### **Appendix C**

## **OEHHA Synthetic Turf Study**

## March 2025 Public Review Draft

Prepared by

Pesticide and Environmental Toxicology Branch
Office of Environmental Health Hazard Assessment
California Environmental Protection Agency





#### **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 XXXXXXXXX XXXXXXX. 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 organization have a synthetic turf field that has crumb rubber infill? <i>If NO</i> :
OEHHA: Ok. Thank you for your time. Have a nice day. (End call.)
If YES: (Continue script.)
Q1. <u>OEHHA</u> : Is your field indoors or outdoors?
Field Owner: My field is: Indoors Outdoors



Q2. <u>OEHHA</u> : When was the field installed?
If field owner knows:
Field Owner: My field was installed
If field owner is unsure:
<u>OEHHA</u> : Do you know anyone who may be able to provide us with this information?
<u>OEHHA</u> : 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:
<u>OEHHA</u> : Great. Thank you. <b>(Continue script.)</b> Could I ask one more question? It should only take one more minute of your time.
Q3. <u>OEHHA</u> : 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:
<u>OEHHA</u> : Ok. Can you suggest a date and time that will work for you?
If NO or if need to check his/her schedule:
<u>OEHHA</u> : 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

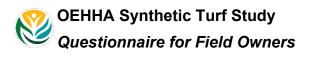
about the meeting or project. Have a nice day. (End call.)

	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.	<u>OEHHA</u> : 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.	<u>OEHHA</u> : 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

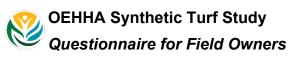
Date	Tuesday, September 27	Wednesday, September 28	Thursday, September 29
8:30-10:15 am			
10:15-12 pm			
12-1 pm	LUNCH	LUNCH	LUNCH
1-2:45 pm			
2:45-4 pm			



Office Use Only	
Field ID:	

#### C.2. Questionnaire for Field Owners and Managers

Name of Interviewee:(owner or person in charge)			Interview Date:	<del></del>			
•	Information:	3 /					
Field I	Name:						
Field a	address:						
			<del> </del>				
	<del></del>						
Field/f	acility owner name	e:					
Field/f	acility owner phon	e #:					
Field/f	acility owner emai	l:					
Q1. F	low long have you	been the owner of the fi	eld?				
Q2. V	Q2. What type of organization owns the field?						
	□ Public	Name:					
	□ Private	Name:					
	□ School	Name:					
	□ County	Name:					
	□ State	Name:					
	□ Federal	Name:					
	□ Other	Name:					
Q3. Is	s the field outdoors	s or indoors?					
	□ Outdoors	(go to Q5.)					
	□ Indoors						



Office Use	Only
Field ID: _	

Q4.	What is the ventilation/air exchange rate for this field?
If un	esure, how is the room ventilated?
	□ HVAC system on 24/7 □ Other:
Or, o	contact information for someone who can provide this information:
Nam	ne: 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
Nam	ne: 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:
<u>Fiel</u>	d Use:
Q11	. Is the field for public or private use? Check both, if applicable.
	□ Public
	□ Private

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

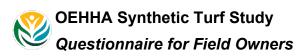
Office Us	e Only	
Field ID:		 

Q12.		at types of sports ices.	and a	ctivities	occur	on the	field?	Check all	applicable	
		□ Soccer								
		□ Football								
		□ Field Hockey								
		□ Lacrosse								
		□ Baseball								
		□ Softball								
		□ Rugby								
		□ Cheerleading								
		□ Physical Educ	ation							
		□ Other:			· · · · · · · · · · · · · · · · · · ·					_
										_
Q13.	ls th	ne field used year	-round	l or sea	sonally	/?				
		□ All-year round			□ Sea	sonally	/			
Q14.		is used seasonal h season using a	•					-		
		□ Fall	1	2	3	4	5			
		□ Winter	1	2	3	4	5			
		□ Spring	1	2	3	4	5			
		□ Summer	1	2	3	4	5			
Q15.	Hov	v often is the field	l used'	?					_ hours pe	r week

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

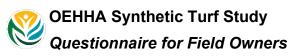
Office Use Only
Field ID:

