

# **Appendix C**

## **OEHHA Synthetic Turf Study**

**March 2026**

**Prepared by**

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California Environmental Protection Agency**

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## Appendix C. Field Recruitment Protocols

### C.1. Telephone Script for Contacting Field Owners and Managers

OEHHA: Hello. My name is \_\_\_\_\_. I am calling from a State agency, the Office of Environmental Health Hazard Assessment, also known as OEHHA. We are part of the California Environmental Protection Agency. We are conducting a California state-funded, environmental health study on synthetic turf fields.

May I speak to the field owner or manager, or someone who is in charge of the synthetic turf field, or get their contact information?

*If getting contact information:*

OEHHA: Field owner name: \_\_\_\_\_

Phone #/Email: \_\_\_\_\_

OEHHA: Ok. Thank you for your time. Have a nice day. **(End call.) (Call field owner.)**

*If not getting contact information*

OEHHA: Ok. Can you have the field owner contact me at XXX-XXX-XXX? My name is XXXXXXXXXXX XXXXXX. Please feel free to contact me if you have any questions. Thank you for your time. Have a nice day. **(End call.)**

*If transferred to field owner: (Begin script over. Skip asking to speak to field owner/manager.)*

*If field owner is speaking: (Continue script.)*

We have a few questions regarding the field at (location). Does your facility or organization have a synthetic turf field that has crumb rubber infill? *If NO:*

OEHHA: Ok. Thank you for your time. Have a nice day. **(End call.)**

*If YES: (Continue script.)*

Q1. OEHHA: Is your field indoors or outdoors?

Field Owner: My field is: \_\_\_Indoors \_\_\_Outdoors



Q2. OEHHA: When was the field installed?

*If field owner knows:*

Field Owner: My field was installed \_\_\_\_\_.

*If field owner is unsure:*

OEHHA: Do you know anyone who may be able to provide us with this information?

OEHHA: We are calling you because our study involves identifying the chemicals present in crumb rubber infill used in synthetic turf fields. The study stems from a bill that aims to address concerns regarding exposures to synthetic turf fields. We have already worked with many fields like yours, including public, private and city fields throughout the state. We are looking to recruit more fields for our study. Participation in the study will remain confidential and anonymous in our report. Would you be interested in participating? It would not take much of your time, would not affect the usage of your field, and would be of no cost to you. I could send you more information via email and follow-up with you tomorrow or the following day. What is the best email to send information to?

*If NO:*

OEHHA: Ok. May I ask the reason why you do not want to participate or any concerns you may have about the study?

Field Owner: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

OEHHA: Thank you for your time. Have a nice day. **(End call.)**

*If YES:*

OEHHA: Great. Thank you. **(Continue script.)** Could I ask one more question? It should only take one more minute of your time.

Q3. OEHHA: What types of sports and activities typically occur on your field?

Field Owner: \_\_\_\_\_  
\_\_\_\_\_

OEHHA: Thanks so much for agreeing to work with us. I will follow-up with you via phone on XX/XX (date).



At Phone Follow-Up:

OEHHA: Hello. My name is \_\_\_\_\_. I am calling from a State agency, the Office of Environmental Health Hazard Assessment, also known as OEHHA. We are part of the California Environmental Protection Agency. We spoke before regarding including your field in our statewide synthetic turf study. Are there any questions or concerns you have about the sampling that we may address?

Field Owner: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Thank you for your time. We would like to schedule a brief 30-minute in-person follow-up meeting with you, so our project staff can provide more details of our study and answer any questions that you may have (refer to Scheduling Table, see Table B-1). May we meet on MONTH XX at XX:XX or MONTH XX at XX:XX? Do any of these times work for you?

*If NO:*

OEHHA: Ok. Can you suggest a date and time that will work for you?

*If NO or if need to check his/her schedule:*

OEHHA: Ok. Would a phone meeting on MONTH XX at XX:XX be more convenient for you?

*If NO:*

OEHHA: OK. I will contact you at a later date to schedule a meeting. Thank you for your time. Please feel free to contact us at XXX-XXX-XXX if you have any questions about the meeting or study. We appreciate your time. Have a nice day.  
**(End call.)**

*If YES:*

OEHHA: Great. What would be the best number for us to reach you at?

Field Owner: \_\_\_\_\_.

OEHHA: Ok. Thank you for your time. We will talk to you on MONTH XX at XX:XX at \_\_\_\_\_. Please feel free to contact us at XXX-XXX-XXX if you have any questions



about the meeting or project. Have a nice day. **(End call.)**

*If YES:*

Field Owner: MONTH XX at XX:XX will work better for me.

