**HB0457 Synturf Tevelow FAV.pdf**
Uploaded by: Carla Tevelow
Position: FAV

HB0457 Environment - Synthetic Turf - Chain of Custody - favorable

Dear Chair Feldman and Co-Chair Kagan, 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

**HB0457_Synthetic_Turf_Chain_of_Custody_MLC_FAV.pdf**
Uploaded by: Cecilia Plante
Position: FAV

MARYLAND LEGISLATIVE COALITION

# TESTIMONY FOR HB0457
# ENVIRONMENT – SYNTHETIC TURF – CHAIN OF CUSTODY

**Bill Sponsor:** Delegate Lehman
**Committee:** Education, Energy, and the Environment
**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_KonnySenate.pdf**
Uploaded by: Crystal Konny
Position: FAV

HB-0457

## Environment - Synthetic Turf - Chain of Custody
## Testimony before
## Senate Education, Energy, and the Environment Committee
**Hearing Date:** March 20, 2024
**Position: Favorable**

Chair Feldman, Vice Chair Kagan, and members of the committee, my name is Crystal Konny, and I represent the 700+ 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 Senate.pdf**
Uploaded by: Dave Arndt
Position: FAV

**Committee:** **Education, Energy, and the Environment Committee**
**Testimony on:** **HB457 – Environment – Synthetic Turf – Chain of Custody**
**Submitting:** **Dave Arndt**
**Position:** **Favorable**
**Hearing Date:** **March 19, 2024**

I live in Baltimore were 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**

**Education, Energy and the Environment Committee, March 20, 2024**

**SUPPORT**

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

Good afternoon Chair Feldman,  Vice Chair Kagan, and honorable 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 Senate Testimony re Chain of Custody HB457 Ma**
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: Education, Energy and the Environment
Chair: Brian J. Feldman
Recommendation: FAVORABLE
Submitted by Dr. Diana Zuckerman, President, National Center for Health Research
Status in the Senate – Hearing 3/20/24

Dear Chair Feldman, Vice Chair Kagan, 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. The bill would establish a simple chain of custody for synthetic turf. NCHR is a nonprofit think tank the 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 could 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: Jennifer Kunze
Position: FAV

**HB457**
**Environment – Synthetic Turf – Chain of Custody**
**Senate Education, Energy, and the Environment Committee**
**March 20, 2024**

**Position: Favorable**

Dear Chair Feldman 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 | Diana E. Conway | Cynthia Rubenstein |
| WDC President | WDC Environment Committee | Chair, WDC Advocacy |

**UPDATED_Position Statement_HB 457 Environment – Sy**

Uploaded by: Jordan BaucumColbert

Position: FAV

THE MARYLAND-NATIONAL CAPITAL
Park and Planning Commission

# POSITION STATEMENT

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

**Position:** Support **Date:** March 20, 2024

**Contact:** Debra Borden, General Counsel

Jordan Baucum Colbert, Government Affairs Liaison

Dear Chair Brian J. Feldman and Vice Chair Cheryl C. Kagan,

The Maryland-National Capital Park and Planning Commission (M-NCPPC or "the Commission") has voted to support this Bill. The Commission respectfully requests that the Education, Energy and Environment 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



Office of the General Counsel
6611 Kenilworth Avenue, Suite 200, Riverdale, Maryland 20737
301.454.1670 tel.

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 on HB 0457.



Office of the General Counsel
6611 Kenilworth Avenue, Suite 200, Riverdale, Maryland 20737
301.454.1670 tel.

**HB0457-03192024.pdf**
Uploaded by: Karl Held
Position: FAV

**CLIMATE COALITION**
**Montgomery County, MD**

**Committee:** Senate Education, Energy, and the Environment
**Testimony on:** HB 0457 – Environment – Synthetic Turf – Chain of Custody
**Organization:** Climate Coalition Montgomery County
**Submitting:** Karl Held
**Position:** Favorable
**Hearing Date:** March 20, 2024

Dear Chair Feldman, Vice Chair Kagan, and honorable members of the Committee,

Thank you for this opportunity to testify in support of HB 0457. The Climate Coalition of Montgomery County, a coalition of 20 grassroots organizations focused on climate and the environment, urges you to vote favorably on HB 0457.

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.

HB 0457 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. HB 0457 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 HB 0457, 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.

