
Storm Water Management Program

In May 2001, the governmental agencies that make up ALOA joined together to address EPA's upcoming Phase II requirements.

This brochure is one of a series of publications regarding storm water issues in Lee County.

The series is produced by the ALOA Storm Water Advisory Panel and is intended to protect, maintain, and restore the chemical, physical, and biological integrity of local waters in order to enhance the quality of life for Lee County citizens.



Cleaner streams provide a benefit to all.

Low Impact Development



A recently installed rain garden at the Auburn University Arboretum

CONTACT INFORMATION

For more information regarding your community's storm water program, please contact the following agencies:

City of Auburn – Water Resource Management Department
334-501-3077
www.auburnalabama.org/water/phase2stormwater.html

Lee County – County Engineer
334-745-9792

City of Opelika – Department of Public Works
334-705-5400
www.opelika.org

Auburn University – Risk Management and Safety
334-844-4805
www.auburn.edu/administration/rms/



STORM WATER MANAGEMENT PROGRAM

Low Impact Development



“Local Citizen Groups and Governments Working Together for Clean Water”

WHAT IS LOW IMPACT DEVELOPMENT?

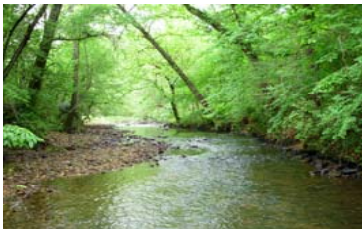
Low Impact Development (LID) is a modern style of development that uses innovative stormwater technologies to reduce the negative effects of stormwater runoff. LID practices attempt to reduce the immediate volume of stormwater runoff while simultaneously increasing the quality of stormwater runoff. Source control is often the preferred method of LID and can include such measures as grass swales, permeable pavement, bioretention facilities, rain gardens, increased stream buffer width, and open space planning. In addition to the environmental benefits, LID measures have been found to require less maintenance than traditional stormwater management techniques and are often less costly to install.



LID Illustration for Single Family Home

A BRIEF HISTORY OF LID

The first LID practices were designed and implemented by Prince George's County, Maryland in the early 1990's. Prince George's County has acted as a pioneer in the widespread use of LID and alternative stormwater detention and treatment. The goal of LID is to mimic the pre-development hydrologic conditions by using alternative stormwater practices such as the methods described above. Recent environmental and economic studies have shown that these measures work and that they can dramatically decrease total development costs by reducing the amount of infrastructure necessary to meet state and national stormwater regulations.



Chewacla Creek—Below Lake Ogletree

WHY IS LID IMPORTANT?

As development increases, the potential for adverse water quality impacts and other detrimental environmental impacts increases unless the development is managed in an

environmentally conscious manner. LID provides a much needed avenue to these economically and environmentally effective alternatives. Conventional stormwater control practices are costly and often do not fully address stormwater quality on a micro-management level.



Adversely Impacted Stream

ADVANTAGES OF LID

Low Impact Development utilizes many environmentally effective, as well as cost effective, stormwater quality and quantity control measures. Some of the advantages of these measures can include:

- **Pollutant Removal**—Various LID practices aid in the removal of pollutants and total suspended solids found in stormwater runoff. Practices such as stream buffers, bioretention facilities, rain gardens, and permeable pavement all function to reduce runoff volume, heavy metal contaminants, nutrients, and total suspended solids within the “first flush” of a storm event.
- **Reduction of Impervious Surface**—LID practices often reduce the need for traditional stormwater infrastructure such as subsurface stormwater collection systems and the need for curb and gutter. Additionally, permeable pavement and vegetated roof tops allow for greater stormwater infiltration and can drastically reduce the amount of stormwater runoff. These measures can also serve as divides between necessary impervious surfaces.
- **Enhanced Wildlife Habitat**—Studies have shown that increasing the impervious surface in a watershed can reduce aquatic wildlife habitat quality in streams, lakes, and other surface waters. As impervious surfaces increase within a watershed, infiltration decreases, causing an increase in volume, flow velocity, and thermal fluctuation in receiving water bodies. LID also promotes connectivity between greenspace, thus providing a safe corridor for terrestrial wildlife.
- **Economic Value**—LID practices have the potential to reduce the amount of traditional infrastructure necessary to meet state and federal stormwater regulation. This reduction in infrastructure can drastically reduce construction costs associated with traditional stormwater control measures. Additionally, some studies have shown that the increased aesthetic appearance of LID techniques can have a positive impact on land value.

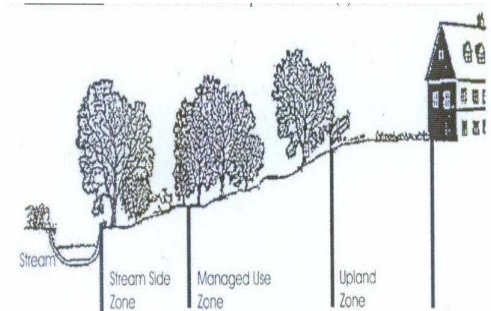


Permeable Pavement Cutout

LOCAL LID/CONSERVATION SUBDIVISION ORDINANCE

The City of Auburn recently adopted a Conservation Subdivision Ordinance and a Stream Buffer Ordinance promoting the use of Low Impact Development technologies and community planning. Some of the benefits and requirements of these ordinances are described below.

- **Conservation Subdivision Ordinance**—This ordinance allows for greater flexibility in housing density while promoting an increase in greenspace size and connectivity and the use of alternative stormwater treatment technologies. More efficient use of land, better natural resource management, and a reduction in urban sprawl are all expressed purposes for the creation of the Conservation Subdivision Ordinance. Information on updated zoning ordinances may be obtained through the City of Auburn Planning Department and may be accessed online at www.auburnalabama.org/planning.
- **Stream Buffer Ordinance**—The new stream buffer ordinance utilizes a multi-zone approach to adequately protect stream and riparian corridors within the City limits. Details of this ordinance can be reviewed by contacting the City of Auburn Water Resource Management Department.



WEBSITES FOR ADDITIONAL INFORMATION

Low Impact Development Center
www.lowimpactdevelopment.org/

Puget Sound Action Team
www.psat.wa.gov/Programs/LID.htm

EPA Non-Point Source Office
www.epa.gov/owow/nps/lid/

Auburn University Cooperative Extension Program
www.aces.edu/waterquality/nemo/lid.htm

For information regarding your community's stormwater program or efforts to promote Low Impact Development, please contact the entities listed on the back of this brochure.