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SPECIAL REPORT

A PARK POLICY PAPER

A New Turf War

Synthetic Turf in New York City Parks

NEW YORKERS FOR PARKS

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Executive Summary

New York City's Department of Parks & Recreation (DPR) has become increasingly reliant on synthetic turf as a replacement for asphalt and natural grass athletic fields across the city. Through the installation of the "new generation" of synthetic turf, DPR seeks to increase community access to fields as well as to solve the maintenance challenges of grass and the aesthetic and safety problems associated with asphalt. This surface offers all-weather playability and lower maintenance costs than grass; however, synthetic turf has some negative environmental impacts and requires a significant capital investment. The important environmental benefits of natural turf, such as its ability to absorb and filter rainwater and pollutants, and to decrease the impact of the urban heat island effect, must be considered in the debate. In addition, DPR's current process for evaluating the appropriateness of synthetic turf installation requires increased community input. New Yorkers for Parks (NY4P), the only citywide parks advocacy organization, conducted interviews with practitioners, community members, academics and representatives from the Parks Department in researching synthetic turf. This in-depth, independent analysis will examine the financial and environmental costs of natural vs. synthetic turf, as well as the implications for usage, maintenance, health and safety. Finally, the report will assess the current community input processes and offer policy recommendations toward the best use of this new technology.

NY4P offers the following recommendations to more effectively use and evaluate synthetic and natural turf on athletic fields:

- Continue and expand the Neighborhood Parks Initiative to improve the performance of natural turf fields, lawns and gardens.
- Formally mitigate the installation of synthetic turf by creating new green space elsewhere in the neighborhood.
- Develop a targeted maintenance strategy for natural turf baseball fields in order to boost their performance.
- Install irrigation systems to enhance the DPR's capacity to maintain natural turf baseball fields.
- Include maintenance plans and cost-benefit analyses in requests for capital funding for athletic fields so that educated funding decisions are made.
- Include safety information on signage at synthetic turf fields.
- Take advantage of recent turf installations—engage in formal studies that may support the benefits of synthetic turf.
- Form a task force of experts to develop criteria for consideration by community boards facing athletic field renovations.
- Before fiscal appropriations occur, present to the community board all possibilities for athletic field renovations.

Introduction—Synthetic Turf: A Growing Trend

In 1998, the Parks Department began using synthetic turf to replace asphalt and grass athletic fields throughout the city and has since become the largest municipal buyer of turf in the country.[1] Citing benefits such as decreased maintenance requirements, all-weather play, and lower long-term costs than natural turf, the Parks Department is embracing the new generation of synthetic turf. Opponents of this initiative argue that the installation costs of synthetic turf are too high, placing an undue burden on the city's capital budget. Environmental arguments play a key role in the debate, with opponents stressing the ecological and psychological benefits of natural grass.

Community groups on both sides of this debate have brought the issue to the media and raised it in park policy discussions. As the only citywide advocacy group for New York City's parks, New Yorkers for Parks (NY4P) offers an independent, in-depth analysis of synthetic turf in this report. This paper will examine the financial and environmental costs of natural vs. synthetic turf and the implications for usage, maintenance, health and safety, assess the current community input processes, and offer policy recommendations toward the best use of this new technology.

COLUMBUS PARK, MANHATTAN
This synthetic turf field opened during the summer of 2005 after much community debate.

[1] Berger, Joseph. "Falling (Safely) for Artificial Turf." *The New York Times*. 20 March 2004. Retrieved Nov. 2005 from www.nytimes.com

The Parks Department: 1986-2006

New York City's Department of Parks and Recreation (DPR) manages 28,800 acres of municipal parkland, comprising 14% of New York City's land cover. As a city agency, the Parks Department is largely dependent on public funds for its operations. In recent decades, during good fiscal times and bad, DPR's budget has been repeatedly cut, forcing the Department to manage a growing park system with diminishing funds. Even with the recent budget increases under Mayor Bloomberg, DPR's budget has been cut by approximately 20% and its staffing by close to 60% since 1986.[2]

The impacts of these budget cuts pervade the Parks Department. Decreased funding has forced DPR to cut back on vital maintenance and important programs. In NY4P's 2005 *Report Card on Parks*, 40% of neighborhood parks received a C, D or F, reflecting the poor conditions in many city parks and the need for improved maintenance. Many communities look back fondly on the days of the "parkie in the park"—when regular full-time employees were stationed in parks to carry out maintenance, supervise children and provide programming. Unfortunately, the Department no longer has the resources for this type of staffing.

As a partial solution to this dilemma, the Parks Opportunity Program (POP) was introduced in 2001 to provide public assistance recipients with paid employment maintaining New York City parks. The program has relieved some of the pressure on full-time employees to reduce litter and remove graffiti. Now called Job Training Participants (JTPs), these staff are employed for 6 months at the end of their assistance eligibility and are frequently the only Parks personnel in our city's parks. Though their presence is valuable, due to their short-term employment status and limited training, they often do not know how to navigate the Parks system in order to report or address maintenance needs in city parks. POP is an innovative program that serves parks and their users, but it does not satisfy the need for full-time staffing.

In NY4P's 2005 *Report Card on Parks*, 40% of neighborhood parks received a C, D or F, reflecting the poor conditions in many city parks and the need for improved maintenance.

The increase in private funding for park projects and management represents another partial solution to the Parks Department's limited budget. Groups like the Central Park Conservancy and the Bryant Park Restoration Corporation use privately raised dollars to make up 85% and 100% of those parks' maintenance budgets, respectively.[3] Alternate models of park management include the Hudson River Park Trust and the Brooklyn Bridge Park Development Corporation, both of which are state-city partnerships whose business plans include funding maintenance through revenues generated within the park. Though these entities have enacted positive change in public spaces, their impressive work illustrates the wide disparity between these and smaller neighborhood parks that cannot access private money and are left to rely solely on public funding.

[2] Reflects changes in Adopted Budgets between Fiscal Years 1986 -2006. New York City Office of Management and Budget; Adopted Budget Expense, Revenue, Contract: Fiscal Years 1986 -2006.

[3] "About the Central Park Conservancy," CPC. Retrieved Dec. 2005 from www.centralparknyc.org/aboutcpc and "Park Management," Bryant Park Restoration Corporation. Retrieved Dec. 2005 from www.bryantpark.org.

Maintenance Challenges of Athletic Fields

With a limited budget, an increasingly diminished staff, and a heavily used park system, DPR has faced a challenge in keeping up with maintenance. Properly maintained natural grass fields require the following: regular mowing and spraying for weeds, irrigation, and daily trash and glass pick-ups. Ideally, they should be closed for a period of time to allow the grass to rest. (One of the few benefits of asphalt fields is that they are easily maintained, needing only occasional patching of cracks and holes.) The growing popularity of soccer—a particularly punishing sport when it comes to grass—has intensified the need for regular maintenance of grass fields.

