House Bill 1098 Use of Public Funds – Playground and Athletic Field Surfaces – Authorizations, Preferences, and Prohibitions (Safe and Healthy Fields Act) Appropriations Committee

March 5, 2020

SUPPORT

Submitted by Diana Conway, President, Safe Healthy Playing Fields, Inc.

Chair McIntosh, Vice Chair Jackson and Members of the Appropriations Committee,

Thank you for the opportunity to submit these comments on HB1098, on behalf of Safe Healthy Playing Fields, Inc. (SHPFI). Our 501-c-3 non-profit and associated chapters around the US have worked for over a decade to educate communities about synthetic turf (synturf) versus grass fields.

We urge the committee to support HB1098 and redirect Maryland's Program Open Space funds (POS) toward state-of-the-art grass fields and away for synturf. Our research indicates that grass fields are superior to synturf on the following grounds: **cost, injury, heat, toxicity and disposal**. The synturf v. grass issue is cropping up around the US, with the first generation of synturfs now aging out at schools and parks. This is triggering contentious local discussion on the financial, health and environmental implications of these surfaces.

HB1098 will guide the use of state POS funds toward the program's founding vision though responsible investment of our scarce resources. POS is "Maryland's leading land preservation program" with "a whole suite of **land conservation** efforts" that are "all **part of the solution** for meeting land conservation goals, protecting the environment, and creating **healthy** places for our children to play."[1]

This Committee is primarily focused on the wise spending our tax dollars. You have already heard from my colleagues that on costs alone synturf loses to grass. But I know that beyond up-front costs, you recognize the cost of expanding an **unfunded mandate** for an **unsustainable product**.

I know you also recognize the very real costs of **physical injury** to our community members and children; the costs from **toxic exposure** to lead, carcinogens, endocrine disruptors and asbestos-like substances including carbon nanotubes; the cost from **environmental contamination** of our air, water and soil; the costs of **unregulated dumping** of toxic waste in underserved communities; and the costs of adding to the **heat-island** load.

[1] www.partnersforopenspace.org

Each of these costs is another strike against synturf and another reason to support HB1098 and using POS funds for quality grass fields.

- COST: Installation costs for a de novo field are at least twice as high for synturf as for state-of-the-art grass: $1M to $1.3M versus $350k to $475k.
- COST: Synturf contracts have always required significant site prep, engineering and drainage. State-of-the-art grass fields with this same preparation costs ½ or less than synturf at installation.
- COST: Maintenance costs are equivalent or marginally higher for grass, year over year.
- COST: At each cycle of year 8-to-10, synturf hits a "balloon payment" to completely remove the plastic carpet and infill (about 250 tons), haul it away, and replace it for a cost of $600k to $750k per cycle.
- COST: That cyclical cost-spike is an unfunded mandate on an 8-10 year rotation.
- COST: The increasingly standard shock-pad adds $100k to $225k to each 8-10 year cycle.
- COST: Grass fields incur **none** of those costs for removal, replacement or shock-pads.

- DISPOSAL: This remains an unresolved, ugly problem. Illegal dumping and dubious "storage" across the US is occurring primarily in rural and low-income communities least able to object or hold dumpers accountable.
- DISPOSAL: Externalizing the cascading cost of disposal onto such communities conflicts with Maryland's vision generally and with the goals of POS specifically.
- DISPOSAL: **Synturf recycling is a hoax**. Multiple extensive investigative reports casting serious doubt on the reality of synturf recycling and naming specific companies frequently cited as recyclers by synturf vendors and manufacturers. The serious allegations in these reports remain **unanswered** after nearly three months by the recycling companies or the vendor, manufacturers and others implicated in the reporting.[2][3]

- HEAT: Synturf reaches shocking temperatures, directly contradicting the claims of unlimited use.
- HEAT: The DC metro area has consistently registered into the 160s on warm sunny days, while grass stays within 10-15 degrees of ambient temperatures.
- HEAT: These extreme temperatures require either that athletes use the fields in unsafe conditions or else that fields remain unused and unavailable in high-demand summer-camp months. With climate change, this temperature issue can be expected to affect spring training and fall sports.

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[2] *"Fields of Waste,"* https://www.marylandmatters.org/2019/12/21/fields-of-waste-artificial-turf-becomes-mounting-disposal-mess/; *Artificial turf, touted as recycling fix for millions of scrap tires, becomes mounting disposal mess--Where do the millions of square feet of synthetic turf go to die?* https://www.salon.com/2019/12/21/artificial-turf-touted-as-recycling-fix-for-millions-of-scrap-tires-becomes-mounting-disposal-mess_partner/; *"The Dangerous Pile-Up of Artificial Turf,"* https://www.theatlantic.com/science/archive/2019/12/artificial-turf-fields-are-piling-no-recycling-fix/603874/?utm_sq=gagte0qii9

