

County of Santa Clara  
Supervisorial District Three



24-5361

**DATE:** April 16, 2024 (Item No. {{item.number}})

**TO:** Board of Supervisors

**FROM:** Otto Lee, Supervisor

**SUBJECT:** Prohibiting Artificial Turf Installation on County Property

**RECOMMENDED ACTION**

Approve referral to Administration to report to the Board with options for consideration relating to a County ordinance to prohibit new installation of artificial turf and synthetic grass on Santa Clara County property. (Lee)

**FISCAL IMPLICATIONS**

The financial costs associated with this referral are currently unknown.

**REASONS FOR RECOMMENDATION**

A growing amount of research is revealing the harmful impacts and environmental and health risks associated with artificial turf. For years, fields of plastic were thought to be a sustainable alternative to natural grass, particularly in drought-stricken California. However, an extensive body of recent research contradicts what was previously thought about the environmental impacts, cost effectiveness, safety, and practicability of artificial turf.

This referral is requesting that Administration provide a report with options for a County ordinance that bans installation of all synthetic grass and artificial turf on Santa Clara County property. One option may include a temporary ordinance prohibiting new installation of artificial turf while the County studies the topic further or develops a more comprehensive ordinance. The potential ordinance should also include guidelines for safe disposal of used artificial turf when it reaches its end of life in order to prevent infill and plastic blades from polluting our local environment.

An ordinance prohibiting installation of plastic artificial turf on County property would support the priority areas of the County Sustainability Master Plan, including Climate Protection & Defense, Natural Resources & the Environment, and Community Health & Well-Being. Specific goals that this ordinance would address include reduction in greenhouse gases, protection of water resources, and protection of the community's health.

**BACKGROUND**

In October 2023, Governor Newsom signed a bill into law that allows cities and counties to ban artificial turf, undoing a law signed by Gov. Jerry Brown that prohibited cities and

counties from banning artificial turf. The city of Millbrae in San Mateo County adopted an ordinance on October 24<sup>th</sup>, 2023, to prohibit the installation and use of synthetic grass and artificial turf landscaping. The city of San Marino enacted a temporary moratorium on the installation of artificial turf and synthetic grass until September 24, 2024, in order to “allow time for the City to consider, study, and enact appropriate regulations related to the installation of artificial turf... [and] to avoid conflict with any anticipated ordinance that shall be developed.”

The Santa Clara County Medical Association has taken the position that artificial turf should not be placed on playing fields and present artificial turf should be replaced with natural grass, as growing evidence shows that “the health and safety risks outweigh the benefits of artificial fields.” This position is reflected in SCCMA letters to the Saratoga High School Board of Trustees, Sunnyvale City Council, and Fremont Union High School District Board.

The Santa Clara Valley Water District does not recognize artificial turf as a suitable sustainable alternative, and thereby does not offer any rebate for this in their rebate plan for homeowners who are relandscaping. Furthermore, the NFL Player’s Association (NFLPA) opposes the usage of artificial turf, citing higher injury rates. In February 2024, NFLPA executive director Lloyd Howell stated that 92% of their union wanted natural grass fields. Levi’s Stadium, home of the San Francisco 49ers, has a natural grass field, made of a Bermuda grass and Perennial Ryegrass mixture.

A regulation 80,000 square foot playing field uses 500,000 pounds of plastic that will, as the field wears out over 8-10 years, become plastic waste: including 40,000 pounds of plastic carpet and over 400,000 pounds of infill. Both the infill and microplastic blades from artificial turf fields are making their way into the water and contributing to the serious, growing issue of microplastic pollution. In aquatic invertebrates, microplastics cause a decline in feeding behavior and fertility, slow down larval growth and development, and increase oxygen consumption. In fish, the microplastics may cause structural damage to the intestine, liver, gills, and brain, as well as affect metabolic balance, behavior, and fertility.

Artificial turf is created using plastics, which are derived from fossil fuels, and the production of plastic emits large quantities of greenhouse gases. Greenhouse gas emissions, specifically methane and ethylene, do not halt from the artificial turf after production. Polyethylene, which the plastic turf blades are often made of, produces these two greenhouse gases when exposed to ambient solar radiation. Additionally, while natural grass is not stellar at sequestering carbon, plastic turf cuts off air and light from the soil and sequesters no carbon at all. The process to recycle artificial turf is also very intensive, and artificial turf recycling is not widely available. As a result of limited recycling plant availability for turf, the need to ship all or parts of artificial turf to be recycled results in greenhouse gas emissions and pollution from transportation emissions.

Artificial turf contributes to the heat island effect as well, as it can reach very high surface temperatures. Not only is this unsafe for humans, but it bakes and compacts soil and can kill living organisms. Lower limb injuries also tend to occur more frequently on artificial turf than on natural grass.

Additionally, artificial turf typically contains PFAS, which are considered “forever

chemicals.” PFAS chemicals leach into soil, waterways, and loft into air from surface dust and microplastics. They bioaccumulate in humans, wild and aquatic life. The effects of these chemicals are not fully understood yet, but they have been linked to many negative health outcomes in humans.