Park managers and horticulturalists agree that a natural turf field must be closed to the public at regular intervals in order to keep the grass healthy. The debate of access vs. green fields presents a challenge for policy makers. The Central Park Conservancy closes fields all winter until April, and during the spring and summer, fields are closed on a rotating basis for rehabilitation.[4] The Prospect Park Alliance also closes their fields during winter, the most damaging season for grass. But DPR is hesitant to close fields at neighborhood parks for any amount of time due to the demand for play time and the impracticality of securely closing the fields.

DPR has stated that the number of requested permits for baseball and softball fields has doubled over the past six years[5], showing tremendous growth in the popularity of recreational sports. The debate over closing athletic fields pits public access against sufficient maintenance, presenting a tough decision for park managers. Grass fields that are open to the public year-round for sports—particularly soccer—are virtually guaranteed to wear out.

Leif Ericson Park, Brooklyn
Keeping up with maintenance of ballfields has been a challenge for the Parks Department's limited staff.

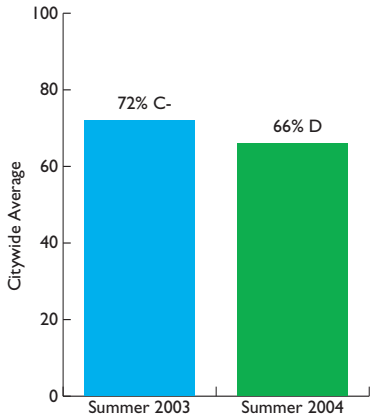
4 Personal Interview. Doug Blonsky, President, Central Park Conservancy. 7 Dec. 2005.
5 Williams, Timothy. "Fine Diamonds, Locked Away." *The New York Times* 26 Oct. 2005.

Constant use and limited park staff have led to inadequately maintained athletic fields. In NY4P's *Report Card on Parks*, an independent assessment of 200 neighborhood parks (1-20 acres), the performance of athletic fields has been consistently poor (See Figure 1). In the summer of 2003, athletic fields throughout the city earned an average score of 72% (C-). By the following summer, the score had dropped to 66% (D). During the summer of 2005, athletic fields at 14 randomly selected neighborhood parks[6] were evaluated monthly from June through August to track changes over time. That survey yielded an average score of 53% (F) for the summer. Conditions declined as the summer went on, due in large part to bare, discolored or overgrown fields. Other common problems included excessive litter and glass and damaged bleachers, benches and fencing. These results primarily reflect the conditions of natural turf baseball fields, as few soccer fields were chosen by the random selection process.

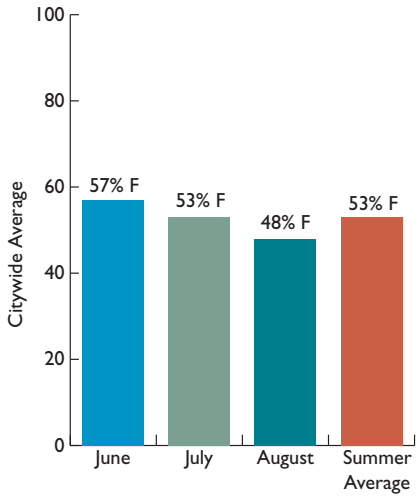
To improve athletic field conditions, DPR sometimes relies on the strategy of renovating natural turf fields by resodding them and installing irrigation systems to ease maintenance. But in recent years, synthetic turf has frequently been looked to as an alternative to grass fields that are heavily used and difficult to keep up, as well as asphalt fields that are unsafe and unpleasant to play on.

Figure 1:

Peformance of Athletic Fields
Report Card on Parks / Summer 2003 & 2004



Peformance of Athletic Fields
Mini Report Card on Parks / Summer 2005



[6] This randomly selected sample was drawn from all of the 200 neighborhood parks that have athletic fields—81 parks—and represents 1/6 of the *Report Card* survey universe. For the complete *Mini Report Card on Parks* or to see any *Report Card on Parks*, visit www.ny4p.org.

Synthetic Turf—A New Alternative

Since Chelsea Park in Manhattan became home to New York City's first synthetic field in 1998, DPR has installed the surface at an increasing number of parks each year. In 2001, Mayor Bloomberg pledged to address the shortage of athletic facilities by seeking out asphalt fields that could be replaced with synthetic turf.[7] The Parks Department expanded this initiative to include not only asphalt but also natural turf ballfields that were heavily used and difficult to maintain. As of August 2005, the Department had installed synthetic turf at 44 parks, with plans for installations at 35 more.[8]

Mafera Park, Queens
Asphalt ballfield

Since beginning its synthetic turf program, the Parks Department has been contracting primarily with the manufacturers FieldTurf and AstroPlay for synthetic turf installations. These surfaces were designed to replicate the look and feel of natural grass and represent a giant leap forward from traditional AstroTurf, which was a hard, carpet-like surface developed in the 1960s.[9] AstroTurf produced new injuries to athletes such as "turf toe", caused by a player's cleat getting caught in the turf, which had virtually no give.[10] FieldTurf is widely praised as a great improvement over traditional AstroTurf and, judging from its popularity, has largely been able to

Paerdegat Park, Brooklyn
Natural grass field

[7] "2004 Campaign Accountability Statement. Michael R. Bloomberg, Mayor, City of New York", City of New York. Retrieved Oct. 2005 from www.nyc.gov/html/om/pdf/campaign_accountability_report.pdf
[8] Marritz, Ilya. "'Turf' War Erupts Over So-Called Dust Bowl in Cadman Plaza." *New York Sun* Aug 11, 2005. Retrieved Oct. 2005 from www.nysun.com
[9] "AstroTurf", Wikipedia. Retrieved Nov. 2005 from en.wikipedia.org/wiki/AstroTurf
[10] Ibid.

overcome AstroTurf's bad reputation. AstroPlay, created by the makers of AstroTurf, has also grown its market share in the past few years. In 1998, AstroPlay had only five fields in the country, but by 2003, the number was up to 300.[11]

DPR cites numerous benefits of synthetic turf: year-round use due to its drainage capabilities, decreased maintenance costs, versatility of the types of sports it can accommodate, and environmental benefits, since it requires no pesticides, herbicides, mowing or watering. Synthetic turf also has aesthetic benefits—it never suffers during dry seasons or storms, and it is uniformly green.

From Seattle to Howard County, Maryland, municipal governments are turning to synthetic turf for its low maintenance and continual play. The NYC Department of Parks and Recreation is now the number one municipal purchaser of synthetic turf in the country, with the number of fields growing exponentially each year.[12] Over the next two years, Parks Commissioner Benepe's "commitment to ballfields" will devote $50 million to renovate and construct athletic fields.[13] Many of these projects will include synthetic turf.

