

HB457-FAV-FARBER-FINAL.pdf

Uploaded by: Amanda Farber

Position: FAV

HB 457 - SUPPORT

Amanda Farber
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240-271-9033

HB 457 SUPPORT - Environment – Synthetic Turf and Turf Infill – Chain of Custody

Hearing: Feb 16th, 2024

Dear Chair Korman, Vice Chair Boyce, and Members of the Environment and Transportation Committee:

I strongly support HB 457 which would require the Department of the Environment to establish a system to track the chain of custody of synthetic turf installed on sports and playing fields in the State; require the custodian of a synthetic turf sports or playing field installed in the State to report chain of custody information to the Department on or before January 1, 2025, or within 30 days after the completion of the installation, whichever is later, and impose an administrative penalty for violations.

This bill is about transparency and best practices; it is neither punitive nor prohibitive.

All synthetic turf fields have limited lifespans and require regular replacement at least every 8-10 years. Some organizations and jurisdictions have fields that have required more frequent replacement. Between the large number of synthetic turf fields that must be removed every year, the petrochemical based plastic carpet, the shock pad, and the infill component of each field (consisting of silica sand, tire crumb and/or other infills), this represents a massive amount of material which must be managed. In fact, the industry has characterized the amount of material to be handled as “enormous,” and has acknowledged that synthetic turf components have not always been handled or disposed of responsibly. This bill requires a simple, straightforward reporting of the chain of custody of the materials involved.

The Synthetic Turf Council guidelines themselves recommend chain of custody documentation.

https://cdn.ymaws.com/www.syntheticurfCouncil.org/resource/resmgr/guidelines/STC_Guideline_for_Recycle_Re.pdf

The Synthetic Turf Council (STC), the “world’s largest organization representing the synthetic turf industry,” released their latest version of their *Guideline to Recycle, Reuse, Repurpose and Remove Synthetic Turf Systems* in 2017. The guidelines include recommendations and multiple examples of chain-of-custody, but there is little in the way of required accountability.

The industry has often used vague or greenwashed language with regards to disposal and recycling. For example, just because an item is theoretically “recyclable” does not mean it is practical to do so. In addition, the term “recycling” is often used when in fact companies are referring to “reusing” or “repurposing.” We do know there are currently no complete circular synthetic turf recycling facilities in the United States at this time. Synthetic turf can be re-used, landfilled, incinerated, dumped, or stockpiled. Again, this is why chain of custody is critical.

Basic reporting is an opportunity for the industry to be good stewards of their product and the environment.

https://football-technology.fifa.com/media/1230/artificial_turf_recycling.pdf

FIFA, the international governing body for football (soccer) commissioned an Environmental Impact Study of Artificial Football Turf dated March 2017.

The report raises the issue of disposal cost and transparency, stating, “there may be a significant issue with the illegal dumping of waste pitches and this issue will only worsen as an increasing number of pitches will need to be disposed of in the coming years.” The report also warns, “IMPORTANT! Always ask for proof of where the turf is being sent. Illegal dumping is the worst possible end for your pitch!”

A number of news outlets have recently covered the growing issues surrounding the end-of-life disposal of artificial turf - and need for additional transparency and accountability:

- The Philadelphia Inquirer – ‘Forever Fields:’ How Pennsylvania Became a Dumping Ground for Discarded Artificial Turf; December 13, 2023 <https://www.inquirer.com/news/pennsylvania/artificial-turf-pfas-rematch-pennsylvania-dumping-ground-20231213.html>
- The Atlantic - *Fields of Waste: Artificial Turf Is Piling Up With No Recycling Fix*; December 19, 2019 <https://www.theatlantic.com/science/archive/2019/12/artificial-turf-fields-are-piling-no-recycling-fix/603874/>
- York Daily Record / USA Today - *Worn Out Artificial Turf Fields Pose Huge Waste Problem Across Nation*; November 18, 2019 <https://www.ydr.com/in-depth/news/2019/11/18/old-artificial-turf-fields-pose-huge-waste-problem-environmental-concerns-across-nation/2314353001/>
- Seattle Times - *Feds Order Owner of Dam on Puyallup River to Clean Up Spill From Artificial Turf*; September 3, 2020 <https://www.seattletimes.com/seattle-news/environment/feds-order-owner-of-dam-on-puyallup-river-to-clean-up-spill-from-artificial-turf/>
- Zembla - *The Artificial Turf Mountain*; September 20, 2018 <https://www.bnnvara.nl/zembla/artikelen/the-artificial-turf-mountain>
- Maryland Matters – *Legislation Seeks More Environmentally Friendly Turf Removal*; February 20, 2020 <https://www.marylandmatters.org/2020/02/20/proposed-legislation-could-see-more-environmentally-friendly-turf-removal/>

It should not be difficult for stakeholders to obtain basic verifiable information regarding chain of custody of synthetic turf material and turf infill – but it is. HB 457 will help ensure greater accountability in the handling of the material without an undue burden on the industry.

Thank you,

Amanda Farber

Resident District 18



The Philadelphia Inquirer
Over 6,000 rolls of artificial turf sit on B.D. Hill Side Farm in Nicholson, Pa., on Thursday, Oct. 26, 2023. Re-Match, a Danish recycling company, allegedly told the farm owner it would pay ... [Read more](#)
Monica Herndon / Staff Photographer



Rolls upon rolls of artificial turf were dumped on farmland owned by Jim Halkias in Grantville, Dauphin County, Pa. Re-Match, a Denmark-based recycling company, had initially paid Halkias \$4 ... [Read more](#)
Jessica Griffin / Staff Photographer

HB0457 Environment - Synthetic Turf - Chain of Cus

Uploaded by: Carla Tevelow

Position: FAV

HB0457 Environment - Synthetic Turf - Chain of Custody - favorable

Dear Chair Korman and Co-Chair Boyce, and members of the committee,

My name is Carla Tevelow and i am in support of HB0457 - Chain of Custody for synthetic turf.

At this time, there are thousands of tons of synthetic/artificial fields on the ground throughout Maryland. Not only do they contain plastic but there are many fields using crumb tire waste, which contains lead, for infill. Anybody and everybody who is aware of plastic and lead in our environment, knows how detrimental it is to not only our health but also the health of other organisms. Also, these fields need to be trashed and replaced every 8-10 years.

It is difficult, if not impossible, to track this massive amount of toxic plastic waste and infill. This bill requires Maryland Department of Environment (MDE) to establish a system to track the chain of custody of synthetic turf and turf infill installed on sports playing fields, from installation to removal, reuse, repurposing, recycling, and disposal and publish this chain of custody information on MDE's website.

Many people are very sensitive and would like to avoid being in areas which augment and affect their health, as this product does. We need to rely on the state of Maryland/MDE to allow its citizens this opportunity.

Please vote for HB0457.

Thank you for your consideration,
Carla Tevelow
Woodstock, MD

MCA HB457 synthetic turf chain of custody.pdf

Uploaded by: Caroline Taylor

Position: FAV



Committee: Environment and Transportation
Testimony on: HB0457 - Environment - Synthetic Turf - Chain of Custody
Organization: Montgomery Countryside Alliance
Submitting: Caroline Taylor, Executive Director
Position: Favorable
Hearing Date: February 16, 2024

Dear Chair Korman, Vice Chair Boyce, and honorable members of the committee,

Thank you for this opportunity to testify on behalf of the Montgomery Countryside Alliance in support of HB457, the synthetic turf chain of custody bill. Synthetic turf fields represent an easily overlooked challenge: What happens to the old fields when they're no longer usable? Where do old fields go?

The answer matters because there are over 430 synthetic fields in Maryland alone, and each one has to be removed, usually after about a decade. A single field weighs hundreds of tons and includes a daunting list of toxic contents including numerous known carcinogens, endocrine disruptors, heavy metals, PFAS, and more. Additionally, these plastic fields will generate significant amounts of microplastic debris if they are improperly disposed of. The infill on synthetic turf fields is very fine-grained material, usually pulverized waste tires, that easily disperses if left uncontained.

This issue is especially salient for MCA because of what happened just one hundred miles north of our Agricultural Reserve, to a farmer in Dauphin County, PA. As reported in the [Philadelphia Inquirer](#), the Pennsylvania farmer was approached in 2018, to store used artificial turf while the owner waited for a recycling facility to be built. Hundreds of rolls of used turf were stacked ten feet high and visible from the road. But after two years, the rent payments stopped, and the facility has not broken ground. Meanwhile the Department of Environmental Protection received complaints about the unsightly stacks, calling it a "public nuisance." The result is over 1,000 rolls of deteriorating synthetic turf out in the open, contaminating the surrounding soil and groundwater of the farm with toxic chemicals and microplastic debris.

In order to prevent this scenario from expanding to Maryland, **we urge the Committee to give HB457 a FAVORABLE report.**

Philadelphia Inquirer 12-23-23

[Forever Fields - How PA became a dumping ground for discarded artificial turf](#)

<https://www.inquirer.com/news/pennsylvania/artificial-turf-pfas-rematch-pennsylvania-dumping-ground-20231213.html?query=forever%20fields>

HB0457_Synthetic_Turf_Chain_of_Custody_MLC_FAV.pdf

Uploaded by: Cecilia Plante

Position: FAV



TESTIMONY FOR HB0457 ENVIRONMENT – SYNTHETIC TURF – CHAIN OF CUSTODY

Bill Sponsor: Delegate Lehman

Committee: Environment and Transportation

Organization Submitting: Maryland Legislative Coalition

Person Submitting: Cecilia Plante, co-chair

Position: FAVORABLE

I am submitting this testimony in favor of HB0457 on behalf of the Maryland Legislative Coalition. The Maryland Legislative Coalition is an association of activists - individuals and grassroots groups in every district in the state. We are unpaid citizen lobbyists, and our Coalition supports well over 30,000 members.

Synthetic turf is an often-overlooked source of toxicity. It contains toxic metals, such as cadmium, lead and arsenic, in addition to phthalates, which may negatively affect some organs, including reproductive organs. Various substances, including old tires and silica sand, are used to make artificial grass so levels of toxins in artificial turf differ from one manufacturer to the next manufacturer.

Additionally, synthetic turf can negatively affect the environment in many ways. Hosing down artificial turf creates runoff, transferring its elements, such as chromium, to the ground and water supply. When it's time to dispose of artificial turf, it can take decades to break down fully in a landfill. Habitat erosion is another side effect of artificial grass because it does not provide a home or food for insects, birds and other animals.

In Maryland, synthetic turf is not regulated in any way. Often, it is thrown out when it is no longer useful and it sits in landfills. We don't even have information about how much synthetic turf is in Maryland and how it is being disposed of. This bill would ask the Department of the Environment to create a system to track the chain of custody from transportation, installation, removal, reuse or recycling and finally through disposal. It would also require a custodian of synthetic turf to report information about where it is installed by January 1, 2025. This information is necessary to understand exactly how much synthetic turf is in use and how it is disposed of.

The bill does not require any approval from the government – just reporting on the change in custody and is designed to provide transparency around the process. This reporting process helps both the buyer and the seller. It allows the seller to use their compliance and transparency as a selling point for the proper handling of the turf, and it allows the buyer to know that their purchase won't wind up being improperly dumped. It also will prevent improper disposal of a significant quantity of plastic, which Maryland needs to ensure is not being cavalierly dumped in landfills. If we cannot take this small step to

try to get a handle on the deluge of plastic pollution in Maryland, we will have no hope for ever getting out of this fossil fuel crisis.

Our members see this as a required first step to understand how this toxic substance is being handled and we feel that everyone involved in the chain of custody should be supportive of this requirement for themselves and the good of all Marylanders. We support this bill and recommend a **FAVORABLE** report in committee.

HB457_IndivisibleHoCoMD_FAV_CrystalKonny.pdf

Uploaded by: Crystal Konny

Position: FAV



[HB-0457](#)

**Environment - Synthetic Turf - Chain of Custody
Testimony before Environment and Transportation**

Hearing Date: February 16, 2024

Position: Favorable

Chair Korman, Vice-Chair Boyce, and members of the committee, my name is Crystal Konny, and I represent the 750+ members of Indivisible Howard County. Indivisible Howard County is an active member of the Maryland Legislative Coalition (with 30,000+ members). We are providing written testimony today in [support of HB0457](#) which establishes a system to track the chain of custody of synthetic turf installed on sports and playing fields in the State.

This legislation will require the Maryland Department of the Environment (MDE) to develop a system to track the chain of custody for synthetic turf fields and turf infill in Maryland from installation to use, repurposing, recycling, and disposal, will require custodians of the fields to report to MDE, and will require MDE to post the information publicly. Public disclosure will serve as a deterrent for improper disposal and illegal dumping, which is currently a real problem.

Synthetic turf playing fields only last an average of 8 to 10 years, and produce a huge volume of waste when they're replaced. The materials in synthetic turf carpet systems contain aquatic and human toxins. When improperly disposed of and uncontained, especially near waterways, these materials pose risks to humans, wildlife, and the environment. There is no official inventory of the number or location of synthetic turf playing fields in Maryland or where used fields have gone. This bill will address that problem.

For all of these reasons, please pass the Synthetic Turf Chain of Custody bill so that MDE will begin inventorying and tracking the chain of custody for synthetic turf fields.

Thank you for your consideration of this important legislation.

We respectfully urge a favorable committee report.

Crystal Konny
Columbia, MD 21044

HB457 FAV.pdf

Uploaded by: Dave Arndt

Position: FAV

Committee: Environment and Transportation
Testimony on: HB457 – Environment – Synthetic Turf – Chain of Custody
Organization: Climate Coalition Montgomery County
Submitting: Dave Arndt
Position: Favorable
Hearing Date: February 16, 2024

I live in Baltimore where I just saw Under Armour replace a synthetic turf field at their water front headquarters. The old field was ripped-up, thrown into a dumpster and was going to be disposed of. I ask the waste hauler where it was going, they did not know, but speculated that it was either to the Baltimore landfill or the incinerator. I wish this was the only unmanaged turf field in my Locust Point neighborhood of Baltimore, there is at least 5 others that are close to the end of their life.

This bill establishes a simple chain of custody for synthetic turf fields, to track fields as they are installed or removed. By building transparency across the installation, removal, and transfer of each synthetic turf field, Maryland can deter their improper disposal and prevent contamination of soil and water with the material's known harmful chemicals.

