

MEMO: FOR PARKS CIP HEARING MAY 18: Safe Healthy Playgrounds- natural surfaces vs synthetic waste. Story of tire waste tire pollutants from Kemp Mill urban park

Dear Parks and Planning Board members

We want to Promote the use of natural safe materials for playgrounds for the health of both children, our soils and waters.

An example of what we don't want and children should not be exposed to is the short-lived waste tire-poured in place (PIP) surfacing installed in the Kemp Mill Urban Park on Arcola Ave, Wheaton, Kemp Mill Rec Center , and many other places.

-Natural materials such as engineered wood fiber and grass provide something of a pollutant filter.

-Synthetic rubber/ waste tire surfacing wears out (see photos attached) contributing toxic particulates to our children's playspace, and the air, soil and water around the play area (see attached photos and more at [www.synturf.org](http://www.synturf.org)). It also heats up to hazardous levels WHICH SHOULD PRECLUDE ITS USE ENTIRELY and will CONTRIBUTE pollutants to the park and creek. Among the known toxics that leach out and out-gas are:

- zinc (high levels in and leach out of tires and highly toxic to aquatic organisms),
- Polycyclic aromatic hydrocarbons (highly carcinogenic, accumulates in sediments, reason coal tar waste sealants were banned in MoCo and elsewhere),
- benzothiazoles (found in and coming off at high levels in all studies of tires- recently found to be part of the dioxin like activity off-gassing and in leachate from tires).
- Methyl Ethyl and isobutyl ketone (ditto and recently banned by the EPA from pesticide formulations)
- Lead- highly variable levels are found in the tire waste used for these materials- sometimes VERY high
- and more; these are just a few.

We also need to know: what chemicals and heavy metals are in those pigments coloring the tire waste (lead and cadmium typical fixatives for weather proof pigments- exactly what is in these pigments?)

These will accumulate and will need to be addressed and dealt with since dealing with these extra pollutants was not factored in to the run-off issues from the Kemp Mill urban park playground to Sligo Creek/Park.

For more background on our concerns with synthetic plastic and tire or other rubber product waste surfaces we encourage you to read:

1. <<http://www.sierraclub.org/san-francisco-bay/beachchaletappealbackground>>

2. National Center for Health Research review: < <http://center4research.org/child-teen-health/early-childhood-development/caution-children-at-play-on-potentially-toxic-surfaces/> >

Please see attached and below for more information

Kathleen Michels, PhD

Section 9 -Sligo Headwaters stewards, Friends of Sligo Creek  
1701 Ladd St  
Silver Spring, MD 20902  
[301-922-3816](tel:301-922-3816)  
[michelskm2016@gmail.com](mailto:michelskm2016@gmail.com)

“When will we ever learn? When will we ever....learn!”

Please see below for some annotated information on Playground surfacing and options and please see the attached scientific study on Playground surfacing from tire / rubber sources

## **Outdoor Play Surface Options**

### **Engineered Wood Fiber (EWF) is the best and most common playground material**

- ADA compliant
- not chemically treated
- lead/ heavy metal -free
- cheapest
- safest
- cool
- 15-25 year warranty
- minimal maintenance
- recommended by pediatricians at Mount Sinai Children's Environmental Health Center  
<http://www.mulchoutfitters.com/hardwood-engineered-wood-fiber.html>

-(see wheelchair access photo <https://www.playlsi.com/en/commercial-playground-equipment/playground-components/pulse-table-tennis> )

### **Now to the bad stuff:**

#### **Tire waste PIP (poured in place)**

- ADA compliant, but does it contribute to disability because of its chemicals, carcinogens and a neurotoxin - lead?
- chemicals include at least 12 carcinogens
- lead
- expensive (yes you might have gotten a grant for the first surface, but in 2-5 years you'll be footing the bill for a more expensive product than EWF)
- reported dangerous for falls, concussions, 2nd-3rd degree burns

- hellish temperatures recorded at 150 and higher on clear, sunny days
- 2-5 year life
- much maintenance to repair worn surfaces, mold, mildew growing on it
- under federal investigation for causing harm

<<http://www.synturf.org/images/AST-Tire-PG-Skin-Injuries-Other-Rev1-20161007.pdf>>  
<<https://drive.google.com/open?id=0B9DtJ8mywTc8LU8zV0dERWZXWFU>>

### **Tire waste mulch**

- not ADA compliant
- chemicals include at least 12 carcinogens
- lead
- expensive (yes you might have gotten a grant for the first surface, but in 10 years you'll be footing the bill for a more expensive product than EWF)
- reported dangerous for 2nd-3rd degree burns
- hellish temperatures recorded at 150 and higher on clear, sunny days
- 10 year life
- minimal maintenance
- under federal investigation for causing harm

[http://www.synturf.org/images/Temperatures\\_of\\_Saint\\_Louis\\_Area\\_Parks.pdf](http://www.synturf.org/images/Temperatures_of_Saint_Louis_Area_Parks.pdf)

**For a full menu of surfacing materials including the kind MoCo Parks and Rec is using- see below**

**FROM A PLAYGROUND SUPPLIER {WITH COMMENTS FROM SHPFC}:**

See all specifications and costs at : <<https://www.gametime.com/playground-surfacing>> *and note that "Clean Recycled Rubber" is simply a euphemism for tire waste.*

- **Engineered Wood Fiber** { *COMMENT: The good guy: at most playfields and can be made ADA compliant, Not toxic if kids play with* } Supplier note: With its low price and quick installation, engineered wood fiber (EWF) playground surfacing is a popular choice for projects with initial budget constraints. It requires frequent but minimal maintenance (raking) and occasional "topping off" to ensure correct depth for standards compliance. [Learn More](#) [Download Spec Sheet](#) *Loose fill materials aid in the protection of children who experience lateral falls. Once the newly installed product has settled, it forms a "knitted" compacted layer that will support a variety of mobility devices including wheelchairs, gait trainers, crutches, and walkers. .... Wood fiber is non-toxic, and does not contain paint, chemicals, or additives.*

- **Poured in Place Rubber** { *COMMENT: is actually tire waste. The hot garish multi colored surfaces at Kemp Mill, Watkins Mill etc}- NOTE – NOT as good as either wood*

*or tire mulch for impact attenuation- ESPECIALLY at high heat} {also breaks down and needs to be replaced, the surface NOT likely recyclable}* Supplier note: A popular unitary playground surfacing choice, Poured in Place (PIP) Rubber is one of the best surfaces for ADA accessibility. It has a higher up-front cost than EWF, but a lower maintenance cost over the life of the playground.

- **Recycled Bonded Rubber** { *COMMENT: is actually tire waste. cheaper than the colored surface tire PIP and as HOT! Present at many playgrounds like Cedar Lane at Beach Dr. – shreds come up when you pull on them and can be eaten*} Supplier note: GT Impax Bonded Rubber offers attractive, seamless playground surfaces that are made from *clean, recycled shredded rubber tires* {*Comment - i.e. tire waste. There is nothing "clean" about it*}. It creates a highly accessible, low maintenance surface.
- **Recycled Rubber Loose Fill** { **COMMENT: is tire waste which gets VERY hot and has more surface area for interaction with toxic constituents. BUT KIDS MORE LIKELY TO PLAY WITH AND EAT THESE- since toxic- the ingestion a real issue .** Supplier note: Made from *100% clean, recycled tire material* {*comment: i.e. tire waste- cant clean the inherant toxins*}, these resilient rubber pieces offer the best impact absorbing properties of all loose fill playground surfaces. Available in **multiple color options** {**what are these colored pigments made of?**}.