CHELSEA PARK, MANHATTAN
"Old generation" of synthetic turf installed in 1998

THOMAS JEFFERSON PARK, MANHATTAN
"New generation" of FieldTurf installed in 2003

11 Chan, Erin. "Cows Can't Eat It, But Ball Fields Are Getting It." *The New York Times* 26 Oct. 2003. Retrieved Oct. 2005 from www.wirednewyork.com
12 Berger, Joseph. "Falling (Safely) for Artificial Turf." *The New York Times*, 20 March 2004. Retrieved Nov. 2005 from www.nytimes.com.
13 "Parks and Recreation Announces an Unprecedented Commitment to New Ballfields". DPR Press Release. 15 Sept. 2005. Retrieved Oct. 2005 from www.nycgovparks.org/sub_newsroom/press_releases

Analysis—A New Turf War

This discussion focuses on the comparison of the environmental, financial, maintenance, use, health, safety and community effects of synthetic vs. natural turf athletic fields. In order to foster the most relevant and robust discussion, the analysis takes for granted two assumptions: 1. The superiority of synthetic turf over asphalt; and 2. The use of synthetic turf surfacing on athletic fields rather than lawns or other passive areas. Thus far, DPR has focused on athletic fields as the primary venue for synthetic turf.

The Parks Department began using synthetic turf in 1998 as a strategy to replace its inventory of aging asphalt fields. NY4P agrees that this represents a practical and positive use of synthetic turf and supports this strategy for future asphalt field renovations. Asphalt is neither safe nor environmentally friendly, and its hard surface invites injuries and neither absorbs nor filters rainwater. One of the few benefits of asphalt is that it requires almost no maintenance, aside from regular trash and glass pick-ups and sporadic patching of holes and cracks. Synthetic turf offers a surface that is safer than asphalt for children. It doesn't filter rainwater, but it is pervious, which prevents large puddles and offers more regular play.

Environmental Impacts

Perhaps the most contested aspect of synthetic turf is its potential impact on the environment. The Parks Department states the following ecological benefits of synthetic turf: the crumb rubber base is made from recycled tires (the average soccer field uses 27,000 tires); synthetic fields do not require the pesticides, herbicides or fertilizers that grass needs to stay healthy; and resources are conserved by the avoidance of mowing (use of fossil fuels) and watering.[14] However, synthetic turf contributes to the urban heat island effect by absorbing sunlight and emitting heat. Additionally, removing grass takes away habitats that serve birds and plant life in the city.

The environmental benefits of synthetic turf may not be as significant as DPR claims. Though grass needs to be watered to stay healthy, synthetic turf also performs better when watered. Watering decreases static cling, helps to wash away bacteria and fluids that may be on the fields[15], and helps to cool the often high temperatures of synthetic turf, at least temporarily.[16] DPR uses pesticides and herbicides sparingly on natural grass, so the conservation of chemicals through the use of synthetic turf likely has minimal effects.[17]

14 Personal letter from Commissioner Benepe to Christian DiPalermo, Executive Director, NY4P. 16 Sept. 2005.

15 Personal Interview. Dr. A.J. Powell, Jr., Extension Specialist, Turf; Plant and Soil Science Department, University of Kentucky. 28 Nov. 2005.

16 McNitt, Andrew S. and Dianne Petrunak. "Evaluation of Playing Surface Characteristics of Various In-Filled Systems." Pennsylvania State University, Department of Crop and Soil Sciences. 2006.

17 Department of Parks & Recreation document. "Synthetic Turf Ballfields – 2004", courtesy of DPR, Operations. 15 Dec. 2005.

Urban Heat Island Effect

The replacement of natural turf with synthetic contributes to the urban heat island effect. Urban heat islands are created when grass and trees are replaced by impervious surfaces like rooftops and asphalt, which absorb heat.[18] Summer temperatures in New York City are approximately seven degrees higher than surrounding areas due to this effect.[19] Urban heat islands increase demand for energy (particularly air conditioning), intensify air pollution, and increase heat-related health problems.[20] A 2005 study of mitigation strategies found that increasing vegetation has a great effect on reducing temperatures and recommends planting street trees to provide the greatest cooling potential by area.[21]

Not only does removing natural turf exacerbate the urban heat island effect – synthetic turf fields absorb rather than reflect sunlight, causing them to emit heat. In 2002, Brigham Young University undertook a preliminary study comparing temperatures at two newly installed fields—one FieldTurf and one sand-based natural turf. Initial results showed that the surface temperature of the synthetic field was, on average, 39 degrees higher than the natural turf and 8 degrees higher than asphalt. At its hottest point, the synthetic turf was 86.5 degrees hotter than grass. The study also found that cooling the synthetic turf with water had very little effect on its temperature.[22] Similar results were found by researchers at Penn State, who examined the surface temperatures of several different brands of synthetic turf. On FieldTurf, the difference between surface and air temperatures was 37 degrees.[23]

Synthetic turf fields absorb rather than reflect sunlight, causing them to emit heat.

Cadman Park Community Council, a Brooklyn group who unsuccessfully fought the installation of a synthetic turf soccer field on a neglected lawn, conducted a less rigorous but very compelling study of the temperature of several grass and synthetic turf fields in New York City. The group found that on a hot summer day when the air was 91 degrees, the temperature at the synthetic turf field at Van Voorhees Park in Brooklyn was 122 degrees with similar results found at the synthetic field at the Prospect Park Parade Grounds. The grass lawn at Cadman Plaza Park, however, registered 87 degrees — four degrees cooler than the air.[24] These high temperatures not only impact the environment, but could affect the health and safety of athletes and children as well.

[18] Rosenzweig, Cynthia. "Mitigating New York City's Heat Island with Urban Forestry, Living Roofs, and Light Surfaces," Columbia University and Hunter College, New York, NY; and W. Solecki, L. Parshall, S. Gaffin, B. Lynn, R. Goldberg, J. Cox, and S. Hodges. Presented 31 Jan. 2006.
[19] Ibid.
[20] Ibid, and "Heat Islands", ScienCentralNews. Retrieved Dec. 2005 from sciencentral.com
[21] Ibid.
[22] Williams, C. Frank, and Gilbert E. Pulley. "Synthetic Surface Heat Studies", Brigham Young University, 2002. Retrieved Nov. 2005 from turf.nmsu.edu
[23] McNitt, Andrew S. and Dianne Petrunak. "Evaluation of Playing Surface Characteristics of Various In-Filled Systems." Pennsylvania State University, Department of Crop and Soil Sciences. 2006.
[24] Cadman Park Community Council. "Cadman Plaza Park: A Report for Councilman David Yassky". 23 Aug. 2005.