HB 0457 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.

HB 0457 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 HB 0457**.

Respectfully,

Karl Held, on behalf of the Climate Coalition Montgomery County

**Climate Coalition Montgomery County - Member Organization Signatories**

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

Attachment below:

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


*Photos provided by SHPFI*

*Old synthetic fields in various dumping 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:*




## SENATE OMGreen Fav for HB0457 Chain of Custody2024

Uploaded by: Kathleen Michels

Position: FAV

**Bill: HB 0457 Environment – Synthetic Turf – Chain of Custody**
**Date: March 1, 2024 for March 20 hearing**
**Committee: SENATE- Education, Energy and the Environment**
**POSITION: FAVORABLE**
**Organization: One Montgomery Green (submitted by Kathleen Michels)**

Dear Chair Feldman, Vice-Chair Kagan and Honorable committee members,

One Montgomery Green respectfully requests that the Education, Energy and the Environment 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** since this material is not accepted by incinerators or many landfills and so other locations for disposal must often be found**.** A volunteer statewide inventory led by the Maryland Sierra Club ( found at this link: https://www.sierraclub.org/maryland/disposal-synturf-fields ) is an attempt to get a handle on the scope and scale of the problem.
The number of individual installations as of early 2024 is well over 400 which represents upwards of 900-1000 acres of plastic and tire waste which must be accounted for upon disposal but currently is not. The full and ever rising scope and scale of the waste 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 PFAS 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 (OMGreen)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.*
*OMGreen 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*.

**FSPTAHB457.docx.pdf**
Uploaded by: Laura Stewart
Position: FAV

Free State PTA
5730 Cottonwood Ave Box 20924
Baltimore, Maryland 21209
Phone: (410) 446-1549
www.fspta.org

**Written Testimony Submitted for the Record to the Maryland Senate**
**Education, Energy, and the Environment**
**For the Hearing on**
**Environment - Synthetic Turf - Chain of Custody- HB457**
**March 20, 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_EEE-CJW-FAV**
Uploaded by: Laurie McGilvray
Position: FAV

**Committee:** Education, Energy and the Environment
**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:** March 20, 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 Synturf EEE Liz Feighner FAV.pdf**
Uploaded by: Liz Feighner
Position: FAV

## HB0457: Environment - Synthetic Turf - Chain of Custody Testimony

**Hearing Date:** March 20, 2024
**Bill Sponsor:** Delegates Lehman
**Committee:** Education, Energy, and the Environment Committee
**Submitting:** Liz Feighner
**Position: Favorable**

Chair Feldman, Vice Chair Kagan 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 about 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

**HB0457_Synthetic_Turf_EEE_HoCoCA.org_FAV .pdf**
Uploaded by: Liz Feighner
Position: FAV

HoCoClimateAction.org
Howard County, Maryland

**HB0457: Environment - Synthetic Turf - Chain of Custody**

**Hearing Date: March 20, 2024**
**Bill Sponsor: Delegates Lehman,** Acevero, Addison, Allen, Alston, Amprey, Attar, Bagnall, Barnes, Boafo, 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: Education, Energy, and the Environment Committee**
**Submitting:** Liz Feighner for **HoCo Climate Action**
**Position: Favorable**

HoCo Climate Action is a 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_EEE_LPP.org_FAV .pdf**
Uploaded by: Liz Feighner
Position: FAV


**HB0457: Environment - Synthetic Turf - Chain of Custody**

**Hearing Date: March 20, 2024**
**Bill Sponsor: Delegates Lehman**, Acevero, Addison, Allen, Alston, Amprey, Attar, Bagnall, Barnes, Boafo, 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: Education, Energy, and the Environment Committee**
**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

**HB457_Synturf_EEE_BWCUMC_CC_FAV.pdf**
Uploaded by: Liz Feighner
Position: FAV

Creation Care
Baltimore-Washington Conference
THE UNITED METHODIST CHURCH

**HB0457: Environment - Synthetic Turf - Chain of Custody**

**Hearing Date: March 20, 2024**
**Bill Sponsor: Delegates Lehman**, Acevero, Addison, Allen, Alston, Amprey, Attar, Bagnall, Barnes, Boafo, 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: Education, Energy, and the Environment Committee**
**Submitting Organization: BWCUMC Creation Care** by Liz Feighner
**Position: Favorable**

Chair Feldman, Vice Chair Kagan and members of the committee, the Baltimore Washington Conference of the United Methodist Church Creation Care Advocacy & Action is urging your support of HB0457, The Synthetic Turf Chain of Custody bill.