[3] "*Running Out of Room,*" https://www.ydr.com/in-depth/news/2019/11/18/old-artificial-turf-fields-pose-huge-waste-problem-environmental-concerns-across-nation/2314353001/

- INJURY: The statistics on synturf are damning. Synturf is notorious for turf-toe, for twisting-injuries especially to foot, ankle and knee, and for concussion rates that, according to a study of one million high school football players, are "dramatically higher" on synturf than on grass.[4]
- INJURY: Concussions are more common on synturf due to elevated Gmax (hardness). Well-maintained grass ranges between 8 and 130, depending on moisture. The NFL accepts Gmax levels of no higher than 100. Most synturf vendors require their product be maintained at 165 or lower, down from 175 several years ago. Just 25 points above that, at 200, qualifies as OSHA's "will cause death" and frozen synturf comes in even higher-- at 225.

- TOXICITY: Synturf has been analyzed by two sets of people: industry and independent organizations. An industry go-to environmental consultant, Gradient, has been described by a Pulitzer-winning publication as belonging to "a breed of scientific consulting firms that defends the products of its corporate clients **beyond credulity**, even exhaustively studied substances whose dangers are not in doubt, such as **asbestos, lead and arsenic**. Gradient's scientists rarely acknowledge that a chemical poses a serious public health risk."[5]
- TOXICITY: Industry representative Zach Franz stated to this body in 2016 that "**Yes our product contains lead**,"[6] a statement which remains mysteriously unrebutted four years later despite repeatedly bringing it up at hearings attended by him and other industry representatives.
- TOXICITY: New research on toxicity and exposure has debunked the adage that "the dose makes the poison." Endocrine science has established that exceedingly small doses can have big effects. This is exponentially more dangerous with younger children, children closer to the surface materials, and those most likely to engage and hand-to-mouth behavior.
- TOXICITY: Repeated claims by industry that the synturf product has been "proven" safe are **not correct**. Most middle-school science students could likely confirm that absence of evidence of harm is not the same as evidence of absence of harm. As with cigarettes, asbestos, agent orange, DDT, dioxin and many others, the harm may take years to manifest, and further years for research to *prove* through epidemiological study, that a verified harm and the exposure are linked.
- TOXICITY: In the interim, it is irresponsible to forgo materials that are available and known to be safe, like grass, in favor of materials that are known to contain a highly variable, largely undisclosed toxic stew and are **not regulated for use by children**.
- TOXICITY: While grass fields provide a cooling effect, infiltrate water and serve as a carbon sink, synturf generates five tons of infill runoff –usually shredded waste tires-- per year per field,. That runoff is often super-heated and laden with the mix of biocides, fungicides and flame retardants required to meet warranty.

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[4] Concussion study excerpt: https://www.healio.com/orthopedics/sports-medicine/news/online/%7B095e875c-8c2c-4f31-8340-b0aaf576a4ce%7D/high-school-football-concussion-risk-greater-for-young-athletes-and-on-turf?fbclid=IwAR31G1t71umvALIExut1nd9wzxM-WnMRo-h77BjpxmYWoS7YOD05Sa42qNI

[5] https://www.publicintegrity.org/2016/02/08/19223/meet-rented-white-coats-who-defend-toxic-chemicals

[6] https://www.youtube.com/watch?v=W6I6C869I3Q, 3-8-16

There is an additional reason POS funds do not belong in the budget of a synturf project. It appears from both the Department of Natural Resources and the Partners from Open Space online documents that POS grants are intended primarily for either acquisition in perpetuity, or for development of a community resources with a life expectancy of **twenty years**. The twenty-year requirement is also applied to those cases where a grant is being considered for a lease.[7] Synthetic turf **doesn't come close** to 20 years. With its eight-year standard warranties and even generously-extended 11-year life-span, synturf seems not to qualify for POS grants on its face. It is likely that absent any review from this perspective, these grants simply went ahead under then-prevailing views that synturf was a net benefit. Today we know better.

Synturf is an uncontrolled experiment that intentionally exposes children and athletes to known carcinogens, neurotoxins, and other significant toxicants --- chronically and over time, in high heat, with close, frequent, intended contact by children, at taxpayer expense, without regulation, disclosure or consent. It is physically dangerous, is environmentally unsustainable, and is unaffordable. Our POS funds are better spent on state-of-the-art grass fields.

For these reasons I urge the Committee to give a favorable vote to HB1098. On behalf of Safe Healthy Playing Fields, Inc., we thank you for considering our views.

Respectfully submitted,

Diana Conway, President

Safe Healthy Playing Fields, Inc.

https://www.ydr.com/in-depth/news/2019/11/18/old-artificial-turf-fields-pose-huge-waste-problem-environmental-concerns-across-nation/2314353001/, reprinted in Washington Times, US News.

[7] https://dnr.maryland.gov/land/Documents/POS/localposmanual_2006.pdf; https://www.partnersforopenspace.org/