Habitat

Natural turf not only cools the city; it offers habitats for insects, plants, and other organisms, and provides food for birds. Hundreds of birds migrate through New York City and depend on parks for resources. Many municipal parks are recommended bird-watching sites by NYC Audubon[25], and the organization has publicly opposed the proposal to install synthetic turf at Cadman Plaza Park, citing the harmful effects it would have on the food supply for birds and other wildlife.[26] Removing natural turf, no matter how deteriorated it has become, is damaging to the environment and to the city's ecosystem. Though synthetic fields have drainage systems, they do not contain microorganisms that can break down pollutants. Additionally, rainwater is not absorbed—it simply drains through the field and runs into storm sewers.

Removing natural turf, no matter how deteriorated it has become, is damaging to the environment and to the city's ecosystem.

Clearly, well-maintained natural turf benefits the environment by reducing the urban heat island effect, filtering rainwater and pollution, and providing habitats for birds and insects. Synthetic turf offers none of these benefits.

NY4P offers the following recommendations to address the potential environmental impacts of synthetic turf and to boost the performance of natural grass fields:

❖ Continue and expand the Neighborhood Parks Initiative to improve the performance of natural turf fields, lawns and gardens.

The Neighborhood Parks Initiative (NPI), a public-private partnership that has brought funding and a full-time gardener to 30 of the neediest parks across the city, aims in part to remediate neglected fields. Gardeners are on site during the busy summer months to ensure that baseball and soccer fields stay safe and green and to address maintenance issues that arise throughout the park. This program has had a significant impact on the health and conditions of natural and synthetic turf fields, as well as enhancing the performance of lawns and gardens. The natural turf baseball fields at Thomas Jefferson Park in Manhattan benefited greatly from the constant watering and attention provided by the NPI gardener at that site. Fields that were dry and weedy during the early part of the summer were lush and green in August. During the summer of 2005, the first year of NPI, 2 synthetic and 18 natural turf fields benefited from the program. We call for the expansion of NPI to at least one park in each of the 51 City Council districts.

❖ Formally mitigate installation of synthetic turf by creating new green space elsewhere in the neighborhood.

When synthetic turf is slated for installation, mitigate the removal of green space by planting trees or otherwise creating and maintaining new green space. New vegetation will help filter air pollutants and contribute to the cooling of the city, decreasing the effects of the urban heat island. This strategy will also mitigate the removal of wildlife habitats.

[25] New York City Audubon. "Places to Bird," Retrieved Dec. 2005 from www.nycaudubon.org/getinvolved/birding/places/
[26] Personal letter from E.J. McAdams, Executive Director, NYC Audubon, to Commissioner Benepe. 16 Dec. 2005

Is Synthetic Turf Cost-Effective?

Several factors must be considered when planning the renovation or installation of an athletic field, including the types and costs of surfacing materials, the use or sport that the field will accommodate, and the community's desired access to the field. This section illustrates that: 1. The annual costs of synthetic and natural turf fields do not differ significantly assuming the current Parks Department maintenance levels; and 2. Synthetic turf is sometimes appropriate for soccer but is not appropriate for baseball. Community access will be discussed in a subsequent section.

Surface Types

Park managers have several options when seeking to upgrade their athletic fields: soil-based natural turf, sand-based natural turf, or synthetic turf. A soil-based field is simply a natural grass field that may or may not include installed irrigation. Sand-based fields, developed in the 1990s, consist of an 8-12-inch sand foundation with an organic mixture on top so that grass can grow. These fields include installed drainage systems, which offer more play time but high installation costs.[27] Sand-based fields were popular in college and professional sports arenas when first introduced. The NYC parks system includes some sand-based fields, such as those at the Great Lawn in Central Park. The third option is synthetic turf. As FieldTurf defines it, the material consists of an installed drainage system and what the corporation calls "synthetic earth"—a crumb rubber base made from recycled tires and mixed with sand. This base is embedded with polyethylene blades colored a grass-like shade of green.[28] Other manufacturers, such as AstroPlay and Nexturf, produce turf consisting of a rubber base with no sand[29], an alternative that, though cheaper, bears less resemblance to natural grass in terms of playability.

Soccer Fields: Annual Costs

Figure 2 is the Parks Department's cost comparison chart for synthetic and natural turf (soil-based) soccer fields. In examining this chart, it is important to remember that these costs pertain to soccer and not to baseball fields, which are normally cheaper and easier to maintain. The installation costs for natural grass detailed in Figure 2 include the price of an installed irrigation system, though DPR does not indicate the exact cost of such a system. In addition, built-in irrigation must have a water source and is not always an option. The lifespan of natural grass is highly dependent on the maintenance and wear it receives. The chart projects costs based on a five-year lifespan for natural grass, though according to DPR, a heavily used soccer field can last as few as two years. Battery Park City Parks Conservancy opts to close athletic fields for four months during the winter and adheres to a strict maintenance plan, and therefore does not need to reinstall grass fields, avoiding this cost. It is important to note that exact installation and maintenance costs vary based on the particulars of individual sites.

[27] Personal Interview. Dr. A.J. Powell, Jr., Extension Specialist, Turf; Plant and Soil Science Department, University of Kentucky. 28 Nov. 2005.

[28] "Product Overview," FieldTurf. Retrieved Dec. 2005 from www.fieldturf.com

[29] Northwest Parks Foundation. "Athletic Field Surfaces in the Pacific Northwest: A Comparison of Synthetic and Natural Grass Fields," Retrieved Oct. 2005 from www.nwparks.org

Soccer Fields: Maintenance Costs

The difference in the annualized cost of the two types of fields is not a sizeable one—according to the Parks Department, synthetic fields save $14,714 per year. Because maintenance and installation requirements are site-specific, synthetic turf could end up costing more than natural grass in some locations. In addition, this chart details only the cost of the initial investment and does not calculate the cost of replacing either field at the end of its expected lifespan. (Synthetic fields typically come with an eight-year warranty, but beyond that, the purchaser must bear the full replacement cost.) The quoted cost of installing a natural grass field includes the cost of an irrigation system, which would not be incurred again once the system was in place. Similarly, a synthetic turf field contains a drainage system whose cost would only be incurred once. Opportunity costs should also be included - for example, this analysis does not include the value of all-weather playability provided by synthetic turf. A break out of these figures would be helpful in determining the cost-efficiency of the two types of fields.

It should be noted that this cost analysis assumes the Parks Department's current level of maintenance attention to fields, comparing what the Department is presently funded to spend on each type of field. As noted earlier, the conditions of the city's baseball and soccer fields, under this level of funding, are mediocre. In other sections of this report, Parks Department maintenance standards and practices are compared to other park management entities, such as the Central Park Conservancy and the Battery Parks City Park Conservancy. Were these costs of maintaining fields available for this analysis, the difference in the cost of maintaining a turf field versus a synthetic field would be significantly more substantial.

Sara D. Roosevelt Park, Manhattan
The amount of maintenance that a synthetic turf field requires depends heavily on its usage.

