

FAQs

Q. What about cost?

A. Case studies and pilot programs demonstrate a 15 to 30% reduction in site development and maintenance costs when LID practices are used. The savings reflect reductions in clearing and grading costs, and the costs of pipes, ponds, curbs and paving usually associated with traditional development. Increased lot yields are not uncommon.

Q. Who maintains the LID practices and associated open space?

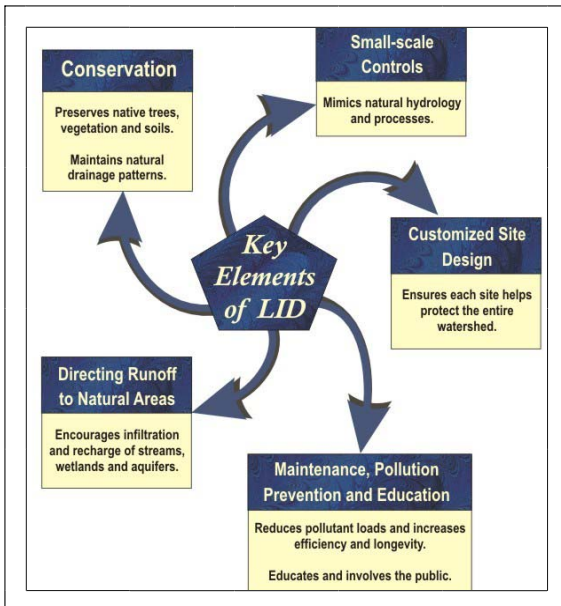
A. Most communities designed using LID practices rely on a combination of homeowner stewardship and maintenance agreements. Many homeowners perceive these systems as value-added amenities and willingly maintain them.

Q. How marketable are properties designed with LID practices?

A. The incorporation of natural features (wetlands, stream corridors, forests) into the site design and the additional landscaping associated with LID practices results in a product that is attractive, functional and well-received by homeowners.

Q. Are LID practices suitable for all building sites?

A. Variations in soils, topography and hydrology result in different opportunities and/or limitations for LID practices. Each site must be assessed individually.



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Reining In the Storm in Fauquier

A Presentation On

Low Impact Development

7:00 P.M. Wednesday,

October 12, 2005

Highland School

Center for the Arts



Presented by
Citizens for Fauquier County



Brochure thanks to

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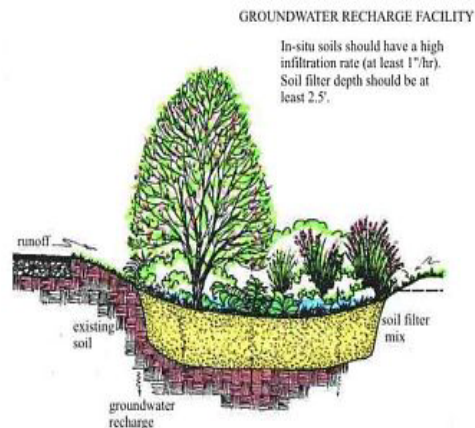
Commission

WHAT IS LID?

Low Impact Development (LID) is an innovative stormwater management approach with a basic principle that is modeled after nature: *manage rainfall at the source using uniformly distributed decentralized micro-scale controls*. LID's goal is to mimic a site's predevelopment hydrology by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to its source.

Techniques are based on the premise that stormwater management should not be seen as stormwater disposal. Instead of conveying and managing / treating stormwater in large, costly end-of-pipe facilities located at the bottom of drainage areas, LID addresses stormwater through small, cost-effective landscape features located at the lot level. These landscape features, known as Integrated Management Practices (IMPs), are the building blocks of LID.

Almost all components of the urban environment have the potential to serve as an IMP. This includes not only open space, but also rooftops, streetscapes, parking lots, sidewalks, and medians. LID is a versatile approach that can be applied equally well to new development, urban retrofits, and redevelopment / revitalization projects.



LID AND STORMWATER MANAGEMENT

As a tool for managing stormwater, LID aims to:

- Minimize impervious surfaces;
- Disconnect hydrologic elements (roofs, downspouts, parking areas);
- Maintain/increase flow paths and times; and
- Utilize decentralized treatment practices.

Among the many LID practices that may be used individually or in combination are:

Bio-retention Areas - Stormwater directed to these shallow depressions in the landscape is filtered, stored and infiltrated into the ground using specialized vegetation and engineered soils.

Vegetated Swales - Water moving through these systems is slowed, filtered, and percolated into the ground. These conveyances can act as low cost alternatives to curbs, gutters, and pipes.

Permeable Pavements – Permeable asphalt and paving blocks allow runoff to infiltrate into the underlying sub-base.

Dry Wells/Infiltration Trenches – Excavated pits filled with aggregate, sand or engineered soil media which promote infiltration into the surrounding soil.

Filter Strips – Located adjacent to a runoff source, vegetated filter strips intercept and slow runoff, while removing a variety of suspended pollutants.

Green Roofs - Soil and plants detain, absorb and filter precipitation, reducing the annual volume of roof runoff. Made up of several inches of soil and hardy, self-sustaining plants, green roofs may be applied to many existing roofs and new construction.

LID BENEFITS

In addition to just making good sense, LID techniques offer many benefits to a variety of stakeholders.

Environment

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

Municipalities

- Protect regional flora and fauna by preserving open space
- Balance growth needs with environmental protection
- Reduce infrastructure and utility maintenance costs (streets, curbs, gutters, sidewalks, storm sewer)
- Increase collaborative public/private partnerships.

Developers

- Reduce land clearing and grading costs
- Reduce infrastructure costs (streets, curbs, gutters, sidewalks)
- Reduce stormwater management costs
- Increase lot yield
- Increase lot and community marketability through landscape design.