OEHHA: Ok. I have scheduled a meeting for MONTH XX at XX:XX.  
**(Proceed to Q6.)**

*If YES to original question 4:*

OEHHA: Ok. I have scheduled a meeting for MONTH XX at XX:XX.  
**(Proceed to Q6.)**

Q4. OEHHA: Where would be the best place for us to meet? Should we meet at your office?

Field Owner: The best place would be \_\_\_\_\_.

OEHHA: Ok. We will meet at \_\_\_\_\_ on MONTH XX at XX:XX.  
**(Proceed to Q7.)**

Q5. OEHHA: Who should we contact when we get there?

Name: \_\_\_\_\_

Phone #: \_\_\_\_\_

Q6. OEHHA: Is this a good contact number for us to reach you in the future?

*If NO:*

OEHHA: What would be the best number for us to reach you at?

Field Owner: \_\_\_\_\_.

OEHHA: Ok. Thank you for your time. We will see you on MONTH XX at XX:XX at \_\_\_\_\_. Please feel free to contact us at XXX-XXX-XXX if you have any questions about the meeting or project. Have a nice day. **(End call.)**

*If YES:*

OEHHA: Ok. Thank you for your time. We will see you on MONTH XX at XX:XX at \_\_\_\_\_. Please feel free to contact us at XXX-XXX-XXX if you have any questions about the meeting or project. Have a nice day. **(End call.)**



Table B-1. Example of Site Visit Scheduling Table

Date	Tuesday, September 27	Wednesday, September 28	Thursday, September 29
8:30-10:15 am			
10:15-12 pm			
12-1 pm	LUNCH	LUNCH	LUNCH
1-2:45 pm			
2:45-4 pm			



<b>Office Use Only</b> <b>Field ID: _____</b>
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**C.2. Questionnaire for Field Owners and Managers**

Name of Interviewee: \_\_\_\_\_ Interview Date: \_\_\_\_\_  
 (owner or person in charge)

**Field Information:**

Field Name: \_\_\_\_\_

Field address: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Field/facility owner name: \_\_\_\_\_

Field/facility owner phone #: \_\_\_\_\_

Field/facility owner email: \_\_\_\_\_

Q1. How long have you been the owner of the field? \_\_\_\_\_

Q2. What type of organization owns the field?

- Public                      Name: \_\_\_\_\_
- Private                      Name: \_\_\_\_\_
- School                      Name: \_\_\_\_\_
- County                      Name: \_\_\_\_\_
- State                      Name: \_\_\_\_\_
- Federal                      Name: \_\_\_\_\_
- Other                      Name: \_\_\_\_\_

Q3. Is the field outdoors or indoors?

- Outdoors      **(go to Q5.)**
- Indoors



**OEHHA Synthetic Turf Study**  
**Questionnaire for Field Owners**

**Office Use Only**  
**Field ID:** \_\_\_\_\_

Q4. What is the ventilation/air exchange rate for this field?

\_\_\_\_\_

*If unsure, how is the room ventilated?*

HVAC system on 24/7     Other: \_\_\_\_\_

*Or, contact information for someone who can provide this information:*

Name: \_\_\_\_\_ Phone number: \_\_\_\_\_

Q5. When was the field installed? \_\_\_\_\_

Q6. Which company manufactured the turf? \_\_\_\_\_

*If known, specific product name:* \_\_\_\_\_

*If unsure, do you have the installation contact information? Can we contact them, if needed?*     Yes     No

Name: \_\_\_\_\_ Phone number: \_\_\_\_\_

Q7. Which company installed the field? \_\_\_\_\_

Q8. Who is the manufacturer of the crumb rubber infill? \_\_\_\_\_

*If known, crumb rubber type:*     Ambient     Cryogenic

Q9. Has the field had any post installation modifications?

- Yes
- No    **(go to Q11.)**
- Don't know    **(go to Q11.)**

Q10. What post-installation modifications have been done to the field?

Modification: \_\_\_\_\_ Date: \_\_\_\_\_

Modification: \_\_\_\_\_ Date: \_\_\_\_\_

**Field Use:**

Q11. Is the field for public or private use? Check both, if applicable.

- Public
- Private



Q12. What types of sports and activities occur on the field? Check all applicable choices.

- Soccer
- Football
- Field Hockey
- Lacrosse
- Baseball
- Softball
- Rugby
- Cheerleading
- Physical Education
- Other: \_\_\_\_\_

Q13. Is the field used year-round or seasonally?