Figure 2 - Cost Comparison, Multi-use/Soccer Field [30]

		Synthetic Turf	Natural Grass
Installation Costs (capital)	Per Field	$1,365,000	$690,000
	Expected Life Span (yrs)	10	5
	Installation Costs per Year (distributed over the projected lifetime of the field)	$136,500	$138,000
Annual Maintenance	Materials[31]	$0	$750
	Lawn Mowing (equipment)	$0	$107
	Field Maintenance (equipment)	$31	$59
	Lawn Mowing (staff)	$0	$826
	Field Maintenance (staff)	$1,239	$10,864
	Staff Supervision	$255	$2,133
	Total Maintenance Cost	$1,525	$14,739
Total Cost per Field per Year		$138,025	$152,739

Figure 2 details the significantly higher up-front costs of installing synthetic turf, but the Department argues that low maintenance costs more than make up for this. The difference in maintenance costs for the two surfaces is largely a result of the staff time required to care for natural grass. The maintenance schedule for a natural grass field generally includes the following: weekly mowing and watering; daily cleaning of trash and glass; fertilizer, pesticide and herbicide applications; and line painting. Maintaining a synthetic turf field requires daily cleaning of trash and glass; daily removal of substances such as gum with a solvent; and grooming with a special vacuum to "fluff up" the field.[32]

The need for vacuuming partially depends on the frequency of use, which varies by park. However, the amount of grooming seems to have an effect on the field's surface. The former sports field manager for the New York Jets, who maintained FieldTurf at the stadium, was told by FieldTurf's staff to groom twice a year. After receiving complaints from coaches about hardness and compaction of the field, FieldTurf staff recommended increasing grooming to every two weeks. With this frequency, the sports field manager noticed that fibers came loose, which the FieldTurf staff had not predicted.[33] Consistent maintenance standards have yet to be determined.

[30] Figure 2 courtesy of the Department of Parks & Recreation, Operations, 15 Dec. 2005. Costs were figured in 2004 and vary depending on site.
[31] Materials include fertilizer, grass seed, clay, and lime for painting lines on the fields. Lines on synthetic fields are sewn in at the time of installation.
[32] Personal Interview. Keith Kerman, Chief of Operations, Department of Parks & Recreation. 15 Dec. 2005.
[33] Personal Interview. Robert Hansen, Ballfield Turfgrass Specialist, Battery Park City Parks Conservancy. 2 May 2006.

While the Parks Department recommends vacuuming between once every two weeks and once a month, at Prospect Park's Parade Grounds, which contain heavily used baseball, soccer and football fields, workers vacuum two to three times per week.[34] If DPR projected this level of maintenance, costs of synthetic turf would increase. An additional, though irregular, maintenance cost is incurred when repairing loose seams or burns on the turf. If a portion of the synthetic field becomes damaged, a large swath of turf is required to replace it.

Some hidden maintenance costs exist within the installation of synthetic turf. With year-round play comes more frequent use of the park itself and its other features, such as bathrooms, drinking fountains, and playgrounds. While parks are typically used most heavily in the warmer months, synthetic turf ensures that the public will depend on these features year-round, highlighting the Department's need for increased maintenance funding.

Useful Lifetime

The use of synthetic turf in NYC parks is new enough that deterioration and replacement cycles require more time for assessment. Though synthetic fields have a projected lifetime of 8–10 years, their functionality and appearance after a decade of use remains to be seen. The Parks Department will rely on capital funding to replace the turf on an as-needed basis, and because the base and drainage system would already be in place, replacement costs are projected at $500,000, or half of the original installation fee.[35] Since synthetic grass technology is so new, these costs are simply estimates. Depending on economic effects and other factors, replacement costs could be higher than predicted.

Another environmental and financial challenge is the disposal of synthetic turf. At the end of their useful lifetime, the reused tires must be disposed of, and the EPA has not addressed whether or not they can be recycled. Tear-out and disposal costs range from $1.75 to $2.25 per square foot, not including transportation or other ancillary charges.[36]

Maintenance money saved through the use of synthetic turf can be applied toward the maintenance of other critical park features, which is an important benefit. But installing synthetic turf requires DPR to take on large capital costs, contributing to the city's debt. While capital funding is fairly easy to obtain, maintenance funding must be dedicated to support large investments and prevent them from physical decline. City Council members often allocate capital funds for projects that their constituents support, but, unfortunately, budget additions that would provide continued care for these projects are more difficult to come by. The good news is that, so far, synthetic turf seems to be performing well. Prospect Park's first synthetic turf project, a football field, opened three years ago, and the Prospect Park Alliance has faced no significant wear issues.[37] Though, the Parks Department has had to replace one melted portion of turf due to a fire on a field. They have also noted at least one instance of a seam ripping loose on a soccer field.

[34] Personal Interview. Tupper Thomas, President, Prospect Park Alliance. 17 Nov. 2005.

[35] Northwest Parks Foundation. "Athletic Field Surfaces in the Pacific Northwest: A Comparison of Synthetic and Natural Grass Fields," Retrieved Oct. 2005 from www.nwparks.org.

[36] Sports Turf Managers Association. "A Guide to Synthetic and Natural Turfgrass for Sports Fields – Selection, Construction and Maintenance Considerations", http://www.sportsturfmanager.org/_Files/_Items/STMA-MR-TAB2-1416/Docs/STMA%20SyntheticTurfGuideHI.pdf

37 Personal Interview. Tupper Thomas, President, Prospect Park Alliance. 17 Nov. 2005.

Use: Baseball vs. Soccer

Commissioner Benepe has stated that grass soccer fields are more quickly turned to dust due to the nature of the game and, therefore, are more frequent candidates for synthetic turf.[38] However, the Department has increasingly looked to synthetic turf when planning baseball field renovations as well. As most of the activity in a baseball game takes place along the dirt baselines, the players have limited impact on natural grass. Some argue that DPR relies on synthetic turf too heavily as an easy way out when seeking to renovate these fields. Unfortunately, evidence of cost savings is not available for baseball fields, as the costs illustrated in Figure 2 apply to multi-use/soccer fields.

NY4P believes that while the use of synthetic turf can address some of the challenges of maintaining a soccer field, it should not be used on baseball fields, which are easier to keep up. Although DPR has faced challenges in maintaining baseball fields, synthetic turf is not necessarily the solution. Instead, the Department should design a targeted maintenance program and install irrigation systems to ensure that natural turf baseball fields get the care that they need.

NY4P offers the following recommendations to provide for more efficient allocations of funding to enhance field use and access:

❖ Develop a targeted maintenance strategy for natural turf baseball fields in order to boost their performance.
Presumably, not every field is a candidate for replacement, nor will every community want synthetic turf. In order to ensure the availability of natural turf, use the model of "Operation Relief", DPR's targeted maintenance program that has improved the conditions of bathrooms, to develop a targeted program to keep baseball fields green and clean. Increased trash and glass pick-ups as well as more frequent watering by Parks staff could be included in such a program.