HB457 will require the Maryland Department of the Environment (MDE) to: 1) establish a system to track the lifecycle chain of custody of synthetic turf and turf infill installed on sports playing fields sold or distributed in Maryland; 2) require current and future owners/transporters of fields to report to MDE on synthetic turf and turf infill whenever it changes custody; and 3) require MDE to post the chain of custody information on synthetic turf and turf infill playing fields on its website.

Currently, there is no official inventory of the number or location of synthetic turf playing fields in Maryland or where used fields go, once they are removed, usually every 8-12 years. Tracking synthetic fields throughout their lifecycle is extremely important to protect both public health and the environment. Many components of synthetic turf fields are toxic, including heavy metals, carcinogens, endocrine disruptors, PFAS ("forever chemicals") and more. Also, discarded synthetic turf fields can be a source of microplastics in the environment.

HB457 represents a common-sense solution to keeping tracking of synthetic turf fields once they are removed and every time the material is transported. It is simply good public accountability and transparency, and HB457 ensures that MDE can keep track of synthetic turf materials and that the public can stay informed.

I encourage a FAVORABLE report for this important legislation.

Thank you,

Dave Arndt
1445 Haubert St.
Baltimore MD, 21230

Safe Healthy Playing Fields HB457-Chain of Custody

Uploaded by: Diana Conway

Position: FAV



House Bill 457 - Environment - Synthetic Turf - Chain of Custody

Environment and Transportation Committee - February 16, 2024

SUPPORT

**Submitted on behalf of Safe Healthy Playing Fields, Inc.
Submitted by Diana Conway, SHPFI President**

Good afternoon Chair Korman, Vice Chair Boyce and members of the committee,

Thank you for this opportunity to submit written testimony concerning a key priority of **Safe Healthy Playing Fields Inc.** (SHPFI) for the 2024 legislative session.

SHPFI is a national all-volunteer non-profit based in Maryland. We work to inform communities and policy makers about the problems with synthetic turf fields and the benefits of high-quality, high-use natural grass fields.

SHPFI urges the passage of HB457. The purpose of the bill is to assure that the rising waste stream from used synthetic turf fields is managed transparently and responsibly for the protection of communities, and of our water and soil. The mechanism is a simple chain of custody tracking system.

Like its predecessor, HB457 directs the Maryland Department of the Environment (MDE) to implement a chain of custody reporting structure. When enacted, it will require the custodian of a synthetic turf sports field to report to MDE the field's location and size. When it is time for the field to be removed, the custodian informs MDE and reports who the next custodian is. There are no fees or approvals associated with this tracking system. Whenever a field is moved, each custodian simply points the way to the next link in the chain of custody, and that party becomes the relevant custodian.

This seemingly procedural and bureaucratic measure is an important tool to address the public health concerns posed by the volume and the toxicity of used synthetic turf fields.

HB457's tracking system for synthetic turf fields is a low-burden strategy to prevent toxic contamination. In these tight budget times, it is even more important to embrace the fiscal

prudence of preventing contamination versus costly and imperfect remediation after the fact. In a world beset by bad news on the environmental and public health fronts, policy makers like this committee must set the bar: What's an unavoidable burden on our health and our environment for critical needs, and what health and environmental risks can we minimize just by being more attentive to ?

This model of transparency and accountability is practiced across our economy, from ubiquitous Amazon deliveries, to the handling of sensitive legal or financial documents. Moreover, HB457 proposes a remarkably low-burden version of this well-understood concept: A one-step, no-cost, online filing, while the benefits of this tracking are significant: ensuring that this growing waste problem is managed transparently, with an eye to protecting human and environmental health.

We know these fields are removed after eight to ten years, but we don't know where they go next. That matters for two reasons: sheer volume and toxic contents.

Volume: Each field amounts to [hundreds of tons](#) of bulky, heavy, mixed-plastic waste, all of it unrecyclable anywhere in the US. The [Maryland Sierra Club](#) has documented [over 430 fields](#) but we know many remain uncounted, and several counties have not been included at all yet. The U.S. inventory is estimated to be [approximately 15,000 sites](#), with many having seen one or more replacement cycles. Each of these fields represents about two acres of plastic carpet, plus approximately [one billion plastic blades](#) that are glued or stitched to the backing, plus the infill – typically 40,000 pulverized [waste tires](#) required to cushion the surface. On a replacement cycle of eight to ten years, each of the existing fields becomes an ongoing source of plastic waste and microplastic contamination that cannot be ignored.

Yet as [this committee has heard before](#), there is [no regulation for the disposal of synthetic turf](#) when fields reach the end of their useful lives.

Contents: The second reason we need HB457 is that synthetic turf is loaded with an undisputed and [daunting list of toxic components: neurotoxins and heavy metals like lead, known human carcinogens, endocrine disruptors](#), plus the highly toxic [PFAS 'forever chemicals'](#), and the more recently-identified [6PPD quinone that is proving 95%+ lethal to endangered coho salmon](#) along the U.S. West Coast. It seems unlikely that coho salmon are unique in this sensitivity. While we won't stop using tires tomorrow, we can manage where we put 40,000 granulated, highly mobile tires-worth of waste.

The disposal of used synthetic turf fields must be managed responsibly.

Finally, HB457 presents an opportunity for reputable contractors to distinguish themselves to buyers, by assuring their adherence to the chain of custody requirements when removing a

field, so that a parks system or school district isn't [embarrassed](#) to find their old field is now a neighborhood's contamination and waste problem.

By injecting transparency into the process, HB457 will create accountability for the responsible and verifiable disposal of used synthetic turf fields in Maryland. Our communities deserve this.

We ask for your support for HB457 and strongly urge a favorable Committee report.

Respectfully submitted,
Diana Conway, President
Safe Healthy Playing Fields Inc.



NCRH Testimony re Chain of Custody HB457 Feb 2024.

Uploaded by: Diana Zuckerman

Position: FAV



NATIONAL CENTER FOR HEALTH RESEARCH

The Voice For Prevention, Treatment And Policy

Bill: HB0457

Bill Title: Environment – Synthetic Turf- Chain of Custody

Committee: Environment and Transportation

Chair: Marc Korman

Recommendation: FAVORABLE

Submitted by Dr. Diana Zuckerman, President, National Center for Health Research

Status in the House – Hearing 2/16/24 at 1:00 p.m.

Dear Chair Korman, Vice Chair Boyce, and honorable members of the Committee,

I am writing in enthusiastic support of HB457 on behalf of the National Center for Health Research (NCHR), as the president of the Center and as a long-time resident of Maryland's District 16. The bill would establish a simple chain of custody for synthetic turf. NCHR is a nonprofit think tank that conducts, scrutinizes, and explains research with important public health implications for adults and children. We are nationally respected as a source of unbiased information and do not accept funding from entities with a financial interest in our work.

This is an important bill to the public health of Maryland residents because it would require transparency regarding synthetic turf and turf infill. By enabling the public to be informed about the chain of custody from the time of installation; use; possible reuse; recycling; and disposal, the bill would ensure that individuals, policy makers, and communities would be able to make informed decisions that are essential to the health of adults and children in Maryland. The National Center for Health Research is not an environmental organization, but we are very knowledgeable about the scientific issues pertaining to synthetic turf and infill and how inappropriate disposal of those products can affect the health of Maryland residents.

We urge the immediate passage of this bill, because the lack of transparency regarding the chain of custody of synthetic turf and infill has made it impossible for families, communities, and government officials to make informed decisions that affect the health of adults and children. I speak from experience on this matter: synthetic turf became popular locally while my children were playing soccer while growing up in Maryland, and like most parents I was unaware of the environmental or health issues involved. As I became knowledgeable, I was shocked by the widespread misinformation regarding the disposal of these materials.

As the legislators representing our families, you can improve transparency and help communities, families, and government officials determine how synthetic turf and infill are being used and what happens to those products when they are removed. We strongly urge your favorable report on HB457.

Respectfully submitted,

Dr. Diana Zuckerman
President
(dz@center4research.org)

HB457_Clean Water Action_FAV.pdf

Uploaded by: Emily Ranson

Position: FAV



HB457: Environment – Synthetic Turf – Chain of Custody
House Environment and Transportation Committee
February 16, 2024

Position: Favorable

Dear Chair Korman and Members of the Committee,

Clean Water Action supports HB457 to create a chain of custody for synthetic turf fields. This will create transparency across the installation, removal, and transfer of each synthetic turf field. Chain of custody will deter improper disposal and prevent water and soil pollution. HB457 sets up an online reporting system under the Maryland Department of the Environment with minimal burdens and no additional fees or permits.

Used synthetic turf fields are a major waste challenge because not only are they bulky and volumetrically large, but they are also made of toxic materials. A single field is about 440,000 pounds of bulky, mixed plastic waste and infill. The infill is generally made of pulverized tires, which are themselves toxic and a waste challenge.

The Maryland Sierra Club surveyed fields across the state and identified over 430 plastic fields. These fields generally have a lifespan of 8-12 years, after which they need to be disposed of. There are no regulations on the disposal of synthetic turf. While HB457 does not impose new regulations on how they are disposed of, it does track where and gives the state more information to understand where these stockpiles of old tire crumb and other plastics are.

HB457 addresses this problem for Maryland with a sensible, low-burden method of preventing contamination from chemicals in synthetic turf and from microplastic debris, in light of the rising number of synthetic turf fields in Maryland. Accordingly, we recommend a FAVORABLE report for HB457.

Thank you,

Emily Ranson
Chesapeake Regional Director
Clean Water Action
eranson@cleanwater.org

WDC 2024 Testimony_HB457_FINAL.pdf

Uploaded by: JoAnne Koravos

Position: FAV



MONTGOMERY COUNTY, MARYLAND
WOMEN'S DEMOCRATIC CLUB

P.O. Box 34047, Bethesda, MD 20827

www.womensdemocraticclub.org

**House Bill 457 - Environment - Synthetic Turf - Chain of Custody
Environment and Transportation Committee – February 16, 2024
SUPPORT**

Good afternoon, Chair Korman, Vice Chair Boyce and honorable committee members. The **Montgomery County Women's Democratic Club (WDC)** is pleased to submit this testimony in support of HB457. WDC is one of the largest and most active Democratic clubs in our state with hundreds of politically active members, including many elected officials.

WDC urges the passage of HB457. This bill assures that the growing waste problem from used synthetic turf fields is managed with care. HB457 directs the Maryland Department of the Environment (MDE) to implement a chain of custody for each field, across its transportation, installation, removal, reuse, and final disposal.

The bill does so by having each field custodian report to MDE where they obtained their field, from whom, and where it was disposed. The bill does not include any fees, permits, or approvals, and only asks the field custodian to report the most recent link in the chain of custody. The reporting burdens to field custodians are minimal: a one-step, no-cost, online filing. And the benefits accrue immediately: this looming waste problem is managed to protect human and environmental health.

We know these fields are typically removed after 8-10 years, but we don't know where and how they are disposed. That matters for two reasons: sheer volume and toxic contents.

Volume: One field represents hundreds of tons of bulky, heavy, mixed-plastic waste that, [as this committee has heard before](#), and was confirmed last month, is still [unrecyclable anywhere in the US](#). Maryland Sierra Club has [painstakingly documented over 430 synthetic fields](#) across 19 counties and Baltimore city, with many areas not yet inventoried.

Toxic Contents: Each field has [known](#) toxic components including heavy metals and neurotoxins, plus carcinogens, endocrine disruptors, the forever-chemicals [PFAS](#), and fish-killing [6PPD quinone found in all tires](#). The evidence is incontrovertible that [6PPD quinone is causing the 95% mortality in endangered coho salmon](#) on the West Coast. It seems unlikely that coho salmon are unique in this sensitivity. While we won't stop using tires tomorrow, we can manage where and how we dispose of 40,000 granulated waste tires. The transfer and disposal of used synthetic turf fields must be managed responsibly.

Finally, HB457 lets buyers like parks departments and school districts know a vendor will comply with House Bill 457 so they aren't embarrassed to find their old field is now a neighborhood's unsightly toxic problem. By injecting transparency into the process, HB457 will identify the party responsible for disposal of each used synthetic turf field that is removed in Maryland.

We ask for your support for HB457 and strongly urge a favorable report.

Tazeen Ahmad
WDC President

Diana E. Conway
WDC Environment Committee

Cynthia Rubenstein
Chair, WDC Advocacy

Position Statement_HB 457 Environment – Synthetic

Uploaded by: Jordan BaucumColbert

Position: FAV



POSITION STATEMENT

Bill: HB 0457 Environment – Synthetic Turf – Chain of Custody

Position: Support

Date: February 16, 2024

Contact: Debra Borden, General Counsel

Jordan Baucum Colbert, Government Affairs Liaison

Dear Chair Marc Korman and Vice Chair Regina T. Boyce,

The Maryland-National Capital Park and Planning Commission (M-NCPPC or “the Commission”) has voted to support of this Bill. The Commission respectfully requests that the Environment and Transportation committee consider this information and include it in the record.

What The Bill Does: This bill seeks to establish a system to track the chain of custody of synthetic turf installed on sports and playing fields in Maryland. It will determine where turf playing fields are in the ground and where they go whenever they are moved.

Support Transparency and Accountability: The Commission is responsible for managing 10 existing synthetic turf fields serving the everyday needs of thousands of active families in Montgomery and Prince George’s counties.

In this context, the managers of our park and recreation operations anticipate an ongoing process of adding new fields and restoring old ones to keep up with a growing community demand. At the same time, our agency leaders recognize competing community concerns exist about the long-term environmental impact when synthetic materials enter the disposal or recycling streams. As an agency founded in part to pursue environmental stewardship, the Commission supports responsible reuse and disposal of turf materials with a focus on ensuring recycling. This legislation would establish transparency and public accountability by mandating disclosure to the Department of Environment, coupled with appropriate fines for field owners who fail to disclose their disposal

activities. Our team plans to achieve compliance by modifying our current procurement process to require the necessary information regarding disposal practices and reporting required by this bill.

The Commission fully supports this bill and urges a favorable report.

Testimony HB457 Climate Coalition MoCo .pdf

Uploaded by: Karl Held

Position: FAV



CLIMATE COALITION Montgomery County, MD

Committee: Environment and Transportation
Testimony on: HB457 – Environment – Synthetic Turf – Chain of Custody
Organization: Climate Coalition Montgomery County
Submitting: Karl Held
Position: Favorable
Hearing Date: February 16, 2024

Dear Chair Korman, Vice Chair Boyce, and honorable members of the Committee,

Thank you for this opportunity to testify in support of HB457. The Climate Coalition of Montgomery County, a coalition of over 20 grassroots organizations focused on climate and the environment, urges you to vote favorably on HB457.

