Leadership in Stormwater Management and Utilities

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August 19, 2025

Emily Lang, Environmental Administrator Division of Water Restoration Assistance Florida Department of Environmental Protection 3900 Commonwealth Boulevard, MS#3602 Tallahassee, Florida 32399

RE: Draft Rule Language – Synthetic Turf - 125.572 Florida Statutes (F.S.)

Dear Ms. Lang:

The Florida Stormwater Association (FSA) appreciates the opportunity to submit comments on the draft rule language for synthetic turf (Section 125.572 Florida Statutes (F.S.)). As an association representing over 360 members, including local governments, private consulting firms, and other stormwater-focused organizations, FSA has a direct interest in the development of this rule.

FSA understands this rulemaking is required under House Bill 683, adopted during the 2025 Legislative Session. As an association that actively lobbied on this bill, we are committed to supporting the development of a rule that provides clear, science-based guidance. Our comments outline both our concerns and proposed language revisions aimed at addressing environmental impacts associated with the increasing installation of synthetic turf without appropriate regulatory oversight. We believe that a well-crafted synthetic turf rule is essential to protecting Florida's water resources and providing consistency for regulated entities across the state.

During the 2025 Legislative Session, when House Bill 683 was introduced and ultimately approved, FSA raised significant concerns regarding the potential stormwater impacts associated with the unregulated installation of synthetic turf. Foremost among these concerns was the increase in stormwater runoff resulting from the use of unnatural substrates that more closely mimic impervious surface than natural turf or landscape.

The state of Florida has long promoted and invested in the concept of Florida Friendly Landscaping (FFL), a program developed and supported by FDEP, which provides science-based guidance for sustainable and environmentally conscious landscape practices. FDEP has funded most (if not all) of the research and outreach that underpins the FFL program, which provides guidance on how to

properly install and maintain an environmentally friendly natural landscape. Notably, the FFL program explicitly states that synthetic turf does not meet its foundational principles and has published research outlining the environmental risks associated with its use.

While some research exists on synthetic turf, there remains a considerable gap in understanding its full range of impacts in Florida's unique climate and hydrologic conditions, particularly regarding public safety, flood risk, pollutant transport, erosion from accelerated runoff, and long-term environmental effects. Given this uncertainty, FSA strongly recommends that a scientific review be conducted prior to finalizing any rule language. Without a rule that establishes clear guidance and controls, the widespread and unregulated installation of synthetic turf could undermine decades of investment in sustainable landscaping practices and negate the positive environmental outcomes achieved through the FFL program.

Please consider the following comments and recommended revisions to the draft rule. Our suggestions aim to strengthen the rule by providing increased controls mitigating environmental impacts, while still allowing residents to install synthetic turf on their residential lots smaller than one acre.

Introduction

FSA believes the introduction section of the rule could be expanded to include further protection of impaired waters. Additional language to the last sentence could address residential areas that are located in impaired waters, areas which are already facing increased requirements from stormwater regulations to water quality restoration efforts associated with state adopted restoration plans. Please consider the following addition to the section:

This rule applies to single-family residential properties consisting of one acre or less. These standards are intended to be applied to residential landscapes utilizing synthetic turf, as defined by section 125.571(1), F.S., as a replacement for natural turfgrass and are not intended to address <u>small areas of existing homesites consisting of 3% or less of the lot</u> area. Such applications are exempt from this rule such as small pet relief spots or similar. Synthetic turf as used herein does not include indoor/outdoor plastic or nylon carpeting. Nothing in this rule shall prohibit a local government from restricting installation of synthetic turf as it relates to matters of public safety, environmental protection, or where such installations would affect areas of verified impaired waters as identified by the state pursuant to the Clean Water Act or other applicable water quality standards. Further, this rule acknowledges the increased requirements imposed on residential areas located within impaired watersheds due to stormwater regulations and state adopted water quality restoration plans. Compliance with these additional protections is necessary to prevent further degradation of water quality in these sensitive areas. Enforcement mechanisms related to synthetic turf installations within impaired waters shall be consistent with local government authority and state water quality mandates.

Section 1 – Material Type

FSA believes the current rule language is a positive step toward limiting materials that may negatively impact water quality via stormwater runoff. However, we recommend additional provisions to further prevent pollution that could lead to degradation of water quality or the

creation of impaired waterbody conditions. Specifically, FDEP should consider addressing materials that can degrade or leach contaminants, particularly microplastics over time. Please consider the following additions to Section 1:

- (1) Material type.
- (a) Must be lead-free.
- (b) Synthetic turf material, including backing materials, must be disposable under typical conditions at any Chapter 62-701, F.A.C., Florida permitted landfill. Certification of compliance must be provided prior to any installation.
- (c) Must not use rubber for infill.
- (d) Infill materials made of substances that are known to degrade over time, such as certain plastics, or that leach contaminants, including but not limited to microplastics, into stormwater runoff are prohibited.