❖ Install and manage irrigation and drainage systems to enhance the capacity to maintain natural turf fields.
Despite the environmental benefits of natural turf, many existing fields have been neglected and consist solely of dust and dirt, with virtually no plant life. As new fields are installed, they should receive irrigation systems when possible so that consistent maintenance will be less challenging. Barren fields do not provide the same benefits that grass fields offer. When possible, existing natural fields should be retrofitted with irrigation systems.

38 Berger, Joseph. "Falling (Safely) for Artificial Turf." *The New York Times.* 20 March 2004. Retrieved Nov. 2005 from www.nytimes.com

Health and Safety Effects

Though studies have compared the safety of synthetic fields to natural grass fields, most are outdated, relying on data from the days of AstroTurf. One of the few studies applicable to this report was published in the *American Journal of Sports Medicine* and compares high school football injuries over a five-year period on FieldTurf and natural grass. Results show that similarities exist between the two surfaces, but that athletes experienced different types of injuries, necessitating further study. For example, FieldTurf players had higher incidences of non-contact injuries, surface (skin) injuries, muscle-related trauma, and injuries during warmer temperatures. Natural turf players had higher incidences of ligament injuries, long-term injuries, and head and neural trauma.[39]

Some of those who oppose synthetic turf fear that the use of crumb rubber in the base, aside from posing an environmental challenge when it comes to disposal, could lead to the leaching of dangerous chemicals.[40] Results thus far are inconclusive. An additional concern is the sand that is mixed with crumb rubber to create the base of some synthetic turf fields. Sprinturf, one leading manufacturer of synthetic turf, commissioned an independent study that found that bacteria counts of infill containing sand and rubber were 50,000 times higher than infill containing only rubber. The company has offered free lifetime sanitization to those customers who have purchased the rubber and sand infill and is starting a new line of synthetic turf called "SandFree".[41]

Though FieldTurf has not proven to be unsafe, it is still a young technology.

While new signage has been developed describing the rules of synthetic fields, the public is generally unaware of which problems to look out for on an artificial surface. Athletes and children typically know when a natural grass field is unsafe by the presence of holes or broken glass. Signs at the entrances to synthetic turf fields should describe potential hazards to look out for, such as turf that has begun to come up at the seams, and direct users with questions or issues to 311.

Though FieldTurf has not proven to be unsafe, it is still a young technology. No precedent exists to show how FieldTurf will behave when it begins to deteriorate. Whether this funding will come out of the expense or capital budget depends on how the fields decline and how quickly they are replaced. Because the Parks Department's budget varies with the political cycle, the availability of funding to replace decaying fields is not guaranteed.

Proponents of synthetic turf fields tout the reduction of allergy and asthma triggers. The removal of natural pollens and grasses may be beneficial to children and adults with these afflictions. However, the opposing side points to the potential toxicity of recycled tires and silicon. These health impacts need to be studied further in order to draw decisive conclusions.

[39] Meyers, Michael C., PhD, FACSM and Bill S. Barnhill, MD. "Incidence, Causes and Severity of High School Football Injuries on FieldTurf Versus Natural Grass: A Five Year Prospective Study," *American Journal of Sports Medicine* 32: 1626-1638. 2004.

[40] Chalker-Scott, Linda, PhD. "Rubber – The Reality." Ransfords Equestrian Surfaces. Retrieved April 2006 from www.ransfords.co.uk

[41] "Sprinturf goes sand-free; offers decontamination free to existing customers." Athletic Turf News. 20 Mar 2006. Retrieved April 2006 from http://www.athleticturf.net

NY4P offers the following recommendations to ensure that synthetic turf remains a safe option:

❖ Include maintenance plans and cost-benefit analyses in requests for capital funding for athletic fields so that educated funding decisions are made.

The safety of athletes and children is compromised when synthetic turf is allowed to deteriorate. Provide City Council and other entities that appropriate moneys for athletic field projects with a specific cost-benefit analysis so that educated funding decisions are made. Fold maintenance plans into capital requests for athletic fields so that funding will be available to replace turf segments as needed.

❖ Take advantage of recent turf installations—engage in formal studies that examine the benefits and challenges of synthetic turf.

DPR is in a good position to lead the way with studies of the long-term viability of synthetic turf technology. With the recent installation of these fields, DPR can seek funding to evaluate the multiple issues this report addresses—the health, safety, maintenance and other potential impacts of synthetic turf use. Partner with a university in undertaking such a study.

❖ Include safety information on signage at synthetic turf fields.

Many athletes are unfamiliar with the "new generation" of synthetic turf. Improve safety by notifying users what dangers to look out for before using synthetic fields, such as loose seams that could create a trip hazard. Users with questions or issues should be directed to 311.

James J. Walker Park, Manhattan
Safety must be the first priority at athletic facilities, including synthetic fields like this one.

Community Input and Issues

Community preference should be a major deciding factor when planning athletic field renovations. While synthetic turf offers more playable hours, installing this surface removes the opportunity to create new—or retain existing—green space. Natural turf requires more care and, especially in the case of soccer fields, needs to be closed periodically for maintenance in order to remain healthy. Community members should be aware of the advantages and disadvantages of all options and encouraged to participate in the discussion.

Several park organizations have formed around the synthetic turf debate. Though there are groups on both sides of the issue, these debates have highlighted the need for improved evaluation processes and increased community outreach by the Parks Department.

Cadman Plaza Park, Brooklyn

The Cadman Park Community Council (CPCC) led one of the most high-profile of these fights against a proposed synthetic turf field that would take the place of a lawn at a park in Brooklyn Heights. The Parks Department found the lawn to be a good candidate for synthetic turf because it is frequently used by soccer players and is heavily worn, with little grass.

The neighborhood of Brooklyn Heights in City Council District 33 is already underserved by green space. Only 4% of the acreage in District 33 is devoted to parkland, while the citywide average is 11%.[42] As a spokeswoman for CPCC said of the lawn slated for replacement: "Yes, it is really ugly now, but we need to preserve the park space we have because there is so little."[43] The group also argued that the placement of a synthetic soccer field is not appropriate in front of the Brooklyn War Memorial building—a monument that honors veterans and should face a natural grass lawn that can be used for reflection or recreation. The turf, they said, would put parameters on such usage of this space.

The group did not have an easy fight ahead of them. The community board voted to approve the project, which, though not binding, increased DPR's leverage. CPCC feels that DPR's presentation to Community Board 2 was unfair because they offered only two options for the field: its dustbowl state or synthetic turf. The community was not given the option to vote for the rehabilitation of the field.

[42] NY4P. City Council District Profiles 2005: Brooklyn City Council District 33, available www.ny4p.org. Data courtesy Department of Parks & Recreation, 2004.
[43] Lepeska, David and Elizabeth Hays. "Fake Grass, Real Fight: Foes out to mow down 2.5m overhaul of park." *The New York Daily News*. 19 Aug. 2005.