This bill establishes a simple chain of custody for synthetic turf fields, to track fields as they are installed or removed. By building transparency across the installation, removal, and transfer of each synthetic turf field, Maryland can deter their improper disposal and prevent contamination of soil and water with the material's known harmful chemicals.

HB457 sets up an online reporting system under the Maryland Department of the Environment. The burdens to reporting parties are minimal: Just an online report. There are no fees or permits. The benefits are significant: The assurance that this mounting waste issue is addressed responsibly and transparently, to prevent contamination of Marylanders' water and soil from the chemical and microplastic load presented by synthetic turf fields.

Used synthetic turf fields are a major waste challenge for two reasons: First, due to their physical volume and weight, and second, because of the known toxicity load presented in these synthetic fields.

[In terms of volume](#), a single field is about 400 tons of bulky, mixed plastic waste and infill. A standard field is two acres of plastic 'carpet,' with one billion [plastic blades that shed out](#) over the life of the field. The infill is typically made of pulverized tires, with about 40,000 tires per field. The finely-ground tire bits are highly mobile, as are newer infills made of other materials.

Maryland already has [over 430 plastic fields](#) identified by the MD Sierra Club, and many more remain uncounted. The [scale of so much waste](#) makes it all the more important to address it directly. Without a method to track fields, no one knows where they are -- or where they will go. There is also a growing understanding of microplastic debris that could be generated from this volume of plastic waste material.

There is currently [no regulation on disposal of synthetic turf](#) when fields are removed after their 8-12 year useful life. HB457 is a tool to address these concerns in a minimally restrictive fashion.

In terms of toxicity, the risks posed by improper disposal include contamination from known chemicals in the plastic carpet and the infill. These are well recognized by [leading scientific and medical institutions](#). As this Committee [has heard before](#), these include [carcinogens, endocrine disruptors, heavy metals](#), the [forever chemicals PFAS](#), and [microplastic contamination](#) leaching into our soil and waterways.

Synthetic turf was first introduced in the 1960s. Since then, the number of fields has continued to rise. In the absence of tracking systems like that proposed in HB457, there are no hard numbers available on how many fields there are in the U.S., but there is general agreement the number is [around 15,000](#) existing field sites. Many of those field-sites have seen multiple cycles of removal and replacement. These used fields are piled up across the U.S., but how many, where and under what conditions remains completely unknown.

HB457 addresses this problem for Maryland by establishing a chain of custody for any synthetic turf field:

- Tell MDE where your field is with a simple online filing.
- When the field is removed, tell MDE who the next custodian is.

At that point the reporting requirement shifts to the next custodian. The process does not require any kind of approval, permit or fee.

HB457 is a sensible, low-burden method of preventing contamination from chemicals in synthetic turf and from microplastic debris, in light of the rising number of synthetic turf fields in Maryland. Accordingly, we recommend a **FAVORABLE report for HB457**.

Respectfully,

Karl Held
for the Climate Coalition, Montgomery County

Climate Coalition Member Organizations

ACQ Climate (Ask the Climate Question)

Bethesda Green

Biodiversity for a Livable Climate

Environmental Justice Ministry Cedar Lane Unitarian Universalist Church

Friends of Sligo Creek

Green Sanctuary Committee of the Unitarian-Universalist Church of Silver Spring

Montgomery County Faith Alliance for Climate Solutions

Montgomery Countryside Alliance

One Montgomery Green

Safe Healthy Playing Fields

Sugarloaf Citizens' Association

The Climate Mobilization Montgomery County

Takoma Park Mobilization Environment Committee

Zero Waste Montgomery County

The MCPS Richard Montgomery HS field was moved to a paintball facility beside Bird River in 2018:



Photos

provided by SHPFI

Old synthetic fields in various location including [in Virginia](#), and [in Pennsylvania](#), site of a promised recycling facility since 2020 that has yet to break ground and has generated [multiple PA DEP citations](#):



HB0457_FAV_Mallek.pdf

Uploaded by: Kate Mallek

Position: FAV

HB 457 SUPPORT • Environment – Synthetic Turf – Chain of Custody • February 16, 2024

Dear Members of the Environment & Transportation Committee:

I share these comments today in **support** of *HB 457- Synthetic Turf - Chain of Custody*, sponsored by Delegates Lehman et al. I am an environmental and human health advocate who has worked on pollution and water quality issues for more than twenty years. In the last ten years, I have guided athletes, sports officials, parents, and community members in making safer personal choices to protect themselves and their family members who play on synthetic turf. I am also a certified girls lacrosse official and league assigner. I work games on synthetic turf because I wholeheartedly support girls playing sports, but this year may be my last, primarily because of the surface on which we are forced to work and play. **Synthetic turf is fraught with so many issues that deserve the attention of capable people, starting with its components and the effect they have on humans and environment as they deteriorate over time.**

Disposal Pollution

In 2017, Albemarle County, Virginia, was polluted by the dumping of **more than 200 tons** of discarded synthetic turf fields from a replacement project completed by the University of Virginia. The discarded synthetic turf was rolled up, driven truckload after truckload into rural Albemarle County by a contractor, and dumped on a hillside above a stream.

When nearby residents first noticed it, the landowner had it moved to a more private site, where it was partially buried. When it was found



Page 1 Images courtesy of Virginia DEQ

again a few months later, the landowner was cited for an illegal dump, and **the portion of the waste synthetic turf that was recoverable** was taken to a landfill. I have reviewed waste receipts for 199 tons of recovered material for this specific project and it is certain that a considerable quantity of it remains buried.

To be clear, a traditional landfill is NOT an appropriate outcome for contaminated plastic waste and pollutants, but Virginia does not have a better mechanism in place with which to handle this mess, nor does Virginia record the magnitude of synthetic turf waste in which it traffics, internally or received from external sources (MD sends turf waste to VA).

When no information is gathered, bad actors continue to act badly. However, **chain of custody requirements enable good actors to succeed in the marketplace and reinforce responsible behavior in all jurisdictions.** Citizens and legislators have information to protect their families and

important natural resources from the damaging pollution from synthetic turf waste. **Maryland can be a leader in reinforcing good business practices AND environmental protection at the same time.**

Routine Daily Pollution

Synthetic turf is **constantly shedding particles**, including crumb rubber or other infills and pieces of the plastic grass “blades” from its matting.

This picture is of my bag and shoes after working a lacrosse game on synthetic turf in April 2022. All of my personal items, and most of my body, was coated with shreds of green plastic, crumb rubber, and toxic dust as I left the field.



Green plastic shreds on my gear. Image by Kate Mallek.

This **endocrine-disrupting and cancer causing pollution** is left like a trail of breadcrumbs when players and personnel depart the field, get in their cars, and return to their homes. Please imagine the amount that falls from and blows out of trucks along roadways, sidewalks, and into drainage ditches to waterways as hundred of tons of deteriorating synthetic carpet and loose crumb rubber infill waste is transported to destinations for dumping. **Communities deserve that we keep track of this waste and its movement. Plastic is not benign.**

Synthetic turf is an **ecological nightmare** that keeps on giving in every community in which it is installed or dumped. **Forever chemicals remain damaging for generations, causing chronic diseases, birth defects, and longterm environmental and wildlife damage.** Infills containing heavy metals and various cancer-causing substances easily wash away in heavy rains, with potential to threaten streams, rivers, and drinking water far from their original location.

Progress in Maryland

With HB 457, the State of Maryland has a great opportunity to **serve citizens, communities, and environmental health** by providing **transparent** information about synthetic turf installation, transportation, and fate.

Holding producers, installers, owners, and transporters of synthetic turf products properly to account for the full life cycle of these products **places the burden appropriately onto the entities who make money from the product.** Extended producer responsibility is the logical way that manufacturing should account to communities in a reasonable society. At a bare minimum, citizens deserve transparent information. With HB 457, you can discourage and ultimately prevent irresponsible dumping happening in your communities in Maryland. **You may also hope to discourage irresponsible dumping in neighboring states, like Virginia and Pennsylvania, where Maryland often sends its synthetic turf at the end of its useful life.**

Maryland can do this! HB 457 will help corporate actors and manufacturers to fulfill their promises to provide more reliable information. HB 457 will help school systems and municipalities to assess and verify that they are choosing upstanding and accountable vendors. HB 457 will help buyers, owners, and decision makers to avoid improper handling of materials in their districts, which can cause significant embarrassment along with human and environmental consequences.

HB 457 is a good choice for Maryland. Thank you for your consideration. **Please support HB 457 for transparency and chain of custody for synthetic turf.** Thank you for your time.

Kate Mallek • Albemarle County, Virginia

OMGreen Favorable for HB0457 Chain of Custody20240

Uploaded by: Kathleen Michels

Position: FAV

Bill: HB 0457 Environment – Synthetic Turf – Chain of Custody
Position: Support Date: February 14, 2024 for Feb 16 hearing
Committee: HOUSE Environment and Transportation
POSITION: FAVORABLE
Organization: One Montgomery Green (submitted by Kathleen Michels)

Dear Chair Marc Korman and Vice Chair Regina T. Boyce,

One Montgomery Green respectfully requests that the Environment and Transportation committee consider this information and include it in the record.

The grass roots nonprofit One Montgomery Green* www.onemontgomerygreen.org supports the intent and goals of HB0457 for a Chain of Custody for synthetic turf in Maryland given the frequent installations, replacement and disposal of the large amount of plastic and granulated tire waste represented by each synthetic turf field installation. This waste is not accepted by incinerators and is often not accepted by municipal landfills. The question therefore is where, in or outside Maryland, is hundreds of tons of plastic and tire waste, from each field, disposed of every 8-10 years after wearing out and no longer safely useful as a field?

The sheer scope and scale of the synthetic turf waste problem, which is rising every year, is unique and has been highlighted by the volunteer statewide inventory led by the Maryland Sierra Club (found at this link: <https://www.sierraclub.org/maryland/disposal-synturf-fields>). The number of individual installations as of early 2024 is well over 400 which represents upwards of 900 acres of plastic and tire waste which must be accounted for upon disposal. But the full and ever rising scope will not be known without official logging of the locations of the plastic carpets and their movements inside the state and to their final resting places inside or outside the state.

We want to emphasize that each and every one of those synthetic turf plastic carpet systems will soon be replaced, with the old carpet and infill removed and dumped or stockpiled at sites unknown into growing mountains of plastic or at best landfilled. Each plastic carpet system has likely already been replaced one or more times already. As of now after decades of promises and the finding of synturf contamination of the plastic carpets, none has been or can be safely recycled . Hundreds of tons per field of forever waste synturf carpeting full of forever chemicals such as PFAS, has already been found by volunteers to be disposed of outside of landfills.

The synthetic turf council itself has promoted a voluntary chain of custody. Without a publicly accessible tracking system voluntary has not worked and provides no accountability to the public or to the places the waste is dumped on.

It is all of our children, grandchildren and beyond who will have to find and clean up this waste, An official Chain of Custody filed with the state at least will make it easier to find! Please support the synturf chain of custody bill and at least give them a fighting chance .

**NOTE: One Montgomery Green is a 501C3 grassroots non-profit which seeks to catalyze the county's transition to a sustainable economy, facilitate environmental responsibility among businesses, residents, and government, and increase the quality of life for all Montgomery County residents. Every OMG sustainability initiative begins with a foundation of diversity, justice, equity and inclusion woven throughout the process, which reflects the eclectic background and culture of the residents of Montgomery County, MD.*

OMreen is dedicated to engaging the community in education and outreach that promotes sustainable communities with a "visibly green" and healthy environmental footprint. In an effort to empower and educate the public to better adapt and mitigate the impact of climate change, OMGreen has two main projects; a climate resilience project whose goal is to engage and educate communities by creating an assessment tool and a response plan that addresses climate change vulnerabilities, resilience, and adaptation; and the Clean Headwaters Program, a six-session course offering high school students an opportunity to perform hands-on community monitoring to assess the extent of plastic pollution of local streams.

HB0457_Green Towson Alliance_FAV.pdf

Uploaded by: Kirsten Hoffman

Position: FAV



February 13, 2024

HB457 Environment - Synthetic Turf - Chain of Custody
Environment and Transportation Committee
Hearing February 16, 2024
FAVORABLE

Dear Chair Korman, Vice Chair Boyce, and honorable members of the Committee,

The Green Towson Alliance writes in support of HB457, which will establish a chain of custody for synthetic turf fields by tracking the custodianship of the fields as they are installed and removed. HB457 calls for a simple online filing with the Maryland Department of the Environment with no associated permit or fee. This straight forward, low-burden system will help deter the improper disposal of synthetic turf fields.

Maryland has over 430 synthetic turf fields (as identified by the Sierra Club) and each field contains around 440,000 pounds of mixed plastic materials and infill which must be disposed of at the end of the field's life. These plastic materials include a plastic 'carpet' with over one billion blades and infill typically made of pulverized tires. A standard field will use 40,000 tires which are ground into highly mobile bits. Disposal of these fields presents a huge challenge due to the sheer volume of waste each field creates and due to the toxicity of the materials in the fields. Further, the plastic carpet and tire infill contain over 300 identified hazardous chemicals including cadmium, lead, phthalates and PFAS "forever chemicals" which can leach into our waterways and ground water when these fields are disposed of.

Synthetic turf fields have an average life of 8-12 years with fields used by professional teams often having a significantly shorter life span. Adding transparency to the end of life disposal of these fields is critical in preventing contamination of Maryland's water and soil. Maryland currently has no regulation regarding the disposal of synthetic turf fields.

We ask for a favorable report on HB457 as an important step toward safely managing the huge amount of waste created by the disposal of synthetic turf fields in our state.

Respectfully,
Kirsten Hoffman for the Green Towson Alliance
701 West Joppa Road
Towson, Maryland 21204

The Green Towson Alliance unites Towson area environmentalists to create a greener, healthier and more beautiful community through collaboration and activism.

HB457.docx.pdf

Uploaded by: Laura Stewart

Position: FAV

**Written Testimony Submitted for the Record to the Maryland House
Environment and Transportation
For the Hearing on
Environment - Synthetic Turf - Chain of Custody- HB457
February 16, 2024
SUPPORT**

Free State PTA represents over 70,000 volunteer members and families in over 500 public schools. Free State PTA is composed of families, students, teachers, administrators, and business as well as community leaders devoted to the educational success of children and family engagement in Maryland. As the state's premier and largest child advocacy organization, Free State PTA is a powerful voice for all children, a relevant resource for families, schools and communities and a strong advocate for public education. ***House Bill 457, Environment - Synthetic Turf - Chain of Custody - aligns with Free State PTA's environmental legislative agenda.***

A founding principle of Free State PTA's mission is to promote the safety and well-being of all children and youth, which includes a healthy environment. House Bill 457 is consistent with this principle in that it requires that the department of the environment shall establish a system to track the chain of custody of synthetic turf installed on sports and playing fields in the state, from their transportation, installation, and removal to their reuse, recycling and final disposal.

