

HB1147_PlaygroundSufacing_EEE_LPP.org_FAV.pdf

Uploaded by: Carla Tevelow

Position: FAV



[HB1147](#): Environment - Playground Surfacing Materials - Prohibitions

Hearing Date: March 26, 2024

Bill Sponsor: Delegates Guyton, Lehman, Allen, Ebersole, Forbes, Holmes, Pasteur, Ruth, and Stein

Committee: Education, Energy, and the Environment

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. **We urge support of HB1147 as amended by the House**, Playground Surfacing Materials - Prohibitions, which will reduce children’s harmful exposure to toxins by establishing clear toxicity standards on three dangerous chemicals in playground materials: Lead and PFAS.

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.

While most of our work concentrates on single use plastic, we are extremely concerned about any plastic (including synthetic materials) in our environment. In fact, “[Researchers from Sweden’s KTH Royal Institute of Technology](#) have [unveiled findings](#) that illuminate a “vicious circle” between plastic pollution and global heating, where each phenomenon exacerbates the other. The comprehensive study sheds light on the mutually reinforcing relationship that not only escalates global heating and plastic waste but also contributes to the degradation of materials and the leaching of harmful chemicals into the biosphere.”

There has been a growing movement to install playground spaces that include the use of synthetic surfacing materials, which in some cases (e.g., synthetic turf and tire crumb/rubber) contain chemicals known to be hazardous. Maryland has no statewide inventory of playgrounds

that documents their surface material composition, so we have no idea on how large the problem is for our children.

Children, and especially younger children, are uniquely vulnerable to the health effects of toxic environmental exposures through ingestion, inhalation or skin contact. Children also [breathe faster](#) per pound of body weight increasing the likelihood of inhalation exposure. When a child walks, runs, or falls on a surface an invisible cloud of dust from the surface surrounds them. In the case of rubber and plastic play surfaces, this dust cloud is a mixture of plastic, tire and other particles that have fallen to the surface. There is no need to put our children at risk, when natural engineered wood fiber is safe and better for our children and is ADA compliant.

Today there is [undeniable proof](#), including from the [premier research institutions on children's environmental health](#), that tires contain multiple [toxic chemicals](#), all acting together on each child who visits a playground: carcinogens, heavy metals and endocrine disruptors, in addition to microplastic contamination. It is important to note that while the two chemicals, lead and/or PFAS, proposed in this bill can be measured separately, a child's exposure is cumulative, and synergistic.

Materials with high levels of lead and/or PFAS are unacceptable for use on playgrounds.

As the national leaders in epidemiology and pediatrics of the Icahn School of Medicine at Mount Sinai concluded, “**given the hazards associated with recycled tire rubber, it is our recommendation that [these products never be used](#) as surfaces where children play.**”

The state of Maryland needs to protect our precious children along with our waterways and our beloved Chesapeake Bay from these highly toxic and dangerous chemicals and this bill will begin to accomplish this goal.

We urge a favorable report for HB1147 as amended by the House.

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

HB1147_Playground_Surfacing_Materials_MLC_FAV.pdf

Uploaded by: Cecilia Plante

Position: FAV



TESTIMONY FOR HB1147
Environment - Playground Surfacing Materials - Prohibitions

Bill Sponsor: Delegate Guyton

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 HB1147 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.

We are ingesting plastics and PFAS chemicals and making ourselves sicker and sicker. Regardless of the fact that we did not realize what has been happening and how all of these chemicals have insidiously made their way into our bodies, we owe it to ourselves and our children to try to mitigate future harm.

This bill is focused on children's playing fields. While our children are at play, the materials that are used in playgrounds contain all kinds of horrible chemicals that they are literally putting their faces in. The bill would prohibit PFAS (per- and polyfluoroalkyl substances), PAHs (polycyclic aromatic hydrocarbons) and lead from products, materials or substances used or installed on the ground surface of a playground, including shredded tire mulch and bonded rubber surface materials.

This is the least we can do for our children. They should be playing on surfaces that don't make them sick and have lingering health consequences. Our members support this bill and recommend a **FAVORABLE** report in committee.

Senate EEE - Testimony for SHPFI HB1147 Playground

Uploaded by: Diana Conway

Position: FAV



HB1147: Environment - Playground Surfacing Materials - Prohibitions
Senate Committee on Education, Energy and the Environment
March 26, 2024

Position: FAVORABLE

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

Good afternoon Chair Feldman, Vice Chair Kagan, and honorable members of the committee,

Thank you for this opportunity to **support HB1147**.

This bill will set important limits on two dangerous, toxic chemicals –**lead and PFAS**– for the thousands of playgrounds across Maryland.

This testimony is submitted on behalf of Safe Healthy Playing Fields Inc. SHPFI is a national, all-volunteer 501-c-3 non-profit. Our mission is to educate communities and their policy makers on the multiple harms created by **synthetic playgrounds** and artificial turf fields. We provide resources on the many benefits of **natural-surface playgrounds**.

SHPFI urges this committee to support HB1147. This bill will protect our most vulnerable community members: children, including the very youngest children who have the closest contact with playground surfaces, and longest life-span of additional exposures ahead of them.

The majority of synthetic playgrounds include PIP surfaces, typically made of waste tires. As stated by a leading member of the [federal Pediatric Environmental Health Specialty Unit \(PEHSU\)](#),

“given the hazards associated with recycled tire rubber, it is our recommendation that [these products never be used](#) as surfaces where children play.”

Mt. Sinai is one of only ten recognized centers in the US focused on children and environmental exposure.

The increasing use of PIP and loose tire-chunk surfaces is concerning. [Years of research](#) confirm that tires contain alarming levels of **carcinogens**, **heavy metals** and **endocrine disruptors**, as well as contributing to **microplastic contamination** of air, soil and water. There is no statewide inventory of Maryland's playgrounds or their surfaces, but tire-based surfaces are by far the most common.

Importantly, there are good alternatives: [ADA-compliant natural surfaces](#) can and do [provide fall-impact attenuation](#), avoid the shocking heat of tire playgrounds, and do not front-load our children with the toxic load presented by tire-based, synthetic surfaces like [poured-in-place](#) (PIP).

Routes of exposure to toxicity of playground surfaces

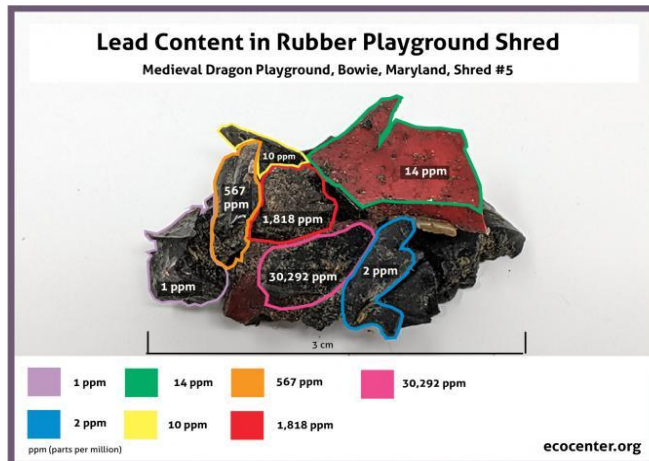
Children, and especially younger children, are uniquely vulnerable to the health effects of toxic environmental exposures. Their close physical contact with the surface increases the risk of ingestion, inhalation or dermal uptake. Young children have a developmentally appropriate tendency to put their hands or objects in their mouths. Children also have rapidly developing organ systems, and immature detoxification mechanisms. Children also [breathe faster](#) per pound of body weight increasing the likelihood of inhalation exposure.

Lead and PFAS do not belong on playgrounds:

These chemicals are well understood to be highly toxic individually. In combination, their impact is certainly **cumulative** and **synergistic**— meaning the sum is greater than the parts. Many children visit playgrounds several times a week or even daily from a very early age, continuing on through elementary school exposure during recess and at before- and after-school activities.

Lead:

The US [Centers for Disease Control and Prevention](#) and the [World Health Organization](#) confirm there is **no safe level of lead exposure**. The [effects of this neurotoxicant](#) are well documented and include developmental delay, hearing loss, seizures, unconsciousness, and at very high levels [lead poisoning can be fatal](#). The only [solution to lead poisoning is prevention](#). HB1147 moves us significantly toward that goal. This will specifically address concerns of high lead reports in playgrounds and schools around [Montgomery County](#), [Prince George's County](#), and [Washington, D.C.](#)



<https://www.ecocenter.org/new-study-lead-crumb-rubber-playgrounds-maryland-and-virginia>

Per- and Polyfluoroalkyl Substances - PFAS:

PFAS are linked to kidney and testicular cancer, hormone and endocrine disruption, liver and thyroid problems, reduced vaccine effectiveness, reproductive harm and abnormal fetal development, and the list is growing. **EPA action on PFAS levels in drinking water** is a warning shot for jurisdictions to reduce their PFAS contamination sources or face *even greater* costs for PFAS mitigation. In 2023, more than [270 PFAS-related bills](#) were introduced in state legislatures.

