

CMP POLICY & IMPLEMENTATION COMMITTEE MEETING

This meeting was conducted both remotely and in-person
The public could view/comment through Pinelands Commission YouTube link:

www.youtube.com/c/PinelandsCommission

Richard J. Sullivan Center
15C Springfield Rd
New Lisbon, New Jersey 08064
February 27, 2026 – 9:30 a.m.

MINUTES

Members in Attendance: Deborah Buzby-Cope, Jerome H. Irick, Chair Laura E. Matos, Jessica Rittler Sanchez, Gaetano Matro

Members in Attendance (Zoom): Mark S. Lohbauer, Douglas Wallner, Alan Avery

Members Absent: Theresa Lettman

Staff Present: Gina Berg, John Bunnell, April Field, Susan R. Grogan, Brad Lanute, Paul Leakan, Claire Osei, Stacey P. Roth

Also in attendance (via Zoom): Michael Eleneski with the Governor’s Authorities Unit, Matthew von der Hayden from Stafford Township, Frank Little from Stafford Township, Andrew Petersohn, Liz Rutkowski, Brian Seidel, Rick DeLucry, Bert Stern (all representatives from AT&T).

1. Call to Order

Chair Matos called the meeting to order at 9:33 a.m.

Stacey Roth, Chief of Legal & Legislative Affairs, noted there were eight Commissioners in attendance, which constitutes a quorum of the full Commission. She therefore read the Open Public Meetings Act Statement. Ms. Roth said that the P&I Committee is an advisory Committee to the Commission and no votes of the Commission will occur today. Commissioner Matro, as an Alternate member of the Committee, will not be participating in any votes.

2. Adoption of minutes from the January 30, 2026 CMP Policy & Implementation Committee Meeting

Commissioner Jerome Irick moved the adoption of the January 30, 2026 meeting minutes. Commissioner Lohbauer seconded the motion. As an alternate member of the Committee, Commissioner Matro did not vote. All Ayes. The motion passed.

3. Stafford Township Forecastle Lake Accessible Trail Project Summary Presentations

Attachment A to these minutes and posted on the Commission’s website at the following address:

<https://www.nj.gov/pinelands/home/presentations/Forecastle%20Basin%20-%20Lake%20-%20Pinelands%20Commission%20Presentation%20-%20February%202026.pdf>

Matthew von der Hayden, the Stafford Township Administrator, gave a presentation summarizing the reconstruction work completed at the Forecastle Lake Park to make it more accessible and

scenic, and to also promote a healthy community. Mr. von der Hayden first thanked the Commission for its support in making the project a success. He explained that the project included the 13 steps of the Memorandum of Agreement process that were started over a year ago. Mr. von der Hayden provided photos of the site prior to the trail construction and noted that the area had several pre-existing problems, including drug use, homelessness, garbage dumping, and stormwater drainage concerns. As a result, the police had been quite active in the area. They still continue to monitor the site and have been rather helpful in improving the area. He continued the presentation by showing photos of the area where they had planted over 350 native trees by working with the Public Works Department. Mr. von der Hayden showed photos of various portions of the park and trail.

He highlighted the partnership with various organizations that assisted the Township. He stated that Executive Director (ED) Grogan attended their workshop to learn more about stormwater issues. The State Department of Community Affairs (DCA) and Just Believe provided support to the homeless people that resided at the park. He said that the Township has an active Green Team that conducts regular cleanups at the park and township wide.

Mr. von der Hayden said the community has reacted positively to this project, especially because of the accessibility aspect. An organization called Access Nature provided insight into the park's design and also educated people with disabilities about the reconstruction of the site so they could be more aware of the opportunity. He added that they organize a lot of educational workshops for the community.

Lastly, he said they accomplished this project with the help of the Commission, local government, nonprofit organizations such as Access Nature, Save Barnegat Bay, and the community.

Chair Matos thanked them for their partnership and for successfully completing the project. She called it efficient and impressive.

ED Grogan added that the Commission is working to develop revised CMP standards that would eliminate the need for the 13-step MOA process for organizations pursuing similar initiatives in the future.

Commissioner Rittler-Sanchez asked about the width of the asphalt path and walking bridge. She also asked about the amount of gravel used for the stormwater structures. Mr. von der Hayden answered that the asphalt for the path and bridge was six feet wide to allow for two wheelchairs to be able to pass each other. Mr. Little, the Township engineer, added that the gravel stormwater management trenches along the pathway are three feet wide and two feet deep.

