

December 7, 2019

Dear Sharon residents:

The Massachusetts Chapter of the Sierra Club has been leading complementary efforts to address climate change and reduce toxics and plastic pollution.

The Sierra Club was founded on promoting outdoor activities in nature. However, we do not support the growing trend to install artificial turf athletic fields.

We can't keep fossil fuels in the ground if we use them for plastics. Furthermore, plastic turf is much hotter than grass, and will create a *heat island* for the athletes, spectators and the neighborhood.

Each artificial turf field removes acres of *natural ecosystem* that sequesters carbon, and covers it with layers of plastic. This will result in a loss of habitat for birds, mammals, insects, earthworms, etc. Moreover, turf is unsanitary and unpleasant to walk on compared to natural grass. Turf is often sanitized with chemical biocides, which is not required for grass and would further degrade the surrounding habitat.

Turf consists of an undocumented mixture of toxic, persistent petrochemical plastics and chemicals. While many places are thankfully turning away from crumb rubber, a large typical component of turf systems is the polyurethane base. Like the styrene in crumb rubber, polyurethane is both based on benzene and highly toxic to manufacture. Another concern is manufacturing process contaminates such as the recent discovery of PFAS in the plastic blades, which has been found in local turf and is harmful at extremely low levels. Plastic turf generates non-biodegradable microplastics through mechanical action and ultraviolet radiation. Rainwater will wash crumbs, chemicals and microplastics into the soil and the storm water system. Microplastics can be ingested by aquatic animals and enter the human food chain. Wind will blow microplastic dust onto people and the surrounding area. Athletes, coaches and groundskeepers will be the most heavily exposed. The lifespan of turf is only about a decade, and each synthetic field eventually becomes over 100 tons of waste that is impossible to meaningfully recycle.

In Sharon, the proposed site lies immediately adjacent to a wetland and to Lake Massapoag, which risks contaminating them with these toxins. Towns that source their water locally such as Sharon need to be very sensitive to the toxic chemicals that could originate from turf.

The trend toward turf is reversing. Several communities including Andover, Wayland, Brookline, Springfield, Swampscott, Newburyport and Methuen have recently rejected artificial turf. Sharon recently took the lead in reducing unnecessary plastics with its bag by-law, and now needs to consider the negative environmental and health impacts of plastic athletic fields. We urge the Town to oppose turf fields especially at a site such as at Sharon High School.

Respectfully,

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