As United Methodists, we believe that "All creation is the Lord's, and we are responsible for the ways in which we use and abuse it. … God has granted us stewardship of creation. We should meet these stewardship duties through acts of loving care and respect." "We acknowledge the global impact of humanity's disregard for God's creation." "We support and encourage social policies that serve to reduce and control the creation of industrial byproducts and waste;..." From Social Principles: The Natural World in The Book of Discipline of The United Methodist Church. "Confronted with the massive crisis of the deterioration of God's creation and called to a ministry of reconciliation between God, humankind, and creation, we ask God's forgiveness and commit ourselves to a new way of being that integrates environmental, economic and social justice." (From: Book of Resolutions, 1033)

In order to understand the amount of industrial byproducts and waste being produced, we need to be able to track the life cycle of synthetic turf. An average single 80,000 sq ft. field contains 40,000 lbs of plastic carpeting and 400,000 lbs of infill (usually granulated tire waste sometimes mixed with sand). Synthetic turf fields need to be replaced every 8-10 years adding to the toxic waste that needs to be dealt with. As of April 2022, Maryland had at least 380 synthetic turf playing fields, amounting to more than 71,000 tons of plastic carpet and infill, nearly 130,000 cubic yards of infill (the equivalent of 4,325 thirty-yard dumpsters), and 25.6 million square feet of plastic carpet (589 acres).

The estimate of the number of fields in all of Maryland 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.

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.

Regards,

Baltimore Washington Conference of the United Methodist Church Creation Care Advocacy & Action

Submitted by Liz Feighner, member
liz.feighner@gmail.com

**HB 457 - MoCo_Elrich_FAV (Senate) (GA 24).pdf**
Uploaded by: Marc Elrich
Position: FAV

OFFICE OF THE COUNTY EXECUTIVE

**Marc Elrich**
*County Executive*

March 20, 2024

TO: The Honorable Brian J. Feldman
Chair, Education, Energy, and the Environment Committee

FROM: Marc Elrich
County Executive

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

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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 Education, Energy, and the Environment Committee

**HB457_MDSierraClub_fav 20March2024.pdf**
Uploaded by: Martha Ainsworth
Position: FAV

Maryland Chapter
P.O Box 278
Riverdale, MD 20738

**Committee: Education, Energy and the Environment**
**Testimony on: HB 457 "Environment – Synthetic Turf – Chain of Custody"**
**Position: Support**
**Hearing Date: March 20, 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 to 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.syntheticturfcouncil.org/page/About_Synthetic_Turf
[2] STC. 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
[3] According 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.*
[4] For 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
Chair, Chapter Zero Waste Team
Martha.Ainsworth@MDSierra.org

Josh Tulkin
Chapter Director
Josh.Tulkin@MDSierra.org

[5]Lundstrom, 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).
[6]Meyer, 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.*
[10]The 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/
[12]Einhorn, 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
[13]STC 2017. *op cit*., pp 13-18.

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.

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*

[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.

*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: (Field area / 80,000) x 40,000 lb
Estimation of infill weight: (Field area / 80,000) x 400,000 lb
Estimation of infill volume: (Field area / 80,000) x 400 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.

# <u>Exhibit 2</u> :
# 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.

**HB457 LEHMAN WRITTEN TESTIMONY SENATE.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
6 Bladen Street, Room 163
Annapolis, Maryland 21401
301-858-3114 · 410-841-3114
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THE MARYLAND HOUSE OF DELEGATES
ANNAPOLIS, MARYLAND 21401

**HB 457 – ENVIRONMENT – SYNTHETIC TURF - CHAIN OF CUSTODY**

**SUPPORT**

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

THIS IS MY SIXTH YEAR WORKING ON LEGISLATION THAT DOCUMENTS WHERE SYNTHETIC TURF PLAYING FIELDS ARE LOCATED IN MARYLAND, AND WHERE THEY GO WHEN THEY ARE MOVED, WHETHER IT BE TO A RECYCLING FACILITY, A WASTE DISPOSAL PLANT, OR TO REPLACE AN EXISTING PLAYING FIELD.

