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Artificial Turf Study Committee Meeting Minutes

Meeting Date: February 13, 2024
Meeting Time: 5PM-6:30PM
Location: Zoom

Objectives:

1) To hear from subject matter experts on various topics concerning the Health, Safety, and Environmental concerns associated with natural grass and artificial turf fields.
2) To discuss logistics in regards to Working Group and Committee reports, deliverables and project timeline.

Committee Members present: James DiTullio, Chair; Natasha Waden, Clerk; Leslie Mayer; Joseph Barr; Jill Krajewski; Marvin Lewiton; Claire Ricker; Joseph Connelly

Agenda

I. Acceptance of Meeting Minutes

Motion to approve meeting minutes from 01/30/2024 was made by Leslie Mayer.

2nd by Jill Krajewski.

Vote:
Mike Gildesgame, Absent
Leslie Mayer, Yes
Joseph Barr, Yes
Jill Krajewski, Yes
Natasha Waden, Yes
Marvin Lewiton, Yes
James DiTullio, Yes

Approved (6-0 with 1 Absent)

II. Correspondence Received

Natasha Waden reviewed correspondence received including 2 emails from Susan Chapnick and 1 email from Mike Gildesgame.

No additional discussion by Committee Members.

III. Guest Speaker (s)

a. Safety

i. Samantha Jones, Head Athletic Trainer, Arlington High School

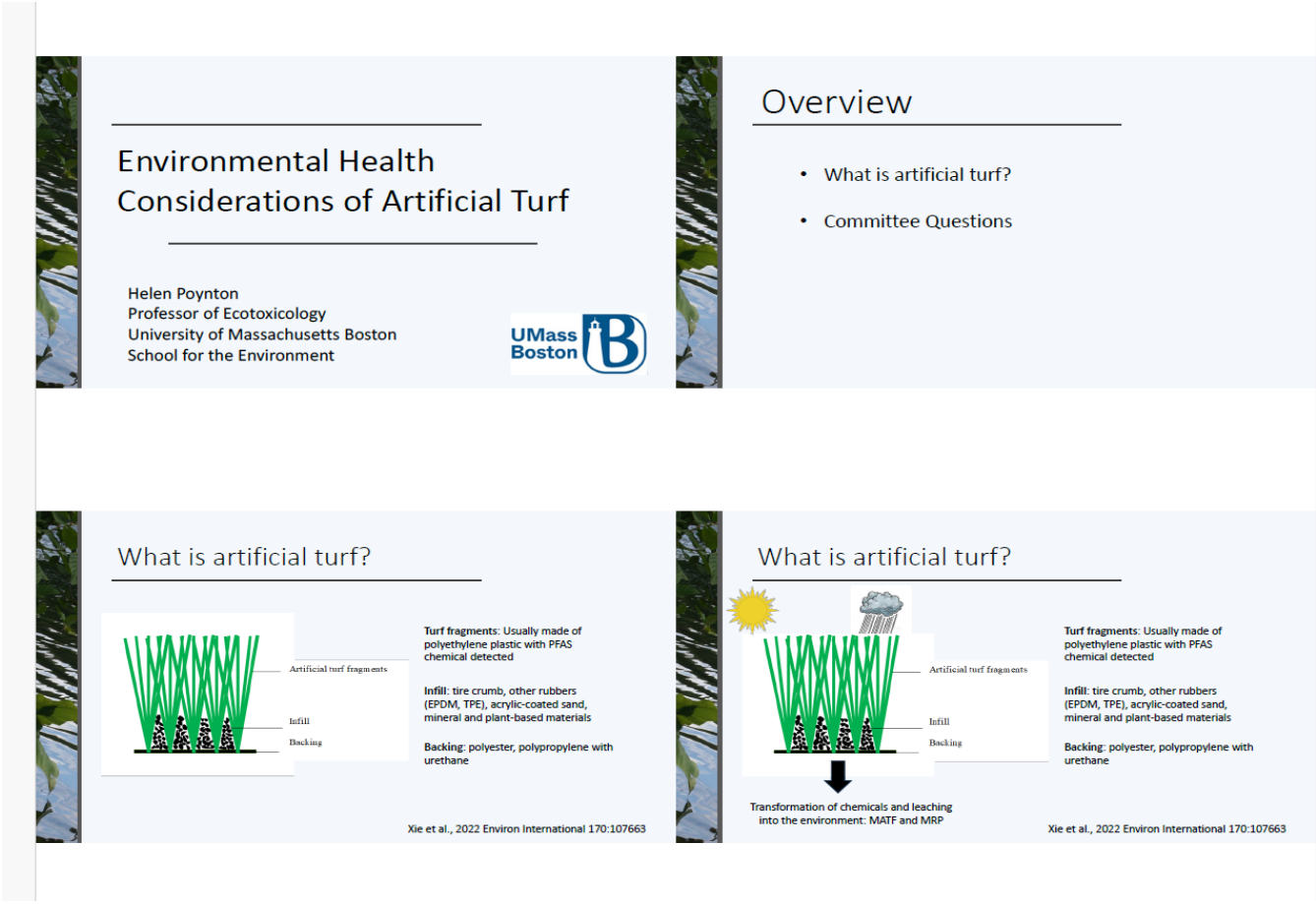
Ms. Jones reported that the High School had 540 athletes during the fall sports season and currently has 489 for the winter season. Ms. Jones indicated that in her opinion the injury rate in Arlington between natural grass fields and artificial turf fields is about the same. Ms. Jones reported that the Athletic Training team saw a lot of ankle and knee injuries especially during the fall season among the soccer teams. Ms. Jones indicated that the type of surface does not necessarily matter when it comes to injuries. Injuries are based on a variety of factors including athletic ability, biomechanics, muscle mass, history of injuries and the circumstances that led to a specific injury (i.e. a player breaking a bone due to another player falling on them). Additionally Ms. Jones reported that the varsity teams play and practice exclusively on the artificial turf field, whereas the freshman and Junior Varsity teams utilize the grass fields, with occasional use of the artificial turf field.