Additional toxic element in tires:

** [More recently](#), tires were identified as the source of [95% mortality](#) among endangered coho salmon due to an additive, [6PPD](#), found in all tires. Removing tire-based toxicity from playgrounds will remove exposure of children to 6PPD, and the runoff that would carry it to Maryland's streams and drinking water. A 2022 study found 6PPD in urine samples from adults, children and pregnant women, leading the authors to write: "Considering that 6PPD-Q was a lethal toxicant to multiple aquatic species, the potential human health risks posed by its long-term exposure [require urgent attention](#)."

Tires are highly flammable:

[Poolesville MD tire playground fire, 2022](#)



Conclusion:

Maryland must stop further installation of toxic playgrounds.

In a world of rising exposure to concerning chemicals, playgrounds should be a safe space for our children.

HB1147 will slash the toxic exposure from playgrounds, directing schools and parks to smarter, safer materials for healthier children, and a healthier environment.

On behalf of our Maryland network and our national colleagues, SHPFI respectfully urges a favorable report for HB1147.

Thank you for considering our views.

Diana Conway, President
Safe Healthy Playing Fields Inc.

www.safehealthyplayingfields.org



Arundel Rivers Testimony FAV HB1147 Crossfile.pdf

Uploaded by: Elle Bassett

Position: FAV



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**Testimony in SUPPORT of House Bill 1147 Environment – Playground Surfacing
Materials - Prohibitions**

Education, Energy, and the Environment Committee
March 26, 2024

Dear Chair Feldman and members of the Committee,

Thank you for the opportunity to submit testimony in **SUPPORT OF HB1147**, on behalf of Arundel Rivers Federation. Arundel Rivers is a non-profit organization dedicated to the protection, preservation, and restoration of the South, West and Rhode Rivers with over 3,500 supporters. Our mission is to work with local communities to achieve clean, fishable, and swimmable waterways for present and future generations.

House Bill 1147 will prohibit the installation of playground surfacing materials that contain a certain concentration of lead or PFA chemicals. According to the U. S. Environmental Protection Agency, there is no safe level of some PFAS in drinking water and there are risks to exposure. When using these chemicals in playground materials, we risk children picking up chemicals on their hands as they play and then accidentally ingesting them. Children are more vulnerable to the effects of toxic chemicals and we should be putting the highest level of protection in these areas designed specifically for children.

As South, West, and Rhode Riverkeeper, I often advocate for clean water efforts, and I have provided testimony or supported legislation that seeks to better regulate PFA contamination in our groundwater and industry discharges. However, now as a mother of a 3-year-old with another on the way, I must also put on my “mom hat” to advocate for the safety of my children from these dangerous chemicals.

Arundel Rivers Federation strongly supports protecting our local environment and communities from environmental hazards such as PFAS and we respectfully request a **FAVORABLE REPORT on HB1147.**

Sincerely,

A handwritten signature in cursive script that reads "Elle Bassett".

Elle Bassett
South, West and Rhode Riverkeeper
Arundel Rivers Federation

EWG MD HB1147 testimony.pdf

Uploaded by: Gianfranco Cesareo

Position: FAV



HB1147: Environment - Playground Surfacing Materials - Prohibitions
Senate Education, Energy and the Environment Committee
March 26, 2024
Position: Favorable

Submitting Organization: Environmental Working Group (EWG)
Submitted by Gianfranco Cesareo

EWG is strongly in favor of HB1147. EWG has spent over thirty years investigating the health and environmental impacts of toxic chemicals such as PFAS and lead and advocating for better protection and regulation of these chemicals. These chemicals have both been linked to serious health harms, which are particularly heightened for children. Neither PFAS nor lead should be present in playground surfaces.

PFAS

PFAS are known as forever chemicals because they build up inside the human body and do not break down in the environment.¹ Studies have found that 99 percent of Americans have PFAS in their bodies.² It has been found that exposure to PFAS begins before children are even born.³

PFAS chemicals have been linked to a variety of serious health impacts, even at small doses. For example, PFAS have been linked to cancer, reproductive and developmental harm, hormone disruption, increased cholesterol, and decreased immune response in children.⁴ Children are especially vulnerable to the risks of PFAS pollution due to factors including lower body weight, developing organ systems, and longer lifespans during

¹ *What are PFAS Chemicals?*, ENV'TL WORKING GROUP, <https://www.ewg.org/what-are-pfas-chemicals> (last visited Mar. 25, 2024). For more information on PFAS and the PFAS contamination crisis, see *PFAS Resources*, ENV'TL WORKING GROUP, <https://www.ewg.org/pfas-resources> (last visited Mar. 25, 2024).

² Antonia M. Calafat et al., *Legacy and Alternative Per- and Polyfluoroalkyl Substances in the U.S. General Population: Paired Serum-Urine Data from the 2013–2014 National Health and Nutrition Examination Survey*, 131 ENV'T INT'L 105048 (2019).

³ Olga Naidenko & Dave Andrews, *Children's Exposure to PFAS Chemicals Begins in the Womb*, ENV'TL WORKING GROUP (Feb. 5, 2019), <https://www.ewg.org/news-insights/news/childrens-exposure-pfas-chemicals-begins-womb>.

⁴ *What are the Health Effects of PFAS?*, AGENCY FOR TOXIC SUBSTANCES & DISEASE REGISTRY (Jan. 18, 2024), <https://www.atsdr.cdc.gov/pfas/health-effects/index.html>.



which toxic effects might manifest.⁵ Childrens' breathing space is also closer to the ground, making them more vulnerable to PFAS in playground surfacing.⁶

PFAS are found in a wide range of consumer and commercial products. Efforts like this bill to phase out these forever chemicals are urgently needed to protect our children from lifelong health risks.

Lead

The risks of lead exposure are also serious and well documented. Lead is a potent neurotoxin that is particularly dangerous to children with the potential to cause long-term harm.⁷ Lead can cause brain damage, slow growth and development, and lead to learning and behavioral problems.⁸ According to the CDC, EPA, and World Health Organization, there is no safe lead exposure level for children.⁹

In recent years, studies have found actionable levels of lead in the same type of playground surfaces that contain PFAS.¹⁰ Crucially, HB1147 would impose the same lead safety level on playgrounds that the Consumer Product Safety Commission requires for children's products.¹¹

⁵ Alan D. Woolf & Lauren Zajac, *Report Outlines Health Effects of PFAS Chemicals in Children, Provides Recommendations for Testing*, AM. ACAD. PEDIATRICS (Sept. 13, 2022), <https://publications.aap.org/aapnews/news/22138/Report-outlines-health-effects-of-PFAS-chemicals?autologincheck=redirected>.

⁶ *Id.*

⁷ *Health Effects of Lead Exposure*, CDC (Sept. 2, 2022), <https://www.cdc.gov/nceh/lead/prevention/health-effects.htm>.

⁸ *Id.*

⁹ *Id.*; *Basic Information about Lead in Drinking Water*, EPA (Jan. 25, 2024), <https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water>; *Lead Poisoning*, WORLD HEALTH ORG. (Aug. 11, 2023), [https://www.who.int/news-room/fact-sheets/detail/lead-poisoning-and-health#:~:text=There%20is%20no%20known%20safe,and%20learning%20problems%20\(1\)..](https://www.who.int/news-room/fact-sheets/detail/lead-poisoning-and-health#:~:text=There%20is%20no%20known%20safe,and%20learning%20problems%20(1)..)

¹⁰ *High Lead Levels Found in Rubber Playground Surfaces*, HARVARD T.H. CHAN SCHOOL PUB. HEALTH (2019), <https://www.hsph.harvard.edu/news/hsph-in-the-news/high-lead-levels-found-in-rubber-playground-surfaces/>; Will Schick, *Many of DC's Playground Surfaces Contain Lead. How Dangerous is This, and What Should be Done?*, GREATER GREATER WASHINGTON (Oct. 31, 2019), <https://ggwash.org/view/74237/lead-in-playgrounds-and-soil-dc-council-washington-playground-children>.

¹¹ *Total Lead Content Business Guidance & Small Entity Compliance Guide*, U.S. CONSUMER PRODUCT SAFETY COMM'N, <https://www.cpsc.gov/Business--Manufacturing/Business-Education/Lead/Total-Lead-Content-Business-Guidance-and-Small-Entity-Compliance-Guide> (last visited Mar. 25, 2024).



