



The Hidden Costs of Synthetic Turf

Environmental Regulation

“Certain permitting agencies in Pennsylvania and Maryland, for example, have adopted a policy that all **synthetic fields shall be treated the same as any paved surface** requiring new installations to collect runoff, detain and clean the water before releasing into a regulated watershed.”

Irrigation and Drainage: More Views on Synthetic Turf Irrigation. SportsTurf, August 2010.

Irrigation

“Many sports turf managers are divided on the topic of watering synthetic fields. But it is important, regardless of your stance, to consider the health and safety risks that accompany an unwatered artificial surface. They include higher surface temperatures, as well as costly complications with sanitation and biological control.”

Watering Artificial Turf: The State of the Art. SportsTurf, June 2010.

“Studies have shown that the amount of **water required to reduce synthetic turf surfaces 14 degrees for a period of 2 hours is approximately 3,000 gallons.**”

Irrigation and Drainage: More Views on Synthetic Turf Irrigation. SportsTurf, August 2010.

Excessive Heat

“Studies show that a synthetic turf surface can reach temperatures as high as 89 degrees above ambient due to the heat gain capability of the synthetic turf pile and infill material. **The highest recorded synthetic surface temperature to date was 196.4 degrees** by Penn State University at the Center for Sports Surface Research.

Irrigation and Drainage: More Views on Synthetic Turf Irrigation. SportsTurf, August 2010.

“The safety issues related to **excessive surface temperatures on synthetic turf fields currently presents the greatest risk to public health and safety** followed by contaminants which can become embedded in the infill and backing material.”

Irrigation and Drainage: More Views on Synthetic Turf Irrigation. SportsTurf, August 2010.

“Right now there is **no effective and economically feasible way to lower the surface temperature** of infilled synthetic turf,” says Dr. McNitt [of the Penn State University Center for Sports Surface Research.]”

Facility and Operations: Just the Facts: Update on science and synthetic systems. SportsTurf, July 2009.

Online Resources: <http://sturf.lib.msu.edu/browse.html>
<http://cropsoil.psu.edu/ssrc/research>