

**From:** Pam Bond  
**To:** Turf, Synthetic@OEHHA  
**Subject:** Comments regarding Synthetic Turf Study Draft Report  
**Date:** Monday, April 28, 2025 1:55:00 PM

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EXTERNAL:

Dear OEHHA staff and panelists,

Thank you for your interest, research and review of crumb rubber used on artificial turf fields. I have been reading about synthetic turf since 2021 when my elementary school district was considering the use of artificial turf on 3 fields. I am very concerned about artificial turf use, particularly by children and youth athletes. I am concerned that this study will be taken as proof that artificial turf is safe, leading to the increased proliferation of plastic fields, particularly in California.

I am listing my concerns in bullet points:

1. I would like the title of the study to better reflect that this study was only about tire crumb rubber. This is critical because the plastic is as yet not thoroughly studied though there is plenty of evidence that plastic has multiple chemicals of concern and the artificial turf industry is not effectively regulated for consistency or safety.

2. The average maximum temperature listed in the report is 131° F. I am not a scientist, but I have used a calibrated infrared thermometer on multiple fields, including those with non-crumb rubber infill (cork or cork polymer for example) as well as one field in the newest category of No infill and surface temperatures have exceeded 150° in all cases, even on days when ambient temperature was 65-70°. A recently installed all plastic field (no infill) measured 163° when ambient temperature was 73°.

The heat factor is a critical issue that I believe is too often overlooked. Objectively, walking on these fields, one can feel the heat difference vs. off field. And student athletes are increasingly suffering health risks and even dying due to heat issues during drills and games on artificial turf fields.

I know that ASU's SHaDE Lab has been doing studies of heat and climate change and they were one of a few different sources who recommended my use of the infrared thermometer for surface temperature readings. They might have more helpful information as well.

<https://shadelab.asu.edu/>

3. I am unsure why PFAS was not looked into given the mention of 6PPD in the report.

4. I agree with panelists that the list of chemicals not considered should be clearly listed and limitations of the study should be very clearly stated.

5. In my personal experience, I have been exposed to SBR tiles on playgrounds as well as running tracks more often than artificial turf fields and I have had to breath in the VOCs from these materials as I work nearby (at an elementary school - I work in the school garden which is bordered by a rubber tile playground area as well as a running track). Whether or not I am substantially exposed to cancer causing VOCs, the smell is nauseating and causes me to get a

headache if the wind is blowing in my direction for too long (and I am not directly on top of these products). I am curious whether other health related issues were discussed with the athletes surveyed, perhaps comparing how they feel on grass fields vs artificial turf fields. I know that from my limited time walking across artificial turf fields or walking around them, I have had similar issues with the odor from the field.

6. I am concerned that the very limited chemicals studied were not considered in combination. I recall that in an earlier meeting (perhaps a year or so ago), that this was discussed by at least one panelist. I think it was the same panelist (and I apologize for forgetting who it was) also highlighted that the precautionary principle must prevail when the research is limited and there are so many chemicals with as yet unknown characteristics.

7. During the meeting today, a panelist mentioned that there are more fields with alternative infills now than when the study began. The main reason why some field projects have switched to alternative infills was because of the uncertainty of tire crumb use. Due to the EPA study and this study if left unchanged, is that these are giving the green light for use of crumb rubber. And crumb rubber infill is cheaper to purchase than alternatives. There are also various issues with the newer infills. For example, one type melted in a Palo Alto field and now they face the issue of how to remove and replace it (after several previous attempts), cork infill migrates readily and in rain will float away. Other infills are also proving to not create much cooler temperatures on the fields and some of them require watering to promote their "cooling" effect (which is negligible anyway).

One newer product which has no infill, has at least twice as many plastic blades to account for the lack of infill. One field that I observed, installed in October 2024, has massive amounts of plastic already shedding off the field and there is visible evidence of the previous synthetic turf field's blades and crumb rubber infill still around the perimeter of the new field, including in soil planting borders, storm drains, and surrounding grass.

8. Migration of tire crumb rubber: This is critical to highlight due to the known issue of the chemical 6PPD effects on aquatic life as well as the general issue of microplastics (which also applies to the plastic blades). There were estimates from the synthetic turf industry themselves stating that between 1-5 tons of infill are lost per year from a field.

9. I wish that this webinar discussion could have happened before the day of the deadline for public comment. It would have been valuable to listen to the full discussion and clarifications before giving feedback.

I appreciate your time and effort on this study.

Sincerely,

Pamela Bond  
California resident