Artificial turf fields are continuing to be implemented in Maryland schools. Each field adds to plastic waste when they need to be replaced every 8-10 years. This plastic, and microplastic waste as the plastic breaks down, adds to environmental concerns for future generations. Tracking the waste will inform caretakers so that they can mitigate and track potential environmental damage. **Therefore, the Free State PTA urges the passage of HB0457.**

Testimony is presented on the behalf of

Gerrod Tyler, President
GTyler@FSPTA.org

HB0457_Synthetic Turf Chain of Custody_Environ and

Uploaded by: Laurie McGilvray

Position: FAV



Committee: Environment and Transportation
Testimony on: HB0457 - Environment - Synthetic Turf - Chain of Custody
Organization: Maryland Legislative Coalition Climate Justice Wing
Submitting: Laurie McGilvray, Co-Chair
Position: Favorable
Hearing Date: February 16, 2024

Dear Chair and Committee Members:

Thank you for allowing our testimony today in support of HB0457. The Maryland Legislative Coalition Climate Justice Wing, a statewide coalition of nearly 30 grassroots and professional organizations, urges you to vote favorably on HB0457.

First introduced in the 1960s, the number of synthetic turf fields has continued to rise. Without a tracking system, there are no hard data on the number of fields in the U.S., but there is general agreement the number is [around 15,000](#) existing field sites. Many of these field sites have seen multiple cycles of removal and replacement. Used synthetic turf fields are piled up across the US, but the number, locations, and conditions remain completely unknown.

HB0457 establishes a simple chain of custody requirement to track synthetic turf fields in Maryland as they are installed or removed. By building transparency across the installation, removal, and transfer of each synthetic turf field, Maryland can deter their improper disposal and prevent contamination of soil and water with the material's known harmful chemicals.

HB0457 sets up an online reporting system under the Maryland Department of the Environment (MDE). The burdens for reporting parties are minimal - just submitting an online report. There are no fees or permits. However, the benefits are significant; the assurance that the mounting synthetic turf field waste issue is addressed responsibly and transparently, and that contamination of water and soil with synthetic turf chemical and microplastics are prevented.

Used synthetic turf fields are a major waste challenge for two reasons: 1) their physical volume and weight, and 2) the known toxicity load. [In terms of volume](#), a single field is about 400 tons of bulky, mixed plastic waste and infill. A standard field is two acres of plastic 'carpet,' with one billion plastic blades that are shed over the life of the field. The infill is typically made of pulverized tires, with about 40,000 tires per field. The finely-ground tire bits are highly mobile, as are newer infills made of other materials.

Maryland already has [over 430 plastic fields](#) identified by the MD Sierra Club, and many more remain uncounted. There is a growing understanding of the amount of microplastic debris from this volume of waste material. The sheer [scale of so much waste](#) makes it all the more important to address. Without a method to track the installation and disposal of synthetic fields, no one knows where they are or where they will go. There currently is [no regulation on disposal of synthetic turf](#) when fields are removed after their 8-12 year useful life. HB0457 provides a tracking tool to address these concerns with minimal burden.

In terms of toxicity, there are considerable risks posed by improper synthetic field disposal, including contamination from known chemicals in the plastic carpet and infill. These risks are well-recognized by [leading scientific and medical institutions](#). As this Committee [has heard before](#), contaminants include [carcinogens, endocrine disruptors, heavy metals](#), the [forever chemicals PFAS](#), and [microplastic contamination](#) which leach into soil and waterways.

HB457 addresses this problem for Maryland by establishing a simple chain of custody for any synthetic turf field: 1) tell MDE where your field is with a simple online filing and 2) tell MDE via an online filing who the next custodian is when the field is removed. Once the material is transferred, the reporting requirement shifts to the next custodian. There is no MDE approval, permit, or fee.

In light of the rising number of synthetic turf fields in Maryland, HB0457 is a common-sense way to prevent environmental contamination from synthetic turf chemicals and microplastic debris. We strongly support HB0457 and urge a **FAVORABLE** report in Committee.



Old synthetic fields in various locations including [in Virginia](#), and [in Pennsylvania](#), site of a promised recycling facility since 2020 that has yet to break ground and has generated [multiple PA DEP citations](#).

350MoCo
Adat Shalom Climate Action
Cedar Lane Unitarian Universalist Church Environmental Justice Ministry
Chesapeake Earth Holders
Chesapeake Physicians for Social Responsibility
Climate Parents of Prince George's
Climate Reality Project
ClimateXChange – Rebuild Maryland Coalition
Coming Clean Network, Union of Concerned Scientists

DoTheMostGood Montgomery County
Echotopia
Elders Climate Action
Fix Maryland Rail
Glen Echo Heights Mobilization
Greenbelt Climate Action Network
HoCoClimateAction
IndivisibleHoCoMD
Maryland Legislative Coalition
Mobilize Frederick
Montgomery County Faith Alliance for Climate Solutions
Montgomery Countryside Alliance
Mountain Maryland Movement
Nuclear Information & Resource Service
Progressive Maryland
Safe & Healthy Playing Fields
Takoma Park Mobilization Environment Committee
The Climate Mobilization MoCo Chapter
Unitarian Universalist Legislative Ministry of Maryland
WISE

HB0457_Synthetic_Turf_ENT_HoCoCA.org_FAV .pdf

Uploaded by: Liz Feighner

Position: FAV



HoCoClimateAction.org
Howard County, Maryland

HB0457: Environment - Synthetic Turf - Chain of Custody

Hearing Date: February 16, 2024

Bill Sponsor: Delegates Lehman, Acevero, Addison, Allen, Alston, Amprey, Attar, Bagnall, Barnes, Boaf, Boyce, Charkoudian, Davis, Ebersole, Edelson, Fair, Foley, Forbes, Fraser-Hidalgo, Guyton, Guzzone, Harris, Healey, Hill, Holmes, Ivey, S. Johnson, D. Jones, Kaufman, J. Long, R. Long, Lopez, Love, Martinez, McCaskill, Palakovich Carr, Pasteur, Patterson, Pena-Melnyk, Phillips, Pruski, Qi, Ruth, Shetty, Simmons, Simpson, Smith, Solomon, Stein, Stewart, Taveras, Taylor, Terrasa, Vogel, Williams, Woods, and Ziegler

Committee: Environment and Transportation

Submitting: Liz Feighner for HoCo Climate Action

Position: Favorable

HoCo Climate Action is a [350.org](https://www.350.org) local chapter and a grassroots organization representing approximately 1,400 subscribers. It is also a member of the [Climate Justice Wing](#) of the [Maryland Legislative Coalition](#). We support HB0457 and urge a favorable report.

The plastic crisis is a climate crisis and our members have worked with several organizations in Howard County to advocate for reducing single-use plastics through two successful bills, [Plastic Bag Fee](#) and [Plastic Reduction Law](#). We also co-hosted a [webinar on the Story of Plastics in 2020](#). As we highlighted during the discussion, plastic pollution is an environmental justice and public health crisis: Fracking, plastics production, litter, and disposal in landfills and by incineration harm communities of color disproportionately. We believe that social justice, racial justice and environmental justice are all part of a single, globally connected Movement for Justice.

An average synthetic turf field is 80,000 square feet and comprised of 40,000 lb of mixed plastic carpet and 400,000 lb of infill between the plastic blades, usually crumb tire waste and silica sand, or other material. **This is equivalent to 3.2 million plastic bags and 46 million plastic straws**, according to [SHPFI's data related to a project in Lakewood, FL](#), reversing the progress made in reducing plastics in Howard County. The Maryland Sierra Club estimates that in Howard County alone there are 47 synthetic turf fields weighing 9,190.4 tons and covering 3,341,964 square feet, and more are being planned. The materials in synthetic turf carpet systems contain aquatic and human toxins posed an environmental crisis.

Synthetic turf fields need to be replaced every 8-10 years adding to the toxic waste that needs to be dealt with. The estimate of the number of fields in all of Maryland total 437 weighing

79,276.9 tons and the data was compiled by volunteer Sierra Club members as there is no official inventory for the massive amount of waste being produced. Nor is there a way to know whether this toxic waste was properly disposed of or [in rural stockpiles](#) and dumped in the environment. When improperly disposed of and uncontained, especially near waterways, these materials pose risks to humans, wildlife, and the environment.

The fate of this massive amount of toxic plastic waste and infill is difficult, if not impossible, to track. This bill requires MDE to establish a system to track the chain of custody of synthetic turf and turf infill installed on sports playing fields, from installation to removal, reuse, repurposing, recycling, and disposal and publish this chain of custody information on MDE's website.

The state of Maryland needs to be tracking this type of hazardous waste to protect our waterways and our beloved Chesapeake Bay.

We urge a favorable report for HB0457.

Howard County Climate Action

Submitted by Liz Feighner, Steering and Advocacy Committee

www.HoCoClimateAction.org

HoCoClimateAction@gmail.com

HB0457_Synthetic_Turf_ENT_LPP.org_FAV .pdf

Uploaded by: Liz Feighner

Position: FAV



[HB0457](#): Environment - Synthetic Turf - Chain of Custody

Hearing Date: February 16, 2024

Bill Sponsor: Delegates Lehman, Acevero, Addison, Allen, Alston, Amprey, Attar, Bagnall, Barnes, Boafa, Boyce, Charkoudian, Davis, Ebersole, Edelson, Fair, Foley, Forbes, Fraser-Hidalgo, Guyton, Guzzone, Harris, Healey, Hill, Holmes, Ivey, S. Johnson, D. Jones, Kaufman, J. Long, R. Long, Lopez, Love, Martinez, McCaskill, Palakovich Carr, Pasteur, Patterson, Pena-Melnyk, Phillips, Pruski, Qi, Ruth, Shetty, Simmons, Simpson, Smith, Solomon, Stein, Stewart, Taveras, Taylor, Terrasa, Vogel, Williams, Woods, and Ziegler

Committee: Environment and Transportation

Submitting Organization: **Less Plastic Please** by Carla Tevelow

Position: **Favorable**

[Less Plastic Please](#) is a Howard County based grassroots organization representing more than 200 subscribers. We are also a partner of the [Zero Waste Team](#) of [Howard County Sierra Club](#) and a [Beyond Plastics](#) Affiliate.

Reducing the production of plastics and creating a zero-waste economy is one of our top concerns. Less Plastic Please spearheaded campaigns with several organizations in Howard County to advocate for reducing single-use plastics through two successful bills, [Plastic Bag Fee](#) and [Plastic Reduction Law](#). We also hosted a [webinar on the Story of Plastics in 2020](#). As we highlighted during the discussion, plastic pollution is an environmental justice and public health crisis: Fracking, plastics production, litter, and disposal in landfills and by incineration harm communities of color disproportionately. We believe that social justice, racial justice and environmental justice are all part of a single, globally connected Movement for Justice.

An average synthetic turf field is 80,000 square feet and comprised of 40,000 lb of mixed plastic carpet and 400,000 lb of infill between the plastic blades, usually crumb tire waste and silica sand, or other material. **This is equivalent to 3.2 million plastic bags and 46 million plastic straws**, according to [SHPFI's data related to a project in Lakewood, FL](#), reversing the progress made in reducing plastics in Howard County. The Maryland Sierra Club estimates that in Howard County alone there are 47 synthetic turf fields weighing 9,190.4 tons and covering 3,341,964 square feet, and more are being planned. The materials in synthetic turf carpet systems contain aquatic and human toxins posed an environmental crisis.

Synthetic turf fields need to be replaced every 8-10 years adding to the toxic waste that needs to be dealt with. The number of fields in all of Maryland is estimated at 437 weighing 79,276.9 tons and the data was compiled by volunteer Sierra Club members as there is no official inventory for the massive amount of toxic and hazardous waste being produced. Nor is there a way to know whether this toxic waste is being properly disposed of or [in rural stockpiles](#) and dumped in the environment. When improperly disposed of and uncontained, especially near waterways, these materials pose risks to humans, wildlife, and the environment.

It is difficult, if not impossible, to track this massive amount of toxic plastic waste and infill. This bill only requires MDE to establish a system to track the chain of custody of synthetic turf and turf infill installed on sports playing fields, from installation to removal, reuse, repurposing, recycling, and disposal and publish this chain of custody information on MDE's website. It is such a simple bill to execute so Maryland knows how toxic waste is being managed.

The state of Maryland needs to be tracking this massive toxic and hazardous waste to protect our waterways and our beloved Chesapeake Bay.

We urge a favorable report for HB0457.

Submitted for [Less Plastic Please](#)
by Carla Tevelow
LessPlasticPleaseHoCo@gmail.com

HB0457_SyntheticTurf_ENT_LizFeighner_FAV.pdf

Uploaded by: Liz Feighner

Position: FAV

[HB0457](#): Environment - Synthetic Turf - Chain of Custody Testimony

Hearing Date: February 16, 2024

Bill Sponsor: Delegates Lehman

Committee: Environment and Transportation

Submitting: Liz Feighner

Position: Favorable

Chair Korman, Vice Chair Boyce and members of the committee, my name is Liz Feighner and as a climate and plastic pollution activist, I am writing to urge the **support of HB0457**. This bill is very simple that sets up an easy tracking system for the complete life-cycle of synthetic turf used for playing and sports fields.

There is a tremendous amount of synthetic turf installed and being installed in Maryland and specifically in Howard County where I reside. Synthetic turf contains a multitude of toxic chemicals to aquatic and humans, including a toxic load of mixed proprietary (in other words, secret) chemical blends, including per- and polyfluoroalkyl substances (PFAS - aka "forever chemicals"). An [Environment Human Health Inc. study](#) found high levels of lead in synturf, 500 to 1000 times higher than other fields (p.10) and there is NO safe level of lead.

HB457 establishes a simple chain of custody for synthetic turf fields, to track fields as they are installed or removed. It also sets up an online reporting system under the Maryland Department of the Environment. The burdens to reporting parties are minimal: just an online report. There are no fees or permits.

