

Chapter 5c: Pesticides

Community Concerns



The ECV community is home to a large amount of agricultural activities, including the production of dates, grapes, citrus, and other crops. The ECV CSC expressed concerns about the use and application of pesticides and the resulting agricultural run-off that may collect in the Salton Sea sediment. Concerns raised by the CSC include the unknown adverse health effects of pesticides, odors and potential toxicity resulting from possible exposure. CSC members expressed concerns regarding regulatory enforcement. They reported that pesticides are being applied during restricted hours and drift into homes

and schools near application sites, despite current regulations that are in place. The CSC also raised concerns about farmworker exposure to pesticides, often in excessive amounts and without proper personal protective equipment (PPE) and training. CSC members expressed a need for buffer zones between agricultural operations and sensitive receptors and for employers to provide PPE for agricultural workers. CSC members also requested a pesticide application notification system that informs the community before pesticides are applied, allowing residents to make informed decisions about avoiding outdoor activities that could increase their exposure (e.g., outdoor exercise). ~~Please see Appendix 5c for more details.~~

Actions to Address Pesticides

South Coast AQMD staff developed additional actions and details that support~~for~~ the Community Emissions Reduction Plan (CERP) to address community concerns about pesticide emissions and exposures. ~~Additionally, the Department of Pesticide Regulation (DPR) is initiating efforts to develop a statewide pesticide application notification system.~~ Tables 1 and 2 below provide a goal, action, responsible entity, applicable metrics, and an implementation timeline to achieve the emission and exposure reductions due to pesticide use and applications. These details were developed in collaboration with the United States Environmental Protection Agency (USEPA) Region 9, the California Air Resources Board (CARB), the California Office of Environmental Health Hazard Assessment (OEHHA), the Department of Pesticide Regulation (DPR), the Riverside County Agricultural Commissioner (CAC), and the ECV CSC.

Pesticide control and agency responsibilities in ECV

The Food and Agricultural Codes (e.g., FAC sections 11501 and 11454) provide jurisdiction to DPR over the regulation of pesticide sales and use in California. Health and Safety Code Section 39650 (g)¹ and 39655 (a)², and FAC 14021 further define DPR's jurisdiction for pesticide Toxic Air Contaminants (TACs). Generally, DPR's regulatory authority covers activities, such as:

¹ https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=39650.&lawCode=HSC

² https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=39655.&lawCode=HSC

- Pesticide product evaluation and registration and continues through statewide licensing of commercial applicators, dealers, advisors, and other pesticide professionals;
- Evaluation of health impacts of pesticides through illness surveillance and risk assessment; environmental monitoring of air, water and soil;
- Field enforcement (with CACs) of laws and regulations on pesticide use;
- Residue testing of fresh produce; and
- Encouraging development and adoption of least-toxic pest management practices through incentives and grants.

USEPA-approved pesticide product labels establish use directions and restrictions that must be followed by pesticide users. Additional use restrictions may be established by regulations. For example, DPR regulations set forth distance restrictions for the application of pesticides near school sites and child day care facilities (3CCR 6691(a) to 6691(c)). Local permit conditions may also be established by CACs for pesticides designated as restricted materials by DPR and in limited cases for pesticides that are non-restricted materials. In ECV, the enforcement of pesticide use in the field is carried out by the Riverside CAC.

DPR coordinates with CARB to monitor pesticide use in communities across the state. South Coast AQMD will work with DPR and CARB to conduct pesticide monitoring in ECV based on CSC concerns about pesticide exposure in the community. The Office of Environmental Health Hazard Assessment (OEHHA) is the lead state agency for the assessment of health risks posed by environmental contaminants and provides scientific peer review of pesticide risk assessments. OEHHA works with DPR to develop regulations to protect pesticide worker health and safety and trains physicians to recognize and report pesticide-related illnesses. OEHHA also works with the California Department of Food and Agriculture to provide health information on pesticide applications aimed at combating invasive species.