Columbus Park, Manhattan

Residents living near Columbus Park in Chinatown were divided over a Parks Department proposal to convert an expansive asphalt yard, which hosted a variety of games, including basketball, volleyball and baseball, to synthetic turf. Paul Gong, the President of Friends of Columbus Park, said that an all-synthetic turf field would limit the types of activities enjoyed at the park and also expressed concern that, in tough fiscal times, the Parks Department would not be able to maintain an artificial turf field.[44] In addition, the group believed that the neighborhood would not have access to the field because of the popularity of this park among corporate leagues.[45]

Community Board 3 voted down the proposal, although many residents supported the synthetic turf. Through discussions among community residents, DPR officials, and Manhattan Borough Commissioner Bill Castro, the decision was made to pave half of the surface with rubberized asphalt and to cover the rest with synthetic turf—providing a space that is no longer big enough for adult softball games but that can continue to accommodate sports like basketball. Predictably, community residents are split on this outcome, but this represents a better community input process.

Athletic Groups

The all-weather playability of synthetic turf is appealing to many athletic leagues. The West Side Little League and the West Side Soccer League assisted the Riverside Park Fund in raising $1 million in private funds for synthetic turf fields in that park.[46] A spokesperson for the West Side Soccer League said that, two years ago, half of the league's scheduled games were canceled due to heavy rains that had flooded the fields.[47] However, Downtown Little League President Vincent Licata, who grew up playing baseball on asphalt and concrete, voiced his relative indifference on the issue of synthetic versus natural grass: "A place to play is a place to play, no matter what it looks like."[48]

Examples from Other Cities

While the Parks Department frequently presents field renovation projects to community boards and hears community desires via the City Council and other venues, looking to other cities as models could enhance DPR's work with the public. Seattle's Joint Athletic Facilities Development Program (JAFDP) is a partnership between Seattle Parks and the School District focused on relieving the demand for the city's athletic fields. On the program's website, the public can view trends in field usage in Seattle, technological developments in turf, JAFDP's policies that guide development of athletic fields, and a list of proposed sites to receive synthetic turf and a scope of work for each. JAFDP posts detailed minutes from community meetings so that all residents are informed.[49]

[44] Kaysen, Ronda. "Yer Out! Adult Softball Ejected in Park Plan," *Downtown Express*. Nov. 12 - 19, 2004. Retrieved Oct. 2005 from www.downtownexpress.com
[45] Bennett, Chuck. "Chinatown Battle Over Turf," *amNew York*. 12 Oct. 2004.
[46] Personal Interview. Bill Crain, Citizens for a Green Riverside Park. 15 Nov. 2005.
[47] Berger, Joseph. "Falling (Safely) for Artificial Turf." *The New York Times*. 20 March 2004. Retrieved Nov. 2005 from www.nytimes.com
[48] Personal Interview. Vincent Licata, President, Downtown Little League. 21 Nov. 2005.
[49] "Joint Athletics Facilities Development Program," City of Seattle. Retrieved Oct. 2005 from www.cityofseattle.net/parks/meetings/jafdp/jafdp.htm

The Vancouver Board of Parks and Recreation, in tandem with the School Board, held a public workshop to foster discussion about the location of synthetic fields throughout the city. Participants brainstormed and voted on criteria that would be necessary for candidate sites to be approved for synthetic field installation. The six criteria chosen included site-related issues such as ownership and size of the land as well as green space and use issues. For example, participants agreed that proposed sites should not be in communities already underserved by green space and that they should be supported by the surrounding neighborhood. After developing the list of criteria, participants brainstormed a list of schools and parks that might support a synthetic field.[50]

These are two examples of parks agencies that actively work with the community throughout the park renovation process. By truly engaging residents in the discussion, communities are more likely not only to support the projects but also to trust the agency and its motivations. In addition, a park plan that truly reflects the needs and inputs of the community is much more likely to foster positive use. A park that is well used and valued leads to other benefits, such as reduced crime rates and enhanced real estate values in surrounding areas.[51]

NY4P offers the following recommendations to improve Parks relations with the community and to effectively channel debate and conflict:

❖ Form a task force of experts to develop criteria for consideration by Community Boards facing athletic field renovations.

A task force of park experts should be formed to develop standard criteria regarding athletic field surfacing options. While DPR currently presents overall project plans to Community Boards for their approval, many communities would benefit from recommendations on how to evaluate the various options. We strongly recommend that the DPR include these in-depth analyses of the pros and cons of all surfacing options in all presentations. By making the criteria publicly known, neighborhoods can evaluate the needs of their community to make an informed choice regarding turf. The DPR should work to ensure a proper balance of synthetic and natural turf fields so that the benefits of both can be maximized.

❖ Before fiscal appropriations occur, present to the community board all possibilities for athletic field renovations.

Community members should be given an appropriate venue to discuss athletic field projects before fiscal commitments have been made. When planning athletic field renovations or installations, DPR should present to the parks committees of the neighboring community boards all surfacing options—whether these include synthetic turf, natural turf with or without irrigation, or rubberized asphalt—and their advantages and disadvantages. This will ensure that the community is sufficiently educated to discuss and vote on plans for its parks.

[50] "Notes from the Synthetic Field Location Public Workshop," Vancouver Park Board. Retrieved Oct. 2005 from 199.175.219.1/parks/info/planning/syntheticturf/index.htm

[51] Ernst & Young and NY4P. "How Smart Parks Investment Pays Its Way," 2003.

Summary—Achieving a Balance: Community Access, Environmental Success

New York City residents deserve athletic fields that are green, clean and safe. Synthetic turf offers significant advantages over asphalt fields, and provides some solutions to the challenges of grass fields: maintenance costs may be lower and fields are available for play in all weather. However, overall annual costs for synthetic and natural grass are not significantly different, and synthetic turf places a greater burden on the city's capital budget.

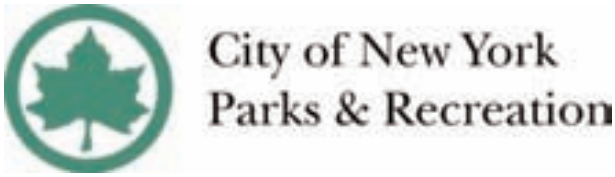
Due to the relative ease of maintaining baseball fields, NY4P believes that natural turf should be used in these renovations. The types of challenges that the Parks Department faces in the maintenance of baseball fields—such as aesthetic difficulties and insufficient staffing—do not provide adequate rationale for the conversion of a field from grass to synthetic. Natural turf soccer fields are more difficult to maintain due to the nature of the sport and are a more appropriate venue for synthetic turf.