I believe it is Maryland's responsibility to know how much and what happens to synthetic turf when it reaches its usefulness playing capabilities. There is no official inventory of the number or location of synthetic turf playing fields in Maryland or where used fields have gone. We are relying on Sierra Club **volunteers** to document and locate synthetic turf fields. Since these fields contain large amounts of known toxins, it is incumbent that the state monitor and verify that these fields are being managed properly and not improperly/illegally dumped leaching these toxins into our waterways and our beloved Chesapeake Bay affecting our oysters and prized Maryland blue crabs.

I urge a favorable report for HB0457.

Liz Feighner

Laurel, MD 20723

HB 457 - MoCo_Elrich_FAV (GA 24).pdf

Uploaded by: Marc Elrich

Position: FAV



OFFICE OF THE COUNTY EXECUTIVE

Marc Elrich
County Executive

February 16, 2024

TO: The Honorable Marc Korman
Chair, Environment and Transportation Committee

FROM: Marc Elrich
County Executive

RE: House Bill 457, *Environment - Synthetic Turf - Chain of Custody*
Support

I am writing to express my support for House Bill 457, *Environment - Synthetic Turf - Chain of Custody*. The bill requires owners of artificial turf fields to submit to the Maryland Department of the Environment a chain of custody providing technical information on how the field is constructed and where it is located. If the field is replaced, the location of where the old field was reused or disposed is to be provided. This bill will minimize the possibility of disposing of the old field, including the infill and carpet, inappropriately.

Ample evidence has raised serious concern about the materials used in the construction of the fields that could be toxic to the environment and people. Given the chemical context of the crumb rubber as well as the plastic carpet, the artificial turf fields need to be disposed of properly. The chain of custody information required by this bill will provide the public with information on where and how the artificial turf fields are being reused or disposed.

I respectfully request that the Education, Energy, and the Environment Committee give House Bill 457 a favorable report.

cc: Members of the Environment and Transportation Committee

HB457_CMHC_FAV_ENT.pdf

Uploaded by: MARIE LAPORTE

Position: FAV

Committee: Environment and Transportation
Testimony on: HB457 – Environment – Synthetic Turf – Chain of Custody
Submitted by: [Chesapeake Mental Health Collaborative](#) [Center for Nature Informed Therapy](#)
Position: Favorable
Hearing Date: February 16, 2024

Dear Chair Korman, Vice Chair Boyce, and honorable members of the Committee,

Thank you for this opportunity to testify in support of HB457. On behalf of the following organizations and individuals, we urge you to vote favorably on HB457.

This bill establishes a simple chain of custody for synthetic turf fields, to track fields as they are installed or removed. By building transparency across the installation, removal, and transfer of each synthetic turf field, Maryland can deter their improper disposal and prevent contamination of soil and water with the material's known harmful chemicals.

HB457 sets up an online reporting system under the Maryland Department of the Environment. The burdens to reporting parties are minimal: Just an online report. There are no fees or permits. The benefits are significant: The assurance that this mounting waste issue is addressed responsibly and transparently, to prevent contamination of Marylanders' water and soil from the chemical and microplastic load presented by synthetic turf fields.

Used synthetic turf fields are a major waste challenge for two reasons: First, due to their physical volume and weight, and second, because of the known toxicity load presented in these synthetic fields.

In terms of volume, a single field is about 440,000 pounds of bulky, mixed plastic waste and infill. A standard field is two acres of plastic 'carpet,' with one billion plastic blades that shed out over the life of the field. The infill is typically made of pulverized tires, with about 40,000 tires per field. The finely-ground tire bits are highly mobile, as are newer infills made of other materials.

Maryland already has **over 430 plastic fields** identified by the MD Sierra Club, and many more remain uncounted. The **scale of so much waste** makes it all the more important to address it directly. Without a method to track fields, no one knows where they are -- Or where they will go. There is also a growing understanding of microplastic debris from this volume of plastic waste material.

There is currently **no regulation on disposal of synthetic turf** when fields are removed after their 8-12 year useful life. HB457 is a tool to address these concerns in a minimally restrictive fashion.

In terms of toxicity, the risks posed by improper disposal include contamination from known chemicals in the plastic carpet and the infill. These are well-recognized by **leading scientific and medical institutions**. As this Committee **has heard before**, these include **carcinogens, endocrine disruptors, heavy metals**, the **forever chemicals PFAS**, and **microplastic contamination** leaching into our soil and waterways.

First introduced in the 1960s, the number of fields has continued to rise. In the absence of tracking systems like that proposed in HB457, there are no hard numbers available on how many fields there are in the U.S., but there is general agreement the number is **around 15,000** existing field sites. Many of those field-sites have seen multiple cycles of removal and replacement. These used fields are piled up across the US, but how many, where and under what conditions remains completely unknown.

HB457 addresses this problem for Maryland by establishing a simple chain of custody for any synthetic turf field:

- Tell MDE where your field is with a simple online filing.
- When the field is removed, tell MDE who the next custodian is.

At that point the reporting requirement shifts to the next custodian. The process does not require any kind of approval, permit or fee.

HB457 is a sensible, low-burden method of preventing contamination from chemicals in synthetic turf and from microplastic debris, in light of the rising number of synthetic turf fields in Maryland. Accordingly, we recommend a **FAVORABLE report for HB457**.

The MCPS Richard Montgomery HS field was moved to a paintball facility beside Bird River in 2018:



Photos

provided by SHPFI

Old synthetic fields in various location including [in Virginia](#), and [in Pennsylvania](#), site of a promised recycling facility since 2020 that has yet to break ground and has generated [multiple PA DEP citations](#).





Respectfully submitted by:

Zoe Jack, LCSW-C

Executive Director

[Chesapeake Mental Health Collaborative](#)

[Center for Nature Informed Therapy](#)

HB457_M_LaPorte_FAV_ENT_2.16.2024.pdf

Uploaded by: MARIE LAPORTE

Position: FAV

Marie LaPorte
2516 Chestnut Woods Ct.
Reisterstown, MD 21136

Committee: Environment and Transportation
Testimony: HB457 Environment – Synthetic Turf - Chain of Custody
Position: Favorable
Hearing Date: February 16, 2024

I am a Marylander who has resided in Baltimore County for about 29 years and I support HB457 Environment - Synthetic Turf - Chain of Custody.

According to data compiled by the Sierra Club, my county has more synthetic turf fields than any other in the state, with known field counts up to 69 at 48 different sites across the county. There are about 440,000 pounds of waste associated with each field, which typically includes tire crumb, plastic grass, and backing, which means that my county alone can generate over 30 million pounds of waste every 8-10 years from synthetic turf. It's worth noting that Baltimore County has a single landfill that is expected to reach capacity in 2025, despite ample use of the Wheelabrator incinerator, and ever growing efforts to divert waste.

Further, these synthetic turf fields are frequently dumped on private property and neither the County nor the State are tracking this disposal. A few years ago, a used field transported from Montgomery County was dumped on private property abutting the Bird River in Baltimore County. There was no effort to contain the tire crumb that littered the property or protect the river that had recently had expensive cleanup using taxpayer dollars.

The tire material frequently used in the synthetic turf fields contains a toxic brew of hazardous chemicals that would classify them controlled waste if they were to be landfilled as tires, but once ground up on a field are permitted to be disposed of with no oversight. According to Mount Sinai Children's Environmental Health Center, the "major chemical components of recycled rubber are styrene and butadiene, the principal ingredients of the synthetic rubber used for tires in the United States. Styrene is neurotoxic and reasonably anticipated to be a human carcinogen. Butadiene is a proven human carcinogen that has been shown to cause leukemia and lymphoma. Shredded and crumb rubber also contain lead, cadmium, and other metals known to damage the developing nervous system." [1]

In addition to these chemicals, University of Notre Dame research led by Dr. Graham Peaslee has found PFAS in the grass, backing, and tire crumb of synthetic turf. These chemicals leach from the materials from the first rainfall

after installation and continue leaching indefinitely, polluting the ground wherever they go. ^[2]

As about one in seven Marylanders rely on wells for their water, this could present significant contamination issues for homeowners throughout our state. I am a homeowner that relies on well water. Improper disposal could also contaminate our watersheds and impact spawning grounds for our fish and adversely impact other wildlife.

It's important to also consider that many of the health impacts from exposure to toxins take years to develop. The connections between lead paint and leaded gas and the adverse impact on the mortality and intellectual and behavioral development of children took years, as did exposure to asbestos and the many now known cancers. In fact, the world-renowned Dr. Philip Landrigan, whose research led to the banning of lead in paint and gas, and further limits on asbestos, has raised and shared concerns regarding synthetic turf.

These fields come with abundant health and safety concerns that I hope legislators address in future legislation, but we should at least start with addressing tracking and disposal of these toxic fields. The state should know where this hazardous waste lies so we can better understand the environmental impact. Whatever the cost for these fields, the damage to the environment will be considerably more. Marylanders and our environment should be protected from the careless disposal of this dangerous waste.

I urge you to provide a favorable report for HB457 Synthetic Turf Chain of Custody.

Sincerely,

Marie LaPorte

[1] Testimony Before Connecticut General Assembly Committee on Children, February 16, 2016. Dr. Sarah Evans, <https://www.cga.ct.gov/2016/KIDdata/Tmy/2016HB-05139-R000216-Sarah%20Evans,%20Icahn%20School%20of%20Medicine%20at%20Mount%20Sinai-TMY.PDF>. Sinai Children's Environmental Health Center, <https://www.cga.ct.gov/2016/KIDdata/Tmy/2016HB-05139-R000216-Sarah%20Evans,%20Icahn%20School%20of%20Medicine%20at%20Mount%20Sinai-TMY.PDF>

[2] ^[2] *The Intercept*, Toxic Chemicals Found in Artificial Turf, October 8, 2019, <https://theintercept.com/2019/10/08/pfas-chemicals-artificial-turf-soccer/>

HB457_MDSierraClub_fav 16Feb2024.pdf

Uploaded by: Martha Ainsworth

Position: FAV

Committee: Environment and Transportation**Testimony on: HB 457 “Environment – Synthetic Turf – Chain of Custody”****Position: Support****Hearing Date: February 16, 2024**

The Maryland Chapter of the Sierra Club supports HB 457, which addresses a serious waste problem posed by the lack of transparency and accountability for disposal of synthetic turf. The bill would require the Maryland Department of the Environment (MDE) to establish a system to track the chain of custody for synthetic turf playing fields and turf infill sold or distributed and installed in the state. The bill would also require each custodian of the synthetic turf and turf infill to report information on its disposition, from installation to removal, reuse, repurposing, recycling, and disposal to MDE.

Synthetic turf sport fields, which account for nearly two-thirds of all synthetic turf,¹ have an 8-10 year average lifetime and produce a large volume of waste, much of it toxic. According to the Synthetic Turf Council (STC), an average field is 80,000 square feet, comprised of 40,000 pounds of mixed plastic turf and 400,000 pounds of infill (usually tire waste and silica sand but sometimes other materials). The infill equates in volume to 400 cubic yards, or the equivalent of almost fourteen 30-cubic-yard dumpsters of infill.² The volume of the mixed plastic turf varies, depending on how it is packaged.

Based on an inventory assembled by the Sierra Club, there are at least 437 synthetic turf playing fields in Maryland, located in 19 counties and the City of Baltimore (Exhibit 1). Using the STC parameters, these fields represent 79,277 tons of plastic turf carpet and infill, 28.9 million square feet (663 acres) of plastic turf, and 144,325 cubic yards of infill (equivalent to 4,180 30-yard dumpsters) likely to be disposed in the next decade when the fields will be replaced.³ While the industry continues to explore ways of recycling, reusing, or repurposing used synthetic turf, ultimately the turf and its components must be disposed.

At present, the fate of this enormous and growing amount of plastic waste and infill in Maryland and the country is difficult, if not impossible, to track. There is currently no documentation on the extent of reuse, repurposing, recycling, and ultimately, disposal of this waste. Several Maryland county waste facilities report they do not accept the volume, weight, and mixture of synthetic turf waste.⁴ While some materials may be landfilled, an unknown share of the millions of square feet of removed synthetic turf ends up in rural and urban stockpiles or dumped in the environment, sometimes in sensitive ecosystems or

¹ Synthetic Turf Council (STC) website: https://www.syntheticurfCouncil.org/page/About_Synthetic_Turf

²STC. 2017. *A Guideline to Recycle, Reuse, Repurpose, and Remove Synthetic Turf Systems*, p.3. https://qhi7a3oj76cn9awl3qcqrh3o-wpengine.netdna-ssl.com/wp-content/uploads/2019/11/CR-STC_Guideline_for_Recycle_Re.pdf

³According to the STC, there are currently 12,000-13,000 synthetic turf sports fields in the United States, and 1,200-1,500 are installed annually. The number deconstructed annually in the United States increased from 365 in 2013 to 750 in 2018. Assuming that the number of fields deconstructed annually has risen to at least 1,000 by 2020, this represents 80 million square feet of plastic turf carpet weighing 40 million pounds and 400 million pounds of infill per year. Disposal of the existing 12,000-13,000 sports fields nationwide amounts to as much as 260,000 tons of turf and 2.6 million tons of infill over the next decade. STC 2017, *op.cit.*

⁴For example, Prince George’s County would not accept synthetic turf fields at its landfill, and these fields are not accepted for incineration or recycling in Montgomery County. If deposited at the Montgomery County transfer station, it would be sent to a landfill in Virginia and charged a \$70/ton tipping fee. For an average sports field, this would amount to more than \$15,000 for disposal, not including the transport costs.

vulnerable communities.^{5,6,7} For example, hundreds of tons of worn-out carpet and granulated tire waste from Montgomery County high schools ended up in landfills in rural Virginia, on Bird Creek in Baltimore County, and in Malaysia (Exhibit 2).⁸ Synthetic turf from the University of Virginia was dumped illegally on the side of a mountain.⁹ As of last year, there was only one licensed recycling plant for end-of-life synthetic turf – in Europe.¹⁰

Owners of properties where these plastic carpets are dumped are left to clean up the environmental and physical mess. They face clean-up costs and potential liabilities from the aquatic and human toxins, carcinogens, endocrine disruptors, heavy metal neurotoxins, carcinogens, and immune disruptors such as PFAS “forever chemicals” in the synthetic materials that make up artificial turf carpet systems.¹¹ The direct toxic effects of tire particles have been demonstrated in aquatic organisms in particular.¹²

The STC already recommends maintaining a chain of custody for reuse, repurposing, recycling, and removal of synthetic turf fields,¹³ but accountability requires that the public be informed. HB457’s required reporting to MDE of the chain of custody for synthetic turf and infill will document the number of installations in Maryland; the extent to which synthetic turf and infill is actually reused, repurposed, or recycled; and how and where it is disposed. It will incentivize recycling and proper disposal and provide accountability for improper disposal.