Know your environment.
Protect your health.

ewg.org

Playgrounds are no place for toxic chemicals. The science is clear—PFAS and lead have the potential to cause serious health harms. By phasing lead and PFAS out of playground surfaces, Maryland children will be better protected from health impacts that could harm their development and last their entire lives.

EWG reiterates its strong support for HB1147 and urges a favorable report from Committee.

p. 202.667.6982 | f. 202.232.2592

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ewg.org

WDC 2024 Testimony_HB1147_FINAL-R2.pdf

Uploaded by: JoAnne Koravos

Position: FAV



MONTGOMERY COUNTY, MARYLAND
WOMEN'S DEMOCRATIC CLUB

P.O. Box 34047, Bethesda, MD 20827

www.womensdemocraticclub.org

HB1147 - Environment - Playground Surfacing Materials - Prohibitions
Senate Committee on Education, Energy and the Environment
March 26, 2024
Position: FAVORABLE

Good afternoon, Chair Feldman, Vice Chair Kagan, and honorable members of the committee,

Thank you for this opportunity to submit written testimony concerning an important priority of the **Montgomery County Women's Democratic Club (WDC)** for the 2024 legislative session. WDC is one of Maryland's largest and most active Democratic clubs with hundreds of politically active members, including many elected officials.

WDC strongly urges this committee to support HB1147. By setting clear toxicity standards for our playgrounds, this bill protects children from exposure to two dangerous, toxic chemicals: Lead, a neurotoxin, and per- and polyfluoroalkyl substances (PFAS).

Many Maryland playgrounds are covered with synthetic materials, typically used tires processed into [poured-in-place](#) (PIP) surfaces, or loose tire chunks or mulch. Children, and especially younger children, are uniquely vulnerable to the health effects of toxic environmental exposures, with routes of exposure through ingestion, inhalation or dermal uptake. Today there is [undeniable proof](#), including from the [premier research institutions on children's environmental health](#), that tires contain multiple [toxic chemicals](#), all acting together on each child who visits a playground: carcinogens, heavy metals and endocrine disruptors, in addition to microplastic contamination.

Lead: The [Centers for Disease Control and Prevention](#) and the [World Health Organization](#) confirm there is no safe level of lead exposure. Even relatively low levels of lead exposure that were previously considered 'safe' have been shown to damage children's health and impair their cognitive development. And at high levels [lead poisoning can be fatal](#). The only [solution to lead poisoning is prevention](#). HB1147 moves us significantly toward that goal. Maryland-area jurisdictions have struggled after community-initiated testing found high lead levels in local playgrounds and schools, including in [Montgomery County](#), [Prince George's County](#), and [Washington, D.C.](#) Another leading study concludes that "the presence of a high number of harmful compounds, frequently at high or extremely high levels, in these recycled rubber materials [means they] should be carefully controlled, and their final use should be [restricted or even prohibited in some cases](#)."

PFAS: The over 12,000 PFAS used today have been linked to a wide range of health problems in animal and human studies including [kidney and testicular cancer](#), [hormone and endocrine disruption](#), [liver and thyroid](#) problems, [reduced vaccine effectiveness](#), reproductive

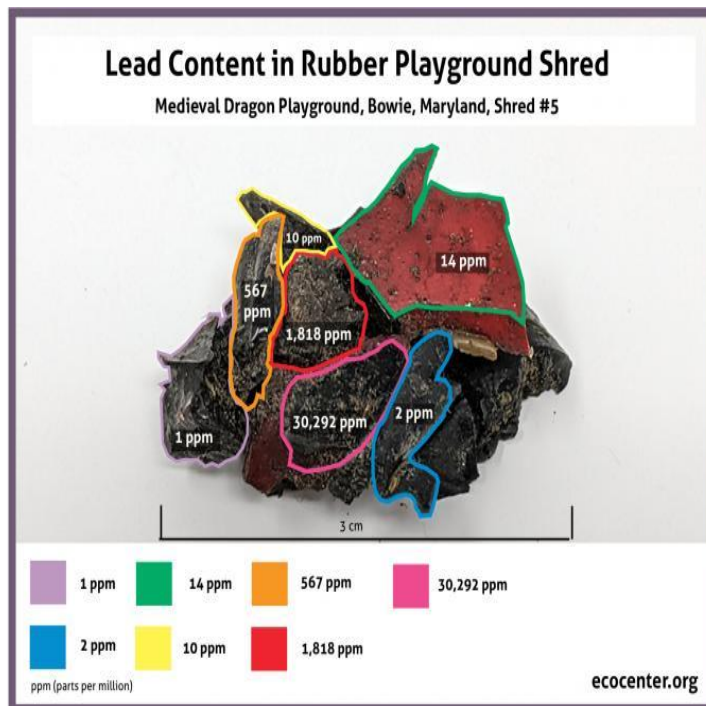


MONTGOMERY COUNTY, MARYLAND
WOMEN'S DEMOCRATIC CLUB

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harm and abnormal fetal development. As the science has evolved, EPA-issued health advisories reflect findings that they are more toxic at lower levels than scientists previously knew.



<https://www.ecocenter.org/new-study-lead-crumb-rubber-playgrounds-maryland-and-virginia>

By enacting HB1147, Maryland can secure safer playgrounds, healthier children, and a healthier environment. **WDC respectfully urges a favorable report for HB1147.**

Tazeen Ahmad
WDC President

Diana Conway
WDC Environment
Subcommittee

Cynthia Rubenstein
Co-Chair WDC Advocacy

SENATE OMG Testimony FAV HB1147 Playgrounds Guyton

Uploaded by: Kathleen Michels

Position: FAV

Senate hearing for HB1147: Environment - Playground Surfacing Materials - Prohibitions House Environment and Transportation Committee

For: March 26, 2024

Position: FAVORABLE

Organization: One Montgomery Green (submitted by Kathleen Michels, PhD)

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.

Good afternoon and honorable members of the committee,

The grass roots nonprofit One Montgomery Green* www.onemontgomerygreen.org urges this committee to support HB1147, to establish limits on two of the many hazardous substances in playground surfacing materials: Lead, and Per- and Polyfluoroalkyl Substances - PFAS.

This bill creates a set of measurable standards for safer playgrounds for our most vulnerable community members: children. **Such standards are made necessary by the increasing use of synthetic plastic and waste rubber materials over the past decade which contain the toxic substances addressed in this bill.** Prior to that time most impact protective surfaces were of natural materials. Importantly, the obligation for showing compliance with these protective standards rests with the parties best situated to formulate the materials to be used, namely the producers and suppliers.

There is currently no statewide inventory of Maryland's playgrounds and none that documents their surface materials. Playgrounds may have play surfaces covered in natural and/or synthetic materials which are now required to be [ADA-compliant surfaces](#) include natural-surface materials like [engineered wood fiber](#) (EWF) and synthetic [poured-in-place](#) (PIP) or plastic surfaces. Playgrounds may also have loose fill material such as shredded mulch or loose tire 'chunks' or 'shreds.'

The increasing use of PIP and other forms of tires is concerning. [Years of research](#) confirm that tires contain alarming levels of **carcinogens**, **heavy metals** and **endocrine disruptors**, as well as contributing to **microplastic contamination** of air, soil and water.

HB1147 regulates playgrounds to protect children from toxic exposure:

Children, and especially younger children, are uniquely vulnerable to the health effects of toxic environmental exposures, which can occur through ingestion, inhalation or dermal uptake. This vulnerability is due in part to their close interaction with playground surfaces, the developmentally appropriate tendency to put their hands or objects in their mouths, their rapidly developing organ systems, and their immature detoxification mechanisms. Children also [breathe faster](#) per pound of body weight increasing the likelihood of inhalation exposure.

Materials with high levels of lead and/or PFAS are unacceptable for use on playgrounds:

It is important to note that while the substances proposed in this bill can be measured separately, a child's exposure is cumulative, and synergistic.

1. Lead:

Of the three chemicals addressed in HB1147, lead is the most studied. According to the [Centers for Disease Control and Prevention](#) and the [World Health Organization](#), there is no known safe level of lead exposure. Relatively low levels of lead exposure that were previously considered 'safe' have been shown to damage children's health and impair their cognitive development

The [effects of this neurotoxicant](#) are well documented and include

- Developmental delay and learning difficulties
- Weight loss, sluggishness and fatigue
- Abdominal pain, vomiting, constipation
- Hearing loss, seizures, unconsciousness

And at high levels [lead poisoning can be fatal](#).

Even very low levels of exposure can cause this damage over time. As observed across the medical field, the only [solution to lead poisoning is prevention](#). HB1147 moves us significantly toward that goal.