- All-year round                       Seasonally

Q14. If it is used seasonally, what seasons? Please rank the intensity of field use for each season using a scale of 1-5, with 5 being the highest level of intensity.

- |                                 |   |   |   |   |   |
|---------------------------------|---|---|---|---|---|
| <input type="checkbox"/> Fall   | 1 | 2 | 3 | 4 | 5 |
| <input type="checkbox"/> Winter | 1 | 2 | 3 | 4 | 5 |
| <input type="checkbox"/> Spring | 1 | 2 | 3 | 4 | 5 |
| <input type="checkbox"/> Summer | 1 | 2 | 3 | 4 | 5 |

Q15. How often is the field used? \_\_\_\_\_ hours per week



**OEHHA Synthetic Turf Study**  
**Questionnaire for Field Owners**

**Office Use Only**  
**Field ID:** \_\_\_\_\_

Q16. What are the age groups who use the field? Please rank the frequency of use for each age group using a scale of 1-5, with 5 being the most frequent use.

- |  |   |   |   |   |   |
|--|---|---|---|---|---|
| <input type="checkbox"/> Preschool         | 1 | 2 | 3 | 4 | 5 |
| <input type="checkbox"/> Elementary School | 1 | 2 | 3 | 4 | 5 |
| <input type="checkbox"/> Middle School     | 1 | 2 | 3 | 4 | 5 |
| <input type="checkbox"/> High School       | 1 | 2 | 3 | 4 | 5 |
| <input type="checkbox"/> College           | 1 | 2 | 3 | 4 | 5 |
| <input type="checkbox"/> Adults            | 1 | 2 | 3 | 4 | 5 |

Q17. Does the field host other events?

- Yes            Events: \_\_\_\_\_
- No            **(go to Q22.)**

Q18. How many events per year? \_\_\_\_\_

Q19. When was the last event? \_\_\_\_\_

Q20. What modifications are done to the field to prepare for these events?

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Q21. What are the special maintenance practices after these events, if any?

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Field Maintenance:**

*If you are unsure of the maintenance practices, please provide contact information for someone who can provide this information:*

Name: \_\_\_\_\_

Phone number: \_\_\_\_\_

Email: \_\_\_\_\_

Q22. What company maintain the field? \_\_\_\_\_



Q23. How often does brushing (levels infill and helps fibers stand up) occur?

- \_\_\_\_\_ per day                      Last Maintenance: \_\_\_\_\_
- \_\_\_\_\_ per \_\_\_\_ week
- \_\_\_\_\_ per \_\_\_\_ month
- \_\_\_\_\_ per \_\_\_\_ year
- Other: \_\_\_\_\_

Q24. How often does aerating (gets air into the infill to prevent compaction) occur?

- \_\_\_\_\_ per day                      Last Maintenance: \_\_\_\_\_
- \_\_\_\_\_ per \_\_\_\_ week
- \_\_\_\_\_ per \_\_\_\_ month
- \_\_\_\_\_ per \_\_\_\_ year
- Other: \_\_\_\_\_

Q25. How often does raking (loosens infill and helps fibers stand up) occur?

- \_\_\_\_\_ per day                      Last Maintenance: \_\_\_\_\_
- \_\_\_\_\_ per \_\_\_\_ week
- \_\_\_\_\_ per \_\_\_\_ month
- \_\_\_\_\_ per \_\_\_\_ year
- Other: \_\_\_\_\_

Q26. How often does sweeping (removes debris) occur?

- \_\_\_\_\_ per day                      Last Maintenance: \_\_\_\_\_
- \_\_\_\_\_ per \_\_\_\_ week
- \_\_\_\_\_ per \_\_\_\_ month
- \_\_\_\_\_ per \_\_\_\_ year
- Other: \_\_\_\_\_



Q27. How often is the crumb rubber infill replenished?

- \_\_\_\_\_ per day                      Last Maintenance: \_\_\_\_\_
- \_\_\_\_\_ per \_\_\_\_\_ week
- \_\_\_\_\_ per \_\_\_\_\_ month
- \_\_\_\_\_ per \_\_\_\_\_ year
- Other: \_\_\_\_\_

Q28. Where does crumb rubber infill used for replenishment come from?

- Stock from installation
- Manufacturer: \_\_\_\_\_
- Other: \_\_\_\_\_
- Don't know

Q29. Has all of the crumb rubber on the field ever been replaced?

- Yes                      Last replacement Date: \_\_\_\_\_
- No
- Don't know

Q30. For total infill replacement, where does the crumb rubber come from?