Section 2 - Color

FSA recognizes the importance of regulating synthetic turf color to ensure both environmental protection and visual compatibility with surrounding landscapes. The potential for increased surface temperatures from certain turf colors may contribute to heat island effects in urban areas. Additionally, maintaining aesthetic consistency with natural turf can help avoid unintended visual impacts. Please consider the following addition to Section 2:

- (2) Color.
- (a) No local government may prohibit the use of green synthetic turf. <u>However, synthetic turf color should match the natural turf located on the residential lot to ensure visual compatibility.</u>
- (b) Synthetic turf should not be manufactured or installed using colors or materials that result in elevated surface temperatures that significantly contribute to heat island effects. Products should be selected based on their thermal performance and ability to minimize radiant heat absorption.

Section 3 – Permeability

FSA strongly emphasizes the need for clear, measurable permeability standards for synthetic turf installations, specifically impacts from synthetic turf vs. natural systems on a landscape. Without such standards, there is a significant risk of inconsistency across jurisdictions, leading to potential flooding, runoff issues, and negative impacts on adjacent properties and local water resources. Soil compaction, subgrade preparation, and material selection are all critical factors that must be addressed to ensure that the installed system performs comparably to natural systems. To address these concerns, we ask that FDEP consider the following addition to Section 3:

- (3) Permeability.
- (a) <u>Synthetic turf systems must be permeable and be</u> installed over a subgrade <u>that is properly</u> prepared <u>to allow</u> for positive drainage and evenly graded porous material <u>that is a minimum of three inches thick. The subgrade must mimic the natural permeability characteristics of the surrounding natural turf and/or meet infiltration standards of applicable local codes or regional stormwater best management practices (BMPs).</u>

- (b) <u>Synthetic turf</u> must include a permeable backing material and be supported by a pervious subgrade. <u>With-The entire synthetic turf system must have</u> infiltration rates equal to <u>or</u> greater than exceeding those of natural turf systems. Permeability must <u>meet or exceed local codes or regional stormwater BMP infiltration thresholds to ensure property and environmental protection.</u>
- (c) <u>Subgrade and infill materials must be composed of natural materials that do not significantly contribute and/or leach contaminants into stormwater.</u>
- (d) <u>Installers must provide a signed certification confirming that all components of the synthetic turf system comply with these permeability and environmental protection requirements prior to installation. Installations that do not meet these requirements will be considered noncompliant with this rule.</u>

Section 4 – Stormwater Management

As an association that represents stormwater practitioners throughout the state, FSA has significant concern regarding potential inconsistencies between this rule and existing or emerging regulatory framework, including the statewide stormwater rule, Basin Management Action Plans (BMAPs), and the implementation of Senate Bill 180 (2025). The forthcoming Flood Inventory and Restoration Report may further identify areas that need to address flooding and require additional regulatory actions. To prevent regulatory conflict and maintain consistency with local and state stormwater goals, FDEP should incorporate clear stormwater performance standards for synthetic turf installations. Please consider the following addition to Section 4:

- (4) Stormwater management. Synthetic turf drainage system must be installed underneath in such a way as to prevent excessive runoff or pooling.
- Synthetic turf systems must incorporate subsurface drainage infrastructure designed to prevent excessive surface runoff or pooling.
- (a) For new development (PUD, Common Plan of Development or Similar Subdivision), an appropriate runoff coefficient shall be calculated based upon the permeability standards within Section 3 and any relevant site-specific information. The runoff coefficient will be applied to all areas of proposed synthetic turf and incorporated into the overall drainage plan. Additionally, the total surface area of synthetic turf installed on a property shall not exceed 25% of total lot area or, if in place, any local codes or ordinances addressing impervious surface thresholds.
- (b) <u>For existing homesites, where the installation of synthetic turf will exceed 3% of the lot area, the following standards shall apply:</u>
 - 1.) The total surface area of synthetic turf installed on a property shall not exceed 25% of total lot area or, if in place, any local codes or ordinances addressing impervious surface thresholds.
 - 2.) The installation and use of synthetic turf must not increase post-installation stormwater runoff volume or rate beyond natural pre-installation conditions.
 - 3.) The synthetic turf drainage system must be designed and installed to closely mimic the natural hydrologic conditions of the site, ensuring that runoff volume, flow direction, and discharge rates are not increased on-site or on adjacent properties.

