



BOARD OF COUNTY COMMISSIONERS

Natural Resources Management Department

2725 Judge Fran Jamieson Way
Building A, Room 219
Viera, Florida 32940

TO: Jim Liesenfelt, Interim County Manager

THRU: Tad Calkins, Assistant County Manager

FROM: Amanda Elmore, Deputy Director, Natural Resources Management Dept (NRM)

SUBJ: Citizen Efficiency and Effectiveness Recommendation #2025037

CEER #2025037, titled Adopt Low Impact Development (LID) Practices to Protect the Indian River Lagoon, was received by the County from Ms. Jessica Paskert.

Citizen Statement:

Polluted stormwater runoff is a significant issue for Brevard County's waterways, particularly the Indian River Lagoon. Runoff carries excess nutrients, sediments, and toxins into the lagoon, leading to algal blooms, habitat loss, and declining water quality. These challenges are exacerbated by increased development, impervious surfaces, and insufficient stormwater management practices.

Citizen Recommendation:

Adopt science-backed Low Impact Development (LID) practices to improve stormwater management, reduce pollution, and protect the Indian River Lagoon. Key strategies include requiring native plant landscaping to improve water absorption, reduce fertilizer use, and support pollinators; using permeable pavements to allow stormwater infiltration and recharge the aquifer; and incorporating rain gardens and bioswales to filter runoff naturally. Additional recommendations include enhancing retention ponds with native plants for pollutant removal and habitat creation, and preserving or expanding tree canopies to improve infiltration and reduce heat islands. These measures will reduce stormwater infrastructure costs, improve water quality, restore biodiversity, and ensure sustainable growth while safeguarding one of Florida's most vital ecosystems.

Staff Analysis:

Low Impact Development (LID) + Green Stormwater Infrastructure (GSI) Education & Outreach

In October 2020, the Natural Resources Management Department (NRM) produced the grant-funded LID Guide for Commercial and Light Industrial Facilities for Brevard

County. The guide and other educational materials are available as part of the Lagoon Loyal stormwater outreach program, www.lagoonloyal.com. A link to the guide, which defines LID and identifies principles and practices that can be applied to virtually all development, is also available on the NRM Stormwater Program webpage at www.brevardfl.gov/NaturalResources/StormwaterProgram.

Revised State Stormwater Rule

On June 28, 2024, Governor Ron DeSantis signed Senate Bill 7040 into law, which updates Florida's stormwater rules and design criteria to protect the state's waterways. Under the new rule, developers and builders have flexibility to choose from a range of LID design options, and other best management practices, when designing systems to meet the performance-based design criteria. The revised Stormwater Quality Nutrient Permitting Requirements, administered by the Florida Department of Environmental Protection (FDEP), apply to individual and general permits, issued after December 28, 2025. To meet the new performance standard nutrient reduction levels, all new development will likely need to incorporate LID tools appropriate for the site. Brevard County already incorporates, requires and encourages aspects of LID in many of the existing local environmental regulations.

Existing LID+GSI-Related County Requirements & Continuing Efforts

NRM continues to implement and refine policies and Land Development Regulations (LDR) that align with Low Impact Development principles and ensure avoidance and minimization of impacts to natural coastal ecosystems, including native vegetation, wetlands, floodplains, aquifer recharge areas, and dunes.

- Chapter 62, Article XIII, Division 2 - Landscaping, Land Clearing & Tree Protection, Section 62-4341 requires at least 50% native preserved or planted trees for new development. Additionally, at least 50% native or water-wise shrubs are required. Trees and shrubs must be maintained on-site in perpetuity. Meeting all principles of Xeriscaping or water-wise landscaping is incentivized through a 50% reduction in the required shrub quantity for new developments.
- Chapter 62, Article XIII, Division 2 - Landscaping, Land Clearing & Tree Protection, Section 62-4344 provides incentives for increased canopy preservation and landscaping above the required thresholds. For example, one preserved specimen tree can offset the requirement for planting up to 16 smaller trees, thereby retaining the environmental benefits of the established preserved tree and offsetting the risk of establishing new, smaller planted trees. Landscaping credit may also be accumulated for the preservation of healthy vegetation of special concern, such as rare, endangered or threatened plant

species or hardwood hammock, barrier island scrub, or sand pine scrub.

