

ARTICLE 28: Synthetic Turf Moratorium

ARTICLE 28: Three-Year Moratorium on the Installation of Synthetic Turf on Town Land

Ms. Bryant moves that the Town adopt a moratorium on the construction or installation of any synthetic turf (monofilament carpet with infill) and any surface covering of loose fill made from scrap tires on any land, of any size, owned by the town for a three-year time period starting on April 18, 2019 and ending on April 18, 2022.

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What is Involved

- This moratorium is an extension of the three year moratorium put in place at the 2016 Town Meeting.
- Town land includes, but is not limited to, that of the Concord Public Schools. The moratorium does not include private land nor the Concord-Carlisle Regional High School which is under joint jurisdiction with Carlisle.

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Origin of Crumb Rubber Pellets



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Crumb Rubber in Synthetic Turf



Chemicals in Crumb Rubber

Crumb rubber contains known carcinogens and endocrine disrupters. Those found in samples tested by Haley and Aldrich from Concord's fields include:

- Benzo(a)pyrene (highly carcinogenic – banned in Europe since 2010)
- Benzo(b)fluoranthene
- Chrysene
- Indeno(1,3,2,3-cd)pyrene
- Bis(2-ethylhexyl)phthalate (endocrine disrupter)

Health Concerns for Children

Concerns have been raised about the health effects of synthetic turf, especially in young children

- Children are more susceptible to developmental hormones and carcinogens
- Children are repeatedly exposed to crumb rubber in synthetic turf
- Crumb rubber is carried home in hair, shoes, and clothing



Congressional Response to Health Concerns

In response to the growing health concerns around synthetic turf nationwide, four members of Congress from the Committee on Energy and Commerce and two US senators wrote letters of enquiry regarding the safety of synthetic turf to the Environmental Protection Agency (EPA). These very specific questions have yet to be answered

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- The Consumer Product Safety Commission (CPSC) has not rated synthetic turf or crumb rubber as a child-safe product.
- The EPA has stopped promoting crumb rubber in synthetic turf fields.
- The EPA with the Consumer Product Safety Commission and the Centers for Disease Control and Prevention/Agency for Toxic substances and Disease Registry, together launched the **Federal Research Action Plan** to study crumb rubber and its effect on human health. This report has still not been released. The research has been held up by delays and reductions in appropriation of funding.

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Injuries

- Recent research has shown a 16% increase in leg and foot injuries amongst National Football League Athletes playing on synthetic turf compared to natural grass.
- Synthetic turf surfaces do not release cleats as readily as natural turf.
- As a result of such injuries, some clubs e.g. the Baltimore Ravens, are replacing their synthetic turf fields with natural grass.

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- Improvements in grass varieties have led to grasses that can stand up to hard use and drought conditions and can be managed organically without pesticides and herbicides.
- Organic field management costs 25% less than conventional field management and half the overall cost of synthetic turf.

Field type	16-year annualized costs
Natural soil-based field	\$33,522
Basic synthetic field	\$65,849
Premium synthetic field	\$109,013

Source: Brad Fresenburg, "More Answers to Questions about Synthetic Fields – Safety and Cost Comparison.." University of Missouri.

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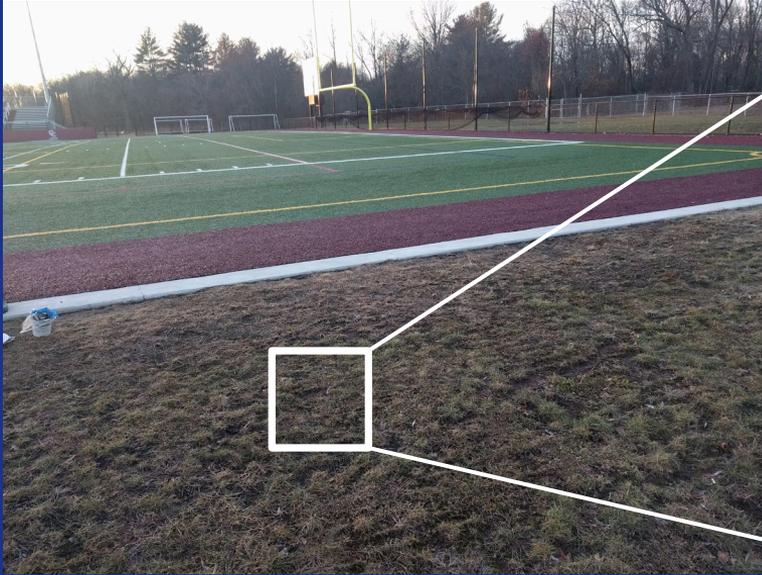
Douglas White Fields



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Stadium Field

3-5% of crumb rubber is lost from each field every year.



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From Douglas-White fields

The plastic filaments break off over time and they also migrate from the fields.

Elevated levels of zinc, chromium, copper and phthalates have been found in water draining through synthetic turf fields.

Synthetic turf pollutes an area extending some distance from the fields.



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Sustainability Principles

- The construction of synthetic turf fields works against the sustainability principles adopted by the town in 2011 by:
- Replacing an organic ecosystem with toxic chemicals that bleed into the environment;
- Preventing these fields from capturing carbon from the atmosphere or retaining water from heavy rain events.
- A Canadian study calculated that 1861 trees would be required to offset the carbon footprint of one synthetic turf field for the duration of its use.

In Conclusion

We are asking the town to adopt another three year moratorium to:

- Allow the ongoing research on synthetic turf to be completed;
- Protect our children from exposure to untested and toxic chemicals;
- Give us time to better assess the environmental impact of synthetic turf fields in a time of changing climate

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