Commissioner Irick asked what the Township would do to prevent all-terrain vehicle (ATV) traffic. Mr. Little replied that they had installed bollards at trailheads. He added that they designed the trail entrances to provide enough room for wheelchairs and pedestrian access but not for any off-road ATVs. He also mentioned that a motorcycle could fit through the space but that is unavoidable since they cannot narrow it further and also maintain wheelchair access. He noted that they have not seen ATV activity on the trail. Mr. von der Hayden added that community reporting helps to minimize unauthorized use by ATVs. He mentioned that the Township tries to integrate the community in their projects

Commissioner Avery congratulated the township on the project. He also commended them on their monitoring efforts.

Commissioner Lohbauer commended the Township on their proactive planning and for integrating the community.

4. Review of Executive Director's report on the First Amendment to the 2003 AT&T Local Communications Facilities Plan

Attachment B to these minutes and posted on the Commission's website at the following address:

https://www.nj.gov/pinelands/home/presentations/2026_02_27_PI_ATTPlanAmendment.pdf

Chief Planner Brad Lanute presented the Executive Director's report on the proposed amendment to the 2003 AT&T Local Communications Facilities (LCF) Plan. He began with a brief overview of the Comprehensive Management Plan (CMP) regulatory framework governing communications towers, noting that the Committee had not discussed a cell tower-related matter in several years. He explained that the CMP historically limits the height of structures to 35 feet in most management areas in order to protect the scenic resources of the Pinelands. Because the Pinelands landscape is relatively flat, taller structures can have significant impacts on viewsheds. The height limit does not apply in Regional Growth Areas or Pinelands Towns, where height regulation is left to municipalities.

Mr. Lanute explained that in the mid-1990s wireless carriers raised concerns regarding the 35-foot height limitation. In response, the Commission amended the CMP in 1995 to establish regulations governing Local Communications Facilities (LCFs), commonly referred to as cell towers. These regulations allow towers exceeding 35 feet, up to 200 feet, in certain management areas provided specific standards are met. These standards include demonstrating a need for the facility, maximizing the use of existing suitable structures where practicable, accommodating co-location of multiple carriers, minimizing visual impacts, and obtaining certification of a comprehensive LCF Plan.

Mr. Lanute explained that the CMP requires wireless carriers to prepare comprehensive LCF Plans identifying proposed facility locations. The Commission must certify these plans before proposed towers outside Regional Growth Areas and Pinelands Towns may be approved. Certification of a plan does not approve construction of a tower; rather, it identifies potential locations where future development applications may be considered. He described the two-step process for tower development under the CMP. First, the Commission reviews and certifies an LCF Plan identifying the minimum number of towers needed to provide service in certain management areas. Second, carriers seeking to construct a tower must submit a development application, which is reviewed for compliance with the CMP's environmental standards, siting and design standards, and a certified LCF Plan.

Mr. Lanute summarized the history of LCF planning in the Pinelands, noting that the first comprehensive plan was certified in 1998, with several subsequent amendments adopted in the late 1990s and early 2000s. He displayed a map showing existing and proposed tower sites included in certified plans. Mr. Lanute then asked if there were any questions regarding the Commission's LCF regulations before turning to the details of the amendment.

Commissioner Rittler-Sanchez asked about the feasibility of requiring shared services and requested clarification on the difference between co-location and shared services. Mr. Lanute explained that co-location refers to multiple carriers placing antennas on the same tower, whereas shared services

would involve carriers sharing the same antenna. He noted that carriers have historically indicated that shared services are not feasible and requiring it is restricted by federal law. ED Grogan added that while shared services were discussed when the regulations were adopted, co-location has largely addressed the same objective.

Commissioner Lohbauer asked whether previously approved towers have become obsolete as technology has changed and what occurs when towers are no longer in use. Mr. Lanute stated that a tower in Buena Vista Township was recently removed and replaced because the structure no longer met safety standards. He noted that some sites included in earlier plans have not been constructed, although the reasons vary. Commissioner Lohbauer asked whether the CMP requires towers to be removed if they are no longer in use. Mr. Lanute responded that the CMP does not currently contain such a requirement.