Many children visit playgrounds several times a week or even daily from a very early age, continuing on through elementary school exposure during recess and at before- and after-school activities.

In the DMV area, local jurisdictions have struggled for at least five years with community-led finding of high lead levels in local playgrounds and schools, including in [Montgomery County](#), [Prince George's County](#), and [Washington, D.C.](#)

2. Per- and Polyfluoroalkyl Substances - PFAS

PFAS refers to a class of 12,000 or more chemicals known to provide heat, stain and water resistance. Because their strong carbon-fluorine bond is difficult to break down, they are referred to as "forever chemicals."

PFAS have been linked to a wide range of health problems in animal and human studies including kidney and testicular cancer, hormone and endocrine disruption, liver and thyroid problems, reduced vaccine effectiveness, reproductive harm and abnormal fetal development. As the science has evolved, the EPA-issued health advisories reflect findings that they are more toxic at lower levels than scientists previously knew. While there is little evidence yet of PFAS linked specifically to tires, PFAS has been found in plastic playground surfacing which is often infilled with tire rubber. No less than the NFL Players Association medical director [called on manufacturers to disclose](#) if there is PFAS present in the plastic carpet *or infill material* - meaning pulverized tires.

And the questions continue to mount. In 2023, over [270 PFAS-related bills](#) were introduced in state legislatures.

OTHER Environmental health impacts:

** [More recently](#), tires were identified as the source of [95% mortality](#) among endangered coho salmon due to an additive, [6PPD](#), found in all tires. While 6PPD is not addressed in HB1147, it adds to the weight of concerns created by exposing children to these surfaces. A 2022 study found 6PPD in urine samples from adults, children and pregnant women. The authors wrote:

“Considering that 6PPD-Q was a lethal toxicant to multiple aquatic species, the potential human health risks posed by its long-term exposure [require urgent attention.](#)”

Other toxic substances identified include (just to name a few) Polycyclic Aromatic hydrocarbons, benzene, toluene mercaptobenzothiazoles and more.

Conclusion

Maryland needs HB1147 because the science on the toxic load of tire-based playgrounds has only grown. This bill is an important step in setting safety standards on materials commonly used across our state. By enacting HB1147, Maryland can secure safer playgrounds, healthier children, and a healthier environment.

As the national leaders in epidemiology and pediatrics of the Icahn School of Medicine at Mount Sinai concluded, “**given the hazards associated with recycled tire rubber, it is our recommendation that [these products never be used](#) as surfaces where children play.**”

Please see below for additional references and photos to illustrate the text above.

Your support for this legislation can save lives and improve the health of children in communities throughout Maryland. Officials in communities all over the country have been misled by the hype around plastic synthetic turf carpeting, tire rubber surfacing and related playground products. They were erroneously told that these products are safe. On the contrary, there is clear scientific evidence that these materials are harmful. How harmful they are in combination with other exposures and which children are most affected is not clear but our children should not be the research guinea pigs in unsanctioned and uncontrolled experiments with their health because of perceived convenience for adults. Our children deserve better. That is why we urge this committee to give HB1147 a favorable report.

Kathleen Michels, PhD
Chair, Advocacy and Outreach Committee
One Montgomery Green
advocate@onemontgomerygreen.org
301-922-3816

**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.

RESOURCES:

Bottom line- Note that its not that natural materials are not better for kids, accessibility and maintenance on playsurfaces (e.g. engineered wood fiber for playgrounds and grass for fields) it is NOT that they can't make grass better and more durable , its that they CHOOSE not to do so . Grass fields and natural surfaced playgrounds are a public good, plastic fields and tire rubber playgrounds are a public harm. Plastic disintegrates. Grass grows and provides health and environmental benefits. There is no real choice . For playfields- the choice is only to do grass better for the health and safety of the children and adults playing. "Real Grass for Real Kids!"

Tire rubber bans for play-surfaces- given all the problems with plastic carpets tire waste bans are not sufficient to keep children or the environment safe but they ARE necessary to do so and are the most harmful part of the synthetic turf product and playground surfacing. Tire crumb is toxic and polluting everywhere: see <https://e360.yale.edu/features/tire-pollution-toxic-chemicals> and the other references below. According to researchers and regulators: "**The granular infill material used on artificial sport surfaces {is the} the largest source of intentional microplastics in the environment**".

MORE RESOURCES on Tire Toxins

Tires are a veritable Pandora's Box of toxic substances. There are many studies warning of the human and environmental health risks of exposure to plastic and especially tires with their hundreds of intrinsic or added toxic substances Tire wear particles are not only pollution from cars but concentrated on most synthetic turf as 40,000 tires worth of granulated tire crumb infill, For some toxic health impact information:

- Yale 360 on toxic tire pollution: <https://e360.yale.edu/features/tire-pollution-toxic-chemicals>
- **Europe has banned tire crumb infill for a reason across the whole EU*** - tire crumb runs off and pollutes air soil water AND the athletes . There is no system possible to prevent that . In practice and by the industry's own admission- several tons of tire crumb need to be replaced on a synturf each year as it ages because of the tire crumb it loses to the environment (air, soil, water and athletes). See the photos for example on the safe healthy playing Fields website and Facebook page. also see <https://www.sciencedirect.com/science/article/pii/S0269749123010965>
- **.Road Hazard-Evidence Mounts on Toxic Pollution from Tires,** JIM ROBBINS, SEPTEMBER 19, 2023 Researchers are only beginning to uncover the toxic cocktail of chemicals,

microplastics, and heavy metals hidden in car and truck tires. But experts say these tire emissions are a significant source of air and water pollution and may be affecting humans as well as wildlife. "...tire rubber contains more than 400 chemicals and compounds, many of them carcinogenic, and research is only beginning to show how widespread the problems from tire dust may be..... "

- According to researchers and regulators: "**The granular infill material used on artificial sport surfaces {is the} the largest source of intentional microplastics in the environment**" This is a problem precisely because of its high level of toxic substances and demonstrated toxicity to living organisms of which this is yet another route:
- **Emerging Health Risks of Crumb Rubber Inhalation of Environmentally Persistent Free Radicals via Saliva During Artificial Turf Activities** <https://pubs.acs.org/doi/10.1021/acs.est.3c03278> Qian'en Huang, et al * in Environ. Sci. Technol. 2023, Crumb rubber (CR) is a commonly used infill material in artificial turf worldwide. However, the potential health risk associated with exposure to CR containing environmentally persistent free radicals (EPFRs) remains under investigation. **Our study provides insights into a new pathway {saliva} of human exposure to crumb rubber with environmentally persistent free radicals in artificial turf infill, indicating an increased human health risk of CR exposure.**

Some regulations/ bans of the past decade you may want to refer to:

- 2023: https://ec.europa.eu/commission/presscorner/detail/en/ip_23_4581 27Sept 2023 the Commission takes another major step to protect the environment by adopting measures that restrict microplastics intentionally added to products under the EU chemical legislation REACH ,The adopted restriction uses a broad definition of microplastics – it covers all synthetic polymer particles below five millimetres that are organic, insoluble and resist degradation. The purpose is to reduce emissions of intentional microplastics from as many products as possible. Some examples of common products in the scope of the restriction are: **The granular infill material used on artificial sport surfaces – the largest source of intentional microplastics in the environment...** There has long been a concern about the use of crumb rubber in sports fields, initially the concerns were about the PAH content. Research by the ECHA Risk Assessment Committee suggested that lower limits were required, and the amount of PAH in tire crumb would remain too high
- 2023: New York State – Bans any carpeting containing PFAS chemicals – including Artificial Turf Carpet Systems: <https://www.cps.bureauveritas.com/newsroom/new-york-governor-signs-pfas-bans-apparel-and-carpet> PFAS Bans in Apparel (Bill A07063A) and Carpet (Bill A09279A)
- 2018 Westport, CT <https://www.westport-news.com/news/article/RTM-proactively-bans-crumb-rubber-artificial-turf-13464197.php>
- 2017 Minneapolis, MN https://www.minneapolisparcs.org/asset/4nxzf4/3-14-2017-Crumb-Rubber-Fact-Sheet_FINAL.pdf

- 2016 Hartford, CT Banned crumb rubber infill and petroleum based turf. <https://ctmirror.org/2016/02/12/a-shifting-ground-for-artificial-turf-in-connecticut/>
- 2015 Montgomery County, MD <https://www.nbcnews.com/news/us-news/turf-war-one-suburb-bans-crumb-rubber-another-says-it-n436111>
- 2015 Edmonton, WA <https://sportsturfonline.com/2015/12/15/wa-city-council-bans-crumb-rubber-turf/77248/>

PLASTIC SYNTURF CARPETING: PFAS and Other toxins in synthetic turf plastic carpeting

1a. **PFAS-free is a myth** :South Philly synturf field tested PFAS-free- Not true experts say2024

<https://drive.google.com/file/d/1jroueeCkm9vii5WmSqwrvi8pJBr877qN/view?usp=drivesdk>

City officials believed a new South Philly turf field was PFAS-free. Not true, experts say.