USEPA regulates pesticides under broad authority granted in two major statutes, the Federal Insecticide, Fungicide, and Rodenticide Act and the Federal Food, Drug, and Cosmetic Act. These laws have been amended by the Food Quality Protection Act and the Pesticide Registration Improvement Act. Under this authority the USEPA administers a registration process for pesticides. Through this process, the USEPA assesses potential human health and environmental effects associated with use of pesticides that are submitted for registration. Pesticide products must be registered federally by the USEPA before they can be registered by DPR for sale and use in California. Additional details about the USEPA's pesticide registration program are available at <https://www.epa.gov/pesticide-registration/about-pesticide-registration#laws>.

Table 1—Goal: Air Monitoring for Pesticides

	Action	Responsible Entity	Metric	Timeline	
				Start	Complete
A	<p>Pursue a collaborative partnership with CARB and consult with California Department of Pesticide Regulation (DPR) and Riverside County Agricultural Commissioner to consider developing an air monitoring strategy to study the use of pesticides in ECV, and work with scientists at public health agencies with expertise in pesticide toxicity to identify key pesticides of concern for air monitoring:</p> <ul style="list-style-type: none"> • Conduct a screening evaluation of the pesticides used in this community, and work with the CSC to identify the key pesticides of concern for monitoring efforts • Work with DPR to define the purpose of air monitoring, and develop a plan that identifies the sampling locations, extent of sampling, and equipment that will be used • Determine if specific pesticides are present and at what levels to help determine community impact • Assess the monitoring data and if monitoring results show unacceptable pesticide levels in ambient air, work with DPR and Riverside County Agricultural Commissioner to take steps towards identifying potential exposure reduction measures (e.g., development of new use restrictions by the Riverside County Agricultural Commissioner, or pesticide regulations by DPR, if needed) 	South Coast AQMD, CARB	<ul style="list-style-type: none"> • Type of equipment to be deployed and extent of the deployment • Updates provided to the CSC 	3 rd quarter, 2021	1 st quarter, 2026

Table 2—Goal: Reduce Pesticide Emissions and Exposures

	Action	Responsible Entity	Metric	Timeline	
				Start	Complete
A	<p>Pursue a collaborative partnership with CARB and consult with the California DPR and the Riverside County Agricultural Commissioner to:</p> <ul style="list-style-type: none"> • Gather data about the use of pesticides in the community (e.g., the frequency, volume, composition, potential for community exposures and toxicity of pesticides applied to agricultural crops) • Evaluate potential community impacts from agricultural pesticide use in ECV • Identify and evaluate opportunities to reduce pesticide emissions and exposures based on the evaluation of community impacts 	South Coast AQMD, CARB	<ul style="list-style-type: none"> • Number of opportunities identified and pursued to reduce pesticide emissions and exposure • If quantifiable, amount of emissions and/or exposure reductions achieved • Updates (e.g., pesticide data, community impacts, monitoring results) provided to the CSC 	1 st quarter, 2021	1 st quarter 2026
B	<p>Consult with DPR and the Riverside County Agricultural Commissioner to:</p> <ul style="list-style-type: none"> • Provide the CSC an annual update on the Shafter Pilot Notification System project • Evaluate the feasibility of a pilot notification system in ECV based on the results of the Shafter Pilot Notification System project • Provide community members with information on the types of pesticides applied in ECV, how to report pesticide drift and ways to reduce pesticide exposure 	South Coast AQMD	<ul style="list-style-type: none"> • Development of a notification system • Number of informational handouts or educational materials provided 	3 rd quarter, 2021	TBD

			<ul style="list-style-type: none"> • Updates provided to the CSC 		
C	Consult with the Riverside County Agricultural Commissioner and scientists at public health agencies with expertise in pesticide toxicity to make pesticide data for the ECV community more easily accessible for community members, including farm workers	South Coast AQMD	<ul style="list-style-type: none"> • Updates provided to the CSC 	3 rd quarter, 2022	TBD
D	Consult with DPR and USEPA Region 9 to provide outreach materials, training, information on personal protective equipment and ways to reduce worker exposure during pesticide application	South Coast AQMD	<ul style="list-style-type: none"> • Number of trainings or information provided (e.g., handouts) 	4 th quarter, 2021	TBD