Commissioner Avery recalled that when the Commission adopted the LCF regulations in the 1990s there was significant discussion about allowing towers outside Regional Growth Areas and Pinelands Towns. He noted that the resulting compromise has worked well, particularly given the importance of wireless communication for navigation, emergency calls, and general connectivity.

Commissioner Rittler-Sanchez asked if emerging technologies, such as 5G, could increase the need for additional towers, including in forested areas for emergency communications. Mr. Lanute explained that while the AT&T amendment partly addresses emergency communication needs, there is also a separate county-level emergency communications plan developed with assistance from the NJ Office of Information Technology (NJOIT) and coordination with the State Police and county emergency communications agencies. ED Grogan added that the emergency communications plan was developed separately because the system needs differ from those of commercial wireless providers, although the Commission applies the same review standards. Chief Permit Administrator April Field noted that tower applications have declined in recent years because many carriers are able to co-locate on existing towers or use other structures, such as buildings or water towers, rather than construct new towers.

Turning to the proposed amendment to the AT&T plan, Mr. Lanute pointed out that AT&T had previously proposed a 120-foot tower at the Woodland Volunteer Fire and emergency medical services (EMS) Station in Chatsworth. The proposal characterized the antenna as an accessory structure to the fire station; however, under the CMP definition of accessory use, the proposed installation did not qualify as an accessory structure.

Mr. Lanute explained that the amendment proposes to remove one previously approved but unbuilt site in Wharton State Forest and add a new site in the Village of Chatsworth while maintaining the same half-mile search radius associated with the existing plan. The previously approved site was determined to be infeasible for several reasons, including its distance from the populated areas of Chatsworth, its location on state lands in Wharton State Forest, and the costs associated with extending necessary infrastructure.

He noted that existing nearby structures were evaluated but were either too low, already at capacity, or too distant to provide adequate coverage. The Commission's independent radiofrequency consultant, Dr. Bruce Eisenstein of Drexel University, reviewed AT&T's technical analyses and confirmed that a coverage gap exists in the Chatsworth area and that the proposed site would address that gap. Mr. Lanute also noted that because one previously approved site would be removed and another added, there would be no net increase in the total number of towers included in the plan.

Mr. Lanute continued that the amendment stage focuses on demonstrating the need for a tower within a given search area. Detailed review of siting, visual impacts, and design standards would occur if and when a development application is submitted for a specific tower location.

He concluded by stating that staff recommends certification of the amendment and requested that the Committee provide a recommendation to the full Commission on whether the amendment should be certified.

Commissioner Irick asked what happens to older towers as technology improves or demand changes. ED Grogan responded that the Commission is generally not aware of towers becoming obsolete, but older towers are sometimes removed and replaced with newer structures.

Commissioner Irick asked whether municipalities might not always notify the Commission when towers are removed. ED Grogan agreed that this may occur and asked Ms. Field whether staff has received applications involving tower demolition. Ms. Field responded that this is uncommon and noted that demolition of structures less than 50 years old generally does not require a Commission application. She added that many lease agreements between property owners and carriers include provisions requiring removal of towers when they are no longer in use. She also noted that the tower developer is often not the same as the property owner. Commissioner Irick asked whether the Commission reviews all such lease agreements. Ms. Field stated that the Commission reviews many agreements but acknowledged that some arrangements may occur without Commission involvement. ED Grogan added that staff will review applicable municipal ordinances before the amendment is considered by the full Commission to determine whether local requirements address tower removal.

Commissioner Lohbauer asked Mr. Lanute to return to the slide showing sites previously considered for the AT&T amendment. He observed that earlier sites were generally located at the periphery of the township, while the proposed site is located closer to the center of the village where most residents are located. He suggested that earlier site decisions may have reflected a greater emphasis on preserving the viewshed and appearance of the village. Commissioner Lohbauer expressed interest in seeing additional analysis regarding potential viewshed impacts when the amendment is presented to the full Commission.

Mr. Lanute responded that earlier plans from the early 2000s often focused on peripheral sites, likely due to concerns about visual impacts within the village. He noted that awareness of the need for reliable cellular service has increased in recent years. He also explained that the amendment originated from a development proposal considered by the Township land use board and that public discussion reflected significant support for locating a facility closer to the village for safety and communications reasons.