Q16.		e age groups who coup using a scale of					ne frequency of use frequent use.	for
	□ Prescl	nool	1	2	3	4	5	
	□ Eleme	ntary School	1	2	3	4	5	
	□ Middle	School	1	2	3	4	5	
	□ High S	School	1	2	3	4	5	
	□ Colleg	е	1	2	3	4	5	
	□ Adults		1	2	3	4	5	
Q17.	Does the fiel	d host other event	s?					
	□ Yes	Events: _						
	□ No	(go to Q22.)						
Q18.	How many e	vents per year? _						
O19	When was th	ne last event?						
Q20.	What modific	cations are done to	the field	d to pre	epare fo	or thes	e events?	
Q21.	What are the	special maintena	nce prac	ctices a	ifter the	ese eve	ents, if any?	
<u>Field</u>	Maintenance	e:						
-		of the maintenance provide this inform	•	es, plea	ase pro	vide co	ontact information fo	r
Name	e:							
Phon	e number:							
Emai	l:				<del></del>			
Q22.	What compa	ny maintain the fie	eld?					



Office Use Only	
Field ID:	

Q23.	How often does	s brushing	j (levels ir	nfill and helps fibers stand up) occur?
		per day		Last Maintenance:
		_ per	week	
		_ per	month	
		_ per	year	
	□ Other: _			
Q24.	How often does	s aerating	(gets air	into the infill to prevent compaction) occur?
		per day		Last Maintenance:
		_ per	week	
	<u> </u>	_ per	month	
	<u> </u>	_per	year	
	□ Other: _			<del></del>
Q25.	How often does	s raking (l	oosens in	fill and helps fibers stand up) occur?
		per day		Last Maintenance:
		_ per	week	
		_ per	month	
		_ per	year	
	□ Other: _	1 1 1 1 1 1 1 1		
Q26.	How often does	s sweepin	g (remov	es debris) occur?
		per day		Last Maintenance:
		_ per	week	
		_ per	month	
		_ per	year	
	□ Other: _			



Office Use Only	
Field ID:	

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	

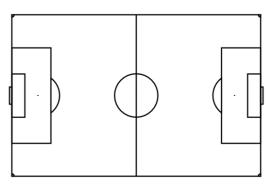
OEHHA Synthetic Turf Study  Questionnaire for Field Owners
Questionnaire for Field Owners

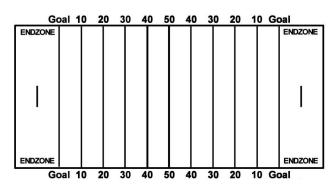
Office Use Only	
Field ID:	

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

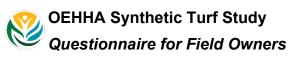
□ \_\_\_\_\_ per week and dates of watering \_\_\_\_\_

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

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

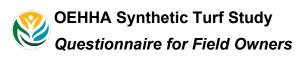
□ Other: \_\_\_\_\_

Q35. How is weed control done on the field?



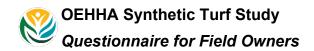
Office Use O	nly	
Field ID:		

I, bugs,
I, bugs,
I, bugs,
l, bugs,
I, bugs,
l, bugs,
n it



Office Use Only	
Field ID:	

Availability for Sampling:	
OR	
Sampling Date:	
Sampling Time:	
Signature of Owner:	Date:
or Person in charge)	
Name of Interviewer:	



Office Use Only	
Field ID:	I

#### 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.

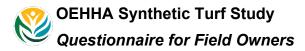
#### **Purpose of study**

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.



Office Use Only
Field ID:

#### 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

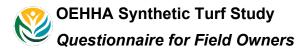
We will also test for the following types of chemicals in the air samples:

- 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.



Office Use Only	
Field ID:	

#### 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.

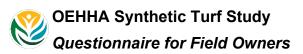
#### Who should you contact if you have questions at any time?

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 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.



Office Use Only	
Field ID:	

#### **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 samples collected from my field.	f the chemical data results associated with
Participant's Name (Print)	_
Participant's Signature	 Date
Mailing Address for Result	