With HB 457, Maryland can be a leader in addressing the waste problem posed by synthetic turf. It will hold those responsible for the materials accountable for proper disposal of synthetic turf through a publicly documented chain of custody. We respectfully request a favorable report.

Martha Ainsworth
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Martha.Ainsworth@MDSierra.org

Josh Tulkin
Chapter Director
Josh.Tulkin@MDSierra.org

⁵Lundstrom, Marjorie, and Eli Wolfe. 2019. “Fields of Waste: Artificial Turf, Touted as Recycling Fix for Millions of Scrap Tires, Becomes Mounting Disposal Mess,” *FairWarning*. December 19. <https://www.fairwarning.org/2019/12/fields-of-waste-artificial-turf-mess/> Reprinted in *The Atlantic* (12/2019), *Salon* (12/21/2019), and *Maryland Matters* (12/20/2019).

⁶Meyer, Pete. 2019. “Hidden gotcha in artificial turf installation.” *Environmental Health News*, Dec. 4. <https://www.ehn.org/hidden-gotcha-in-artificial-turf-installations-2641507579.html>. Woodall, Candy. 2019. “‘Running out of room’: How old turf fields raise potential environmental, health concerns,” *York Daily Record* (Pennsylvania), November 18.

⁷*The Turf Mountain*, video by Zembla, an investigative TV program on BNNVARA, Dutch Public Television. <https://www.youtube.com/watch?v=Y5o3J7uy4Tk>

⁸ Lundstrom and Wolfe. *op.cit.*

⁹ Meyer, *op. cit.*

¹⁰The Re-Match company, in Denmark. Sources: Woodall, *op.cit.*; *The Turf Mountain*, *op. cit.*

¹¹ Lerner, Sharon. 2019. “Toxic PFAS Chemicals Found in Artificial Turf,” *The Intercept*. October 8. <https://theintercept.com/2019/10/08/pfas-chemicals-artificial-turf-soccer/>

¹²Einhorn, Catrin. 2020. “How Scientists Tracked Down a Mass Killer (of Salmon),” *The New York Times*. December 3. <https://www.nytimes.com/2020/12/03/climate/salmon-kill-washington.html>

¹³STC 2017. *op cit.*, pp 13-18.

Exhibit 1
Maryland Sierra Club Zero Waste Team
Inventory of synthetic turf fields in Maryland

Updated January 1, 2024

Over the summer and fall of 2021, Sierra Club volunteers resolved to inform pending state legislation on tracking the location and disposition of synthetic turf playing fields by conducting an inventory of synthetic turf playing fields in the state. The objective of the exercise was to document the number of fields, estimate the amount of waste that will be generated when the fields are retired, and demonstrate the degree of difficulty to the public of obtaining the information. The volunteers continued to update the inventory throughout 2023.

Methodology

The following information was sought on each synthetic turf playing field currently in place in all 23 counties and the City of Baltimore, both indoor and outdoor fields:

- Name of the field and address
- Sport played
- Ownership of the field (public schools and universities, public parks, private schools and universities, private sports clubs/venues)
- Year the field was installed
- Area of the field in square feet, or its dimensions
- The source of information

Most of the research was done on the internet, which involved accessing websites for: public schools; private schools; colleges and universities; local and major newspapers; athletic organizations and foundations; county departments for parks and recreation; general contractors; and turf installers.¹⁴

These sources were sufficient to identify most fields or venues with fields. However, discovering the year each field was installed and its dimensions usually required follow-up with phone calls and emails. When the dimensions for outdoor fields were not available from a reliable source, the team used Google Earth's tool to measure the area of the field. They were located by their address and were easily distinguishable from natural turf fields. However, because many of the Google Earth photos were not recent, this method could not be used for some of the fields installed more recently. Furthermore, that method could not be used to estimate the dimensions of indoor fields, most of them privately owned. The dimensions of indoor fields were not easily obtained. Many calls and emails were sent; many were not returned.

As of January 1, 2024, a total of 437 fields have been enumerated in Maryland. The installation date could not be obtained for 72 fields (16%) and field size could not be ascertained for 34 (8%).¹⁵ Field size was obtained from a reliable source (the installer, owner, or news reports) or estimated from Google Earth.

¹⁴ General contractors and turf installers consulted (website, email, or phone) included: AstroTurf; Athletic Field Consultants, Inc.; BrockUSA; Fields Inc.; Field Turf; JMT; Keystone Sports Construction; King Sports Construction; Playrite; Shaw Sports Turf; Sprinturf; and US GreenTech.

¹⁵ Tonnage and volume could not be calculated for these fields.

To estimate the tonnage of turf and infill, the team used conversion factors from the Synthetic Turf Council's (STC) 2017 publication, *A Guideline to Recycle, Reuse, Repurpose, and Remove Synthetic Turf Systems*. According to this document (p. 3), a typical synthetic turf sports field is about 80,000 square feet (sf) and is comprised of 40,000 lb of turf and 400,000 lb of infill. The volume of infill for a typical sport field would amount to +/- 400 cubic yards. The formulas used for the calculations are:

Estimation of turf weight: $(\text{Field area} / 80,000) \times 40,000 \text{ lb}$

Estimation of infill weight: $(\text{Field area} / 80,000) \times 400,000 \text{ lb}$

Estimation of infill volume: $(\text{Field area} / 80,000) \times 400 \text{ cubic yards}$

The STC report notes that "The volume of the turf removed from the field depends on how it is collected (rolled, cut up, or shredded) and would be considerable in volume." However, the total coverage of the plastic turf carpet can be estimated.

Findings

Number and distribution of turf fields

A total of 437 synthetic turf fields have been identified in Maryland (see Annex Table). It was not a trivial exercise, nor is it likely a complete list. Some fields have surely been missed and more are being approved or installed every day.

The enumerated fields are located in 19 counties and the City of Baltimore; to date, none has been identified in Caroline, Dorchester, Somerset, or Talbot counties. The counties with the greatest number of synthetic turf fields in the inventory are: Baltimore County (69); Montgomery County (64); Howard County (47); Anne Arundel County (54); Baltimore City (41); Prince George's County (40); Harford County (36); Frederick County (24); Wicomico County (13); and St. Mary's County (11). Ten counties had fewer than 10 fields each.

Ownership

About half of the fields (51%) belong to public schools, parks, or universities. The remaining fields are at private schools (19%) or private clubs/sports venues (19%). Two percent were owned and/or operated by public-private partnerships, or by a public entity other than a school or park.

Field size and type of venue

The 403 playing fields for which size could be estimated ranged from a minimum of 1,600 sf to a maximum of 156,800 sf. Seventy-five of the fields (17%) were at indoor sports venues, most of which were small, less than regulation size fields at private sports facilities.

Tonnage and volume of materials

The tonnage and volume of currently installed synthetic turf fields are a projection of the waste that will be generated from these fields over at least the next decade, before they must be replaced. According to the 2017 STC document, "Depending on its usage, exposure to intense sunlight, maintenance and other factors, a synthetic turf sports field will last 8-10 years before reaching the end of its useful life."(p.3).

The 403 fields for which field size was available amount to:

- 79,277 tons of mixed plastic carpet and infill;
- 144,325 cubic yards of infill, the equivalent of 4,810 30-yard dumpsters; and
- 28.9 million square feet (663 acres) of mixed plastic carpet.

End of life and disposal

Among the 365 fields for which an installation date was available, 41 (11%) had been replaced, and 71 (19%) were installed before 2014 and likely have been replaced, since the lifetime of a synthetic turf playing field is 8-10 years. The inventory did not attempt to record the disposition of the components of discarded fields – whether they were reused, repurposed, recycled, stockpiled, landfilled, or incinerated. Owners of fields that had been replaced generally are only aware that a contractor removed the fields; they are unlikely to know the destination or processing of the removed materials. In a few cases, a contractor was asked about the disposal of a removed field, but in only one case was the team able to obtain information, because the parks department, at the request of a legislator, asked the vendor to account for the disposition.¹⁶

Conclusions

There are at least 437 synthetic turf fields installed in Maryland as of January 1, 2024. They represent a significant amount of waste over the next decade as they are replaced, and even more fields are planned. There are limited options for disposal of this waste, much of which cannot be recycled or incinerated, and it would take up significant space in the state's landfills. In neighboring states (Pennsylvania, Virginia), synthetic turf waste has been stockpiled or dumped. At present, there is no information available to the public on the disposition of Maryland synthetic turf fields that have been removed, nor is there any requirement to document their reuse, recycling, or disposal.

It required considerable effort to document the existence of these fields, and considerably more effort to obtain basic information like the year of installation and field dimensions, which are still incomplete. *In the absence of a mandated, publicly disclosed chain of custody it will be difficult for the public or for state authorities to track the existence of synthetic turf fields and their proper disposition at the end of life.* A chain of custody would ensure transparency on the disposition of synthetic turf and infill – whether recycled, reused, repurposed, or landfilled – and serve as a strong disincentive for improper disposal.

ACKNOWLEDGEMENTS

We are grateful to the following volunteers from the Maryland Sierra Club Zero Waste Team for collecting the information that made this inventory possible: Martha Ainsworth, Michael Brandt, Thomas Brewer, Bente Cooney, Cindy Dillon, Kim Gross, Kerri Hesley, Crystal Konny, Marie LaPorte, Susan McDonald, Kathleen Michels, Carolyn Parsa, Abigail Snyder, Patricia Soffen, Terry Stakem, and Paige Stevens.

¹⁶ The Heurich Park field in Hyattsville, owned by Maryland National Capital Park and Planning Commission and replaced in 2023. (Letter from King Sports Construction to MNCPPC, May 26, 2023).

Synthetic Turf Fields and Estimated Waste in Maryland, by County, as of January 1, 2024

County	Total Fields	Distribution by ownership					Total Tonnage (carpet & infill)	Area of carpet (square feet)	Volume of infill (cubic yards)
		Public schools	Public parks	Private schools	Private clubs	Other			
Allegany*	4	3	0	0	1	0	712.8	259,200	1,296
Anne Arundel*	54	33	6	8	7	0	11,782.4	4,284,500	21,423
Baltimore City*	41	10	6	19	5	1**	7,947.4	2,965,469	14,827
Baltimore County*	69	28	13	22	6	0	11,896.6	4,217,409	21,087
Calvert	1	0	0	1	0	0	22.8	81,000	405
Carroll	6	1	0	0	5	0	568.7	206,810	1,034
Cecil*	8	5	3	0	0	0	1,138.2	413,900	2,070
Charles*	4	2	2	0	0	0	299.5	108,924	545
Frederick*	24	13	4	4	3	0	4,489.5	1,632,532	8,163
Garrett*	3	3	0	0	0	0	n.a.	n.a.	n.a.
Harford*	36	12	3	3	18	0	6,401.0	2,324,935	11,625
Howard*	47	14	16	1	16	0	9,190.4	3,341,964	16,710
Kent	1	1	0	0	0	0	313.7	114,085	570
Montgomery*	64	18	7	20	19	0	10,770.4	3,916,497	19,582
Prince George's	40	17	6	4	6	7**	8,617.0	3,133,452	15,667
Queen Anne's*	4	2	2	0	0	0	367.5	133,650	668
St. Mary's*	11	4	6	1	0	0	2,058.9	748,707	3,744
Washington*	4	2	0	2	0	0	683.3	248,479	1,242
Wicomico	13	4	4	0	5	0	1226.1	445,837	2,229
Worcester	3	3	0	0	0	0	790.7	287,515	1,438
TOTAL	437	150	73	85	83	7	79,276.9	28,864,865	144,325

*The dimensions of 34 fields were not available: Allegany (1); Anne Arundel (5); Baltimore City (1); Baltimore County (9); Cecil (3); Charles (3);Frederick (2); Garrett (3); Harford (1); Howard (1); Montgomery (2), Queen Anne’s (2), St. Mary’s (1), and Washington (1). The tonnage, carpet area, and volume of infill could not be estimated for these fields and are not included in the table.

** Under Armour field, privately owned, public access.

***Six fields are a public-private partnership (county owns the land, private foundation owns & runs the fields, Parks & Recreation sports teams have access year round); one is owned by the Prince George’s County Police Department.

Source: Maryland Sierra Club Chapter, Zero Waste Team.

Exhibit 2 :
Synthetic Turf from Richard Montgomery High School
sent to a site on Bird Creek in White Marsh, Maryland



Photos courtesy of Susan Loftus and Amanda Farber.

Founded in 1892, the Sierra Club is America's oldest and largest grassroots environmental organization. The Maryland Chapter has over 70,000 members and supporters, and the Sierra Club nationwide has over 800,000 members and nearly four million supporters.

HB457 CoC Synth Turf Fields AMENDMENTS.pdf

Uploaded by: Mary Lehman

Position: FAV



HB0457/213023/1

AMENDMENTS
PREPARED
BY THE
DEPT. OF LEGISLATIVE
SERVICES

12 FEB 24
08:41:40

BY: Delegate Lehman

(To be offered in the Environment and Transportation Committee)

AMENDMENTS TO HOUSE BILL 457

(First Reading File Bill)

AMENDMENT NO. 1

On page 1, in line 13, after the semicolon, insert “requiring a producer or seller of synthetic turf to disclose to a customer certain maintenance and cost information and certain reporting requirements;”; and in line 16, strike “9–2604” and substitute “9–2605”.

AMENDMENT NO. 2

On page 5, after line 12, insert:

“A PRODUCER OR SELLER OF SYNTHETIC TURF SHALL, BEFORE THE SALE OF SYNTHETIC TURF, DISCLOSE TO A CUSTOMER:

(1) THE MAINTENANCE THAT IS TYPICALLY PERFORMED THROUGHOUT THE LIFESPAN OF SYNTHETIC TURF; AND

(2) THE INDUSTRY STANDARD COST FOR:

(I) REMOVING SYNTHETIC TURF;

(II) REPLACING SYNTHETIC TURF; AND

(III) DISPOSING OF SYNTHETIC TURF; AND

(3) THE REPORTING REQUIREMENTS UNDER § 9–2602 OF THIS SUBTITLE.

HB0457/213023/01
Amendments to HB 457
Page 2 of 2

Lehman

9-2605."