Commissioner Buzby-Cope asked whether the tower would be visible from Chatsworth Road. ED Grogan responded that viewshed analysis would occur during the review of a future development application and would include visual simulations showing how the tower would appear from various vantage points. She reiterated that the amendment itself addresses the need for coverage in the Chatsworth area, while visual impact analysis would occur at the development application stage.

Commissioner Rittler-Sanchez noted that earlier discussions of the proposal included the possibility of locating the tower at the fire station. ED Grogan responded that when the Township initially

considered the fire station location, nearby residents expressed concerns about visual and health impacts.

Commissioner Rittler-Sanchez stated that she was generally comfortable with the amendment but requested additional information regarding emerging technologies such as 5G and how they may affect tower height, design, and the number of facilities required. Mr. Lanute responded that the amendment discusses emerging technologies such as small-cell systems and distributed antenna systems, which generally serve smaller coverage areas and are typically less suitable for rural areas such as the Pinelands.

After discussion concluded, Commissioner Avery moved that the Committee recommend certification of the First Amendment to the 2003 AT&T Local Communications Facilities Plan to the full Commission. Commissioner Buzby-Cope seconded the motion. All Ayes. Commissioner Matro did not vote.

5. Public Comments

Heidi Yeh of the Pinelands Alliance presented a memo to the Commission prepared by both the Pinelands Alliance and the NJ Chapter of the Sierra Club (Attachment C), highlighting their concerns about the use of artificial turf and their recommendations for the Commission. She explained that they have been learning more about natural and artificial turf from various experts, including certified sports field managers, sod farmers, turf grass scientists, and natural grass researchers, many of whom have experience in designing and maintaining both turfs. They believe that natural grass is the more financially sound long-term choice when it is properly designed and maintained. She also discussed hybrid systems as a possible limited use alternative to fully artificial turf. Their recommendation for the Commission as a next step is to seek more insight from the experts provided in their memo. Commissioner Irick commented that he would endorse a webinar or presentation from experts comparing artificial to natural turf.

6. Adjournment

There being no other business, Commissioner Lohbauer moved to adjourn the meeting. Commissioner Buzby-Cope seconded the motion. All Ayes. The meeting was adjourned at 10:37 a.m.

Certified as true and correct:



Claire Osei
Resource Planner

Date: March 12, 2026

MEMORANDUM

To: The Pinelands Commission

From: Pinelands Alliance, The Sierra Club NJ Chapter

Date: February 26, 2026

Re: Artificial Turf in the Pinelands

Executive Summary

Following the recent CMP Policy & Implementation Committee meeting featuring presentations from the New Jersey Department of Environmental Protection (NJDEP), we commend the Commission for undertaking a substantive and science-driven review of synthetic turf fields. The discussion made clear that artificial turf presents unresolved concerns related to heat, chemical exposure, microplastics, disposal, lifecycle costs, and environmental compatibility with the Pinelands' uniquely sensitive soils and hydrology.

Although the NJDEP recognizes the environmental drawbacks of artificial turf, its approach has focused on mitigating those harms rather than questioning the underlying assumption that synthetic fields are a necessary tradeoff. The premise appears to be that artificial turf is essential public infrastructure with no viable alternative. We strongly disagree.

New Jersey municipalities can reduce both long-term costs and environmental risk by investing in well-designed natural grass fields instead. In limited, high-demand situations, hybrid systems—typically composed of about 5% synthetic reinforcement and no synthetic infill—may be appropriate. Fully synthetic fields, however, should not be considered necessary.

When evaluated fairly, natural grass fields can meet performance, durability, safety, and fiscal goals. Yet this option is often overshadowed by aggressive marketing of synthetic products and the steady decline of the certified sports field management profession, which has left many towns without the expertise needed to maintain high-quality grass fields.

Rather than asking how to minimize the harms of artificial turf, we believe the more appropriate question is whether it is needed at all. Given the capabilities of modern natural grass and hybrid systems, fully synthetic turf can—and should—be removed from the conversation.

We encourage the Pinelands Commission to consult directly with natural turf and sports field management experts to better understand what properly designed and maintained grass systems can achieve—often at a fraction of the long-term cost of synthetic fields—and why the environmental risks of artificial turf are not justified.