1b. For the sheer volume of PFAS and Phthalate chemical containing synthetic turf fiber pollution see:

<https://www.sciencedirect.com/science/article/pii/S0269749123010965>

Environmental Pollution Volume 334, 2023 ; **The dark side of artificial greening: Plastic turfs as widespread pollutants of aquatic environments**☆

William P. de Haan a, Rocío Quintana b, César Vilas c, Andrés Cózar b, Miquel Canals a, Oriol Uviedo a, Anna Sanchez-Vidal a

Abstract: Artificial turf (AT) is a surfacing material that simulates natural grass by using synthetic, mainly plastic, fibers in different shapes, sizes and properties. AT has spread beyond sports facilities and today shapes many urban landscapes, from private lawns to rooftops and public venues. Despite concerns regarding the impacts of AT, little is known about the release of AT fibers into natural environment. Here, for the first time, we specifically investigate the presence of AT fibers in river and ocean waters as major conduits and final destination of plastic debris transported by water runoff. Our sampling survey showed that, AT fibers – composed mainly of polyethylene and polypropylene – can constitute over 15% of the mesoplastics and macroplastics content, suggesting that **AT fibers may contribute significantly to plastic pollution. Up to 20,000 fibers a day flowed down through the river, and up to 213,200 fibers per km² were found floating on the sea surface of nearshore areas. AT, apart from impacting on urban biodiversity, urban runoff, heat island formation, and hazardous chemical leaching, is a major source of plastic pollution to natural aquatic environments.**

The above is a follow up on warnings provided by many previous studies including:

Sports -Is **Artificial Turf Toxic?** <https://www.good.is/sports/artificial-turf-toxic> The chemicals used to make fake grass may pose health risks to athletes

Stuart Shalat 03.07.17 Final report Stern and Shalat- evaluation of potential exposures to lead and other metals as the result of aerosolized particulate matter from artificial turf playing fields2011 to NJDEP

<https://rucore.libraries.rutgers.edu/rutgers-lib/46036/>

OTHER PROBLEMS-

Plastic synturf carpets with any infill:

SHPFI video shorts on heat, toxicity, injury and waste/disposal on our YouTube channel. Six videos, 2-3 minutes each: <https://www.youtube.com/channel/UCiizCSpTZpK-95zTZkxe2g/videos> They're 1-2 years old and the evidence has only piled up.

HEAT: #NoChildFriedOutside !

There are myriad studies and information on the fact that plastic and tire waste surfacing are hotter than asphalt and create heat islands for kids to play on in the sun- like stove tops. See www.safehealthyplayingfields.org and other sources but here is a Link to the Synturf **cool infill fraud lawsuit** just filed in South Carolina- it illustrates the sheer gullibility of parks and school systems around the country in accepting whatever the synturf industry tells them without asking for proof before laying out many \$Millions

<https://www.thestate.com/news/local/education/article282917573.html>

SC school district sues for \$3.7M false claims on synthetic turfs- too hot-need irrigation-The State 13Dec2023

\$3.7M turfs with Tcool were supposed to keep Midlands high school fields cool. They don't, suit says

BY ALEXA JURADO DECEMBER 13, 2023

More RESOURCES - some **grass vs synturf information and other summary comparisons** to help in your letters, testimony etc.

Chemical and Heat Hazards of Artificial Turf Athletic Fields and Better natural Grass alternatives:

- Green Kids: <https://greenkidsdoc.wordpress.com/2021/01/06/chemical-and-heat-hazards-of-artificial-turf-athletic-fields/>
- Playing on Plastic-Artificial Turf Hazards and Safer Alternatives -Collaborative for Health & Environment ; <https://www.healthandenvironment.org/join-us/blog/playing-on-plastic-artificial-turf-hazards-and-safer-alternatives>
- CHE_TURI-Massey etc al..Environmental Health Impacts of Synthetic Turf and Safer Grass Alternatives. <https://www.healthandenvironment.org/webinars/96595>
- Citizens Campaign for the Environment: www.citizenscampaign.org; The Problems with Artificial Turf webinar. <https://youtu.be/w24A3Th8JDE>
- Dr. Phillip Landrigan discusses Artificial Turf on School Grounds: https://m.youtube.com/watch?v=rT4jKG_88pl OR https://youtu.be/rT4jKG_88pl
- Dr Sarah Evans on Synturf: <https://www.greenstreetnews.org/post/toxic-turf-with-dr-sarah-evans>
- Sierra Club MD: www.sierraclub.org/maryland/synthetic-turf

- Safe Healthy Playing Fields Inc. www.safehealthyplayingfields.org

Grass field information and presentations:

- **STMA** presentation: <https://docs.google.com/presentation/d/1SO5O4ots9Ditt4nx0sl2feyAtlkGFyXd/edit?usp=drivesdk&oid=102469267051132519795&rtpof=true&sd=true>
- **Field Fund** Links: <https://www.fieldfundinc.org/>
- **Ian Lacey- A** compelling presentation from a grass pro: https://drive.google.com/file/d/1P5JbwMUEijj3cKYhE_E5fpNiZbr45Ql2/view?usp=drivesdk
- **MCCPTA presents Grass Fields 101: Let's Grow!** With Jerad Minnick and Ryan Bjorn current and former sports field managers of the Montgomery Soccerplex ; <https://www.youtube.com/watch?v=sAqMvUhs-V4&feature=youtu.be> ; details on common sense maintenance for durable grass fields <https://youtu.be/sAqMvUhs-V4> at 42:20 ; Aeration , aeration , aeration ! "The challenge we have is not the vegetation so much as the soils and drainage. A deep tine aerification program is simple and cost effective Better draining soils = less closures."
- **Somerville example** here: <http://www.thesomervilletimes.com/archives/82416>
- **Last word from the National Park Service:** Federal Mall in DC report: https://www.nps.gov/nationalmallplan/Documents/FEIS/Volume%202/2_Summary_of_Comments_and_Responses.pdf Anonymous Commenter: *"The use of artificial turf should be explored for the Mall. There are varieties that look like real turf and are low maintenance.* NPS Response: QUOTE: ***"The National Park Service has explored using artificial turf, but it does not meet the criteria for durability, maintainability, and sustainability. Artificial turf is hotter than natural turf, and it does not meet objectives to improve water infiltration. We will continue to examine the use of new technologies to increase durability in natural turf. This topic has been added to the considered but dismissed section for the following reasons: technical infeasibility, inability to meet project objectives, and duplication of other less damaging alternatives"*** END QUOTE

BANS on Rubber or plastic play surfaces:

Jurisdictions That Have Banned Crumb Rubber Infill (or Synthetic Turf)

2008 New York City

<http://www.asgi.us/506/lausd-so-calif-school-bans-crumb-rubber.html>

2009 Los Angeles Unified School District

<http://www.asgi.us/506/lausd-so-calif-school-bans-crumb-rubber.html>

SB47-Hill.

Failed https://leginfo.legislature.ca.gov/faces/billHistoryClient.xhtml?bill_id=201520160SB47

2011 Glendale, CA <http://www.digitaljournal.com/article/314592>

2015 Montgomery County, MD <https://www.nbcnews.com/news/us-news/turf-war-one-suburb-bans-crumb-rubber-another-says-it-n436111>

Edmonton, WA <https://sportsturfonline.com/2015/12/15/wa-city-council-bans-crumb-rubber-turf/77248/>

2016 Hartford, CT Banned crumb rubber infill and petroleum based turf.
<https://ctmirror.org/2016/02/12/a-shifting-ground-for-artificial-turf-in-connecticut/>