THE ENVIRONMENT AND TRANSPORTATION COMMITTEE PASSED THE BILL AMENDED IN 2022, AND IT WAS PASSED BY THE FULL HOUSE. THE SENATE **EHEA** COMMITTEE NEVER VOTED ON THE HOUSE BILL OR THE SENATE CROSS-FILE. IN 2023, THE HOUSE PASSED THE BILL WITH BIPARTISAN SUPPORT, 103-31; BUT THE SENATE **EEE** COMMITTEE NEVER VOTED ON THE HOUSE BILL.

THIS BILL IS SAME AS THE 2023 BILL, WHICH PASSED THE FULL HOUSE LAST YEAR.
This bill passed the house includes A FRIENDLY AMENDMENT TO THE BILL THAT REQUIRES THE SELLER OF A SYNTHETIC TURF FIELD TO PROVIDE THE BUYER, PRIOR TO THE SALE, WITH CERTAIN INFORMATION RELATED TO THE LIFESPAN, COST OF FIELD MAINTENANCE AND REMOVAL, AS WELL AS THE REQUIREMENT THAT THE CUSTODIAN REPORT TO THE STATE OF MARYLAND THE INFORMATION SPECIFIED IN THIS BILL. THIS AMENDMENT WAS REQUESTED BY TURF FIELD MANAGERS TO ENSURE THAT PURCHASERS HAVE INFORMATION THAT ENABLES THEM TO MAKE INFORMED DECISIONS ABOUT THEIR OBLIGATIONS AND LIKELY MAINTENANCE AND DISPOSAL EXPENSES AND CHALLENGES.

WHAT THE BILL DOES:  IT REQUIRES OWNERS AND MANUFACTURERS OF EXISTING SYNTHETIC TURF FIELDS, WHICH INCLUDE THE PLASTIC CARPETING, INFILL MATERIAL, AND SHOCK PAD, TO REPORT INFORMATION TO THE MD DEPARTMENT OF ENVIRONMENT (MDE) ABOUT THE LOCATION, CUSTODIAN, BRAND NAME OF THE FIELD, SIZE IN SQUARE FEET AND ESTIMATED WEIGHT, AND THE DATE IT WAS INSTALLED. MDE WILL POST THE INFORMATION ON A PUBLICLY ACCESSIBLE WEB SITE, WHICH THEY WILL DEVELOP AND MAINTAIN.

AS OF NOW, THE ONLY SOURCE OF THIS INFORMATION IS A DATABASE OF INSTALLED FIELDS THAT DEDICATED VOLUNTEERS CREATED THREE YEARS AGO AND HAVE UPDATED ANNUALLY. THEY RELY EXCLUSIVELY ON PUBLICALLY AVAILABLE INFORMATION AND ANNECTDOTAL REPORTS REGARDING FIELD SIZE, COMPOSITION, CUSTODIAN, MANUFACTURER, ETC. THEY HAVE NO ABILITY TO TRACK WHERE THESE FIELDS GO WHEN THEY ARE MOVED.

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).

UNDER THE TERMS OF THIS BILL, CUSTODIANS WILL BE REQUIRED TO REPORT SPECIFIC INFORMATION TO MDE WHEN A FIELD IS MOVED, AND THAT INFORMATION WILL ALSO BE PUBLICLY AVAILABLE ON THE WEBSITE MDE WILL CREATE FOR THIS PURPOSE.

IF A FIELD IS MOVED TO AN OUT-OF-STATE LOCATION, THERE WILL BE NO ONGOING REPORTING REQUIREMENT FOR ITS OUT-OF-STATE CUSTODIAN.

WHY IS IT IMPORTANT TO HAVE TRANSPARENCY AROUND THE INSTALLATION, MOVEMENT AND DISPOSAL OF SYNTHETIC TURF FIELDS?

