



# SIERRA CLUB

LOMA PRIETA CHAPTER

SAN MATEO, SANTA CLARA & SAN BENITO COUNTIES

November 4, 2021

Los Gatos Union School District School Board  
17010 Roberts Road  
Los Gatos, CA 95032

Via email: [boardmembers@lgusd.org](mailto:boardmembers@lgusd.org)

Terese McNamee  
Chief Business Official

Via email: [tmcnamee@lgusd.org](mailto:tmcnamee@lgusd.org)

Dear Los Gatos School Board and Ms McNamee,

We are writing to oppose the proposal to cover the playgrounds with plastic grass. The Sierra Club was founded on promoting outdoor activities in nature and has been leading efforts to address the interrelated issues of climate change, toxics and plastic pollution. We do not support the trend to install artificial turf athletic fields and related synthetic surfaces. Synthetic plastic grass and used tire crumb poured in place (PIP) and other synthetic surfaces in all areas where children play are toxic and we recommend alternatives to their use.

First, plastics are made from fossil fuels, and we need to transition away from fossil fuels. Fossil fuels should be left in the ground. The IPCC recent report is titled [Code Red For Humanity](#). It says we have until the end of this decade to meet global commitments in Paris to keep temperatures below 1.5 deg of warming. We can't keep fossil fuels in the ground if we have to use them for plastics. The impact of decisions to continue using plastics today will reverberate with our children trying to deal with more severe wildfires, droughts and flooding.

Second, synthetic plastic surfaces are much hotter than grass, and will create a *heat island* for the athletes and the neighborhood. Heat island is often thought to exacerbate climate impacts of our hotter, drier summers. Plastic grass has been shown to achieve temperatures in excess of 220 (F). There have been numerous lawsuits across the country because children have received severe burns, even requiring admission to intensive care units, within seconds of stepping on these surfaces. At least eleven student athletes have recently died from heat stroke either during or shortly after playing on synthetic plastic grass. There has been no tracking for the number of non-fatal cases of severe heat distress or collapse. In addition to being unusable, a super-heated play surface generates hot runoff, further degrading the conditions of adjoining soils and water.

Third, synthetic grass contains dangerous forever chemicals known as PFAS (Perfluoroalkyl and Polyfluoroalkyl Substances). The PFAS improve the strength and durability of the plastic blades, but it is also a "forever" pollutant. *PFAS are so problematic in the human body that this should be reason enough to reject artificial turf entirely.* Used tire crumb products, such as PIP in playgrounds and tire-infill on synthetic turf fields, have been shown to contain some 306 chemicals, 255 of which are toxic or carcinogenic to humans, to terrestrial and aquatic environments and even linked to [salmon die off](#).

A recent congressional hearing before the Natural Resources Committee (<https://naturalresources.house.gov/hearings/are-toxic-chemicals-from-tires-and-playground-surfaces-killing-endangered-salmon>, 7-15-21) highlighted key concerns as well as the extreme urgency that the federal government is taking with the issue of used tire crumb.

Similarly, the state of California is taking on the tire industry. Comments closed last week on multiple chemicals in tires. Several of the state's agencies are also highly concerned about children's exposure to used tire crumb products, as well their effects on terrestrial and aquatic environments. State agencies will also be addressing PFAS in synthetic turf under their current Work Plan, again underscoring the significance of these dangerous products. Last week Millbrae enacted a temporary ban on new artificial turf.

The fourth equally large problem is micro-plastic pollution of the biosphere. The blades begin to decompose the moment they are rolled out, exposing them to UV light. They off-gas methane and ethylene at far higher concentrations than other greenhouse gases. They are not recyclable, per the synturf industry's own admission, and are a poor investment for their short-lived purpose. They take hundreds of years to decompose. The problem of micro-plastics is so extreme that many nations are moving to ban it's use, such as China in September of 2020. National action like China's is what we need. Until then cities and school districts can lead by showing the path to a healthier, sustainable future.

Fifth, there is also a social justice and equity aspect to this product. Communities that are low-income and/or primarily communities of color suffer a pattern of inadequate green space. Whether trees or open grass space, natural surfaces provide critical cooling effects to the local communities in addition to water infiltration and serving as carbon sinks. School yards should be welcoming places for impacted communities, not dangerous places that compromise their long-term health.

An alternative to astroturf would be school landscape guidelines using native species that will help address species extinction like monarchs. Schools should use hard packed mud for playfields, like Mexico, which is the source of many of the players in the current MLB baseball world series and produces most of the soccer players in the MLS. Native landscaping doesn't use much water. Natural landscapes enhance the ground table and reduce the dried soil-scape that leads to wildfires. The drying out of soils on the bay area extends all the way from the highlands down to the baylands.

If you would like source citations or additional information, please do not hesitate to contact me. The Sierra Club looks forward to creating a healthy environment in our schools. As an organization founded on promoting outdoor activities in nature, we urge you to oppose astroturf that threatens surrounding ecologically sensitive areas like the Los Gatos Creek watershed with chemical and micro-plastic pollution.

Sincerely,



Gladwyn d'Souza  
Conservation Committee Chair  
Loma Prieta Chapter Sierra Club