



Inventory of synthetic turf fields in Maryland

Updated October 15, 2026

Over the summer and fall of 2021, Sierra Club volunteers resolved to inform pending state legislation on tracking the location and disposition of synthetic turf playing fields by conducting an inventory of synthetic turf playing fields in the state. The objective of the exercise was to document the number of fields, estimate the amount of waste that will be generated when the fields are retired, and demonstrate the degree of difficulty to the public of obtaining the information. The volunteers have continued to update the inventory.

Methodology

The following information was sought on each synthetic turf playing field currently in place in all 23 counties and the City of Baltimore, both indoor and outdoor fields:

- Name of the field and address
- Sport played
- Ownership of the field (public schools and universities, public parks, private schools and universities, private sports clubs/venues)
- Year the field was installed, year that it was replaced
- Area of the field in square feet, or its dimensions
- The source of information

Most of the research was done on the internet, which involved accessing websites for: public schools; private schools; colleges and universities; local and major newspapers; athletic organizations and foundations; county departments for parks and recreation; general contractors; and turf installers.¹

These sources were sufficient to identify most fields or venues with fields. However, discovering the year each field was installed and its dimensions usually required follow-up with phone calls and emails. When the dimensions for outdoor fields were not available from a reliable source, the team used Google Earth's tool to measure the area of the field. They were

¹ General contractors and turf installers consulted (website, email, or phone) included: AstroTurf; Athletic Field Consultants, Inc.; BrockUSA; Derck and Edsom; Fields Inc.; Field Turf; Forever Lawn; Hellas Construction; JMT; Keystone Sports Construction; King Sports Construction; Lewis Contractors; Playrite; Shaw Sports Turf; Sprinturf; Triad Engineering; and US GreenTech.

located by their address and were easily distinguishable from natural turf fields. However, because many of the Google Earth photos were not recent, this method could not be used for some of the fields installed more recently. Furthermore, that method could not be used to estimate the dimensions of indoor fields, most of them privately owned. The dimensions of indoor fields were not easily obtained. Many calls and emails were sent; many were not returned.

As of October 15, 2026, a total of 466 fields have been enumerated in Maryland. The installation date could not be obtained for 79 fields (17%) and field size could not be ascertained for 25 (5%).² Field size was obtained from a reliable source (the installer, owner, or news reports) or estimated from Google Earth.

To estimate the tonnage of turf and infill, the team used conversion factors from the Synthetic Turf Council's (STC) 2017 publication, *A Guideline to Recycle, Reuse, Repurpose, and Remove Synthetic Turf Systems*. According to this document (p. 3), a typical synthetic turf sports field is about 80,000 square feet (sf) and is comprised of 40,000 lb of turf and 400,000 lb of infill. The volume of infill for a typical sport field would amount to +/- 400 cubic yards. The formulas used for the calculations are:

Estimation of turf weight: $(\text{Field area} / 80,000) \times 40,000 \text{ lb}$

Estimation of infill weight: $(\text{Field area} / 80,000) \times 400,000 \text{ lb}$

Estimation of infill volume: $(\text{Field area} / 80,000) \times 400 \text{ cubic yards}$

The STC report notes that "The volume of the turf removed from the field depends on how it is collected (rolled, cut up, or shredded) and would be considerable in volume." However, the total coverage of the plastic turf carpet can be estimated.

Findings

Number and distribution of turf fields

A total of 466 synthetic turf fields have been identified in Maryland (see Annex Table). This likely is not a complete list. Some fields have surely been missed and more are being approved or installed every day.

The enumerated fields are located in 21 counties and the City of Baltimore; to date, none has been identified in Caroline or Dorchester counties. The counties with the greatest number of synthetic turf fields in the inventory are: Baltimore County (73); Montgomery County (66); Anne Arundel County (54); Howard County (50); Prince George's County (46); Baltimore City (42); Harford County (40); Frederick County (24); Wicomico County (13); and St. Mary's County (11). Twelve counties had fewer than 10 fields each.

² Tonnage and volume could not be calculated for these fields.

Ownership

More than half of the fields (57%) belong to public schools, parks, or universities. The remaining fields are at private schools (20%) or private clubs/sports venues (21%). Two percent were owned and/or operated by public-private partnerships, or by a public entity other than a school or park.

Field size and type of venue

The 441 playing fields for which size could be estimated ranged from a minimum of 1,600 sf to a maximum of 156,800 sf. Eighty-two of the fields (18%) were at indoor sports venues, most of which were small, less than regulation size fields at private sports facilities.

Tonnage and volume of materials

The tonnage and volume of currently installed synthetic turf fields are a projection of the waste that will be generated from these fields over at least the next decade, before they must be replaced. According to the 2017 STC document, “Depending on its usage, exposure to intense sunlight, maintenance and other factors, a synthetic turf sports field will last 8-10 years before reaching the end of its useful life.”(p.3).

