

February 13, 2023

Arlington Conservation Commission
730 Mass Ave. Annex
Arlington, MA 02476

Re: Susan Chapnick's proposed prohibition on artificial turf

In addition to the technical letter attached from Green Toxicology LLC we, The Park and Recreation Commission (PRC), would like to offer the following response to the letter received from Susan Chapnick, a member of the Arlington Conservation Commission (ACC), dated December 8, 2022, in reference to her proposal to prohibit artificial turf fields in jurisdictional Wetland Resource areas.

The Park and Recreation Commission is tasked with creating both passive and active recreational opportunities for the community that are inclusive, diverse and multi-generational. The Commission is made up of dedicated volunteers comprised of Architects, Landscape Architects, and Educators. Arlington Recreation is a 100% self-sustaining department that receives no tax dollar funding. The entire operation budget is fee driven. They offer safe, affordable and quality programs for all ages and abilities. Between us we have a successful track record of capital improvement projects using funds from CPA grants and the Town's capital budget. Some recent projects include:

- North Union playground
- Reservoir Phase 1 & 2
- Hurd Field renovation
- Bishop, Peirce, Stratton playgrounds (ARPA funded)
- Spy Pond playground
- Parmenter playground

We are currently in the design process for renovation of Robbins Farm playground which will include Universal Design principals, a first in Arlington. We have CPA applications in for renovation of the playground and picnic area at Menotomy Rocks Park and Hills Hill bike playground. We are responsible for millions of tax payer dollars to create recreational opportunities and facility improvements. Many of these projects include invasive plant removal, stormwater management BMP's, rain gardens, native vegetation plantings, shade tree planting, bird and bat houses, erosion control enhancements, porous surfaces, shade shelters and other climate change resilient techniques and wetland resource enhancements, whether in a resource area or not.

There is a well-documented desire from the user groups in this community to have lighted artificial turf fields.

Regarding Ms. Chapnick's proposal for underdrained organically managed natural turf fields as a "practicable alternative" to artificial turf fields, we offer the following:

- These are not all weather/all season systems.
- They can't handle the same use/hours. One turf field equals at least three natural grass fields in terms of playability.
- They need to be rotated and rested thereby reducing their playability.

- Underdrained fields require the soil to be at least 85% sand per ASTM F2396. This requires exporting existing soil and importing sand or preblended rootzone mix.
- They require significantly more fertilization (organic or synthetic) because sand has limited nutrient holding capacity.
- They require significantly more irrigation because sand has limited moisture retention. The purpose of sand-based fields is for the water to drain vertically into the drainage system.
- They are rarely used in municipal settings because of the increased maintenance costs (mowing, aeration, overseeding, fertilization). Generally speaking, maintenance on an artificial turf field is approximately half of the cost of a natural turf field (non-organic).
- They are typically unstable and weak rooted without the introduction of a robust maintenance program and limited use.

Based on this, it is our opinion that underdrained organically managed natural turf fields are not a practicable alternative to artificial turf fields.

Regarding plastic and particulate pollution, in our research, containment systems to deal with microplastic migration are currently being incorporated into field designs in various forms. Natural infills are another commonly used method to mitigate this issue. The technology of these turf systems has and continues to evolve and improve. Ultimately proper design, material selection and maintenance are key components to consider.

As stated in Ms. Chapnicks' letter, the Conservation Commission recently approved artificial turf fields with crumb rubber infill at the High School. The scientific evidence has not changed since then with respect to environmental impact. Surrounding communities have, and continue to, install artificial turf fields, many of them in wetland resource areas, approved by their Conservation Commissions (Waltham, Lexington, Winchester, Medford, Somerville, Reading).

Systems are in place for the Conservation Commission, as a permitting authority, to review projects and determine if they have a significant or cumulative effect upon resource areas. As such it is our opinion that all projects should be reviewed on a case-by-case basis, whether artificial turf or otherwise, versus a blanket prohibition. We have proven that, in many cases, our projects have enhanced the wetland resource areas. We have, and will continue to be a partner with the Conservation Commission, to make sure that the needs of the users and the environment are met. We will ultimately take all of the information presented in the upcoming community forum into consideration. That said, we respectfully request that this proposal for prohibition not be approved.

Sincerely,

Phil Lasker, Chair
Scott Walker, Vice Chair
Shirley Canniff
Leslie Mayer
Jen Rothenberg
Josh Fenollosa