HB457 WRITTEN TESTIMONY LEHMAN.pdf

Uploaded by: Mary Lehman

Position: FAV

DELEGATE MARY A. LEHMAN
Legislative District 21
Prince George's and
Anne Arundel Counties

Environment and Transportation
Committee



The Maryland House of Delegates
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THE MARYLAND HOUSE OF DELEGATES
ANNAPOLIS, MARYLAND 21401

**HB 457 – Environment – Synthetic Turf - Chain of Custody
SUPPORT**

GOOD AFTERNOON CHAIR KORMAN, VICE CHAIR BOYCE AND ESTEEMED COMMITTEE MEMBERS. FOR THE RECORD, I'M DELEGATE MARY LEHMAN, REQUESTING FAVORABLE CONSIDERATION OF HB 457, A BILL CREATING A CHAIN OF CUSTODY REPORTING SYSTEM FOR SYNTHETIC TURF PLAYING FIELDS.

THIS COMMITTEE AND THE FULL HOUSE HAVE PASSED THIS LEGISLATION TWICE – YOU HAVE AGREED WITH THE NEED TO FIND OUT WHERE THESE TURF FIELDS GO WHEN THEY ARE MOVED, TYPICALLY AT THE END OF THEIR 8-10 YEAR LIFE SPAN.

THE BILL REQUIRES TWO THINGS OF SYNTHETIC TURF FIELD OWNERS:

1. REPORT TO THE MD DEPT. OF ENVIRONMENT WHERE THESE FIELDS ARE LOCATED AT THE TIME THE LAW TAKES EFFECT AND GOING FORWARD WHEN NEW FIELDS ARE INSTALLED; AND
2. REPORT TO MDE WHERE THE FIELDS GO IF THEY ARE MOVED – FROM ONE FACILITY TO ANOTHER, WHICH IS VERY RARE – OR DISPOSED OF BECAUSE THEY HAVE REACHED THE END OF THEIR LIFE.

MDE WILL POST THE INFORMATION ABOUT FIELD LOCATIONS AND MOVEMENT ON ITS WEB SITE.

THIS YEAR'S BILL IS ALMOST IDENTICAL TO THE VERSION OF THE BILL THAT PASSED THIS COMMITTEE LAST YEAR. HOWEVER, THERE IS A FRIENDLY AMENDMENT SUPPORTED BY THE TURF FIELD MANAGERS ASSOCIATION.

IT REQUIRES THE SELLER OF A SYNTHETIC TURF FIELD TO PROVIDE THE BUYER, PRIOR TO THE SALE, WITH INFORMATION RELATED TO THE COST OF FIELD MAINTENANCE AND REMOVAL, AS WELL AS THE REQUIREMENT THAT THE CUSTODIAN MUST REPORT TO THE STATE OF MARYLAND THE INFORMATION SPECIFIED IN THIS BILL.

WHY THE NEED TO KNOW?

SINCE 2021, MARYLAND SIERRA CLUB VOLUNTEERS HAVE LOCATED 437 SYNTHETIC TURF FIELDS IN 19 OF MARYLAND'S COUNTIES AND IN BALTIMORE CITY. FOR THE 403 FIELDS WITH A REPORTED SIZE, THE WASTE PRODUCED OVER THE NEXT DECADE AS THEY ARE REPLACED WOULD AMOUNT TO:

- MORE THAN 79,000 TONS OF PLASTIC CARPET AND INFILL;
- MORE THAN 144,000 CUBIC YARDS OF INFILL, THE EQUIVALENT OF 4,819 30-YD DUMPSTERS; AND
- 28.9 MILLION SQUARE FEET OF PLASTIC CARPET (633 ACRES).

SYNTHETIC TURF FIELDS POSE AN ENORMOUS SOLID WASTE DISPOSAL CHALLENGE GIVEN THEIR SIZE, NUMBER, AND THE FACT THAT THERE ARE FEW DISPOSAL SITES IN MARYLAND THAT WILL ACCEPT THEM.

BY TRACKING THEIR MOVEMENT, BOTH MDE AND INTERESTED MEMBERS OF THE PUBLIC WILL HAVE ACCURATE INFORMATION ABOUT DISPOSAL PATTERNS AND LOCATIONS.

THE INFORMATION COLLECTED WILL HOLD INDUSTRY ACCOUNTABLE FOR ENSURING ADEQUATE OPTIONS FOR REUSE, RECYCLING, REPURPOSING AND DISPOSAL.

VIOLATORS OF THE REPORTING REQUIREMENTS WILL FIRST BE ISSUED A WRITTEN NOTICE OF VIOLATION BY MDE; AND IF THEY DO NOT BECOME COMPLIANT, THEY CAN THEN BE ISSUED AN ADMINISTRATIVE PENALTY THAT DOES NOT EXCEED \$5000.00

I BELIEVE DOCUMENTING THE CHAIN OF CUSTODY OF SYTHETIC TURF FIELDS IS A REASONABLE STEP FOR THE STATE OF MARYLAND TO TAKE AT A POINT IN TIME MANY FIELDS ARE REACHING THEIR AVERAGE END-OF-LIFE, BASED ON THE DATA COLLECTED BY VOLUNTEERS, AND ENVIRONMENTALY SOUND DISPOSAL OPTIONS IN MARYLAND ARE EXTREMELY LIMITED.

THANK YOU FOR YOUR PAST SUPPORT OF THIS BILL. I ASK YOUR FAVORABLE CONSIDERATION AGAIN THIS YEAR.

HB457 - Favorable Student Climate Action Council t

Uploaded by: Megan Stallard

Position: FAV

House Bill 457 - Environment - Synthetic Turf - Chain of Custody

Environment and Transportation Committee - February 16, 2024

SUPPORT

Submitted on behalf of the Student Climate Action Council (SCAC)

Submitted by Megan Stallard, SCAC Councilmember

Good afternoon Chair Korman, Vice Chair Boyce and members of the committee.

My name is Megan Stallard. I am a freshman at Poolesville High School and a member of the inaugural MCPS Student Climate Action Council (SCAC), sanctioned by the Board of Education to advise it on sustainability issues and to support student sustainability projects with a several thousand dollar budget. We urge a favorable committee report on bill HB457.

While this bill is not everything that needs to be done regarding the issue of artificial turfs, it is a huge step in the right direction. The SCAC has spent the last several months researching and preparing a report on the advantages and disadvantages of artificial turf and natural grass. Our report is unbiased, but the information that we have found highlights the concern around the usage of artificial turf, both due to environmental and health reasons. First, artificial turf heats up much more than natural grass, due to the materials it is made out of, creating a “heat island” effect that is very dangerous for players, causing burns and other injuries. In addition, artificial turf contains toxic and carcinogenic chemicals, which are damaging to humans and the environment. Thus, when they are discarded it is imperative to know where these fields are, and what's going to be done with them, because otherwise we cannot ensure that we dispose of these fields safely. Unfortunately, the state of Maryland has hundreds of synthetic turf fields, currently, we don't know where they are going. Our generation needs a system in place as a basis to deal with the mess that we've inherited. As a student, and as a representative

of the 160,000 students of MCPS, I strongly urge a favorable committee report on bill HB457.

Tracking artificial fields is not a complicated process; there are no significant expenditures necessary. However, it's a necessary step we need to take to protect our students and our future.

HB0457-FAV-DTMG-2-16-24.pdf

Uploaded by: Olivia Bartlett

Position: FAV



Olivia Bartlett, DoTheMostGood

Committee: Environment and Transportation

Testimony on: HB0457 - Environment – Synthetic Turf – Chain of Custody

Position: Favorable

Hearing Date: February 16, 2024

Bill Contact: Delegate Mary Lehman

DoTheMostGood (DTMG) is a progressive grass-roots organization with members in all districts in Montgomery County as well as several nearby jurisdictions. DTMG supports legislation and activities that keep all residents healthy and safe in a clean environment and that address equity for all residents in our communities. DTMG strongly supports HB0457 because it will provide transparency about where synthetic turf fields are in Maryland and how their toxic waste is disposed at the end of their life.

Synthetic turf fields are made from rolls of plastic “grass” blades weighed down and filled in with hundreds of thousands of pounds of “infill” made from shredded waste tires, silica sand, and/or alternative plastic particles. A standard field is two acres of plastic ‘carpet,’ with one billion plastic blades that shed out over the life of the field. The Maryland Sierra Club has identified more than 430 plastic fields in Maryland, but many more remain uncounted.

The removal and replacement cycle for plastic synthetic turf fields is typically every eight to twelve years. This results in a huge amount of toxic waste. A single field contains about 400 tons of bulky, mixed plastic waste and infill full of carcinogens, chemicals that are endocrine disruptors, heavy metals, PFAS forever chemicals, and microplastic contamination that can leach into our soil and waterways.

The problem is that we don’t know what happens to the synthetic turf fields or their toxic waste at the end of their life. There is no recycling of synthetic turf in US, and local, national, and international media outlets have covered the growing problem of synthetic turf waste. Anne Arundel, Prince George’s, and Montgomery County municipal solid waste facilities report they would decline used synthetic turfs due to volume and weight. There are also no state or federal regulations for safe disposal of synthetic turf or its infill, and there are many documented examples of irresponsible disposal – including dumping the material in lower-income communities. In a 2019 Maryland legislative hearing on disposal of synthetic turf, the president of the leading trade group, the Synthetic Turf Council (STC), acknowledged that there are no laws or regulations regarding the disposal of synthetic turf. The STC itself recommends end-of-life chain of custody certification and describes the disposal issue as “enormous” and “challenging.”

HB0457 will begin to address this important and growing problem by requiring the custodian of each synthetic turf sports and playing field to report relevant information about the field, including its location, manufacturer, size, brand, area, and weight, to the Maryland Department of the Environment (MDE) through an online report. Similar information will need to be reported each time a synthetic turf field is installed, removed, reused, or disposed. The reporting requirement is a simple, non-burdensome data-point. There are no fees and no requirement for any approval from government.

Stakeholders and citizens should be able to access a chain of custody showing what happens to the material. The STC's own guidelines support this goal. STC and individual firms have long claimed to be good stewards who aim for repurposing, reusing, and recycling. This is their chance to show their commitment to our communities and the environment. The reporting will also assure buyers they are dealing with an honest, transparent, accountable vendor.

Maryland is not alone in facing a growing synthetic turf problem. Enacting HB0457 is an important opportunity to get a handle on the extent of the problem so we can move toward a solution. By establishing a simple chain of custody for synthetic turf fields, to track fields as they are installed or removed, Maryland can deter their improper disposal and prevent contamination of soil and water from the material's known harmful chemicals.

In light of the rising number of synthetic turf fields in Maryland, HB0457 is a sensible, low-burden method of preventing contamination from chemicals in synthetic turf and from microplastic debris. Therefore, DTMG strongly supports HB0457 and urges a **FAVORABLE** report on this bill.

Respectfully submitted,

Olivia Bartlett
DoTheMostGood Maryland Team
oliviabartlett@verizon.net
240-751-5599

HB457_MarylandLCV_RichardDeutschmann_FAV.pdf

Uploaded by: Richard Deutschmann

Position: FAV



February 16, 2024

Kim Coble
Executive Director

2024 Board of
Directors

Lynn Heller, Chair
The Hon. Nancy Kopp,
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Kimberly Armstrong
Candace Dodson-Reed
Verna Harrison
Melanie Hartwig-Davis
Charles Hernick
The Hon. Steve Lafferty
Patrick Miller
Bonnie L. Norman
Katherine (Kitty)
Thomas

SUPPORT: HB457 - Environment – Synthetic Turf – Chain of Custody

Mr. Chairman and Members of the Committee:

Maryland LCV supports HB457 - Environment – Synthetic Turf – Chain of Custody, and we thank Delegate Lehman for her longtime leadership on this issue.

According to the Synthetic Turf Council, synthetic turf sports fields have a lifespan of only 8-10 years, after which they require disposal, recycling or incineration. Each playing field, of which there are more than 430 in the state of Maryland, generates 220 tons of waste. This waste is known to contain heavy metals, PFAS (“forever chemicals”), and carcinogens. Some of these toxics are known to end up in our marine environment, with detrimental effects to both humans and marine animals.

At present, despite industry claims of improving the recycling rate of these mounds of waste, there are no certified facilities that can recycle them in the United States, and only 1 in all of Europe. Given the vast quantity of this waste, and the lack of transparency in where it ends up, much of this is suspected to end up in developing parts of the world such as Africa and Malaysia, along with rural landfills here in the U.S. Some of this has been documented as ending up in illegal waste dumps, and facilities that are not prepared to handle this type of waste.

HB457 simply begins the process of documenting and tracking this material, from the time it enters the state of Maryland, through its useful life as a playing field here in the state, and throughout the waste process to its final destination. This system will put the burden on the custodian of the synthetic turf throughout its life cycle, making this information publicly available, and will assist Maryland in creating a more informed public policy around how to deal with this waste in an environmentally sound and equitable way. Along with similar policies in surrounding states, this could spur innovation in recycling, reduction of toxics used in manufacturing, and equity in waste that does end up in landfills.

Maryland LCV urges a Favorable report on this important bill.

Sources for this testimony:

Synthetic Turf Council

https://www.syntheticurfCouncil.org/page/About_Synthetic_Turf

The Intercept

<https://theintercept.com/2019/10/08/pfas-chemicals-artificial-turf-soccer/>

New York Times

<https://www.nytimes.com/2020/12/03/climate/salmon-kill-washington.html>

Testimony in support of HB0457.pdf

Uploaded by: Richard KAP Kaplowitz

Position: FAV

02/16/2024

Richard Keith Kaplowitz
Frederick, MD 21703

TESTIMONY ON HB#0457 - FAVORABLE
Environment - Synthetic Turf - Chain of Custody

TO: Chair Korman, Vice Chair Boyce, and members of the Environment and Transportation Committee

FROM: Richard Keith Kaplowitz

My name is Richard Kaplowitz. I am a resident of District 3. I am submitting this testimony in support of HB#0457, Environment - Synthetic Turf - Chain of Custody

While synthetic turf fields may make maintenance of a field for multiple sports usage those turfs carry significant risks and can degrade the environment. This bill will ensure that the installation, maintenance and replacement of any synthetic turf field in Maryland mitigates, as much as possible, negative environmental impact and safe disposal of any synthetic turf field cover.

Dr. Andrew Weil has answered the question “Is Artificial Grass Toxic”. The doctor says there are some benefits but that is likely outweighed by the negative environmental factors present in synthetic turf itself. ¹

The environmental organization, Beyond Plastics, is firm in their opinion of why artificial turf poses such a danger in its usage and its disposal. Their conclusion is “Artificial Turf is HAZARDOUS”. Among the problems they document are high heat, toxic chemicals, and microplastics. ²

This bill will not stop the installation and maintenance of those fields but will permit the Department of the Environment to take proactive steps to mitigate as much harm from those fields as is possible. This bill is both a health and an environmental protection bill.