The 441 fields for which field size was available amount to:

- 86,528.9 tons of mixed plastic carpet and infill;
- 159,364 cubic yards of infill, the equivalent of 5,312 30-yard dumpsters; and
- 31.6 million square feet (726 acres) of mixed plastic carpet.

End of life and disposal

Among the 386 fields for which an installation date was available, 90 (23%) had been replaced at least once. Seventy-nine (20%) were installed before 2016 and likely have been replaced, since the lifetime of a synthetic turf playing field is 8-10 years. Twenty-one of the known replaced fields were replaced in 2025 or 2026. The inventory did not attempt to record the disposition of the components of discarded fields – whether they were reused, repurposed, recycled, stockpiled, landfilled, or incinerated. Owners of fields that had been replaced generally are only aware that a contractor removed the fields; they are unlikely to know the destination or processing of the removed materials. In a few cases, a contractor was asked about the disposal of a removed field, but in only one case was the team able to obtain information, because the parks department, at the request of a legislator, asked the vendor to account for the disposition.³

³ The Heurich Park field in Hyattsville, owned by Maryland National Capital Park and Planning Commission and replaced in 2023. (Letter from King Sports Construction to MNCPPC, May 26, 2023).

Conclusions

There are at least 466 synthetic turf fields installed in Maryland as of October 15, 2026. They represent a significant amount of waste over the next decade as they are replaced, and even more fields are planned. There are limited options for disposal of this waste, much of which cannot be recycled or incinerated, and it would take up significant space in the state's landfills. In neighboring states (Pennsylvania, Virginia), synthetic turf waste has been stockpiled or dumped. At present, there is no information available to the public on the disposition of Maryland synthetic turf fields that have been removed, nor is there any requirement to document their reuse, recycling, or disposal.

It required considerable effort to document the existence of these fields, and considerably more effort to obtain basic information like the year of installation and field dimensions, which are still incomplete. *In the absence of a mandated, publicly disclosed chain of custody it will be difficult for the public or for state authorities to track the existence of synthetic turf fields and their proper disposition at the end of life.* A chain of custody would ensure transparency on the disposition of synthetic turf and infill – whether recycled, reused, repurposed, or landfilled – and serve as a strong disincentive for improper disposal.

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Synthetic Turf Fields and Estimated Waste in Maryland, by County, as of October 15, 2026

County	Total Fields	Distribution by ownership					Total Tonnage (carpet & infill)	Area of carpet (square feet)	Volume of infill (cubic yards)
		Public schools	Public parks	Private schools	Private clubs	Other			
Allegany*	4	3	0	0	1	0	712.8	259,200	1,296
Anne Arundel*	54	33	6	8	7	0	12,176.5	4,517,131	22,586
Baltimore City	42	11	6	19	5	1**	8,259.9	3,144,268	15,721
Baltimore County*	73	28	15	24	6	0	13,921.3	4,823,204	25,311
Calvert	1	0	0	1	0	0	22.8	81,000	405
Carroll	8	1	0	2	5	0	924.3	336,101	1,681
Cecil	8	5	3	0	0	0	2,016.3	733,185	3,666
Charles*	5	2	3	0	0	0	1,031.0	374,914	1,875
Frederick	24	13	4	4	3	0	5,014.6	1,823,482	9,117
Garrett*	3	3	0	0	0	0	n.a.	n.a.	n.a.
Harford*	40	12	3	3	22	0	6,451.0	2,447,534	12,238
Howard	50	14	19	1	16	0	9,502.5	3,455,449	17,277
Kent	1	0	0	1	0	0	310.9	113,062	565
Montgomery*	66	18	7	22	19	0	10,766.0	3,914,911	19,575
Prince George's*	46	22	6	5	6	7***	9,130.6	3,323,302	16,617
Queen Anne's	4	2	2	0	0	0	810.7	294,795	1,474
St. Mary's	11	4	6	1	0	0	2,362.2	858,991	4,295
Somerset	2	2	0	0	0	0	n.a.	n.a.	n.a.
Talbot	2	0	0	0	2	0	47.4	17,250	86
Washington*	6	2	0	3	1	0	1,051.3	382,328	1,912
Wicomico	13	4	4	0	5	0	1226.1	445,837	2,229
Worcester	3	3	0	0	0	0	790.7	287,515	1,438
TOTAL	466	182	84	94	96	8	86,528.9	31,633,459	159,364

*The dimensions of 25 fields were not available: Allegany (1); Anne Arundel (2); Baltimore City (1); Baltimore County (4); Carroll (1); Charles (1); Garrett (3); Howard (3); Montgomery (3); Prince George's (2); Somerset (2); and Washington (2). The tonnage, carpet area, and volume of infill could not be estimated for these fields and are not included in the table.

** Under Armour field, privately owned, public access.

***Six fields are a public-private partnership (county owns the land, private foundation owns & runs the fields, Parks & Recreation sports teams have access year round); one is owned by the Prince George's County Police Department.

Source: Maryland Sierra Club Chapter, Zero Waste Team.