2017 Minneapolis, MN https://www.minneapolisparcs.org/asset/4nxzf4/3-14-2017-Crumb-Rubber-Fact-Sheet_FINAL.pdf

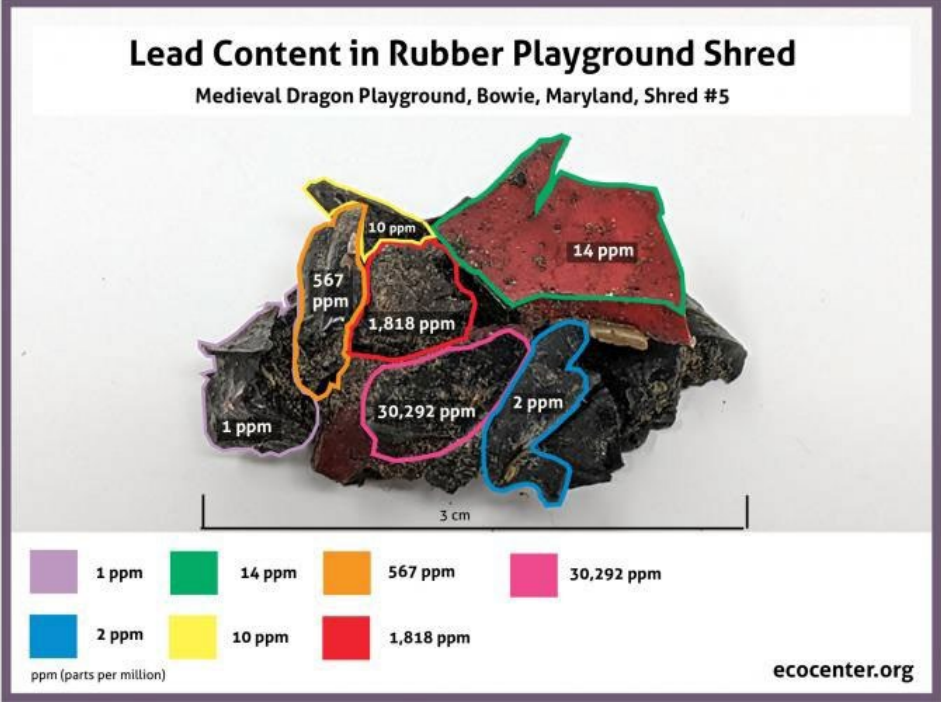
2018 Westport, CT <https://www.westport-news.com/news/article/RTM-proactively-bans-crumb-rubber-artificial-turf-13464197.php>

2023: New York State – Bans any carpeting containing PFAS chemicals – including Artificial Turf Carpet Systems: <https://www.cps.bureauveritas.com/newsroom/new-york-governor-signs-pfas-bans-apparel-and-carpet> PFAS Bans in Apparel (Bill A07063A) and Carpet (Bill A09279A)

2023: https://ec.europa.eu/commission/presscorner/detail/en/ip_23_4581 .. 27Sept 2023 the Commission takes another major step to protect the environment by adopting measures that restrict microplastics intentionally added to products under the EU chemical legislation REACH. ..,The adopted restriction uses a broad definition of microplastics – it covers all synthetic polymer particles below five millimetres that are organic, insoluble and resist degradation. The purpose is to reduce emissions of intentional microplastics from as many products as possible. Some examples of common products in the scope of the restriction are: **The granular infill material used on artificial sport surfaces – the largest source of intentional microplastics in the environment...** There has long been a concern about the use of crumb rubber in sports fields, initially the concerns were about the PAH content. Research by the ECHA Risk Assessment Committee suggested that lower limits were required, and the amount of PAH



<https://thewash.org/2019/11/06/slow-city-response-to-dangerous-playground-conditions/>



<https://www.ecocenter.org/new-study-lead-crumb-rubber-playgrounds-maryland-and-virginia>



As unitary synthetic surfacing begins to age, it may deteriorate and expose the loose-fill cushioning layer underneath. This layer is typically made with shredded waste tires.

HB1147FSPTASenate.docx.pdf

Uploaded by: Laura Stewart

Position: FAV

**Written Testimony Submitted for the Record to the Maryland Senate
Education, Energy and the Environment - Playground Surfacing Materials - Prohibitions
HB1147 - March 26, 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 1147, Environment - Playground Surfacing Materials - Prohibitions, aligns with Free State PTA's principle for legislative action which states that schools must provide a safe environment where all students, teachers and staff can thrive.***

Free State PTA's Legislative Agenda includes support for reducing exposure to known harmful substances, including lead and PFAS, in home, play, and school environments by testing and remediating in paints, plumbing, drinking water, athletic fields, and play surfaces. Therefore, we strongly urge the MD State legislature to pass HB1147 which prohibits playground surfacing materials containing lead, PFAS, and PAHs. Some examples of playground materials found to contain these hazardous compounds included shredded tire mulch, poured-in-place, crumb rubber, plastic blades on plastic turf. There are healthier, safer, more sustainable, less expensive alternatives such as certified ADA-compliant engineered wood fiber (EWF) tested and verified to be free of chromated copper arsenate (CCA) that are readily available. A precautionary, protective approach is necessary to provide safer, healthier environments where our children play.

Our youngest, most vulnerable populations have a right to a healthy, safe environment. Children should not be exposed knowingly to materials containing contaminants like lead and PFAS. Children are much more biologically and developmentally susceptible to harmful chemicals even at low exposure levels since their organs are still developing and behaviors such as increased hand-to-mouth contact and crawling put them at greater risk of harmful exposures. They also breathe more air and drink more water per body weight than adults, putting them at risk of exposure to higher concentrations of toxins in their environments.

Below are authoritative resources and scientific evidence supporting taking a proactive, preventative, evidence-based approach to better protect our children and community from known hazards including lead, PFAS, and more.

- o **Well known hazardous chemicals found in shredded tire mulch:**
 - o The science on the known hazards found in shredded tires is well documented in many studies and reports including the [EPA FRAP literature review](#)¹, a [Yale report](#)², [UMASS Lowell Toxics Reduction³ Institute Playground Surfacing report](#)⁴, and an [Environment and Human Health report](#)⁵. This research provides evidence of the many **carcinogenic and hormone disrupting**

¹ <https://www.epa.gov/chemical-research/december-2016-status-report-federal-research-action-plan-recycled-tire-crumb>

² <https://seas.yale.edu/news-events/news/study-led-gaboury-benoit-looks-chemicals-synthetic-playing-surfaces-0>

³ <https://seas.yale.edu/news-events/news/study-led-gaboury-benoit-looks-chemicals-synthetic-playing-surfaces-0>

⁴ https://www.uml.edu/docs/Playground_surfacing_report_Dec2023_tcm18-377890.pdf.

⁵ <https://www.ehhi.org/turf.php>

chemicals, in addition to skin, eye, and respiratory irritants that can exacerbate asthma. These chemicals found in shredded tire mulch include but are not limited to **lead and PFAS.**

- **Lead alone** is linked to many harmful health effects including **permanent neurological, behavioral, and developmental problems and cancer.** There is no safe level of lead, especially for young children.
- **Soil, Surface and groundwater contamination leading to hazards in drinking water sources and soil degradation.**
 - There is potential for hazardous chemicals mentioned above to leach into Maryland’s aquifers and soil, contaminating our drinking water and food. PFAS, also known as the “forever chemical” due to its high persistence in our environment, is posing an additional health and environmental risk to our communities across the state. Banning sources of PFAS contamination such as shredded tire mulch is critical as they are very costly and difficult to remove from our drinking water.
 - As one such example, on August 23, 2022, two months after a [playground fire](#)⁶ in Poolesville, MD, water testing results found PFAS in well two. This was the same well that was nearest to the site where the playground fire took place. Banning sources of PFAS contamination such as shredded tire mulch, PIP, and tire crumb rubber is critical since it is very costly and difficult to remove from our drinking water and soil. PFAS, otherwise known as “forever chemicals” are linked to irreversible health and environmental impacts and should not be down-cycled where our children play.

The Consumer Product Safety Commission has set [strict limits for lead](#)⁷ content in [accessible parts of all children's products including playground equipment](#)⁸. Shredded tire mulch is highly accessible to children as it is loose and they often play with it. The [CPSC documents](#)⁹ the many instances of young children playing with the material and putting it in their mouths. All routes of exposure (skin and eye contact, ingestion, and inhalation) are a concern in this case.

Therefore, we strongly urge you to give a favorable report for HB1147.

Testimony is presented by Laura Stewart, Free State PTA Advocacy Committee on the behalf of

Gerrod Tyler, President
GTyler@fspta.org

⁶ <https://mocoshow.com/2022/06/05/fire-at-playground-in-poolesville-now-extinguished/>

⁷ https://www.cpsc.gov/Business--Manufacturing/Business-Education/Lead/Total-Lead-Content-Business-Guidance-and-Small-Entity-Compliance-Guide#tl_05d

⁸ <https://www.cpsc.gov/Business--Manufacturing/Business-Education/childrens-products/>

⁹ https://www.cpsc.gov/s3fs-public/Final-Report_Playground-Surfacing-Survey_with_Appendices_and_Cleared_Staff_Statement_Cover_Page.pdf?sqzSSGJkODbKEnHhYnkJrP8eDpKRWKBS

HB1147_Playground Surfacing Materials_EEE_CJW FAV.

