

What if you could ...

...preserve environmental quality...reduce infrastructure construction and maintenance costs
enhance community awareness.....and lower development costs?

You can, if you apply the principles of ...

LOW-IMPACT DEVELOPMENT

Low-Impact Development (LID) presents a new philosophy in site development and environmental protection. LID is not a growth management program. LID does not rely on density restrictions or clustering. **Instead.....LID focuses on how the developed area of a site is planned and designed to minimize hydrologic impacts.** LID uses a variety of site design and pollution prevention techniques to create a hydrologically functional and environmentally sensitive landscape.

What are the benefits?

Environmental

- Reduced wetland impacts & associated impact fees
- Multiple regulatory credits for environmental protection
- Reduced downstream erosion
- Improved groundwater recharge
- Reduced uplands habitat impacts



Low-Impact Development, St. Mary's County, MD



Runoff Retention Using On-lot Bioretention;
Runoff Detention Using Modified Open Drainage Swale



Forest Conservation Through Site Fingerprinting Reduced: Imperviousness Through Narrow Road Widths; Open Drainage Swales

Costs

- Development cost savings as much as \$5,000 per lot
- Reduced site infrastructure and associated costs
- Reduced infrastructure maintenance costs
- Potential gains in lot yields



Runoff Retention Using Rainbarrel



Plan View Schematic of Low-Impact Development Residential Lot

Other

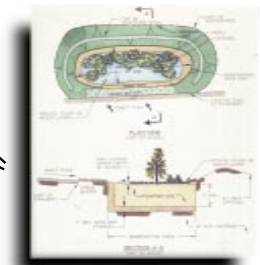
- Improved site aesthetics
- Enhanced public awareness
- Applicability to retrofit/urban revitalization areas
- Potential for reduced taxes & fees
- Potential increases in property values



Low-Impact Development for Commercial Property, Prince George's County, MD



Public Participation Through Homeowner BMP Maintenance



Runoff Retention Using On-lot Bioretention

SERVICES

- ❑ **Training** to Federal, State, local and private groups on the development and application of LID technologies and related technical areas
- ❑ **Technical assistance** and guidance to state and local agencies interested in developing standards and guidance manuals
- ❑ **Development of strategies** for effective use of infrastructure and rehabilitation of urban and rural watersheds
- ❑ **Planning, Analysis and Design** of solutions to CSO, SSO, NPDES and TMDL program requirements including monitoring and watershed assessment.
- ❑ **Civil Site Design** services to developers and consulting firms interested in applying LID technology to their development site.

.PBSJ.com)

LOW-IMPACT DEVELOPMENT CENTER

Balancing growth and environmental integrity

CENTER MATERIAL NOW AVAILABLE:

LOW IMPACT DEVELOPMENT DESIGN MANUAL (November, 1997)

This manual was prepared for the Prince George's County, MD, Department of Environmental Resources. Members of the Center served as key personnel in the development of this document which involved a very broad and significant effort including input from Federal and state agencies as well as a countywide interagency and interdisciplinary task force. The manual provides guidance on the following topics:

- ✓ LID Hydrologic Analysis
- ✓ LID Site Planning
- ✓ LID Site BMP's
- ✓ LID Model Permit Processing
- ✓ Residential and Commercial Case Studies
- ✓ LID Model Public Outreach Program

DESIGN MANUAL FOR USE OF BIORETENTION IN STORMWATER MANAGEMENT (June 1993)

This manual was prepared for the Prince George's County, MD, Department of Environmental Resources. Members of the Center served as key personnel in the development of this manual which provides guidance on the following areas:

- ✓ The Bioretention Concept
- ✓ Grading Plan
- ✓ Planting Plan
- ✓ Soil, Mulch and Plant Materials Guidelines
- ✓ Maintenance Guidelines
- ✓ Peak Runoff Control and Pollutant Reduction

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For More Information: [The Low-Impact Development Center](http://www.lowimpactdevelopment.org)
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What is Low Impact Development? Low Impact Development is a new low cost effective alternative stormwater control technology. It combines resource conservation, a hydrologically functional site design with pollution prevention measures to reduce development impacts to better replicate natural watershed hydrology and water quality. Through a variety of small-scale site design techniques, Low-Impact Development controls runoff discharge, volume, frequency and quality to mimic predevelopment runoff conditions. This unique micro-management source control concept is quite different from conventional end of pipe treatment or conservation techniques.

The **Low-Impact Development Center** is a non-profit organization formed in 1998 to serve as a technical clearinghouse for information and issues related to Low Impact Development (LID), and to facilitate research, education, and strategies for the implementation of LID technology. This technology is based on site specific approaches to maintain watershed viability by maintaining each site's hydrologic regime. The Center's mission includes research, development of models, stormwater management regulations and ordinances, ecosystem monitoring plans, and development of public outreach and environmental protection strategies. This is done with an interdisciplinary approach that includes researchers, public officials, citizen groups, and practitioners so that practical solutions can be achieved.

Members of the Center have been instrumental in the development of LID technology in the Mid- Atlantic Region (Prince George's County, MD, LID Design Manual) and are currently working on the development of the National Manual for LID technology which is being prepared for the US Environmental Protection Agency. Other current and future activities include the development of manuals for other regions of the Country and international applications, monitoring of LID case studies, and application of LID technologies to solving CSO and SSO problems.