

Low Impact Design (LID) References in Adopted Comprehensive Plan

Conservation and Open Space Element

Objective 4.2 Soils and Slopes

Policy 4.2.2

Land clearing. All development shall occur such that land clearing is phased with construction activity and includes measures to:

- (a) Minimize soil erosion.
- (b) Minimize removal of native and non-invasive trees and vegetation.
- (c) Strictly limit the removal and damage of champion and designated specimen trees in accordance with policy 5.4.3.
- (d) Stabilize and revegetate the site with native vegetation after clearing.

Specific criteria for achieving these standards shall be provided in the land development regulations.

Policy 4.2.3

Land shall be developed with regard for natural topographic features. The development regulations shall provide standards to minimize adverse impacts on development in areas with extreme slopes. Such standards shall include minimizing disturbance of steep slope areas in site designs by retaining existing vegetation.

Policy 4.2.5

Development shall be designed to include retention of the natural character of seepage slopes and shallow ground water tables that have been demonstrated to be essential to the hydrologic support of associated conservation areas. Specific standards to accomplish this shall be included in the development regulations. In the interim, the Development Review Committee shall require measures that execute this policy.

Objective 4.5 Groundwater and Springs

Policy 4.5.5

Appropriate local planning, development design standards, and special construction practices shall be required to ensure both short and long term mitigation of impacts on groundwater created by activities occurring in High Aquifer Recharge Areas. The following provisions shall apply:

- (a) All new development or modifications to existing development shall provide stormwater treatment consistent with the Stormwater Element of the Comprehensive Plan
- (b) All stormwater basins in high aquifer recharge areas shall be designed and constructed to provide for at least three (3) feet of unconsolidated solid materials

such as sand, silts, and clays between the surface of limestone bedrock and the bottom and sides of the stormwater basin. Utility lines shall not be installed beneath stormwater basins in karst sensitive areas. Any lines for temporary irrigation of vegetation in and around stormwater management systems shall be installed to minimize excavation in karst sensitive areas.

Policy 4.5.7

The land development regulations shall be reviewed and revised, if necessary, to ensure that groundwater is adequately protected.

Policy 4.5.8

Applicants for new development or additions to existing development shall address potential groundwater quality impacts. Development applications shall be denied if they are insufficiently protective of groundwater quality.

Policy 4.5.22

The County shall establish a comprehensive springshed protection program to protect the resource from potential adverse effects from incompatible land uses and activities.

- (a) Fertilizer shall be regulated to ensure that excess nitrogen and phosphorus are not leached into the Floridan Aquifer.

Objective 4.6 Surface Waters

Policy 4.1.6.4

There shall be no direct or indirect discharge of pollutants to surface waters, ground waters, or sinkholes in violation of federal, state, Water Management District, or local water quality standards.

Objective 5.4 - Vegetation Management

Require and encourage public and private land clearing and landscaping practices that conserve, appropriately use, and protect native vegetation, including forests.

Policy 5.4.1

Landscaping shall be compatible with the natural environment. Existing on-site vegetation shall be incorporated into landscape plans to the maximum extent practicable, according to the following priorities:

1. First, keep and enhance existing native vegetation onsite and intact as elements of the landscape design.
2. If priority #1 is not practicable, onsite native species shall be transplanted to another location onsite.
3. If priority #2 is not practicable, plant native species to simulate lost native habitat.
4. If priority #3 is not practicable, then the new landscape design shall incorporate the use of plants that have similar texture, form, water requirements, and growth habits as the surrounding native vegetation.

Policy 5.4.2

New development shall conserve existing trees and native vegetation by use of sound arboricultural and horticultural practices that provide for the protection and long-term survival of the vegetation, as part of an overall strategy to achieve landscape, habitat preservation, and open space requirements. Conservation may entail grading restrictions, vegetation clustering, protective buffers, and density and intensity limitations, consideration of alternative layouts of permitted uses, and similar techniques that provide for the long-term survival of vegetation.

Policy 5.4.3

The County shall protect trees according to a species specific hierarchy. Trees shall receive priority for protection based on species, in conjunction with other features including size, age, condition, historic association, and uniqueness. Removal or damage of champion trees shall be prohibited, and removal or damage of designated specimen trees shall be avoided, or mitigated if removal or damage cannot be avoided. Specific protections shall be provided in the land development regulations.

Policy 5.4.4

The County shall incorporate native vegetation into the landscaping and provide for continued maintenance of County-owned buildings and grounds.

Policy 5.4.5

The County shall promote the conservation of native vegetation removed during land-clearing and use of this resource for transplanting and revegetation.

Policy 5.4.6

The County shall require the use of xeriscape principles in the landscaping of new development projects to conserve water. The use of non-invasive alternatives to lawn grass as ground cover shall be encouraged.