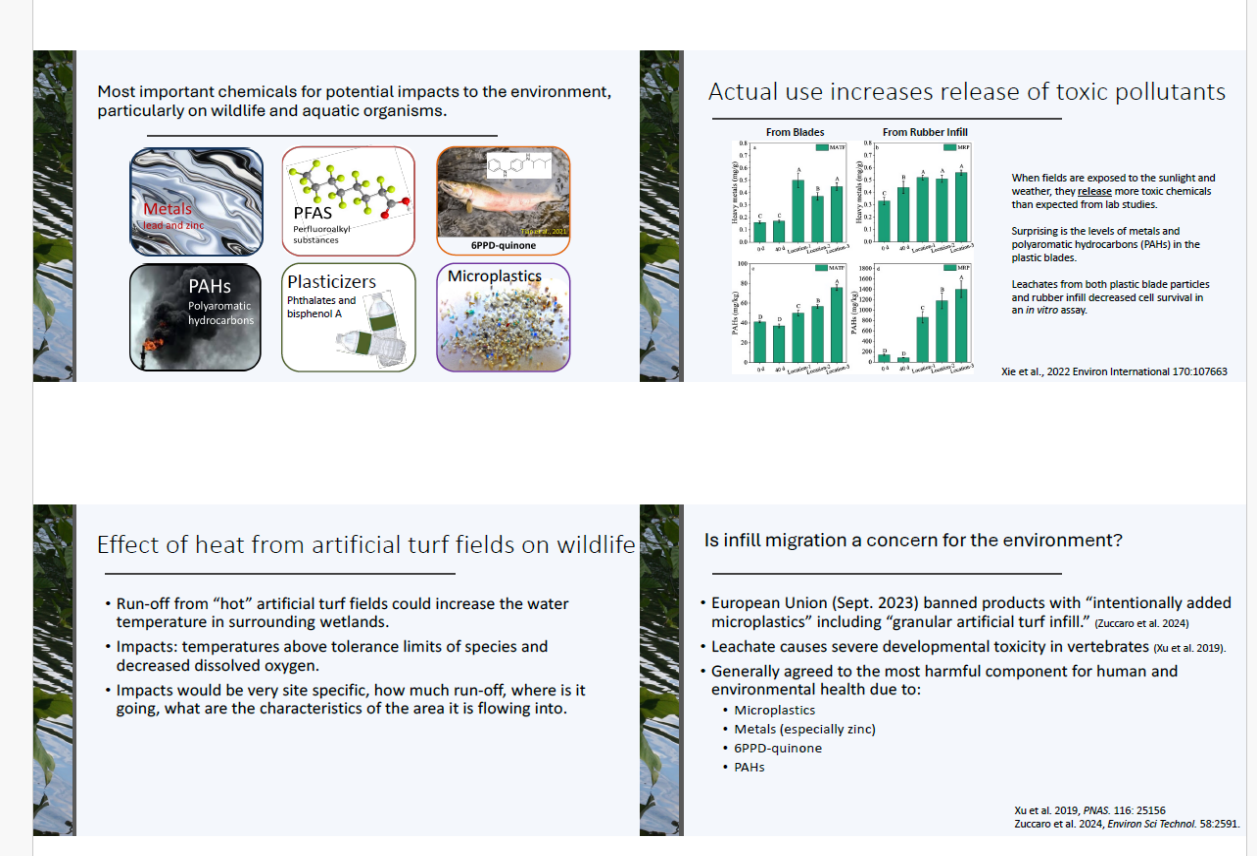
Ms. Jones answered a variety of questions from Committee members including the following topics: 1) differences in injuries as it relates to male and female, indicating that knee injuries such as torn ACL's are more common among females due to hormones such as estrogen and basic body mechanic differences; 2) training of coaches, staff and athletes as it pertains to heat related illness/cold weather exposure, indicating that the Athletic Training team trains the coaching staff, and communicates to Athletes in writing (through team Captains) or in person (one on one or group/team discussion/s) about signs/symptoms and preventative measures associated with heat related illness and cold weather exposure; 3) heat related guidance/restrictions pertaining to both natural and artificial turf fields as well as surface temperature measurements, indicating that a Wet Bulb Globe Thermometer is used to test surface temperatures for both types of fields and restrictions are placed on the use of Artificial turf in hotter months and/or depending on the surface temperatures measured by the Wet Bulb Globe Thermometer (restrictions may include the length of time the field can be utilized by a team and hours of the day it can be used such as early morning or late afternoon/early evening; 4) surface temperature differences between natural grass and artificial turf fields, indicating that she has observed a 7-10 degree difference, with the artificial turf field temperature being higher due to how the field absorbs and reflects heat but that the wind can also help to reduce the surface temperature; 5) heat related injuries have been most concerning in the pre-season month of August and first couple of weeks in September, occasionally in Spring, but the athletic training team has not seen any significant heat related injuries, in part because the Athletic team ensures that modifications to practices are made and that the athletes have access to water, ice, cooling towels, shaded areas; 6) heat acclimatization is used specifically for the football teams (required by MIAA) in August, as they practice in heavy equipment, this entails a 5 day period which