Uploaded by: Laurie McGilvray

Position: FAV



Committee: Education, Energy and the Environment
Testimony on: HB1147 - Environment - Playground Surfacing Materials - Prohibitions
Organization: Maryland Legislative Coalition Climate Justice Wing
Submitting: Laurie McGilvray, Co-Chair
Position: Favorable
Hearing Date: March 26, 2024

Dear Chair and Committee Members:

Thank you for allowing our testimony today in support of HB1147 as passed by the House. The Maryland Legislative Coalition Climate Justice Wing, a statewide coalition of nearly 30 grassroots and professional organizations, urges you to vote favorably on HB1147 to establish limits on dangerous chemicals in playground materials - lead and PFAS.

This bill creates a set of measurable standards for safer playgrounds for our most vulnerable community members - children. Importantly, the obligation for showing compliance with these protective standards rests with the parties best situated to formulate the materials to be used, namely the producers and suppliers.

There is no statewide inventory of Maryland's playgrounds that documents their surface materials. Playgrounds may have surfaces covered in natural and/or synthetic materials, which are now required to be [ADA-compliant surfaces](#), and include natural-surface materials like [engineered wood fiber](#) (EWF) and synthetic [poured-in-place](#) (PIP) surfaces. Playgrounds may also have loose fill material such as shredded mulch or loose tire 'chunks' or 'shreds.' The increasing use of PIP and other forms of tires is concerning. [Years of research](#) confirm that tires contain alarming levels of **carcinogens, heavy metals and endocrine disruptors**, as well as contribute to **microplastic contamination** of air, soil and water.

HB1147 regulates playgrounds to protect children from toxic exposure:

Children, and especially younger children, are uniquely vulnerable to the health effects of toxic environmental exposures, which can occur through ingestion, inhalation, or dermal uptake. This vulnerability is due in part to their close interaction with playground surfaces, the developmentally-appropriate tendency to put their hands or objects in their mouths, their rapidly developing organ systems, and their immature detoxification mechanisms. Children also [breathe faster](#) per pound of body weight increasing the likelihood of inhalation exposure.

Materials with high levels of lead and/or PFAS are unacceptable for use on playgrounds:

It is important to note that while the chemicals covered by this bill can be measured separately, a child's exposure is cumulative and synergistic.

1. Lead

Of the chemicals addressed in HB1147, lead is the most studied. According to the [Centers for Disease Control and Prevention](#) and the [World Health Organization](#), there is no known safe level of lead exposure. Relatively low levels of lead exposure that were previously considered 'safe' have been shown to damage children's health and impair their cognitive development. The [effects of this neurotoxicant](#) are well documented and include:

- Developmental delay and learning difficulties
- Weight loss, sluggishness and fatigue
- Abdominal pain, vomiting, constipation
- Hearing loss, seizures, unconsciousness.

At high levels [lead poisoning can be fatal](#). Even at very low levels of exposure, lead can cause damage over time. As observed across the medical field, the only [solution to lead poisoning is prevention](#). HB1147 moves us significantly toward that goal.

Many children visit playgrounds several times a week or even daily from a very early age, and in elementary school, frequent exposure occurs during recess and at before- and after-school activities. In the DMV area, local jurisdictions have struggled for at least five years with community-led finding of high lead levels in local playgrounds and schools, including in [Montgomery County](#), [Prince George's County](#), and [Washington, D.C.](#)

2. Per- and Polyfluoroalkyl Substances - PFAS

PFAS refers to a class of 12,000 or more chemicals known to provide heat, stain and water resistance. Because their strong carbon-fluorine bond is difficult to break down, they are referred to as "forever chemicals." PFAS has been linked to a wide range of health problems in animal and human studies including [kidney and testicular cancer](#), [hormone and endocrine disruption](#), [liver and thyroid problems](#), [reduced vaccine effectiveness](#), reproductive harm and abnormal fetal development. As the science has evolved, the EPA-issued health advisories reflect findings that PFAS is more toxic at lower levels than scientists previously knew. While there is little evidence to date of PFAS linked specifically to tires, there certainly are questions. No less than the NFL Players Association medical director [called on manufacturers to disclose](#) if there is PFAS present in the plastic carpet *or infill material* (i.e., pulverized tires). In 2023, over [270 PFAS-related bills](#) were introduced in state legislatures. And the questions continue to mount.

[More recently](#), tires were identified as the source of [95% mortality](#) among endangered coho salmon due to an additive, [6PPD](#), found in all tires. While 6PPD is not addressed in HB1147, it adds to the weight of concerns created by exposing children to these surfaces. A 2022 study found 6PPD in urine samples from adults, children and pregnant women. The authors wrote, "Considering that

6PPD-Q was a lethal toxicant to multiple aquatic species, the potential human health risks posed by its long-term exposure [require urgent attention.](#)”

Conclusion

Maryland needs HB1147 because the scientific evidence of the toxic load of many playgrounds, especially tire-based playgrounds, has only grown. As the national leaders in epidemiology and pediatrics of the Icahn School of Medicine at Mount Sinai concluded, “**given the hazards associated with recycled tire rubber, it is our recommendation that [these products never be used](#) as surfaces where children play.**” This bill is an important step in setting safety standards on materials commonly used across our state. By enacting HB1147, Maryland can secure safer playgrounds, healthier children, and a healthier environment. For all of these reasons, we strongly support HB1147 and urge a **FAVORABLE** report in Committee.

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

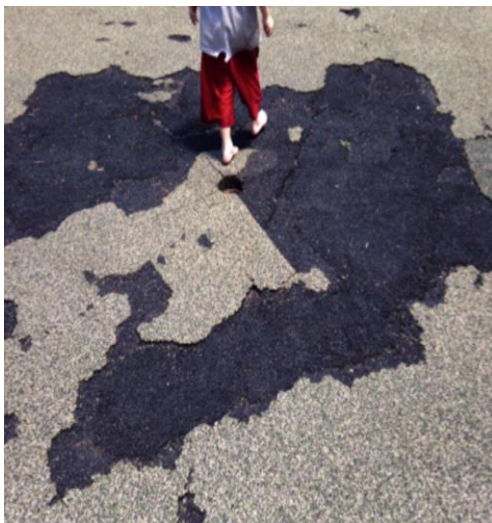
WISE



<https://thewash.org/2019/11/06/slow-city-response-to-dangerous-playground-conditions/>



<https://www.ecocenter.org/new-study-lead-crumb-rubber-playgrounds-maryland-and-virginia>



As unitary synthetic surfacing begins to age, it may deteriorate and expose the loose-fill cushioning layer underneath. This layer is typically made with shredded waste tires.

HB1147_PlaygroundSufacing_EEE_HoCoCA_FAV.pdf

Uploaded by: Liz Feighner

Position: FAV



HoCoClimateAction.org
Howard County, Maryland

HB1147: Environment - Playground Surfacing Materials - Prohibitions

Hearing Date: March 26, 2024

Bill Sponsor: Delegates Guyton, Lehman, Allen, Ebersole, Forbes, Holmes, Pasteur, Ruth, and Stein

Committee: Education, Energy, and the Environment

Submitting Organization: HoCo Climate Action by Liz Feighner

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 urge support of HB1147 as amended by the House**, Playground Surfacing Materials - Prohibitions, which will reduce children's harmful exposure to toxins by establishing clear toxicity standards on three dangerous chemicals in playground materials: Lead and PFAS.

The plastic crisis is a climate crisis as well as an environmental justice and public health crisis. 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, 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.

While our work concentrates on the climate crisis and reducing climate pollution fossil fuel use, we are extremely concerned about any plastic (including synthetic materials) in our environment. In fact, "[Researchers from Sweden's KTH Royal Institute of Technology](#) have [unveiled findings](#) that illuminate a "vicious circle" between plastic pollution and global heating, where each phenomenon exacerbates the other. The comprehensive study sheds light on the mutually reinforcing relationship that not only escalates global heating and plastic waste but also contributes to the degradation of materials and the leaching of harmful chemicals into the biosphere"

There has been a growing movement to install playground spaces that include the use of synthetic surfacing materials, which in some cases (e.g., synthetic turf and tire crumb/rubber) contain chemicals known to be hazardous. Maryland has no statewide inventory of playgrounds that documents their surface material composition, so we have no idea on how large the problem is for our childrens.

When a child walks, runs, or falls on a surface an invisible cloud of dust from the surface surrounds them. In the case of rubber and plastic play surfaces, this dust cloud is a mixture of plastic, tire and other particles that have fallen to the surface. Children, and especially younger children, are uniquely vulnerable to the health effects of toxic environmental exposures through ingestion, inhalation or skin contact. Children also [breathe faster](#) per pound of body weight increasing the likelihood of inhalation exposure.