I respectfully urge this committee to return a favorable report on HB#0457.

¹ <https://www.drweil.com/health-wellness/balanced-living/gardening/is-artificial-grass-toxic/>

²² <https://www.beyondplastics.org/fact-sheets/synthetic-turf>

RJR-(MTC.MASFMA)HB457 Letter (SUPPROT)(2024)(Signe

Uploaded by: Robert Navolis

Position: FAV



**House Environment & Transportation Committee
House Bill 457: Environment –
*Synthetic Turf and Turf Infill - Chain of Custody***

Position: SUPPORT

Delegate Mark Korman, Chair
House Environment & Transportation Committee
Room 251
House Office Building
Annapolis, Maryland 21401

February 16, 2024

Dear Chairman Korman and Members of the House E&T Committee:

On behalf of the Mid-Atlantic Field Manager Association (MASFMA) (*formerly known as MASTMA*) and the Maryland Turfgrass Council (MTC), we write this letter in support of *House Bill 457: Environment - Synthetic Turf - Chain of Custody*.

The Mid-Atlantic Sports Field Management Association (MASFMA) is a non-profit organization that is composed of sports turf field managers and workers from Maryland, Delaware, Washington D.C., and Northern Virginia. As MASFMA members, we partner together to promote education, teamwork, networking, and best practices among our peers and within the Sports Turf Management Industry.


We have partnered with Maryland Turfgrass Council (MTC) this year to bring a more unified front from all aspects of our industry. MTC represents all areas of the turf industry including golf, sports-turf, sod producers, landscape, lawncare and commercial vendors and suppliers.

Over the last couple of years, MASFMA has created and distributed a [Best Management Practices \(BMP\) manual](#). One of the focuses of the BMP manual is to highlight industry specific practices that ensure the safety of the community, and that environment remains the top priority in our line of work. It covers topics to help both managers and workers keep fields safe and playable for athletes of all ages, from children to professionals.

We believe that this bill is in the best interest of the environment and will provide accountability for proper disposal of materials related to synthetic fields. Many of the products used synthetic fields are non-biodegradable and should be disposed of properly and correctly. With the current shift to an organic infill mix, fields are becoming more sustainable; however, the main part of the field is still plastic and should be recycled or disposed of in a way that is best for the environment.

For these reasons, we respectfully seek your consideration and support in providing a *favorable* report to House Bill 457.

Thank you,



CSFM

Jason Bowers, President - MASFMA

Patrick Coakley

Patrick Coakley - Vice President - MTC

FOSC testimony HB0457 support -synthetic turf chai

Uploaded by: sheldon fishman

Position: FAV



Committee: Environment & Transportation
Testimony on: HB457- Environment-Synthetic Turf -
Chain of Custody

Organization: Friends of Sligo Creek

Submitting: Kit Gage, Advocacy Chair and past President

Position: Favorable

Hearing Date: February 16, 2024

Dear Mr. Chairman and Committee Members:

Thank you for allowing our testimony today in support of HB457. Friends of Sligo Creek, representing about 1400 members, most in Montgomery County and some in Prince George's, urges you to vote favorably on HB457. We support transparency and accountability in disposal of this significant solid waste that will adversely affect our waterways and groundwater when not disposed of appropriately. A Chain of Custody system will also be a support for responsible recycling when that becomes available since the fate of the field will become transparent.

This bill would require manufacturers and owners of synthetic turf and turf infill to report chain of custody of the turf and infill for reuse, recycling, or final disposal. Currently there are no such regulations despite the fact that each turf field contains tens of thousands of pounds of chemical-laden plastic and hundreds of thousands of pounds of granulated infill (usually tire waste, or alternative infills, and silica sand).

According to the Synthetic Turf Council, the industry's leading association, one thousand deconstructed fields per year in the U.S. represent 80 million square feet of turf carpet weighing 40 million pounds and 400 million pounds of infill.

Synthetic turf's typical lifespan is a period of 8-10 years. Used synthetic turf materials may be landfilled, incinerated, repurposed or dumped in communities which then must deal with the waste. The synthetic component materials that make up artificial turf carpet systems contain known aquatic and human toxins, carcinogens, endocrine disruptors, heavy metals, carcinogens, and immune disruptors such as PFAS, or "forever chemicals."

Several Maryland municipal waste facilities do not accept the volume, weight, and mixture of synthetic turf which then leads to illegal dumping. Numerous examples of irresponsible disposal exist including dumped or stockpiled material in lower income communities, including a 2018 example where a turf field from Richard Montgomery High School in

Montgomery County was dumped near the Bird River in Baltimore County. Another field (Walter Johnson HS) was reportedly shipped to an uncertain fate halfway around the world in Malaysia. The technology for recycling synthetic turf, which involves separating the plastic grass and backing from the sand and rubber infill is complicated and has not been fully developed, so when a synthetic turf owner wants to do the right thing and tries to recycle, they have limited options. Right now, municipalities and jurisdictions in Maryland as well as other regions across the country where these plastic carpets are dumped are the same jurisdictions that are forced to deal with the environmental and physical mess as they have no way of knowing who dumped the used turf without a chain of custody tracking system, as proposed in HB457. A Chain of Custody system will also be a support for responsible recycling when that becomes available since the fate of the field will become transparent and customers will want to do the right thing.

Our environment, waterways and municipalities suffer from inappropriate disposal of the plastic carpeting and infill from synthetic turf. Stakeholders have the right to know what happens to materials and hold those responsible for the materials accountable through a documented chain of custody reporting. Transparency and accountability regarding synthetic turf disposal must be required.

Friends of Sligo Creek, or FOOSC, is a nonprofit community organization dedicated to protecting, improving, and appreciating the ecological health of Sligo Creek Park and its surrounding watershed.

We support this bill and recommend a **FAVORABLE** report in committee.

Kit Gage
Chair, Advocacy Committee, advocacy@fosc.org
Friends of Sligo Creek, www.friendsofsligocreek.org
PO Box 11572
Takoma Park MD 20913

HB457 Written Testimony in Support of Synthetic Tu

Uploaded by: Tom Taylor

Position: FAV

HB457 Written Testimony in Support of Synthetic Turf – Chain of Custody

I am submitting this testimony in support of HB 457, “Synthetic Turf – Chain of Custody.” This legislation will require owners of synthetic turf and infill to maintain a chain of custody of its installation, reuse, repurposing, recycling, and ultimate disposal, and to report this information to the Maryland Department of the Environment (MDE) for posting on a public website.

Synthetic turf fields produce a large volume of waste, much of it toxic. These systems contain aquatic and human toxins, carcinogens, endocrine disruptors, heavy metals, and immune disruptors, such as PFAS chemicals.

There is no official inventory of the number and location of synthetic turf fields in Maryland or where used fields have gone. The fate of this enormous amount of plastic waste and infill currently is difficult, if not impossible, to track. There is no required documentation of the extent of reuse, repurposing, recycling, or disposal of this waste.

Many waste facilities do not accept synthetic turf waste because of its high volume, weight, and toxicity. It can end up in rural and urban stockpiles and dumped in the environment. When improperly disposed of and uncontained, especially near waterways, these materials pose risks to humans, wildlife, and the environment. Used synthetic turf fields have been illegally dumped or stockpiled in rural areas of neighboring Pennsylvania and Virginia. It is not good that used Maryland synthetic turf fields are dumped in other states or in our own rural areas.

HB457 and the chain of custody it requires will be a first step in addressing this problem. Without public reporting, there is no accountability. A publicly disclosed chain of custody will incentivize responsible disposal.

Please support HB457 and make Maryland a national leader and example for responsible stewardship of synthetic turf throughout its lifetime of use and final disposal.

Thank you for considering my views.

Sincerely,
Tom Taylor
11-G Laurel Hill Road
Greenbelt, MD 20770

Maryland Bill.pdf

Uploaded by: Amanda Todd

Position: UNF



February 14, 2024

Subject: Input Regarding Maryland House Bill 457

To Whom It May Concern:

I am writing on behalf of The Recreational Group to express our concerns regarding Maryland House Bill 457 and its proposed language. We believe it is important to address the potential impacts this bill may have on Maryland residents and communities if enacted. Furthermore, we offer suggestions aimed at enhancing the clarity and enforceability of this legislation.

We acknowledge the bill's commendable aim to promote sustainability and responsible management of synthetic turf systems. However, we feel that the current definition of 'custodian,' spanning multiple distinct parties, may lead to confusion and redundant reporting requirements.

Additionally, we emphasize the importance of transparency and accountability in this context. To this end, we propose a minimum field size requirement of 75,000 square feet, aligning with standard sports field dimensions. This adjustment would streamline compliance efforts while upholding industry norms.

We look forward to working with all stakeholders, including legislators, community members, and subject matter experts, to ensure the best policies for Marylanders. Our goal is to ensure that synthetic turf systems remain a viable and environmentally sound solution for communities, particularly where land use, water resources, and recreational access are critical.

Sincerely,

Amanda Todd
CFO
Amanda.todd@recreationalgroup.com
706-263-0755

200 Howell Drive Dalton, GA 30721 877 881 8477 Recreationalgroup.com



Letter Template_ Maryland House Bill 457.pdf

Uploaded by: Kaitlyn Lord

Position: UNF

[February 14, 2024]

[SYNLawn Chesapeake Bay]

Subject: Input Regarding Maryland House Bill 457

To Whom It May Concern:

I am writing on behalf of [SYNLawn Chesapeake Bay] to express our concerns regarding Maryland House Bill 457 and its proposed language. We believe it is important to address the potential impacts this bill may have on Maryland residents and communities if enacted. Furthermore, we offer suggestions aimed at enhancing the clarity and enforceability of this legislation.

We acknowledge the bill's commendable aim to promote sustainability and responsible management of synthetic turf systems. However, we feel that the current definition of 'custodian,' spanning multipledistinct parties, may lead to confusion and redundant reporting requirements.

Additionally, we emphasize the importance of transparency and accountability in this context. To this end, we propose a minimum field size requirement of 75,000 square feet, aligning with standard sports field dimensions. This adjustment would streamline compliance efforts while upholding industry norms.

We look forward to working with all stakeholders, including legislators, community members, and subject matter experts, to ensure the best policies for Marylanders. Our goal is to ensure that synthetic turf systems remain a viable and environmentally sound solution for communities, particularly where land use, water resources, and recreational access are critical.

Sincerely,

[Kaitlyn Lord]

[President]

[443-223-3042 and Kaitlyn@cbslturf.com]

STC Testimony- HB 457.pdf

Uploaded by: Melanie Taylor

Position: UNF

February 14, 2024

Maryland General Assembly
Environment and Transportation Committee
Senate Office Building
Annapolis, MD 21401

Written Testimony in opposition of: House Bill No. 457:

Submitted by:
Melanie Taylor, CAE
President and CEO
Synthetic Turf Council (STC)
2331 Rock Spring Road, Forest Hill, MD 21050

Dear Chair Korman, Vice Chair Boyce and members of the Environment and Transportation Committee

My name is Melanie Taylor and on behalf of the Synthetic Turf Council (STC), I am writing in opposition to House Bill No. 457. While we greatly appreciated the opportunity to meet with the bill's sponsor to provide our perspective, we continue to have strong concerns about the bill's proposed language.

As a 501(c)6 trade association representing the synthetic turf industry, the STC office is headquartered in Harford County, Forest Hill, Maryland. Founded in 2002, the STC represents over 200 members and promotes industry excellence through voluntary guidelines, certifications, and other learning platforms. Our membership includes representatives from every stage of installing and maintaining a turf field, including builders, design professionals, civil engineers, testing labs, maintenance providers, manufacturers, suppliers, installation contractors, infill and shock pad suppliers and specialty service companies.

The STC has two primary issues with House Bill 457:

1. **Definition of "custodian"** – As written, a custodian includes "a person that owns or is in control of synthetic turf in the state" or "any current or subsequent owner of a property on which there is existing synthetic turf". We recommend a clearer definition of custodian as the owner of the turf system to help narrow the responsible parties so that when a new field is installed, only one party reports it one time.
2. **Threshold of 5,000 square feet minimum** – We believe sports fields average at 75,000 square feet and playfields 30,000 to 50,000 square feet. Anything below that would include landscape and commercial applications that have life spans up to 15 and 20 years.

The STC is committed to protecting the environment and currently provides the latest guidance and resources on the best ways to reuse and/or recycle each component of a synthetic turf field. We are happy to provide counsel on such bills that would further codify established industry guidelines that effectively encourage sustainability and proper end-of-life handling.

Thank you for your consideration.

Melanie Taylor, CAE
President and CEO
Synthetic Turf Council (STC)
www.syntheticturfcouncil.org

CTP Response to Maryland House Bill 457.pdf

Uploaded by: Robert DelGaudio

Position: UNF

February 14, 2024

Capitol Turf Pros

Subject: Input Regarding Maryland House Bill 457

To Whom It May Concern:

I am writing on behalf of Capitol Turf Pros to express my concerns regarding Maryland House Bill 457 and its proposed language. I am a long time resident and small business owner in the landscape construction industry for over 21 years now! I believe it is important that we take a serious look at the potential ramifications of this proposed bill.

As I understand this bill, it limits turf fields or turf installations to a size of 5000 sq. ft. or less. The average athletic field is between 40,000-75,000 sq. ft. Would we really tell the hundreds of schools across our state that the option to construct a new artificial turf field is no longer an option??

There are numerous reasons why synthetic is highly advantageous over real grass. For starters the youth athletic industry in the state of Maryland is so big that these fields see traction all day long and all weekend long. If they weren't artificial they would be dirt or mud in days, so they provide an outlet for Maryland's youth. There is pragmatic justification for building these fields.

Artificial fields can control water drainage much more efficiently than dirt/grass fields when done correctly. The safety ratings or what is known as the G-max rating can be monitored for safety much easier than grass fields. Games can be played during or after rain with less ground erosion as compared to real grass fields. These are just a few of the reasons our communities require these facilities. To take that away would be a clear backwards move in my opinion.

Please consider opposing this bill as it is written. The negative impact to our Maryland communities would be far reaching and even more importantly, to the predominant end users, our children. Providing our youth with safe, clean artificial parks from playgrounds to the athletic fields should be everyone's goal. I'm happy to help further this discussion if you would like to.

Sincerely,

Robert DelGaudio

President

240-793-7741

rob@capitolturfpros.com