Table 1 – Goal: Gather Information and Conduct Air Monitoring for Pesticides

	<u>Action</u>	<u>Responsible Entity</u>	<u>Metric</u>	<u>Timeline</u>	
				<u>Start</u>	<u>Complete</u>
A	<ul style="list-style-type: none"> • <u>Identify pesticides used in ECV (e.g., frequency, amount, and ingredients)</u> • <u>Share information on statewide efforts for a pesticide notification system</u> • <u>Provide consultation on field activities</u> • <u>Support data analysis and interpretation</u> 	<u>DPR and Ag. Commissioner</u>	<ul style="list-style-type: none"> • <u>Data collected on pesticide use in ECV</u> • <u>Updates provided to the CSC</u> 	<u>4th quarter, 2021</u>	<u>1st quarter, 2022</u>
B	<ul style="list-style-type: none"> • <u>Develop a screening approach for agricultural pesticides commonly used in ECV</u> • <u>Support prioritization of pesticides for potential air monitoring based on screening criteria and other relevant information</u> 	<u>OEHHA</u>	<ul style="list-style-type: none"> • <u>Updates provided to the CSC</u> 	<u>2nd quarter, 2022</u>	<u>1st quarter, 2023</u>
C	<ul style="list-style-type: none"> • <u>Support protocol development for pesticide sampling and analysis</u> • <u>Coordinate sampling and analysis of pesticides</u> 	<u>CARB and South Coast AQMD</u>	<ul style="list-style-type: none"> • <u>Development of protocols for pesticide sampling and analysis</u> 	<u>1st quarter, 2022</u>	<u>1st quarter, 2023</u>
D	<ul style="list-style-type: none"> • <u>Participate in field activities</u> • <u>Analyze pesticide samples</u> • <u>Support data analysis and interpretation</u> 	<u>CARB, South Coast AQMD, and DPR</u>	<ul style="list-style-type: none"> • <u>Data collected through air sampling</u> • <u>Samples analyzed</u> • <u>Updates provided to the CSC</u> 	<u>2nd quarter, 2023</u>	<u>TBD</u>

Table 2 – Goal: Pursue Pesticides Emissions and Exposure Reductions

	<u>Action</u>	<u>Responsible Entity</u>	<u>Metric</u>	<u>Timeline</u>	
				<u>Start</u>	<u>Complete</u>
A	<u>Evaluate potential community health risks/impacts based on air monitoring results and other relevant information</u>	<u>OEHHA and DPR</u>	<ul style="list-style-type: none"> <u>Presentation of results to CSC</u> <u>Written report on findings</u> <u>Updates to the CSC</u> 	<u>2nd quarter, 2024</u>	<u>TBD</u>
B	<ul style="list-style-type: none"> <u>Assist the ECV CSC in determining pesticide exposures and risks</u> <u>Identify opportunities to develop or amend pesticide regulations. (DPR works through an established pesticide Toxic Air Contaminant (TAC) process with its partner agencies (i.e., OEHHA, CARB, Air Districts, and CACs) to develop TAC-related regulations.)</u> <u>Support the ECV CSC exploration of pesticide notification systems</u> <u>In collaboration with USEPA, hold a Pesticides Workshop with the ECV Community and provide outreach materials, and information that include pesticide use enforcement, worker protection (including PPE and exposure reduction), and pesticide incident reporting</u> <u>In consultation with South Coast AQMD, CARB and the CSC, develop community emission reduction plan (CERP) strategies for pesticides, if warranted</u> 	<u>DPR and Ag. Commissioner</u>	<ul style="list-style-type: none"> <u>Workshop held for the community</u> <u>Regulations developed or amended</u> <u>Updates to the CSC</u> 	<u>4th quarter, 2021</u>	<u>1st quarter, 2026</u>
C	<u>Identify funding for exposure reduction projects (e.g., air filtration systems and weatherization projects)</u>	<u>South Coast AQMD</u>	<ul style="list-style-type: none"> <u>Number of projects implemented</u> 	<u>4th quarter, 2021</u>	<u>4th quarter, 2024</u>

<u>D</u>	<u>Pursue a collaborative partnership with Growing Coachella Valley Local Farmers and Growers to reduce emissions and exposure in ECV</u>	<u>South Coast AQMD</u>	<ul style="list-style-type: none"> <u>Number of opportunities identified and pursued to reduce pesticide emissions and exposure</u> 	<u>4th quarter, 2021</u>	<u>4th quarter, 2024</u>