- Stock from installation
- Manufacturer: \_\_\_\_\_
- Other: \_\_\_\_\_
- Don't know



Q31. Has any part of the field backing been replaced/patched? Draw the approximate location on a field diagram.

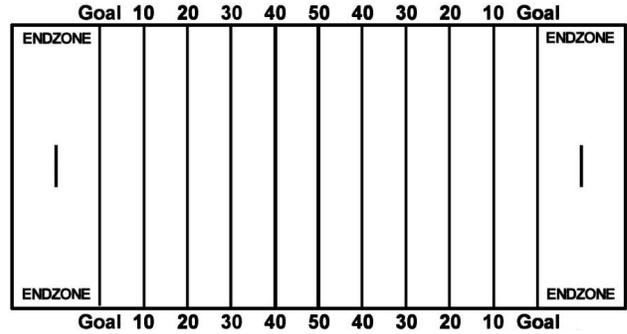
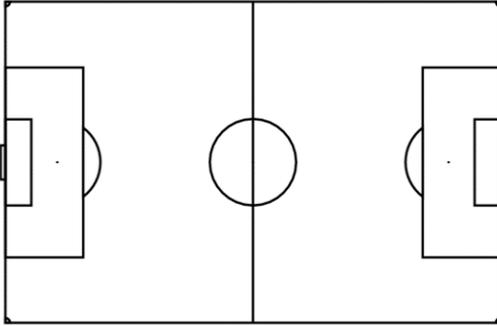
Yes

Replacement Date and Location(s) on the field: \_\_\_\_\_

No

\_\_\_\_\_

Don't know



Q32. For the partial field replacement, where does synthetic turf come from?

Stock from installation

Manufacturer: \_\_\_\_\_

Other: \_\_\_\_\_

Don't know

Q33. Does the field have a sprinkler system?

Yes

No **(go to Q35.)**

Q34. How often is the field watered?

\_\_\_\_\_ per day

\_\_\_\_\_ per week and dates of watering \_\_\_\_\_

\_\_\_\_\_ per month and dates of watering \_\_\_\_\_

\_\_\_\_\_ per year and dates of watering \_\_\_\_\_

Other: \_\_\_\_\_

Q35. How is weed control done on the field? \_\_\_\_\_



**OEHHA Synthetic Turf Study**  
**Questionnaire for Field Owners**

**Office Use Only**  
**Field ID:** \_\_\_\_\_

Q36. How often does weed control activity occur?

- \_\_\_\_\_ per day                      Date of Last Weed Control: \_\_\_\_\_
- \_\_\_\_\_ per week
- \_\_\_\_\_ per month
- \_\_\_\_\_ per year
- Other: \_\_\_\_\_

Q37. Have any chemical substances ever been applied on the field for weed, bugs, germs, or static preventions/controls?

- Yes
- No      **(go to Q39.)**
- Don't know      **(go to Q39.)**

Q38. What are these chemical substances and the dates of their last use?

Name: \_\_\_\_\_ Last use: \_\_\_\_\_

Name: \_\_\_\_\_ Last use: \_\_\_\_\_

**Field Data:**

Q39. Would you like a copy of the chemical analysis data for your field when it becomes available?

- Yes
- No

Name, email, address, fax number, etc. for data delivery:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



**OEHHA Synthetic Turf Study**  
**Questionnaire for Field Owners**

**Office Use Only**  
**Field ID: \_\_\_\_\_**

**Availability for Sampling:**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**OR**

**Sampling Date:** \_\_\_\_\_

**Sampling Time:** \_\_\_\_\_

Signature of Owner: \_\_\_\_\_  
 (or Person in charge)

Date: \_\_\_\_\_

Name of Interviewer: \_\_\_\_\_



### **C.3. Synthetic Turf Study Questions and Answers and Consent To Participate**

#### **SYNTHETIC TURF STUDY QUESTIONS AND ANSWERS**

**and**

#### **CONSENT TO PARTICIPATE**

**Office of Environmental Health Hazard Assessment**

**California Environmental Protection Agency**

**(October 14, 2016, Updated December 8, 2016)**

#### **Overview**

The Office of Environmental Health Hazard Assessment (OEHHA) invites you to participate in a California synthetic turf field study of the potential health effects associated with the chemicals released from synthetic turf and playground mats containing crumb rubber made from recycled waste tires.

Your participation in this study is completely voluntary. Please read this form and ask any questions that you may have before agreeing to participate in this study.

