore, no taxpayer dollars funded this project.

In addition to environmental benefits, permeable or porous paving reduces the cost for retention cubs, gutters and other water collection installations such as storm drains. It also requires less de-icing products in the winter and overall has lower life cycle costs compared to regular concrete.



## Examples



### Rain Gardens

Rain gardens are designed to collect stormwater from roofs, driveways and yards. The slow, constant collection of rainwater contributes to the infiltration of water into the ground rather than to storm run-off.

### Bioretention

Bioretention areas are depressed areas of the landscape, planted with vegetation in order to infiltrate stormwater and filter out pollutants to soils. This is achieved with native vegetation that slows water runoff by absorbing the excess water for the plant's growth.



<https://nemo.uconn.edu>

CT Nonpoint Education for Municipal Officials (CT NEMO) has information on MS4, nitrogen reduction, rain gardens, and an LID atlas that indicates where LID has been implemented in Connecticut.

<https://www.epa.gov/green-infrastructure>

The Environmental Protection Agency offers resources to assist with planning, design, operating, maintaining, and funding LID and other forms of green infrastructure.

[www.ct.gov/deep/greeninfrastructure](http://www.ct.gov/deep/greeninfrastructure)

The Connecticut Department of Energy and Environmental Protection has an extensive collection of photos at different LID implementation sites across the state. It also has links to information on LID and on CT DEEP's programs regarding stormwater issues.

## Questions?



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