We recommend three immediate next steps:

1. **Learn from Natural Grass Experts:** Convene expert listening sessions and workshops with experts on natural grass management.
2. **Evaluate Advanced Drainage & Hybrid Systems:** Engage drainage and hybrid turf technology providers to evaluate best available natural-field performance solutions.

3. **Consider CMP Amendments Establishing Surface Standards:** Initiate consideration of amendments to the Comprehensive Management Plan (CMP) establishing standards that prioritize natural or hybrid turf fields, consistent with international best practices.

Background Information: Microplastics, Water Quality, and the Pinelands Aquifer

Protection of water quality lies at the heart of the Commission's mandate under the Comprehensive Management Plan. The Pinelands' shallow Kirkwood-Cohansey aquifer system, acidic sandy soils, and low buffering capacity create a hydrologic environment where contaminants can migrate rapidly and persist. Artificial turf introduces multiple known contaminants into this uniquely sensitive system, with unknown long-term impacts. In a region defined by globally rare habitats and a sole-source aquifer, adding persistent synthetic contaminants that are not essential to public health or safety warrants particularly careful scrutiny.

Microplastic Pollution

Synthetic turf systems introduce large quantities of plastic into open landscapes. This includes plastic carpet fibers, backing materials, and crumb rubber or polymer infill. Under widely accepted definitions, crumb rubber is already a microplastic at installation. Over time, UV degradation, weathering, and mechanical abrasion fragment these materials into smaller particles.

These microplastics:

- Migrate via stormwater runoff into adjacent soils and waterways.
- Adhere to sediments in wetlands and streams.
- Transport adsorbed chemicals, including metals, PFAS, and semi-volatile organic compounds.
- Accumulate in aquatic food webs.

The long-term ecological fate of these materials in the Pinelands remains insufficiently studied, but a large body of evidence from around the world confirms that plastic is detrimental to all ecosystems. Unlike organic soil amendments, microplastics do not biodegrade into benign components. They represent effectively permanent additions to the environment. The Commission should evaluate whether introducing persistent plastic particles into this hydrologic system is compatible with the CMP's water quality standards and ecological protection goals.

Water Quality and Chemical Mobility

NJDEP policy documents rely on EPA testing that has documented detectable metals, PFAS, and other compounds in recycled tire crumb rubber and turf components. While regulators have downplayed potential concern to human health, even less attention has been paid to environmental impacts. The Pinelands presents unique conditions:

- Acidic soils may alter chemical mobility.
- High water tables increase leaching potential.
- Surface-groundwater interactions are direct and rapid.

Artificial turf fields are not necessary, and are especially inappropriate in the sensitive Pinelands environment.

Advances in Natural Turf Management

It is important to distinguish today's natural turf management practices from outdated, high-input models that once raised legitimate concerns about fertilizer and pesticide runoff.

Over the past two decades, significant improvements have been made:

- Precision nutrient management and soil testing dramatically reduce excess fertilizer application.
- Slow-release and organic soil amendments limit nutrient leaching.
- Integrated Pest Management (IPM) approaches minimize pesticide use.
- Modern turfgrass cultivars require fewer fertilizer and chemical inputs and exhibit improved drought and disease resistance.
- Aeration, compost topdressing, and regenerative soil practices improve infiltration and reduce runoff.

In short, many of the historic water quality concerns associated with natural grass fields have been substantially mitigated through science-based management. Importantly, these practices work with biological systems rather than introducing persistent synthetic materials into them.

Artificial Turf: A Short-Term Band-aid Creating Long-Term Problems

Whereas fertilizer inputs can be adjusted, reduced, or eliminated as practices evolve, plastic microfibers and crumb rubber—once dispersed—cannot be removed from soils and waterways. For a regulatory body charged with protecting one of the nation's most sensitive aquifer systems, the Pinelands Commission should consider the distinction between manageable nutrient inputs and persistent plastic pollution is significant.

Although staff from the New Jersey Department of Environmental Protection's Green Acres Program and Division of Science & Research acknowledge the environmental risks associated with artificial turf, their analysis appears to start from the premise that synthetic fields are a necessary tradeoff with no viable alternative. That assumption is understandable: high-quality examples of well-designed natural grass and hybrid fields are less visible, and many municipalities lack exposure to modern turf management practices.

