[NAME of Govt. Leader]

**RE: Environmental and Public Hazards of Artificial Turf**

[DATE]

Dear x,

We write to you to express our concerns about the environmentally damaging and toxic artificial turf, and would like to meet with you to discuss how [NAME OF TOWN] can invest in natural grass and [put a moratorium on artificial turf.](https://docs.google.com/document/d/1NyxnM8lmQayqSaaXNyDFppgMVFzuwNitEX9TmydtOM4/edit?tab=t.0)

A regular-sized artificial turf field contains 40,000 lbs of plastic. Each of the turf fields lose .5-8% of its blades per year. That’s about 200-32000 pounds of plastic waste that is spread in our environment, our air, soil, waterways, and of course, our ocean.

The microplastics from artificial turf can be inhaled or ingested by humans and animals, potentially causing health issues. These plastic blades contain harmful chemicals like PFAS that we know is harmful to us and the environment because they are linked to numerous health issues including cancer, immune dysfunction, thyroid disease and cardiovascular disease.

A regular sized artificial turf field contains 150,000lbs of crumb rubber. An EU report from 2018 estimated that 1-4% of infill needs to be replaced every year due to migrating off site or compacting. Because of the size the infill, it’s considered to be a microplastic. Crumb rubber infill used in artificial turf can contain heavy metals like lead, zinc, and chromium. They pose a health concern through skin contact, inhalation, or ingestion when playing on such surfaces.

On a warm day, synthetic turf radiates more heat than a plant-based surface, leading to extreme temperatures and contributing to heat island effect. Artificial turf can be 20–70° F hotter than natural grass. For example, on a 96°F day, artificial turf can reach temperatures of up to 158°F. These elevated surface temperatures have been shown to contribute to heat-related illness. Playing on synthetic turf can melt shoes, blister hands and feet, and induce dehydration and heatstroke. Consequently, climate change will exacerbate exercise-related heat stresses for athletes and people playing on artificial turf.

For high school athletes, the prevalence of extreme heat is leading to escalating heat-related illness, injuries, hospitalizations and deaths. Heat stroke is the third-most common cause of sudden death among high school athletes behind cardiac arrest and traumatic brain injuries. Sixty-seven high school athletes have died from exertional heat illness since 1982, according to the National Center for Catastrophic Sport Injury Research. 52% of those deaths happened in August during pre-season. 94% of those deaths were football linemen. Athletes playing on these fields are not the only ones getting impacted by the heat. We just saw last month at the Paterson High School Graduation at Hinchliffe Stadium, which is artificial turf, where 100 people needed to be treated, and several were hospitalized due to the dangerous heat.

As artificial turf fields absorb energy from the sun, they form heat islands that become much hotter than the surrounding areas. Artificial turf contributes to the "heat island effect" by significantly increasing surface temperatures compared to natural grass, leading to warmer urban areas due to its inability to evaporate water and cool the surrounding environment, essentially acting like another heat-absorbing surface similar to asphalt, further exacerbating the already elevated temperatures in the area.

A synthetic turf field lasts 8 to 10 years on average. Thousands of pounds of infill and plastic carpet must be removed and replaced at disposal. Mixed plastic waste, such as synthetic turf, is not recyclable using conventional methods. Therefore, they are typically sent to landfills, where they will remain for centuries. Sometimes, turf is improperly dumped outside of landfills. Discarded turf sits continuously shedding microplastics, heavy metals, PFAS, other toxic chemicals, and greenhouse gases.

Artificial grass typically costs $ 450k to $1.5 M for an official-sized athletic field. The maintenance and fertilizer costs may be higher with natural grass, but you must replace these artificial turf fields every 8-10 years. So, over the long term, natural grass is less expensive and better for the environment. Over a 20 year period, an artificial turf field would cost $4.2 million dollars more than having a natural grass field. There is maintenance on artificial turf. This includes cleaning, debris removal, sanitation and disinfection, infill replenishment, grooming, and monitoring for potential hazards.

According to a peer-review study[[1]](#footnote-0) conducted by Verona's green team, along with Montclair University and PSEG Institute for Sustainability Studies, they concluded that natural grass was more cost-effective, it had fewer compounds that harm the environment and human health, it was considered safer, and even with technologies that can help decrease heat on artificial turf fields, it still did not decrease to levels comparable to natural grass fields.

Many residents across the state are fighting artificial turf projects in their towns. An example is Cape May who passed an ordinance to ban artificial turf in the city.

New Jersey must invest in safe, non-toxic, natural play surfaces on sports fields and playgrounds. This is why municipalities must invest in safe and eco-friendly recreation money, not in artificial turf.

We urge your consideration on this matter and would be happy to schedule a meeting to discuss this issue further and to put a [moratorium on artificial turf.](https://docs.google.com/document/d/1NyxnM8lmQayqSaaXNyDFppgMVFzuwNitEX9TmydtOM4/edit?tab=t.0)

Sincerely,

[NAME]

1. https://www.mdpi.com/2071-1050/17/14/6292 [↑](#footnote-ref-0)