Section 5 – Potable Water Conservation

FSA appreciates the inclusion of potable water conservation measures in the proposed rule but has several concerns with the current draft. Specifically, limiting irrigation only for "non-active synthetic turf areas" leaves room for misinterpretation and inconsistent application across jurisdictions. In addition, the rule does not clearly establish how synthetic turf installations should be managed during statewide or local water use restrictions, which may lead to enforcement gaps or unnecessary potable water use during drought conditions. To strengthen the rule and support Florida's long-term conservation goals, FSA recommends the following additions and clarifications to Section 5:

- (5) Potable water conservation.
- (a) In-ground irrigation systems shall not be used to irrigate any synthetic turf area, including both active and non-active areas. "Non-active areas" are defined as any synthetic turf area not regularly used for organized recreational purpose.
- (b) If any in-ground <u>irrigation</u> system is already installed, <u>all irrigation</u> heads <u>in synthetic</u> <u>turf areas (active and non-active) must be permanently removed, and associated piping shall be capped or otherwise decommissioned to prevent unintended water use.</u>
- (c) Nothing in this rule shall constitute an authorization for the consumptive use of water for the maintenance or irrigation of synthetic turf. Synthetic turf installations shall be subject to all applicable local or state-issued water use restrictions, including drought related bans and emergency conservation orders.

Section 6 – Water Quality

FSA urges FDEP to prioritize water quality protections within this rule. The previous sections of this rule, as revised, would address some of the concerns, the broader impacts of replacing natural landscapes with synthetic materials must be considered. Florida and its local governments are heavily invested in the protection and restoration of water quality through programs such as Basin Management Action Plans (BMAPs), TMDLs, and local stormwater regulations. Synthetic turf installations must not contribute to pollutant loads in impaired waters or create new water quality challenges. Importantly, this rule must not preempt or weaken existing local ordinances or state mandated restoration efforts. Many local codes were enacted specifically to meet state water quality goals and should remain enforceable. Please consider the following addition to Section 6:

- (6) Water quality.
- (a) Installation of synthetic turf must comply with all applicable local, regional, or state water quality regulations, including but not limited to ordinances governing stormwater runoff, setbacks from waterbodies, and implementation of adopted water quality restoration plans. This rule shall not preempt or override any local government code or ordinance enacted to protect water quality or comply with state mandates. including requirements limiting installation near waterbodies.
- (b) If no local government regulations are in place, synthetic turf shall not be installed within 10 feet of the top bank of any natural or manmade waterbody, including lakes, ponds, rivers, streams, canals, or stormwater conveyance systems.
- (c) In all cases, synthetic turf installations must not contribute to water quality degradation in impaired waters, nor shall they result in new pollutant loadings that could lead to future waterbody impairments under state or federal criteria.

Section 7 – Proximity to trees and other vegetation

The importance of tree and other vegetation protection is important, and the current language does provide some protection to maintain health. However, we recommend strengthening the language to include heat related impacts. Please consider this recommendation to Section 7:

(7) Proximity to trees and other vegetation. No installation of synthetic turf can be done within the dripline footprint of existing trees or vegetation. Impacts from installation activities, increased run-off after installation, or heat impacts from installed synthetic turf cannot compromise the health of nearby trees, tree roots, or vegetation.

Section 8 – Other factors impacting environmental conditions of adjacent properties

This section of the rule covers a broad range of conditions which is appreciated. FSA would recommend strengthening some of the components of this section and include one additional piece on operation and

maintenance of installed synthetic turf. Please consider these revisions to Section 8 to help strengthen this portion of the rule:

- (8) Other factors impacting environmental conditions of adjacent properties.
- (a) <u>Synthetic turf must be installed in accordance with the manufacturer's specifications and in compliance with all applicable local stormwater, grading, and erosion control, and drainage regulations.</u>
- (b) <u>Turf systems must be securely anchored at all edges and seams to ensure that turf will withstand the effects of wind and significant rainfall events.</u>
- (c) The installation and use of synthetic turf must not create or contribute to structural damage, flooding, or runoff impacts on adjacent properties.
- (d) Installed synthetic turf systems should be maintained in a clean and functional condition to ensure continued permeability and stormwater performance.
- (e) Property owners or installers shall regularly inspect turf systems to verify that infiltration and drainage are functioning as intended. Accumulated debris, organic material, and sediments that impair performance or increase runoff risks to adjacent properties must be removed promptly.

FSA welcomes the opportunity to support FDEP in the development of the draft rule and remains available to discuss our comments and proposed language in greater detail. Thank you for your time and consideration of our input.

Sincerely,

FLORIDA STORMWATER ASSOCIATION, INC.

Danielle Hopkins