gradually introduces the player to practicing in the heat with full padding on. For other teams, the trainers work to schedule practices in early morning or late afternoons whenever possible.

b. Environmental Group

i. Dr. Helen Poynton, Associate Professor, School for the Environment, Umass Boston
Bio: https://blogs.umb.edu/helenpoynton/
Dr. Poynton was introduced by Joseph Barr, member of the Environmental working group, who was brought in to speak with the Committee about the impacts artificial turf and the chemicals associated with artificial turf have on the environment. Dr. Poynton explained that she is a Professor of Ecotoxicology and while she has studied lots of different pollutants, she could not recall specific studies directly associated with artificial turf, therefore she disclosed that the information she would be drawing on for this presentation would be from her research of peer reviewed articles/studies pertaining to artificial turf. The following power point presentation was shared and discussed with the Committee:

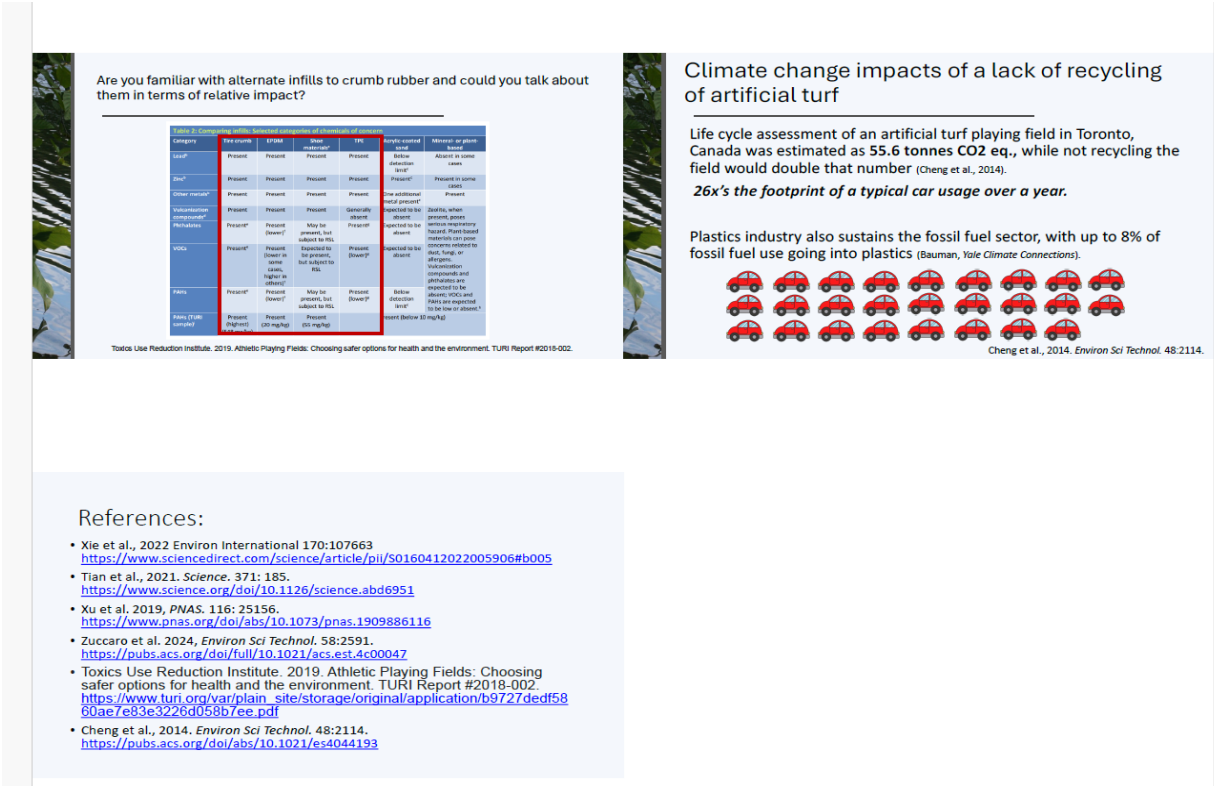




At the request of a Committee Member, Dr. Poynton clarified to the Members that certain types of microplastics, such as ones used in hand soaps and facial soaps, have been banned by the Federal Government in the United States. Dr. Poynton indicated that the European Union has recently banned the use of all intentionally added microplastics which includes artificial turf infill.

At the request of a Committee Member, Dr. Poynton clarified that the chemicals of concern that are related to crumb rubber infill would be the 6PPD-Quinone, but also mentioned this would likely be found in other types of rubber infill material. Additionally, she clarified that some of the other chemicals would likely be found at higher levels in the crumb rubber than in the blades of grass.

