



Low Impact Development

Low Impact Development (LID) is an innovative approach to stormwater management, which originated in Prince Georges County, MD. LID is the systematic application of small-scale, distributed practices during site design to replicate pre-development hydrologic functions and help offset the creation of new impervious cover. LID can effectively remove pollutants such as nutrients, pathogens, and metals from stormwater and can reduce the volume and velocity of stormwater flows.

Traditional stormwater management strategies fall into a collect & convey paradigm—collect stormwater as fast as possible and convey it off the site. Curb and gutter and stormwater retention and detention ponds are the most common practices in coastal Georgia. However, research suggests that ponds do not provide sufficient pollutant removal. As an alternative, LID is a paradigm shift that begins at the site design level by incorporating the natural site specific hydrology into the stormwater management strategy. By mimicking the pre-development hydrologic patterns, LID provides on-site treatment options through a more integrated management process.

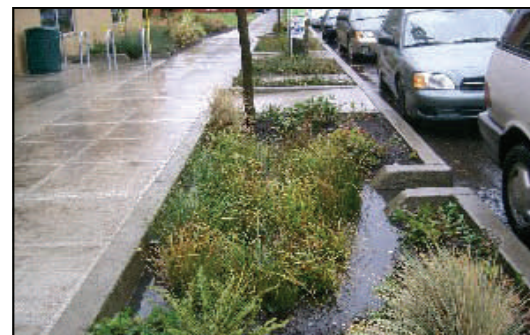
LID Applications



Top-Left: Parking lot with bioretention swale; Photo courtesy of NC State



Top-Right: Green Roof; Photo courtesy of National NEMO Network



Bottom-Right: Roadside Stormwater Planter; Photo courtesy of City of Portland

LID aims to:

- Preserve open space
- Minimize land disturbance
- Protect and restore natural systems and processes
- Re-examine the use and sizing of traditional site infrastructure
- Incorporate natural site elements into the design
- Decentralize and micromanage stormwater at its source



Permeable pavers as an alternative to traditional asphalt paving.

LID Benefits

Municipalities

- Protect regional flora and fauna
- Balance growth needs with environmental protection
- Reduce municipal infrastructure and utility maintenance costs
- Increase collaborative public/private partnerships

Developers

- Reduce land clearing and grading costs
- Potentially reduce infrastructure costs
- Reduce stormwater management costs
- Potentially reduce impact fees and increases lot yields
- Increase lot and community marketability

Environment

- Preserve integrity of ecological and biological systems
- Protect site and regional water quality by reducing sediment, nutrient and toxic loads to water bodies
- Reduce impacts to local terrestrial and aquatic plants and animals
- Preserve trees and natural vegetation

Green Growth Guidelines

The Green Growth Guidelines is a LID manual specific to the Georgia coast. Learn how a thorough understanding of a development site can facilitate designing within the context of the landform, and thus reduce impacts on the environment. For more information on this valuable tool, check out the UGA MAREX CoastScapes website: www.coastscapes.org.