- Chapter 62, Article XIII, Division 2 - Landscaping, Land Clearing & Tree Protection, Section 62-4346, provides for an administrative waiver of up to 30% of nonresidential parking standards for the preservation or additional planting of native or Florida-Friendly Landscaping. This waiver reduces impervious surfaces while requiring additional planted green space.
- Chapter 62, Article XII - Coastal Setback and Control Lines establishes the Brevard County Coastal Setback Line (CSL), located an additional 25 feet west (landward) of the FDEP Coastal Construction Control Line (CCCL). No development impacts are permitted east of the CSL, with the exception of a minimized elevated dune crossover and maximum of 100 square feet of elevated minor structure. The removal of native vegetation is prohibited east of the CSL.
- Chapter 62, Article X, Division 4 - Wetland Protection establishes specific allowable land uses in wetlands, including residential density of one unit per five acres and the direction of commercial development into established areas of commercial use and prioritizes the protection of higher functioning wetlands. Additionally, there shall be no net loss of wetland function in the County.
- Chapter 62, Article X, Division 5 - Floodplain Protection establishes criteria that exceed state stormwater standards by requiring "no adverse impact" to off-site properties, resources, and infrastructure through compensatory storage of stormwater volume. Brevard County continually advances area-specific flood studies to further refine current modelling and engineering practices. Development is limited or prohibited in the most vulnerable floodplains such as the mean and 10-year riverine floodplains. Riverine floodplains are those areas that have a surface water connection to major freshwater bodies during the 100-year flood.
- Chapter 62, Article X, Division 3 - Surface Water Protection establishes buffers 25 to 200 feet in width, depending on water body classification, between development and the Indian River Lagoon (IRL) and St. Johns River. Native vegetation is required in these buffers as well as stormwater management for all impacts to the buffers. This includes GSI practices such as dense native vegetation, rain gardens, and exfiltration.
- Chapter 62, Article X, Division 5 - Aquifer Protection establishes impervious area restrictions in recharge soils and/or demonstration of preservation of recharge volume to protect water infiltration into the surficial aquifer.
- Chapter 46, Article II, Division 4, Section 46-87, Nitrogen Reduction Overlay, requires enhanced nutrient-reducing on-site sewage treatment and disposal systems (OSTDS) within the Indian River Lagoon septic overlay area.

In February 2022, Brevard County adopted 13 new “Peril of Flood” Policies as Comprehensive Plan, Coastal Element, Objective 14, entitled Coastal Development and Redevelopment. The primary objective is to create procedures to allow consideration of the changing dynamics of flooding, sea level rise, and storm surge in growth management decisions within Brevard County. The Policies also direct the County to:

- Develop mechanisms to evaluate and recommend new design and development standards for public and private infrastructure projects that consider future climate conditions and amend land development regulations (LDRs) to reduce obstacles that hinder nature-based design standards and/or LID.
- Continually identify strategies and engineering solutions that minimize the loss of flood storage capacity in all floodplains and areas vulnerable to natural hazards such as flooding, storm surge, and sea level rise, and incorporate them into the LDRs.
- Encourage nature-based adaptation strategies design standards and/or LID design for development and redevelopment within areas vulnerable to current and future flooding impacts.

Staff is also currently working on the 2024 Comprehensive Plan Evaluation and Appraisal Report (EAR), further modifying Policies in the Conservation and Coastal Management Elements to better facilitate the implementation of LID practices. Once the EAR is adopted later this year, staff will propose modification of LDR to align with the Comprehensive Plan policies.

Lastly, in July 2023, the county proactively participated in a LID/GSI Code Audit through University of Florida Community Scoping Exercise. That exercise found many Brevard County policies and regulations consistent with LID/GSI and areas where definitions and practices could be better described. Improvements will be proposed as part of the Peril of Flood, EAR, and Barrier Island Area of Critical State Concern LDR updates.

Staff Recommended Action:

It is recommended that the Board of County Commissioners accept CEER #2025037 with revisions, as LID practices are already being implemented as detailed in the staff analysis. Any legislative changes related to LID must be enacted through the ordinance adoption process and may be considered at the request of the Board of County Commissioners.

CC: Frank Abbate, County Manager

Horst, Rachel

From: CEER@brevardfl.gov
Sent: Saturday, January 25, 2025 9:38 AM
To: Horst, Rachel
Subject: A new CEER Recommendation has been submitted as ID #2025037

Recommendation # 2025037

Dear CEER Administrator,

Speak Up Brevard Recommendation ID #2025037 has been submitted. Please login to the CEER Application to start the recommendation evaluation workflow.

Contact Information:

Group/Organization

Name Jessica Paskert
Address 2290 Commodore Blvd, Melbourne FL 32904
Phone (727) 798-2151
Email Jessicapaskert@gmail.com
Alternate Email

Recommendation Information:

Recommendation ID 2025037
Recommendation Title Adopt Low Impact Development (LID) Practices to Protect the Indian River Lagoon
Areas Affected
Department Affected
Current problem Polluted stormwater runoff is a significant issue for Brevard County's waterways, particularly the Indian River Lagoon. Runoff carries excess nutrients, sediments, and toxins into the lagoon, leading to algal blooms, habitat loss, and declining water quality. These challenges are exacerbated by increased development, impervious surfaces, and insufficient stormwater management practices.
Recommendation Adopt science-backed Low Impact Development (LID) practices to improve stormwater management, reduce pollution, and protect the Indian River Lagoon. Key strategies include requiring native plant landscaping to improve water absorption, reduce fertilizer use, and support pollinators; using permeable pavements to allow stormwater infiltration and recharge the aquifer; and incorporating rain gardens and bioswales to filter runoff naturally. Additional recommendations include enhancing retention ponds with native plants for pollutant removal and habitat creation, and preserving or expanding tree canopies to improve infiltration and reduce heat islands. These measures will reduce stormwater infrastructure costs, improve water quality,

restore biodiversity, and ensure sustainable growth while safeguarding one of Florida's most vital ecosystems.

Attachments

No Documents were attached.

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