At the request of a Committee Member, Dr. Poynton stated that there are a number of different infill alternatives to crumb rubber; however, there is very little research on it and so it would be difficult to say whether or not metals would be found in the alternative infill materials. Dr. Poynton did reference the TURI guidance document which does a comparison on different types of infill, including plant based infill, however there isn't a lot known about the products and whether or not preservatives have been added. She also indicated that there appears to be some evidence of an occupational hazard associated with dust inhalation associated with the plant based infill.



At the request of a Committee Member, Dr. Poynton clarified that it appears, from the TURI comparison chart, that the shredded wood type of infill material may have been lumped into the plant based category. However, the information on the chart under this category is largely unknown. As such, her recommendation, if considering an infill material made of shredded wood, would be to ask the manufacturer what/if any chemicals are being used to preserve the wood.

At the request of a Committee Member, Dr. Poynton addressed a question about baseline levels of contaminants in Arlington soil. Dr. Poynton clarified that contaminates found in dirt in Arlington may include lead and would likely be low, but was not able to elaborate on other potential metals/chemicals in soil because it largely depends on how the area had been properly treated (i.e. if a landfill has been capped, the soil below the cap is not of concern for exposure of playing, however, components under the cap could potentially leach into ground water).

At the request of a Committee Member, Dr. Poynton briefly discussed PFAS and the affects they have on humans. Although, this was not the focus of her research for this presentation she did state that the affects can lead to developmental, endocrine, and reproductive issues, and additionally, she mentioned that there was some evidence during the Covid pandemic that PFAS suppressed the immune system, and therefore interfered with vaccine effectiveness, even at low levels. Additionally, Dr. Poynton mentioned that there was some evidence in environmental justice communities where

PFOA/PFOS levels were high and issues related to reproductive issues and cancer cases were also more evident.

At the request of a Committee Member, Dr. Poynton discussed that collaboration between scientists and industry on ecotoxicology studies is common, but she could not speak to the specific components of artificial turf.
In her opinion, regarding toxicology, Industries have not always been truthful in reporting their findings regarding their products and hazardous concerns.

IV. Discussion: Reports, Deliverables, Project Timeline

James DiTullio informed members that due to the upcoming President's Day Holiday, the deadline for bullet reports has been changed so that we are able to comply with Open Meeting Law. As such, reports are due by Thursday 2/15/2024 by 12noon and should be sent to Natasha Waden. Natasha reiterated that any additional material to be included in next week's packet will also need to be received by this time. The next deadline is for each group to submit their narrative report by Friday March 1st. Beyond that date, we may need to re-evaluate the project timeline

Next week's meeting we will spend the first hour hearing from a speaker who installs both Natural and Artificial Turf fields. The second half of the meeting will focus on the discussion of each working groups bullet reports, this discussion will also carry over to the February 27th Meeting. DiTullio advised Members that moving forward and as we get closer to the deadline, meetings may run longer and/or we may need to add additional weekly meetings in March.

DiTullio asked that all groups begin to send their references to Natasha regardless of whether or not you are citing it, reading it, or having discussions with individuals so that we can begin to draft the list of resources. Natasha asked that when sending references by email to use "AT References" in the subject line, so that they can be easily sorted by email.

V. New Business

A Committee Member inquired about whether or not, organizations/user groups other than high school have heat related guidance or training that is provided to coaches/athletes or families. Joseph Connelly agreed to reach out to the various groups to inquire about this and will follow up with the group.

VI. Adjourn

Motion to adjourn was made by Leslie Mayer.

2nd by Natasha Waden.

Vote:
Mike Gildesgame, Absent
Leslie Mayer, Yes
Joseph Barr, Yes

Jill Krajewski, Yes
Natasha Waden, Yes
Marvin Lewiton, Yes
James DiTullio, Yes

Approved (6-0, with 1 Absent)