

Department of Legislative Services  
Maryland General Assembly  
2019 Session

FISCAL AND POLICY NOTE  
First Reader

House Bill 1118  
Appropriations

(Delegate Solomon, *et al.*)

---

Use of Public Funds - Playground and Athletic Field Surfaces - Authorizations,  
Preferences, and Prohibitions

---

This bill prohibits the use of State funds to finance any portion of a project to build new or replace existing playgrounds or athletic fields with a synthetic surface. It also requires, to the maximum extent practicable, State or local governmental agencies to give consideration and preference to the use of state-of-the-art natural surface materials in any project to construct a playground or athletic field. The bill also authorizes the State and local governments to use specified Program Open Space (POS) funds for (1) the maintenance and upkeep of grass athletic fields and (2) drainage systems for grass athletic fields. **The bill takes effect July 1, 2019, and applies only prospectively to any project for which funds have not been allocated before that date.**

---

Fiscal Summary

**State Effect:** No effect on the State's capital budget; to the extent that State funds are not used for the installation of artificial surfaces, they are available for other capital projects. POS funds used for maintenance and drainage of grass athletic fields are not available for other authorized uses. Agencies that currently administer affected grant programs can handle the bill's requirements with existing budgeted resources, as discussed below. No effect on revenues.

**Local Effect:** Because local governments are prohibited from using State funds to build new or replace existing athletic fields with artificial or synthetic turf surfaces, they may incur additional costs if they elect to install artificial turf fields or playground surfaces. Any increase in operating costs from the installation of grass athletic fields may be partially offset by the use of POS funds for their maintenance and drainage. The net effect cannot be reliably estimated.

**Small Business Effect:** Potential meaningful.

---

## Analysis

**Current Law:** There is no prohibition against using State funds to pay for the installation of synthetic surfaces for playgrounds or athletic fields.

At least three State programs provide funding/grants to local governments that can and have been used to install synthetic turf fields and/or playgrounds. POS, established in 1969 and administered by the Department of Natural Resources (DNR), provides funds for State and local acquisition and development of public outdoor recreational sites, facilities, and open space. Local funds are appropriated to every county and Baltimore City based on a formula. The State share focuses on the acquisition of land for natural resource conservation with the inclusion of low-impact recreational activities where appropriate. The local jurisdiction's share is used primarily for the acquisition and development of high-impact recreational sites and facilities.

DNR advises that 56 local projects involving artificial turf (in Anne Arundel, Baltimore, Cecil, Howard, Montgomery, and Prince George's counties and Baltimore City) have been completed with or approved for POS funding. It does not have comparable data for playgrounds that used synthetic ground cover.

The Community Parks and Playgrounds Program is a competitive grant program that provides flexible grants exclusively to municipal governments to respond to the unmet need for assistance to rehabilitate, expand, or improve existing parks, create new parks, or purchase and install playground equipment in older neighborhoods and intensely developed areas throughout the State.

Finally, the Public School Construction Program under the supervision of the Interagency Commission on School Construction (IAC) funds at least 50% of eligible construction costs for public school construction and capital improvement projects. The share of State support varies by measures of local wealth and other factors. IAC advises that playgrounds and athletic fields are not funded as standalone projects in its *Capital Improvement Program* but may be included in larger renovation or new construction projects. However, some standalone projects have been funded through the Aging Schools Program and the federally subsidized Qualified Zone Academy Bond program, which is no longer operational.

In addition, State capital budgets over the past decade have included funding for designated projects involving playing fields and playgrounds. DNR advises that, over the past five years, it has built 13 playgrounds in State parks that all used synthetic surface material for portions of the playground.

## **Background:**

### *Prevalence and Costs of Synthetic Surfaces*

Synthetic turf fields are used throughout the United States, with more than 12,000 fields currently in use. These fields are often made with rubber granules from recycled tire waste used as infill (often called “crumb rubber”). They grew in popularity for several reasons, including their (1) limited maintenance costs; (2) durability and availability for use on a year-round basis; and (3) reduced need for pesticides and fertilizer. Rubberized surfaces have also increasingly been used for playgrounds.

In general, artificial surface playgrounds and fields are more expensive to install but less expensive to maintain on an annual basis. The cost of installing an artificial turf field ranges from \$800,000 to \$1.5 million. By comparison, Anne Arundel County has previously estimated the average cost of installing a natural surface field at about \$110,000. However, annual maintenance costs for a natural field are approximately \$30,000, compared with about \$4,000 for an artificial turf field. The 10-year cost of an artificial turf field is, therefore, higher (with a much larger initial cost), but installation can often be paid for with State grants or capital funds, whereas maintenance costs are paid from local operating budgets. Similarly, based on information provided by DNR, the cost of installing a synthetic surface for a playground is five to six times higher than the cost of installing a wood mulch covering. However, annual maintenance costs for a mulch surface playground are about \$4,000 compared with about \$500 for a playground with a synthetic surface. DNR also advises that synthetic surfaces for playgrounds are compliant with the federal Americans with Disabilities Act, whereas wood mulch coverings for playgrounds are not.