However, treating artificial turf as inevitable carries significant financial and public health consequences. Over the long term, synthetic fields cost at least twice as much to own as natural grass fields—even after accounting for higher personnel and maintenance costs associated with grass. Despite this, artificial installations are frequently subsidized through Green Acres or other taxpayer-supported capital funding streams, while ongoing maintenance costs for natural grass are not similarly supported. This structural funding imbalance can skew municipal decision-making toward the more expensive, plastic-based option. We are working to address this disparity through legislation that would prohibit Green Acres funding for artificial turf. Senate Bill No. 2936 would prohibit municipalities, school districts, and State departments and agencies from purchasing, installing, or using artificial turf, and Senate Bill No. 3254 would prohibit expenditure of Green Acres funds for purchase, use, installation, or replacement of artificial turf fields.

At this stage, the central question is no longer *why* to limit synthetic turf, but *how* to do so responsibly. The Commission should focus on the practical implications of promoting natural and hybrid alternatives—ensuring that any policy shift does not impose undue burdens on municipalities and instead delivers net environmental, fiscal, and public health benefits.

We recommend three immediate next steps:

1. Learn from Natural Grass Experts

Degraded grass fields reflect management gaps—not material limitations. Many municipalities do not employ certified sports field managers, and the fields in question are often schoolyards that were never designed to withstand sustained, high-intensity athletic use. When these spaces are overused and improperly maintained, soil compaction, drainage problems, and declining playing conditions are almost inevitable. These conditions are then cited to justify synthetic conversion, without consideration of the performance potential for natural grass fields.

Town leaders are often guided away from natural grass by misleading lifecycle accounting, aggressive marketing, and a tendency to favor capital-intensive “hard” infrastructure over ongoing investment in skilled personnel. While natural grass fields do require regular maintenance, the combined staffing and material costs are typically still far lower than the total lifecycle costs of artificial turf—particularly when factoring in synthetic fields’ own maintenance demands and the need for full surface replacement every 8–12 years.

If municipalities invested even a portion of what they spend on synthetic installations into state-of-the-art natural grass systems, many of the performance issues that drive turf conversion would be resolved—without introducing the environmental and disposal challenges associated with artificial turf. There are many experts in New Jersey and the region who can speak to these dynamics and help the Pinelands Commission navigate the playing field. Therefore, we recommend that the Commission:

- Invite experts such as natural turf producers and sports field scientists to present to the CMP Policy & Implementation Committee.
- Convene a public workshop with certified sports turf managers and agronomists on best management practices for natural grass fields.

When properly designed and maintained, modern natural turf systems can deliver durability, rapid post-storm recovery, and significantly lower surface temperatures than synthetic fields—without introducing plastic pollution into the Pinelands ecosystem. Experts who have worked with both natural and artificial systems, and who understand the practical considerations facing municipalities and local decision-makers, can provide balanced, experience-based guidance to inform the Commission’s evaluation.

Recommended Experts:

- Sarah Evans, Icahn School of Medicine at Mount Sinai, sarah.evans@mssm.edu
- Zachary Holmes, President of NJ Sports Field Managers Association, holmzb@gmail.com
- Casey Carrick, Assistant A.D. Facilities and Turf Management, University of North Carolina, ccarrick@email.unc.edu
- Allen Carter, NJ Farm Bureau, allenc@njfb.org

- Bradley Park (SFMANJ, Rutgers Turf Science), bradley.s.park@rutgers.edu
 - Sports Field Managers Association of NJ (SFMANJ) Debbie Savard, SFMANJ Executive Secretary, debbiesavard@comcast.net
 - Scott Bills, SFMANJ, Project Evergreen, scott@sportsfieldsolutionsllc.com
 - Keith Fisher, kfisher@centralreg.k12.nj.us
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2. Evaluate Advanced Drainage & Hybrid Systems

The commonly cited benefit of synthetic turf—rapid post-storm reopening—often stems from drainage design rather than surface material. This is not an apples-to-apples comparison, as natural grass fields could perform just as well if similar investments were made in sub-surface drainage systems. Implementation of these systems could deliver the performance that towns seek, while also addressing the stormwater management and water conservation concerns of the Pinelands region.

We recommend engagement with companies that design advanced sub-surface drainage and aeration systems, including vacuum and forced-air technologies used in professional stadiums. These systems allow natural fields to recover quickly from rain events without relying on plastic carpet and crumb rubber infill. There is also the possibility for this collected rainwater to be fed back to the field through infiltration that encourages deep root growth and water conservation.

