

"Federation Corner" column  
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### **Artificial turf vs. natural sod playing fields**

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The Draft Artificial Turf Report, A Review of Benefits and Issues Associated with Natural and Artificial Turf Rectangular Stadium Fields, is now available through a link on the MCCF website, at [www.montgomerycivic.org](http://www.montgomerycivic.org). The report was prepared as directed by the County Council Transportation, Infrastructure, Energy and Environment Committee at a meeting on July 1, 2010. Originally the draft report was scheduled to be made public in December 2010 but was released in April.

The Draft Report is the product of a working group consisting of staff from Montgomery County Public Schools, the Maryland-National Capital Park and Planning Commission, and the County Council. The county Department of Environmental Protection was asked to provide a perspective on the environmental impacts of artificial turf but responded that they did not have a position. Neither did they provide any specific recommendations regarding construction and use of artificial turf; for example, if water monitoring should take place.

The following remarks are taken from the detailed comments the Civic Federation submitted on the draft report.

"Overall, the report is sloppily put together with random quotes and studies thrown in." And, "the report does not address the main request from the County Council, which is to conduct a water quality study of artificial turf runoff."

"(I)t appears that language from FieldTurf Tarkett's marketing messages (the manufacturer of the county's existing artificial turf fields) have made their way into this document. The Maryland Soccer Foundation was also consulted...no natural sod farmers in our own county Agricultural Reserve were either part of the working group, or were consulted. As a result of the make-up of the Working Group, the 'report' appears biased."

The draft report includes a section entitled 'Operations benefits for artificial turf fields.' MCCF commented "Please provide a comparable bulleted list of 'Operations benefits for natural turf fields.' This text re-emphasizes the bias of this report for artificial turf. It appears that this Working Group was biased from the outset."

Regarding the Public/Human Health Concerns sections, the Federation wrote "Please add heavy metals, lead, and carcinogens to this bullet list. These are well known components of ground crumb rubber turf fields. According to the journal, *Environmental Health Perspectives*, 'The most common types of synthetic rubber used in tires are composed of ethylene-propylene and styrene-butadiene combined with vulcanizing agents, fillers, plasticizers, and antioxidants in different quantities, depending on the manufacturer. Tire rubber also contains polyaromatic hydrocarbons (PAHs), phthalates, and volatile organic compounds (VOCs).' and, 'According to the Rubber Manufacturers Association, only 8 states have no restrictions on placing tires in landfills. Most of these restrictions have to do with preventing pest problems and tire fires, which release toxicants such as arsenic, cadmium, lead, nickel, PAHs, and VOCs.' Please add these elements and carcinogens to the bullet list."

"And, please add this text--A recent study from the University of Medicine and Dentistry of New Jersey (UMDNJ)-School of Public Health found that, 'when children or athletes ingest the tiny rubber granules in

synthetic turf, it is likely that a significant portion of the lead in the granules will be absorbed by their bodies' gastric fluids.' This study was completed on the 'new' generation of artificial turf, made of tire crumbs. The study was led by Dr. Junfeng Zhang, associate dean and professor of environmental and occupational health at the UMDNJ-School of Public Health. The study examined lead levels in rubber granules from four parks in NYC, and simulated digestive tract absorption in two of the samples. The findings were as follows: Even though the samples had relatively low concentrations of lead in the rubber granules, substantial amounts of lead were absorbed into synthetic gastric juices. According to health professionals, even the tiniest amount of lead in the system will affect the health and cognitive ability of children."

On the report section regarding reducing fertilizers and pesticides, MCCF requested "Please add the ingredients of the chemical washing required as maintenance for artificial turf, and the costs." And "Please add that according to NaturalLawn of America, 'Real grass controls erosion, produces oxygen, helps eliminate dust, is an air and water filter and a noise reducer. Grass also acts as a natural 'air conditioner' for the climate at ground level. Real turf is an essential part of our ecosystem. Lawns contain microbial activity, bird life, shelter for small mammals, etc. So gaining a permanently green lawn with synthetic turf will actually cut back the biodiversity of an area. Water is another factor to consider. Having synthetic turf might conserve water during a drought, but some studies have shown that it also leads to flooding during heavy rains due to its less absorbent nature. This flooding then can cause erosion and result in polluting our waterways'."

Regarding the heat island effect, "The idea that a study of impacts from a single artificial turf field is relevant to a serious analysis of environmental effects of artificial turf is a misunderstanding of the heat island effect, which is cumulative."

On the section of the draft report on Recycling and/or Disposal of Artificial Turf Fields, the Civic Federation commented "Because of the well-known toxic material of which this material consists, the fields, which have a life of approximately 8-10 years, will need to be disposed of in a hazardous waste disposal area. That cost is considerably more than simple disposal in a land fill. Please address the cost per field."

The report addresses future Parks Department fields, stating "There are currently three planned artificial turf fields for park facilities over the next six years; one at Laytonia Recreational Park and two at the Maryland SoccerPlex. Parks also plans to install artificial turf on the slab of the old Wheaton ice rink." For MCPS, planned fields include only every high school stadium field in the county.

I urge county residents to read the draft report, especially parents of high school athletes. The deadline for public comments has been extended to June 3, and the address for comments is included in the report.

*The views expressed in this column do not necessarily reflect formal positions adopted by the Federation. To submit an 800-1000 word column for consideration, send as an email attachment to [theelms518@earthlink.net](mailto:theelms518@earthlink.net)*