### *Research on Health Effects*

Concern with possible negative health and safety issues with crumb rubber began to emerge as early as 2008, when testing by the New Jersey Department of Health and Senior Services revealed potentially unhealthy levels of lead dust in some artificial turf playing fields in New Jersey. Public concern increased in 2014 and 2015, when stories first by NBC News and then by ESPN spotlighted a women’s soccer coach at the University of Washington who kept a list of the growing number of athletes, many of them soccer goalies, who had contracted blood cancers after prolonged exposure to artificial turf fields with crumb rubber infill. In just a couple of years, the list grew from 38 athletes to more than 200.

The Synthetic Turf Council, a Georgia-based nonprofit that represents the industry, states that many studies and independent sources have confirmed that synthetic turf is safe. The group asserts that, after the 2008 tests in New Jersey found elevated lead levels on synthetic turf fields, the industry switched to a nonlead pigment. DNR advises that newer synthetic

materials used for playground surfaces are made from 100% virgin rubber, not recycled rubber.

In January 2016, three federal agencies (the Environmental Protection Agency, the Centers for Disease Control and Prevention, and the Consumer Product Safety Commission) announced a multi-agency federal research action plan (FRAP) to study key environmental health questions related to the use of synthetic turf fields. The announcement and subsequent publications related to FRAP acknowledge growing public concern with the safety of turf fields and the lack of reliable research on their health effects. The plan includes data and knowledge gap analysis; outreach to stakeholders; testing of tire crumb to characterize chemicals, potential emissions, and toxicity; and other related activities.

An update on FRAP was released in December 2016, but it only summarized research activities and did not include any findings. The update indicated plans to release a final report late in calendar 2017 or early 2018; the report was sent to technical review in May 2018 and was scheduled for release in “early 2019,” but no report has yet been released as of March 2019. In a June 2017 presentation to the National Toxicology Program Board of Scientific Counselors, the research team noted that preliminary tests found multiple volatile organic compounds and metals, including zinc, in crumb rubber (as had earlier studies), but that it was completing additional research to determine if the levels of those substances in crumb rubber was toxic and if they are in fact absorbable or ingestible through exposure to crumb rubber infill.

**State Expenditures:** Total State funding for POS, school construction, and other related programs is not affected by the bill’s prohibition. To the extent that State funding is not available for artificial turf fields or playground surfaces, it is available for other capital projects. At the same time, to the extent that POS funds are used for maintenance, upkeep, and drainage of grass athletic fields, it is not available for other purposes. DNR and IAC both advise that the bill has minimal or no effect on their operations.

The Department of General Services (DGS) monitors and provides technical assistance to nonprofit organizations that receive State grants to support capital projects. The bill does not assign DGS any enforcement role, and it is assumed that any grants awarded by the State to nonprofit organizations will be conditioned on the funds not being used for an artificial turf field or playground surface. Therefore, DGS can likely handle any changes with existing budgeted resources.

**Local Fiscal Effect:** Because local governments are prohibited from using local POS funds for building or replacing athletic fields with artificial or synthetic turf surfaces, they may incur additional costs to move forward with such projects. Counties with plans to install artificial turf fields may be required to delay or abandon such plans unless alternative funding sources are identified.

Local jurisdictions that opt to use natural surfaces for fields and playgrounds may have lower installation costs but higher annual maintenance costs. However, maintenance costs may be at least partially offset by the use of POS funds. The net effect cannot be reliably estimated because the extent to which State funds might offset installation and maintenance costs in each instance cannot be determined.

**Small Business Effect:** The extent to which small businesses are involved with the sale and/or installation of artificial or synthetic turf and/or the maintenance of natural grass athletic fields through contracts with local governments is unknown. In addition, the extent to which artificial or synthetic turf projects would move forward with local funds or be canceled altogether cannot be predicted. Accordingly, the bill's potential impact on small businesses cannot be reliably estimated, but could be significant.

**Additional Comments:** DNR and the Department of Legislative Services advise that capital funds may not be used for operating costs, including maintenance.

---

### **Additional Information**

**Prior Introductions:** None.

**Cross File:** None.

**Information Source(s):** Baltimore City; Anne Arundel, Calvert, Caroline, Montgomery, and Prince George's counties; Maryland Association of Counties; Maryland Municipal League; Public School Construction Program; Department of Budget and Management; Department of General Services; Department of Natural Resources; U.S Environmental Protection Agency; National Toxicology Program; ESPN; Department of Legislative Services

**Fiscal Note History:** First Reader - March 11, 2019  
mm/ljm

---

Analysis by: Michael C. Rubenstein

Direct Inquiries to:  
(410) 946-5510  
(301) 970-5510