#### **Purpose of study**

The purpose of this study is to identify and measure chemicals that may be released from crumb rubber and artificial grass blades in indoor and outdoor fields and playground mats throughout California. We will evaluate the potential for inhalation, swallowing, and skin contact exposures to these chemicals.

The information generated in the study will enable us to identify the chemicals that individuals may be exposed to when playing on synthetic turf fields or playground mats, estimate the level of exposures associated with various activities, and assess whether these chemical exposures pose potential health risks. This information may be used for making future decisions regarding the use of crumb rubber in synthetic turf fields and playground mats.

#### **Why are you being asked to participate?**

You have been asked to participate in this study because we have identified your facility as having at least one synthetic turf field with crumb rubber infill.



**How do we plan to discuss the study with you?**

We would like to schedule a 30-minute meeting with you to gather information. During the meeting, we will provide you with additional background on the study. We will ask you to complete a questionnaire that contains questions about the types of synthetic fields at your facility, the ways the fields are used, and the standard operating procedures for the fields. After the meeting, you can decide whether to participate. If you agree to participate and provide us with permission to sample your field, we will work with you to set up an appointment to collect samples from your field at a time that is convenient for you.

**What types of samples will be taken?**

We will collect crumb rubber infill samples from 7-10 locations on your field. About a cup of crumb rubber infill will be collected at each location. On selected fields, air and field surface wipe samples may also be collected.

**How long will the sampling take?**

We estimate it will take about 2 hours to collect crumb rubber infill samples at your field. The total time is about 6 hours to collect crumb rubber infill, air, and wipe samples.

**What will the samples be tested for?**

We plan to test for the following types of chemicals in the crumb rubber infill and wipe samples:

- Volatile organic compounds
- Semi-volatile organic compounds
- Polycyclic aromatic hydrocarbons
- Metals

We will also test for the following types of chemicals in the air samples:

- Volatile organic compounds
- Semi-volatile organic compounds

We also plan to measure the particle size of the collected crumb rubber infill and any particles in the air samples.

**Are there any risks to you or the field users because samples are collected?**

There are no risks to you or the field users from the field sample collection. Depending on your preference, we can sample the field when it is not in active use and will not disrupt the field schedule. The sampling will not cause any damage to your field.



**Are there any benefits to you to have your field be part of the study?**

Upon request, we will send each field owner the data pertaining to the samples collected from their field. Information about your field may be helpful for you and parents who have questions about the field. Field owners who do not want their results can simply decline to request them in the consent form.

**Who will see the information about my field?**

Your name, address, this consent form and your questionnaire answers will be maintained in a confidential manner. We will use a unique identification number instead of your name in our reports. We will keep paper records in locked files and electronic records stored on password protected computers at the OEHHA offices. Only OEHHA project staff will be allowed access to the paper and electronic records. While we plan to make the general data we collect available to the public, we will not include your name or other identifying information in our final report or any other public release regarding this study. Such information is considered confidential and will not be released except where required by law (such as pursuant to a subpoena or court order).

**What is the cost to you?**

No fees will be collected. The only cost to you will be your time and willingness to participate.

**Do you have a choice about participating?**

Yes, your participation in this study is completely voluntary. You may refuse to answer any questions and you may choose to withdraw from the study at any time, even after you have signed the participation agreement form.

**Who should you contact if you have questions at any time?**

If you have any questions about the study or no longer wish to participate, please contact:

Patty Wong, OEHHA Project Manager  
[Patty.Wong@oehha.ca.gov](mailto:Patty.Wong@oehha.ca.gov)  
916-323-2627

**What should you do after reading this information?**

If you are unsure of what is being asked of you, please contact us. After your questions are answered and you choose to participate in this study, please sign the Consent to Participate Form on the next page.



<b>Office Use Only</b> Field ID: _____
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**Consent to Participate - Synthetic Turf Study**

**Office of Environmental Health Hazard Assessment**  
**California Environmental Protection Agency**

I have read the above information about the OEHHA Synthetic Turf Study and been given the opportunity to ask questions.

By signing below, I agree to allow OEHHA to collect crumb rubber, air, and wipe samples, if my synthetic turf field is selected for study. I have the authority to give consent for the sampling described in this agreement.

\_\_\_\_\_  
Participant's Name (Print)

\_\_\_\_\_  
Participant's Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Organization/Facility Name

\_\_\_\_\_  
Participant's Position/Title

By signing below, I am requesting a copy of the chemical data results associated with the samples collected from my field.

\_\_\_\_\_  
Participant's Name (Print)

\_\_\_\_\_  
Participant's Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
\_\_\_\_\_  
Mailing Address for Result