Stormwater Element

Objective 3.1

Policy 3.1.1

To ensure water quality and flood protection, new development shall provide facilities designed to control and treat stormwater runoff at the following levels of service:

Water Quality

All new development, redevelopment, and, when expansion occurs, existing developed areas, must provide adequate stormwater treatment so as not to degrade the water quality of the receiving water body. Infill residential development within improved residential areas or subdivisions existing prior to the adoption of this Comprehensive Plan, must ensure that its post-development stormwater runoff will not contribute pollutants which will degrade the water quality of the watershed. Regardless of the area served, the stormwater treatment provided must provide a level of treatment which meets or exceeds Chapter 62-25 F.A.C. and applicable federal, state, regional, WMD and local

requirements in effect on the date of adoption, April 8, 2002 of this Comprehensive Plan. The County shall implement an Advanced Stormwater Treatment Code based on Low Impact Design (LID) principles, including provisions for the Sensitive Karst Area, Outstanding Florida Waters and impaired waters.

Objective 5.1

Alachua County will ensure the protection of natural drainage features, including surface water quality and groundwater aquifer quality and quantity recharge functions, from stormwater runoff.

Policy 5.1.1

All development outside a regional master plan shall control post-development runoff rates and/or volumes to not exceed pre-development runoff rates and/or volumes.

Policy 5.1.2

Stormwater runoff from development shall not adversely impact stormwater storage capacity of adjacent lands, identified conservation areas, or downstream surface waters or groundwaters.

Policy 5.1.3

All new development, redevelopment, and, when expansion occurs, existing developed areas with a stormwater discharge to sinkhole or within a stream to sink watershed shall provide a minimum treatment of the runoff from the first two (2) inches of rainfall from the design storm.

Policy 5.1.4

All new development, redevelopment, and, when expansion occurs, existing developed areas located within the Sensitive Karst Areas shall provide treatment of the stormwater through the use of Low Impact Design Best Management Practices before it enters the Floridan Aquifer.

Policy 5.1.5

New stormwater management systems which receive stormwater from areas which are a potential source of oil and grease contamination shall include a baffle, skimmer, grease trap, pre-treatment basin or other mechanism suitable for preventing oil and grease from leaving the stormwater management system in concentrations that would cause violations of water quality standards in the groundwater or receiving waters.

Policy 5.1.5

Conserve and enhance through the use of system upgrades the use of drainageways where appropriate as habitat corridors which allow the passage of wildlife between natural areas and throughout the County, as well as providing wildlife habitat.

Policy 5.1.5

Conserve and enhance the use of floodplains where appropriate for flood and erosion control.

Policy 5.1.5

Alachua County shall require stormwater management facilities be designed in accordance with the Stormwater Management and Landscaping Policies of the Metropolitan Transportation Planning Organization (MTPO) as outlined in the MTPO Policies Manual as an integral part of the development,

as a physical or visual amenity that provides usable open space or that resembles native habitat communities by planting native vegetation in and around the facility to the maximum extent feasible.

Policy 5.1.5

Stormwater management facilities shall utilize contours of the site and minimize disturbance to existing natural features to maximum extent feasible. The county shall develop land development regulations that incentivize, encourage, and require where necessary, environmentally sensitive approaches to stormwater management, including Low Impact Design (LID) techniques and the protection of natural areas and features.

Policy 5.1.5

The hydrologic function of the site shall be maintained to the maximum extent practicable through LID techniques, the reduction of impervious surfaces via vertical construction and the use of alternative parking surfaces in order to preserve the existing pre-development hydro-period from discharge to wetland systems and adequate existing vegetation on the site.

Stormwater Management Element Definitions

Low Impact Design (LID): An approach to land development and stormwater management that preserves and protects natural resource systems and water resources using various site planning and stormwater management approaches and technologies to simultaneously conserve and protect natural resource systems and to reduce the average annual stormwater pollutant loading discharged off-site. The approach uses site planning to minimize runoff and a suite of engineered small-scale hydrologic controls distributed throughout the site and integrated as a BMP Treatment Train to replicate the natural hydrologic functioning of the landscape through infiltrating, filtering, storing, evaporating, and detaining runoff close to its source.

Energy Element

Objective 3.2

The County shall encourage long-term carbon sequestration practices on both public and private land.

Policy 3.2.2

The County shall protect and seek to increase tree canopy in the Urban Cluster.

Policy 3.2.3

Promote and provide incentives for the use of Low Impact Development strategies in new developments to protect natural ecosystems in accordance with Policies 5.11 and 5.12 of the Stormwater Management Element and Policies 3.6.15 and 4.5.21 of the Conservation and Open Space Element.