The Commission should also seriously consider hybrid turf systems as a transitional or limited-use option. Hybrid fields are composed primarily of natural grass and soil, reinforced with a small percentage of synthetic fibers—typically no more than 3–5% of the surface. By dramatically reducing total plastic content and eliminating loose infill, these systems offer improved durability and wear resistance while avoiding the tens of thousands of pounds of plastic embedded in fully synthetic fields. Although hybrid systems do not deliver all of the fiscal advantages of fully natural grass—and still raise some microplastic considerations—they represent a substantially lower-impact alternative that meaningfully reduces long-term environmental risk.

International precedent underscores this shift. The Royal Dutch Football Association no longer permits fully synthetic turf in top-tier professional play, allowing only natural or hybrid systems with minimal synthetic reinforcement. Likewise, FIFA increasingly requires natural or high-quality hybrid pitches for elite competitions, including stadium standards for the 2026 World Cup—prompting conversions to natural or hybrid fields for all of the stadiums in our region.

These organizations oversee the most intensively used athletic fields in the world. If they have concluded that fully synthetic surfaces are no longer the standard at the highest levels of play, the Pinelands Commission should take note. While player safety and performance are key drivers of this transition, environmental responsibility is also part of the equation. A region defined by ecological sensitivity and a mandate to protect water quality should not lag behind global best practices—it should lead.

3. Consider CMP Amendments Establishing Surface Standards

The introduction of athletic fields containing tens of thousands of pounds of plastic—including synthetic carpet fibers, backing materials, and loose infill—raises region-specific concerns in the Pinelands. Given the area's acidic, highly permeable soils and shallow aquifer system, the long-term mobility of

microplastics and associated contaminants presents risks that fall squarely within the Commission’s water quality and ecological protection mandate.

Unlike temporary land uses, synthetic turf fields are designed as semi-permanent installations. Over their 8–12 year lifespan, they fragment, shed particles, and ultimately require full surface replacement. In a landscape defined by direct surface–groundwater interaction and globally rare wetlands, the cumulative impact of repeated installations warrants careful regulatory scrutiny.

We therefore recommend that the Commission initiate a formal rulemaking process to amend the Comprehensive Management Plan (CMP) to establish clear surface standards for athletic fields within the Pinelands Area.

Specifically, the CMP should:

- Establish a regulatory preference—or requirement—for fully natural grass fields.
- Permit hybrid turf systems only where they consist predominantly of natural grass and soil, with minimal synthetic reinforcement (e.g., no more than 5% synthetic fiber content and no loose synthetic infill).

Such a standard would align the Pinelands with emerging international best practices, where elite governing bodies increasingly require natural or hybrid surfaces rather than fully synthetic fields. It would also provide municipalities with regulatory clarity, ensuring that future proposals are evaluated against predictable environmental criteria rather than case-by-case debates.

Importantly, this approach does not prohibit recreation or field improvements. Rather, it directs investment toward biologically based systems that work with the Pinelands ecosystem instead of introducing persistent plastic materials into it.

By adopting clear surface standards through the CMP, the Commission can uphold its statutory responsibility to protect water quality and ecological integrity while allowing communities to meet recreational needs in a manner consistent with the unique environmental sensitivity of the Pinelands.

Additional resources:

Icahn School of Medicine at Mount Sinai Children’s Environmental Health Center **Position Statement on the Use of Artificial Turf Surfaces:** <https://mountsinaiaexposomics.org/position-statement-on-the-use-of-artificial-turf-surfaces/>

Artificial Turf Versus Natural Grass: **A Case Study of Environmental Effects, Health Risks, Safety, and Cost** (study for Verona Township, NJ) <https://www.mdpi.com/2071-1050/17/14/6292>

Pinelands Alliance summary and assessment of the NJDEP presentations and discussions at the November meeting of the CMP Policy & Implementation Committee Meeting: <https://pinelandsalliance.org/policy-notes-december-2025/>

Pinelands Alliance website on Artificial Turf Fields in the Pinelands: <https://pinelandsalliance.org/artificial-turf-fields/>

Sierra Club NJ Chapter Artificial Turf Fact Sheet: <https://www.sierraclub.org/new-jersey/say-no-artificial-turf>