1. FIRST, THEY POSE AN ENORMOUS SOLID WASTE DISPOSAL CHALLENGE GIVEN THEIR SIZE, NUMBER, AND THE FACT THAT THERE ARE VERY FEW DISPOSAL SITES IN MARYLAND THAT WILL ACCEPT THEM.
2. SECOND, BY TRACKING THEIR MOVEMENT, BOTH MDE AND INTERESTED MEMBERS OF THE PUBLIC WILL HAVE ACCURATE INFORMATION ABOUT DISPOSAL PATTERNS AND LOCATIONS.
3. THIRD, THE INFORMATION COLLECTED WILL HOLD INDUSTRY ACCOUNTABLE FOR THEIR COMMITMENT TO 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

MR. CHAIRMAN, I BELIEVE THAT DOCUMENTING THE CHAIN OF CUSTODY FOR THIS TYPE OF SOLID WASTE IS A REASONABLE STEP FOR THE STATE OF MARYLAND TO TAKE AT A POINT IN TIME WHEN THE ESTIMATED CUMULATIVE SIZE OF THE INSTALLED FIELDS EXCEEDS 79,000 TONS OF PLASTIC CARPET AND INFILL, MANY ARE REACHING THEIR AVERAGE END-OF-LIFE, BASED ON THE DATA COLLECTED BY VOLUNTEERS, AND ENVIRONMENTALY SOUND DISPOSAL OPTIONS IN MARYLAND ARE EXTREMELY LIMITED.

I AM REQUESTING FROM A FAVORABLE REPORT.

## HB457 - Favorable Student Climate Action Council t

Uploaded by: Megan Stallard

Position: FAV

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

**Education, Energy and the Environment (Senate) - March 20, 2024**

**SUPPORT**

**Submitted by Megan Stallard, SCAC Councilmember**

Good afternoon Chair Feldman, Vice Chair Kagan and Honorable 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. This testimony is not written on behalf of the SCAC. However, as a student leader and climate advocate, I 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-EEE-3-20-24.pdf**
Uploaded by: Olivia Bartlett
Position: FAV

**Olivia Bartlett, DoTheMostGood**

**Committee**: Education, Energy and Environment

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

**Position: Favorable**

**Hearing Date**: March 20, 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. It is past time to keep track of where these toxic fields are. 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

**MarylandLCV_HB457EEE_FAV_RichardDeutschmann.pdf**
Uploaded by: Richard Deutschmann
Position: FAV

MARYLAND LEAGUE OF CONSERVATION VOTERS



**March 20, 2024**

**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 Chairman Feldman for holding a hearing on this bill which was passed overwhelmingly by the House.**

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.syntheticturfcouncil.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 crossover bill HB0457.pdf**
Uploaded by: Richard KAP Kaplowitz
Position: FAV

CROSSOVER BILL HB#0457_Richard Kaplowitz_FAVORABLE

3/20/2024

Richard Keith Kaplowitz
Frederick, MD 21703

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

**TO**: Chair Feldman, Vice Chair Kagan, and members of the Education, Energy, and the Environment 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 CROSSOVER BILL 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 CROSSOVER BILL 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 Senate Letter (SUPPORT)(202**
Uploaded by: Robert Navolis
Position: FAV

Senator Brian Feldmanm, Chair
Senator Cheryl Kagan, Vice-Chair
Senate Education, Energy, and the Environment Committee
Miller Senate Office Building, 2W
Annapolis, Maryland 21401

**Re: House Bill 457: Environment – *Synthetic Turf and Turf Infill - Chain of Custody – SUPPORT***

**March 19th, 2024**

Dear Chairman Feldman and Members of the Senate E3 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,

Jason Bowers

_____
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: Education, Energy, and the Environment**
**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: March 20, 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 FOSC, 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 - Testimony in Support of Synthetic Turf - C

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
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**STC Testimony- HB 457 - Senate Hearing (final).doc**
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Maryland General Assembly
Education, Energy and the Environment 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 Feldman, Vice Chair Kagan and members of the Education, Energy and the Environment 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 three primary concerns 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 residential, commercial and recreation applications, which are not defined in the bill and typically have a longer lifespan than sports fields. Moreover, the difference in size and functionality between field turf and residential/commercial synthetic turf means that the installers of the latter differ–and make up a completely different industry–from those of the former, which may lead to confusion in jurisdictions. As a result, many synthetic turf systems will be "orphaned" and left untracked by the government's database.
3. **Amendment to disclose maintenance and replacement costs**. Maintenance costs can vary based on how and how often a synthetic turf field is used, making them hard to estimate. However, despite these costs being merely an estimate, STC members already provide this information to customers upon request.

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)
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