Environmental concerns associated with synthetic turf demand that it be used sparingly until appropriate mitigation and management policies are in place. The surface contributes to the urban heat island effect, which causes temperatures in the city to rise and increases the demand on limited energy sources. In addition, natural grass is too precious in an urban environment to be torn out due to aesthetic challenges. Natural turf provides valuable environmental benefits, such as hosting birds and other small organisms and filtering air pollutants.

The true debate over synthetic turf lies with the issue of community access. Grass fields must be closed for a period of time in order to remain healthy; however, New Yorkers' demand for athletic fields exceeds the supply and continues to grow. The Parks Department should actively seek community input to create a comprehensive plan for athletic field renovations across the city to ensure that every community has access to a quality field and is equally served by green space. Community approval should be a major deciding factor in using synthetic turf.

The use of synthetic turf is not a panacea to maintenance concerns. The Parks Department must be provided with an increased staff and budget in order to appropriately maintain both natural and synthetic turf fields. With increased resources, natural grass can be better preserved from the impact of athletes. Built-in irrigation systems should be installed when possible, and dedicated maintenance programs should be developed to keep baseball fields green. These strategies will guarantee a longer life for fields, resulting in green, clean and safe athletic facilities for every New Yorker.

NYC Department of Parks and Recreation's Response



March 31, 2006

Christian DiPalermo
Executive Director
New Yorkers for Parks
The Arthur Ross Center for Parks and Open Space
355 Lexington Avenue, 14th Floor
New York, NY 10017

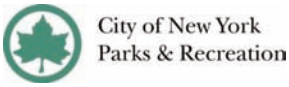
Dear Mr. DiPalermo:

Thank you for the opportunity to comment on "A New Turf War: Synthetic Turf in New York City Parks" prior to its release.

Despite the provocative title, the expanded use of synthetic turf in city parks has sparked a modest but healthy debate on how best to use this new product, not a "war." The new generation of synthetic surfaces has enabled us to provide more safe, high-quality playing fields to meet the explosive growth of youth and adult sports leagues and the extended (some would say "unlimited") playing seasons New Yorkers have come to expect. It is an approach that has been adopted by the sports field providers around the world at all levels, from small parks to huge professional sports arenas.

We do not, however, view it as a panacea or appropriate in every instance. In general, our management strategy for field development mirrors the approach suggested in the report. Renovating lightly used asphalt fields with synthetic turf is a smart way to meet local demand for active recreation in heavily developed neighborhoods, especially for youth sports. Similarly, soccer pitches, and fields that host multiple sports, as many of ours do, are safer, more attractive and available for play more often when converted to synthetic turf. Fields that are not heavily used (and believe it or not, there are some) and those that are used exclusively for baseball should remain natural turf when ever possible and be designed to include in-ground irrigation and fences to ensure that they can be maintained to a consistently high standard.

Although we agree in broad terms on how best to use this new technology, some of the conclusions of the "Analysis" section of the report warrant comment as noted below.



Environmental Impacts: Perhaps there should be a definitive study comparing synthetic and natural turf in terms of water, pesticide, fertilizer, and fossil fuel consumption and the effect of those chemical residues and by-products on the environment, but there is no question that synthetic turf fields use fewer of those resources, especially when compared to meticulously maintained natural turf. Furthermore, the benefit of providing a constructive use for an environmental headache like used tires should not be overlooked.

Additionally, grass ballfields have little habitat value and are more likely to harbor nuisances like Canada geese, gulls, Japanese beetles and invasive weeds than plants and animals that contribute to biodiversity. The loss of vegetative cover is a legitimate concern and there is no question the synthetic surfaces are hotter that natural turf or even bare dirt. We are working with manufacturers to find ways to make fields cooler. We are currently designing a pilot water retention system for one of our new soccer fields to address the issue of storm water management.

But over the last ten years fewer than 300 acres of parkland (and less than 10% of the grass ballfields) have been converted to synthetic surfaces, including all of the asphalt field renovations. Over that same period, Parks has acquired over 1,900 acres of mostly undeveloped natural areas, restored or improved hundreds of those acres, launched the Greenstreets program (which has converted approximately 165 acres of asphalt on 2,114 sites into plants and tree beds), preserved community gardens, and planted more than a hundred thousand trees. Our contributions to New York City's environment are so extensive and basic to our mission that it is unnecessary to specifically mitigate new synthetic turf installations.

Cost Effectiveness: The report contends that the annual savings of $14,714 we project for one synthetic turf field is "not a sizeable one". In fact, the savings per field are significant and are equivalent to the salary of a six-month seasonal park worker. Synthetic turf fields allow staff to devote more time to maintaining other grass fields, playgrounds, sitting areas and other park features.

The missing factor in the maintenance equation is the fact that for any grass field to survive it must be shut down for at least four or five months a year. Your analysis fails to account for the cost of preventing people from playing, nor does it factor in the lost/gained opportunity costs of allowing a field to remain open seven days a week, twelve months a year.

The report also recommends improving the maintenance of natural turf fields by using more fixed or dedicated staff. We see that ideal park maintenance is a combination of fixed and mobile crews. For ballfield maintenance, we do our cost estimates based on a mobile crew maintenance strategy, which is less expensive than dedicated staff. Nothing, including synthetic turf, is maintenance-free, but it is clear to us that synthetic surfaces use fewer resources and provide up to 50 percent more (safe) playing time for New Yorkers. That's cost effective!

City of New York
Parks & Recreation

Community Input: Parks has a long-standing practice of involving the community in capital renovations and responding to local input as illustrated by the Columbus Park case study included in the report. Community support will always be an important component of our decision-making process; all of our projects are the subjects of on-site scope meetings and formal community board review, and most of the ballfield projects are specifically requested by community groups or sports leagues and funded by local elected officials. A citywide committee that determines "which sites and neighborhoods are suited to synthetic turf and which are more appropriate for natural turf," will be difficult to achieve as we do not want a committee making recommendations for a community that is not represented in the group.

As you know, synthetic turf is being used by high schools, colleges, municipalities, and professional sports leagues across the country and around the world, and even where cost is no object, these organizations are demonstrating a preference for synthetic turf, even in professional baseball stadia. There are also a number of local organizations, Take the Field among them, colleges, and professional teams whose experience with synthetic turf fields would be a valuable addition to the report and could form a committee that makes general recommendations. The report does not seem to include any input from the teams and leagues that play on synthetic turf fields. The response we have received from them has been overwhelmingly positive. Their voice should be part of the debate and we would be happy to provide you with a list of contacts.

Park management is, as you imply, something of a balancing act. Access, cost, environmental impacts, and community input are all elements of the equation we seek to solve on behalf of the public who look to us to fulfill their need for playing fields. As we know, there is always room for improvement but we are confident that synthetic turf when used appropriately is a creative addition to our tool kit and while it will never eliminate natural turf, it does expand significantly our options for meeting the recreation needs of all New Yorkers.

Sincerely,

Adrian Benepe
Commissioner