Today there is [undeniable proof](#), including from the [premier research institutions on children's environmental health](#), that tires contain multiple [toxic chemicals](#), all acting together on each child who visits a playground: carcinogens, heavy metals and endocrine disruptors, in addition to microplastic contamination. It is important to note that while the two chemicals, lead and/or PFAS, proposed in this bill can be measured separately, a child's exposure is cumulative, and synergistic.

Materials with high levels of lead and/or PFAS are unacceptable for use on playgrounds.

As the national leaders in epidemiology and pediatrics of the Icahn School of Medicine at Mount Sinai concluded, **“given the hazards associated with recycled tire rubber, it is our recommendation that [these products never be used](#) as surfaces where children play.”**

There is no need to put our children at risk, when natural engineered wood fiber is a safe substitute that is ADA compliant. The state of Maryland needs to protect our precious children along with our waterways and our beloved Chesapeake Bay from these highly toxic and dangerous chemicals and this bill will begin to accomplish this goal.

We urge a favorable report for HB1147 as amended by the House.

Submitted for [HoCo Climate Action](#)

by Liz Feighner

HoCoClimateAction@gmail.com

HB 1147 - Support - Del Guyton (Senate).pdf

Uploaded by: Michele Guyton

Position: FAV

MICHELE GUYTON
Legislative District 42B
Baltimore County

Environment and Transportation
Committee



The Maryland House of Delegates
6 Bladen Street, Room 304
Annapolis, Maryland 21401
410-841-3793 · 301-858-3793
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THE MARYLAND HOUSE OF DELEGATES
ANNAPOLIS, MARYLAND 21401

March 26, 2024

SUPPORT – HB1147 – Environment – Playground Surfacing Materials – Prohibitions

Dear Chair Feldman and Members of the Education, Energy, and the Environment Committee,

I respectfully request a favorable report on HB1147 to ban installation of materials that contain dangerous levels of lead and PFAS from being used on public playground surfaces in our state. I applaud the commitment this committee has shown to protecting both the public and the environment from these toxins in past legislative sessions. I am confident that you are aware of the detrimental effects of these substances. HB1147 requires that all new playgrounds and all significant renovations of surfacing material on a playground will require certification from the manufacturer that these products are toxin free and that there was no intentional addition of PFAS in the manufacturing process of these substances. This is consistent with past legislation from this committee and the General Assembly. All the stakeholders are in agreement on the House Committee and sponsor amendments. For these reasons, I ask that you please move HB1047 forward so that there will be no more toxic playgrounds in the state of Maryland.

Sincerely,

A handwritten signature in cursive script that reads "Delegate Michele Guyton".

Delegate Michele Guyton

HB1147-FAV-DTMG-EEE- 3-26-24.pdf

Uploaded by: Olivia Bartlett

Position: FAV



Olivia Bartlett, DoTheMostGood

COMMITTEE: Education, Energy, and the Environment

TESTIMONY ON: Environment - Playground Surfacing Materials - Prohibitions

POSITION: FAVORABLE

HEARING DATE: March 26, 2024

BILL CONTACT: Delegate Michele Guyton

DoTheMostGood (DTMG) is a progressive grass-roots organization with members in all districts in Montgomery County as well as in several nearby districts. DTMG supports legislation that keeps all residents healthy and safe in a clean environment. Therefore, DTMG strongly supports HB1147 to prohibit playground surface materials that contain highly toxic PFAS compounds or lead. This important legislation will keep our youngest residents healthy and safe.

Per- and polyfluoroalkyl substances, commonly known as PFAS, are used in a wide variety of consumer products, from personal care products and non-stick pans to car seats and carpets. They are also used by industries to make things greaseproof and water resistant. Recently published scientific studies have shown that playing on surfaces containing PFAS results in skin exposure.

Exposure to even low levels of PFAS is linked to a range of health problems, including:

- Kidney damage, leading to chronic kidney disease or kidney cancer,
- Reduced antibody responses to vaccinations in both children and adults, and
- Increased risk of gestational diabetes, preeclampsia, low birth weight, and childhood obesity

There is also no safe level of lead for children.

The best way to address PFAS and lead contamination in children is to prevent the contamination in the first place. Children should not be playing on surfaces containing these known toxins.

Therefore, DoTheMostGood strongly recommends a **FAVORABLE** report on HB1147.

Respectfully submitted,

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

KABOOM! HB 1147 Public Comments - Senate.pdf

Uploaded by: Robert Mayer

Position: FAV



KABOOM! Public Testimony in Support of HB 1147 “No More Toxic Playgrounds”

KABOOM! is the national nonprofit whose mission is to end playspace inequity in communities across the country. Playspace inequity in cities, like other forms of inequity, stems from the racially biased housing, education, and infrastructure investment policies that shaped federal, state, and local government decision making during the 19th and much of the 20th centuries. Baltimore has been especially impacted by these historically racist policy practices and that is why KABOOM! has been working there for over two decades with residents, local government leaders, and community-based organizations seeking to address the lack of access to high-quality, engaging, and safe playspaces.

KABOOM! believes it is not enough to just have access to a playspace in historically disinvested communities, the playspaces that are installed must also be high-quality, safe, and provide the children who use them with a sense of belonging. HB 1147 takes an important step in achieving this vision by ensuring the playgrounds in the state of Maryland will be safe for all children. Play surface areas should be free of toxic materials and children’s exposure to them should be eliminated. Unfortunately, many playgrounds currently use rubber surfaces made from recycled tires which contain chemicals that are hazardous to children. The reason many of these surfaces were used was to increase access to the playgrounds for children of different abilities, especially those who faced mobility challenges. Non-toxic wood chip surfaces pose significant challenges to children needing assistive devices and therefore limits their access to play.

While the intent behind the use of rubber safety surfacing is commendable, the unintended consequences contain significant downside. Not only will this legislation correct this mistake, but it will also help foster a marketplace for play surfaces, like cork, which are both inclusive and environmentally safe. The more innovation we can spur in enhancing safe and inclusive playgrounds the better off are our children.

This legislation has been amended from its original version to address the cost and timeline concerns of many of the agencies we partner with across Maryland. Because of those changes KABOOM! is now able to support this legislation. It is our expectation that as more recreation departments and school districts use their procurement power to purchase environmentally safe surfaces in the future, the cost of alternative playspace surfaces will go down as a result of the economies of scale that result from increased demand.

Thank you for the opportunity to submit these comments on this legislation.

HB1147_IndivisibleHoCoMD_FAV_Virginia Smith (Senat

Uploaded by: Virginia Smith

Position: FAV



[HB1147](#)

Environment - Playground Surfacing Materials - Prohibitions

Committee: Education, Energy, and the Environment

Hearing Date: Mar 26, 2024

Position: Favorable

Dear Chair Feldman, Vice Chair Kagan, and members of the committee, my name is Virginia Smith, 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 urge support of HB1147 as amended by the House**, Playground Surfacing Materials - Prohibitions, which will reduce children's harmful exposure to toxins by establishing clear toxicity standards on three dangerous chemicals in playground materials: Lead and PFAS.

There has been a growing movement to install playground spaces that include the use of synthetic surfacing materials, which in some cases (e.g., synthetic turf and tire crumb/rubber) contain chemicals known to be hazardous. Children, and especially younger children, are uniquely vulnerable to the health effects of toxic environmental exposures through ingestion, inhalation or skin contact. Children also [breathe faster](#) per pound of body weight increasing the likelihood of inhalation exposure. When a child walks, runs, or falls on a surface an invisible cloud of dust from the surface surrounds them. In the case of rubber and plastic play surfaces, this dust cloud is a mixture of plastic, tire and other particles that have fallen to the surface.

It is important to note that while these two chemicals (lead and/or PFAS) proposed in this bill can be measured separately, a child's exposure is cumulative, and synergistic. Today there is [undeniable proof](#), including from the [premier research institutions on children's environmental health](#), that tires contain multiple [toxic chemicals](#), all acting together on each child who visits a playground: carcinogens, heavy metals and endocrine disruptors, in addition to microplastic contamination.

As the national leaders in epidemiology and pediatrics of the Icahn School of Medicine at Mount Sinai concluded, **"given the hazards associated with recycled tire rubber, it is our recommendation that [these products never be used](#) as surfaces where children play."**

Materials with high levels of lead and/or PFAS are unacceptable for use on playgrounds.

The state of Maryland needs to protect our children from these highly toxic and dangerous chemicals and this bill will accomplish this goal for playground safety.

We urge a favorable report for HB1147 as amended by the House.

Virginia Smith
Columbia, MD 21044